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MASSACHUSETTS' QUALITY OF INPATIENT PSYCHIATRIC FACILITIES

An Analysis of the Centers for Medicare & Medicaid's Inpatient Psychiatric Facility Quality Reporting Program and Recommendations to the State of Massachusetts and CMS

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Executive Summary

In 2016, the Supreme Court of the United States heard *Universal Health Services v. United States ex rel. Escobar*, a case involving a Massachusetts (MA) teenage girl, Yarushka Rivera, who died while being treated by unlicensed and unsupervised staff at Arbour, a subsidiary of Universal Health Services, Inc. (UHS).[1] This is only one case of inappropriate and even dangerous care among many reported on in media outlets such as the Boston Globe.[2,3] The Department of Mental Health (DMH) largely relies on the Centers for Medicare and Medicaid (CMS) and a private accrediting agency, The Joint Commission (TJC), to monitor quality of inpatient psychiatric facilities within the state. As part of CMS' new Inpatient Psychiatric Facility Quality Reporting Program (IPFQR), facilities are required to report on a series of measures or else face a 2% payment reduction for Medicare beneficiaries.[4] These measures are intended to be used by consumers to hold facilities accountable. Currently, there are no identified entities within the Commonwealth charged with analyzing these measures and publically reporting performance. While the public could find these measures at www.data.medicare.gov and conduct analyses, as was done for this report, the data and resulting important information are currently not accessible enough to reasonably expect the public to utilize the IPFQR program for its intended purpose. This report describes Massachusetts' performance on the IPFQR measures and provides a foundation for more robust and systematic quality monitoring for an area of healthcare – inpatient psychiatry – that has been woefully neglected within the Commonwealth.

This report describes Massachusetts and national performance on 11 IPFQR measures currently publically available at www.data.medicare.gov,[5] reflecting performance year 2015.

Methodology

Facilities are described by their type (freestanding v. unit), ownership (public, non-profit, for-profit), number of beds, and populations served (child, adolescent, adult, geriatric). IPFQR measures include:

1. *Restraint*: number of total patient hours in physical restraint per 1,000 patient hours
2. *Seclusion:* number of total patient hours in seclusion per 1,000 patient hours
3. *Appropriate justification for multiple antipsychotics at discharge:* proportion of patients discharged on multiple antipsychotics with appropriate justification
4. *Post-discharge continuing care plan created:* proportion of patients who had a continuing care plan created
5. *Transmitting the continuing care plan to the next level*: proportion of patients who had a continuing care plan transmitted to the next level of care
6. *Alcohol use screening*: proportion of patients who were screened for alcohol use
7. *Tobacco use screening:* proportion of patients who were screened for tobacco use
8. *30-day follow up:* proportion of Medicare FFS beneficiaries who had a follow-up visit within 30 days

[1] *Universal Health Services, Inc. v. US*, 136 S. Ct. 1989, 579 U.S., 195 L. Ed. 2d 348 (2016).
[2] Retrieved from: https://www.bostonglobe.com/metro/2017/06/10/arbour/AcXKAWbi6WLj8bwGBS2GFJ/story.html
[3] Retrieved from: https://www.bostonglobe.com/lifestyle/health-wellness/2016/05/04/state-assigns-monitor-oversee-four-arbour-psychiatric-hospitals/MjovktVtvq5bRdkANfsIjJ/story.html
[4] Retrieved from: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/IPFQR.html
[5] Retrieved from: https://data.medicare.gov/Hospital-Compare/Inpatient-Psychiatric-Facility-Quality-Measure-Dat/q9vs-r7wp/data

9. *7-day follow up:* proportion of Medicare FFS beneficiaries who had a follow-up visit within 7 days
10. *Patient experience:* yes/no at the facility level
11. *Use of an electronic health record:* yes/no at the facility level

Results

A total of 1,644 facilities nationwide and 51 from Massachusetts reported year 2015 performance on the IPFQR measures. Out of the 51 MA facilities, 35 (68.63%) were units within general hospitals and 16 (31.37%) were freestanding facilities. Five (9.8%) facilities were public, 27 (52.94%) non-profit, 19 (37.25%) for-profit, and bed size ranged from 13 - 320. All age groups (children, adolescents, adults, and geriatric) were reported in aggregate to CMS and the public. Within MA, the following IPFQR measures were associated with each other: creating a continuing care plan, transmitting the continuing care plan, alcohol use screening, and tobacco use screening. The below sections enumerate overall state-level performance, the proportion of MA facilities that had perfect rates, were top performers, or were in the bottom 20% of facilities nationally, and differences within MA by facility type and ownership. The names of these facilities are delineated in the body of this report.

Restraint

- The median rate of restraint in MA is 83.33% higher (*worse*) than the national median rate.
- Twenty (39.21%) MA facilities performed in the upper 50% of facilities nationally. Four of these facilities had a perfect rate of zero restraint, performing better than 74% of hospitals nationally.
- Thirty-one (60.78%) MA facilities performed in the bottom 50% of facilities nationally. Eight (15.69%) of these facilities performed in the bottom 20% of facilities nationally.
- Freestanding and public facilities had the highest median rate of restraint. For-profits had the lowest median rate of restraint.

Seclusion

- The median rate of seclusion in MA is zero compared to a national median rate of 0.02, performing slightly *better* against overall low national rates.
- Thirty-six (70.59%) MA facilities performed in the upper 50% of facilities nationally. Of these, 30 (58.82%) had a perfect rate of zero seclusion, performing better than 58% of facilities nationally.
- Fifteen (29.41%) MA facilities performed in the bottom 50% of facilities nationally. Five (9.8%) of these facilities performed in the bottom 20% of facilities nationally.
- Essentially all facility types and ownership had a median rate of 0.

Appropriate justification for multiple antipsychotics at discharge

- The median rate for appropriate justification of multiple antipsychotics at discharge was 75% in Massachusetts, performing *worse* than the national median rate of 82%.
- Among those with reported data, 12 (44.44%) facilities performed in the upper 50% of facilities nationally. Of these, three (11.11%) had a perfect rate of 100%, performing better than 82% of facilities nationally.

- Seven (25.93%) facilities with reported rates were *high performers* with a rate of 90% or greater.
- Of those with reported rates, 15 (55.56%) MA facilities performed in the bottom 50% of facilities nationally. Seven (25.93%) of these facilities performed in the bottom 20% of facilities nationally, with Dr. Solomon Carter Fuller Mental Health Center having a concerning rate of 0%.
- Freestanding facilities performed the worst (64.28%) compared to units (82.84%).
- Public facilities performed the worst (33.9%) and non-profits (82.84%) performed the best.

Post-Discharge Continuing Care Plan Created

- Seventeen (34%) of MA facilities performed in the upper 50% of facilities nationally. However, the threshold for the upper 50% was high at a rate of 97.24% given overall high national performance. Only one facility had a perfect rate of 100%, performing better than 83% of facilities nationally. Overall, including those technically performing in the bottom 50% of facilities nationally, 28 (56%) were *high performers* with a rate of 90% or higher.
- Of those with reported rates, 33 (66%) of MA facilities performed in the bottom 50% of facilities nationally. Fourteen (28%) of these facilities performed in the bottom 20% of facilities nationally, with UMASS Memorial Healthcare-Clinton Hospital having a concerning rate of 0%.
- Units performed the worst (87.15%) compared to freestanding facilities (99.12%).
- Public facilities performed the best (98.7%) and non-profits performed the worst (88.33%).

Transmitting the continuing care plan to the next level

- The median rate for transmitting the continuing care plan was 84%, performing *worse* than the national median rate of 93%.
- Excluding facilities with missing data, 17 (35.42%) performed in the upper 50% of facilities nationally. No facility had a perfect rate of 100%. Overall, 18 (37.5%) facilities were *high performers* with a rate of 90% or higher.
- Of those with reported rates, 31 (64.85%) MA facilities performed in the bottom 50% of facilities nationally. Eighteen (37.5%) of these facilities performed in the bottom 20% of facilities nationally, with UMASS Memorial Healthcare-Clinton Hospital having a concerning rate of 0%.
- Units performed the worst (76.57%) compared to freestanding facilities (94.82%).
- Non-profits performed the worst (77.61%) and for-profits performed the best (92.78%).

Screening for alcohol use

- Excluding the one facility with missing data, 23 (23/50) performed in the upper 50% of facilities nationally. One facility had a perfect rate of 100%, scoring better than 82% of facilities nationally.
- Overall, 37 (74%) were *high performers* with a rate of 90% or higher, though many of these facilities fell below the 50th national percentile due to high national performance.

- Of those with reported rates, 28 (56%) MA facilities performed in the bottom 50% of facilities nationally. 13 (26%) of these facilities performed in the bottom 20% of facilities nationally, with UMASS Memorial Healthcare-Clinton Hospital again having a concerning rate of 0%.
- All facility types and ownership performed above 90%. For-profits performed the best (98.6%) and non-profits performed the worst (92.73%)

Screening for tobacco use

- Twenty-two (43.14%) performed in the upper 50% of facilities nationally. Eight (15.69%) facilities had a perfect rate of 100%, performing better than 74% of facilities nationally.
- Overall, 41 (80.39%) were *high performers* with a rate of 90% or higher, though many of these facilities fell below the 50th national percentile due to high national performance.
- Of those with reported rates, 29 (56.86%) MA facilities performed in the bottom 50% of facilities nationally. Thirteen (25.49%) of these facilities performed in the bottom 20% of facilities nationally.
- All facility types and ownership performed above 90%. For-profits performed the best (99.03%) and public facilities performed the worst (91.34%)

30-day follow up

- The median rate was 66%, 10 percentage points *higher* than the national median rate.
- Of those with reported rates, 39 (82.98%) performed in the upper 50% of facilities nationally. No facility had a perfect rate of 100%. Despite above average performance relative to national performance, no facility had a rate above 90% and thus there were no *high performers (*highest rate was 81.12%*)*.
- Of those with reported rates, eight (17.02%) of MA facilities performed in the bottom 50% of facilities nationally. Two (4.26%) of these facilities performed in the bottom 20% of facilities nationally.
- All facility types and ownership had low performance hovering between 60-70%. Units (68.35%) performed better than freestanding facilities (63.73%).
- Non-profits (68.63%) performed the best and for-profits performed the worst (63.57%).

7-day follow up

- The median rate was 41%, 10 percentage points *higher* than the national median rate.
- Of those with reported rates, 35 (83.33%) performed in the upper 50% of facilities nationally. No facility had a perfect rate of 100%. Despite above average performance relative to national performance, no facility had a rate above 90% and thus there were no *high performers (*highest rate was 58.79%*)*.
- Of those with reported rates, seven (16.67%) MA facilities performed in the bottom 50% of facilities nationally. Two (4.76%) of these facilities performed in the bottom 20% of facilities nationally.
- All facility types and ownership had low performance hovering between 37 – 43%. Units (40.98%) performed better than freestanding facilities (37.22%).
- Non-profits (42.35%) performed the best and for-profits performed the worst (37.35%).

Measurement of the patient experience

- Thirty-nine (76.47%) facilities responded that they do assess the patient experience and 12 (23.53%) responded that they do not assess the patient experience. This is similar to the national aggregate, with 1,242 (76.38%) stating that they assess the patient experience.
- A greater proportion of freestanding facilities (87.5%) assess the patient experience relative to units (71.34%). Nearly all for-profits (94.74%) assess the patient experience compared to 62.96% of non-profits.

Certified electronic health record (EHR) technology

- Twelve (23.53%) MA facilities responded that they use certified EHR technology, which is lower than the national rate of 38.06%. Thirty-eight (74.51%) MA facilities responded that they use paper or other forms of communication for transmitting health records, which is higher than the national rate of 59.53%. One (1.96%) facility responded that they use uncertified EHR technology.
- A greater proportion of units (31.43%) utilize certified EHR technology relative to freestanding facilities (6.25%). All public facilities (100%) utilize certified EHR technology. Only 10.53% of for-profits and 37.04% of non-profits utilize certified EHR technology.

Summary of Findings

Massachusetts performed worse on seven of the IPFQR measures relative to national performance. However, not all differences are meaningful given ceiling effects. For example, Massachusetts had a lower median rate for alcohol screening (96%) relative to the national median rate (98%), but both rates are high and the differences are minuscule. A more meaningful approach to evaluate MA's performance is to highlight low performers within the state rather than compare aggregated performance at the state level. Measures with at least 50% of MA facilities performing at 90% or higher include creating a continuing care plan, alcohol use screening, and tobacco use screening. There were quite a few facilities with relatively high rates of restraint and low rates of appropriately justifying multiple antipsychotics at discharge compared to national performance. The majority of MA facilities *do not* use certified EHR technology but a majority *do* assess the patient experience.

MA public hospitals performed the best on process measures and the worst on measures more closely associated with safety and clinical appropriateness. For-profits generally out-performed non-profits, with the exception of appropriate justification for multiple antipsychotics at discharge, 30 and 7-day follow up, and use of certified EHR technology. Despite non-profits being the worst at creating and transmitting continuing care plans, they had the highest rate of 30-day and 7-day follow up relative to for-profit and public facilities; this suggests that the continuing care plan measures might not have predictive validity. However, the measures draw from different patient populations and are not linked at the individual level. Moreover, potential differences in case-mix could influence performance on the follow-up measures as performance depends, in part, on patient action.

These findings suggest that quality is multidimensional and these measures, as a group, are not capturing the entire construct of quality. For-profit facilities were not low-performing outliers relative to non-profits and

government facilities; however, several for-profit facilities in MA have been under federal investigation. Therefore, while these measures are an important starting point for monitoring and national comparisons, they are not sufficient. Additional research is needed to understand variation in performance on these measures relative to patient-reported outcomes and iatrogenic events.

Recommendations

Recommendations are provided to both the state of Massachusetts and CMS and are grouped into five overarching themes. See pages 47 – 49 for more detailed recommendations.

Increase state-level involvement with analysis and dissemination. Massachusetts should annually analyze MA's IPFQR performance and make selective results accessible to stakeholders. The Statewide Quality Advisory Committee and The Center for Health Information and Analysis (CHIA) might be able to effectively leverage resources and expertise. IPFQR performance can be linked to all-payer claims data, facility characteristics, and finances in order to support richer research. CHIA might consider requiring reporting on freestanding psychiatric services. Massachusetts should consider implementing their own state-level quality monitoring system, including a standardized patient experience measure.

Publically report patient and facility characteristics. In 2016, CMS began requiring facilities to report aggregate rates of age, payer, and diagnoses. Currently, CMS has no plans to make these data publically available, but doing so would assist research. Moreover, CMS should consider requiring facilities to report on facility type, ownership, number of beds, and staff-patient ratios and make these data publically available.

Improve accountability mechanisms based on the IPFQR measures and beyond. MA should follow up with low and high performing facilities to support quality improvement. Complaints and inspection reports should be made more accessible and linked to IPFQR data to enhance analytic capabilities. While not included in this report, number of complaints received by DMH and substantiated complaints per bed were higher for public facilities.[6] However, DMH-owned facilities might have more streamlined reporting relative to private facilities. MA should consider assessing how to strengthen mechanisms for reporting of complaints, though a standardized patient experience measure might be more useful. CMS and MA could explore other forms of reputation-based incentives, such as providing recognition for performance and quality improvement efforts, or special certification/accreditation for staff training in identified best practices

More accessible public reporting. CMS should better integrate the IPFQR measures into the Hospital Compare interface, rather than only having a link to www.data.medicare.com (which is not consumer-friendly).

Improve measures within the IPFQR program. CMS should audit the IPFQR measures to bolster accuracy, confidence, and ultimate usability of the measures. Further, CMS should continue to improve upon the IPFQR measures. The biggest gap is arguably the lack of patient experience data. CMS should decide upon a standardized measure of patient experience and make selective reports publically available. CMS might also consider adapting their reporting requirements for other IPFQR measures (see limitations sections).

[6] You can contact the author at mshields@brandeis.edu if you are interested in the results of this separate analysis.

Introduction

In 2016, the Supreme Court of the United States heard *Universal Health Services v. United States ex rel. Escobar*, a case involving a Massachusetts teenage girl, Yarushka Rivera, who died while being treated by unlicensed and unsupervised staff at Arbour, a subsidiary of Universal Health Services, Inc. (UHS).[7] The Court held that UHS defrauded the Massachusetts Medicaid program as it knowingly billed for services that did not meet Massachusetts statutory and regulatory standards regarding staff qualifications and licensing. Beyond this case, numerous other accounts of abuse and neglect within Massachusetts psychiatric hospitals have been documented by several sources, including the Boston Globe.

Outside of surprise inspections or investigations of complaints and patient death, quality monitoring of inpatient psychiatric facilities within Massachusetts is nebulous. There is focused monitoring of restraint and seclusion and a patient experience measure sent out to Department of Mental Health (DMH) clients. However, DMH largely relies on the Centers for Medicare and Medicaid (CMS) and a private accrediting agency, The Joint Commission (TJC), to monitor quality of inpatient psychiatric facilities within the state. As part of CMS' new Inpatient Psychiatric Facility Quality Reporting Program (IPFQR), CMS adopted several quality measures from TJC and added several new measures, which have been fluctuating each year. Failure to report on these measures could result in a 2% payment reduction for Medicare beneficiaries. Generally, these measures focus on the process domain and are self-reported by facilities in aggregate. The program began in 2012 for payment determination in the year 2014, which is when performance data was first made public.

Because this program is a pay-for-reporting program, and not yet pay-for-*performance*, there are no performance benchmarks in place and no mechanism for recourse if a facility performs poorly on a measure. Therefore, these measures currently exist as a means to provide information to providers, consumers, and policy makers. However, Massachusetts does not have a mechanism in place to analyze performance on these measures in order to help facilitate the sharing of information with all relevant stakeholders. While CMS sends a performance report to facilities, this report is not available to the public and relative performance is not accessible unless the public is capable and willing to download the data and analyze it. Therefore, the information provided through this program, at present, does not help reduce information asymmetry between providers and consumers or assist policy makers in understanding where potential gaps are.

Given the recent events concerning quality of care within Massachusetts' inpatient psychiatric facilities, this is an opportune time to assess the landscape of quality performance and monitoring within the state. This report is intended to provide some basic descriptive information on where facilities land on each measure relative to national performance and to each other. Recommendations will be provided to both Massachusetts and CMS.

[7] *Universal Health Services, Inc. v. US*, 136 S. Ct. 1989, 579 U.S., 195 L. Ed. 2d 348 (2016).

Methodology

The IPFQR measures are reported by facilities to CMS from the year 2015 (1/1/15 – 12/31/15) for payment determination and data sharing in year 2017, with the exception of the two follow-up measures which are aggregated from the time frame of 7/1/2014 – 6/30/2015 and extracted by CMS from Medicare claims. Facility characteristics were largely extracted from MA DMH licensing documents. See Appendix A for MA facilities analyzed in this report.

For the purposes of this report, performance on the majority of measures utilized in the IPFQR program are presented (see table 1), though there are a few not included.[8] It is worth noting that some of these measures have been dropped from the measure set since the 2015 reporting year (e.g., post-discharge continuing care plan measures). Sampling parameters are provided in CMS and TJC specification manuals.[9]

Table 1: Measures presented in this report

	Measure	Type	Sampling
1	Restraint	Hours per 1,000 patient hours	Not allowed
2	Seclusion	Hours per 1,000 patient hours	Not allowed
3	[1]Appropriate justification for multiple antipsychotics at discharge	Proportion	Allowed
4	[1]Post-discharge continuing care plan created	Proportion	Allowed
5	[1]Transmitting the continuing care plan to the next level	Proportion	Allowed
6	[2]Alcohol use screening	Proportion	Allowed
7	[2]Tobacco use screening	Proportion	Allowed
8	[3]30-day follow up	Proportion	Not relevant
9	[3]7-day follow up	Proportion	Not relevant
10	Patient Experience	Yes/No	Facility level
11	Use of an electronic health record	Yes/No	Facility level

[1]Sampling allowed when average quarterly initial patient population is greater than 44
[2]Sampling allowed when average quarterly initial patient population is greater than 153
[3]Medicare fee-for-service beneficiaries who are continuously enrolled in Medicare Parts A and B

Analysis

Raw comparative rates are presented in this report given the nature of the data. Significance testing is not performed as the findings from this report are not intended to be applied to some larger population of facilities, though it is recognized that not all MA inpatient facilities participated in the IPFQR program for reporting year 2015. Moreover, MA has a small number of facilities (N=51) limiting ability to stratify on facility type or ownership, and data is reported in aggregate at the facility level as opposed to patient-level, which further constricts the amount of available information and viability of many statistical techniques.

[8] Measures not included are: Influenza Vaccination Coverage Among Healthcare Personnel and Tobacco Use Treatment Provided or Offered/Tobacco Use Treatment
[9] Retrieved from: https://www.qualitynet.org/dcs/ContentServer?cid=1228772864255&pagename=QnetPublic%2FPage%2FQnetTier4&c=Page

Results

Summary performance

A total of 1,644 facilities nationwide and 51 from Massachusetts reported year 2015 performance on the IPFQR measures. Out of the 51 MA facilities, 35 (68.63%) were units within general hospitals and 16 (31.37%) were freestanding facilities. Five (9.8%) facilities were public, 27 (52.94%) non-profit, 19 (37.25%) for-profit, and bed size ranged from 13 - 320. All age groups (children, adolescents, adults, and geriatric) were reported in aggregate to CMS and the public. Below displays the distribution of the rate measures (excluding measures of patient experience and EHR)

Table 2: National descriptive summary performance on each measure

	Mean	SD	Median	1%	5%	10%	25%	75%	90%	95%	99%	N
[1]Restraint	1.42	25.50	0.06	12.00	2.05	0.89	0.25	0.00	0.00	0.00	0.00	1,613
[1]Seclusion	1.13	25.43	0.02	9.23	1.26	0.58	0.17	0.00	0.00	0.00	0.00	1,609
Multiple antipsychotics at discharge	72.18	28.36	0.82	0.00	0.03	0.30	0.58	0.95	1.00	1.00	1.00	705
Continuing care plan	0.89	0.19	0.97	0.08	0.45	0.67	0.89	1.00	1.00	1.00	1.00	1,611
Transmitting the continuing care plan	0.84	0.21	0.93	0.06	0.32	0.54	0.79	0.98	1.00	1.00	1.00	1,603
Alcohol use screening	0.90	0.21	0.98	0.00	0.34	0.72	0.91	1.00	1.00	1.00	1.00	1,569
Tobacco use screening	0.93	0.15	0.99	0.15	0.67	0.82	0.95	1.00	1.00	1.00	1.00	1,586
30-day follow up	0.56	0.13	0.56	0.26	0.34	0.39	0.46	0.65	0.72	0.77	0.85	1,348
7-day follow up	0.33	0.12	0.31	0.09	0.15	0.18	0.24	0.41	0.49	0.54	0.64	1,144

Notes
[1]Inverted so that higher percentile is associated with better performance and lower rates

Table 3: Massachusetts descriptive summary performance on each measure

	Mean	SD	Median	1%	5%	10%	25%	75%	90%	95%	99%	Min	Max	N
[1]Restraint	0.25	0.45	0.11	2.34	0.79	0.40	0.27	0.03	0.01	0.00	0.00	0.00	2.34	51
[1]Seclusion	0.26	1.48	0.00	10.51	0.30	0.15	0.04	0.00	0.00	0.00	0.00	0.00	10.51	51
Multiple antipsychotics at discharge	0.68	0.28	0.75	0.00	0.13	0.30	0.47	0.91	1.00	1.00	1.00	0.00	1.00	27
Continuing care plan	0.86	0.20	0.94	0.00	0.43	0.56	0.85	0.99	0.99	1.00	1.00	0.00	1.00	50
Transmitting the continuing care plan	0.77	0.22	0.84	0.00	0.32	0.43	0.65	0.95	0.97	0.98	1.00	0.00	1.00	48
Alcohol use screening	0.90	0.18	0.96	0.00	0.57	0.78	0.88	0.99	0.99	1.00	1.00	0.00	1.00	50
Tobacco use screening	0.95	0.09	0.98	0.55	0.77	0.86	0.93	1.00	1.00	1.00	1.00	0.55	1.00	51
30-day follow up	0.65	0.10	0.66	0.42	0.47	0.50	0.62	0.71	0.79	0.81	0.86	0.42	0.86	47
7-day follow up	0.40	0.09	0.41	0.20	0.24	0.26	0.33	0.46	0.52	0.53	0.59	0.20	0.53	42

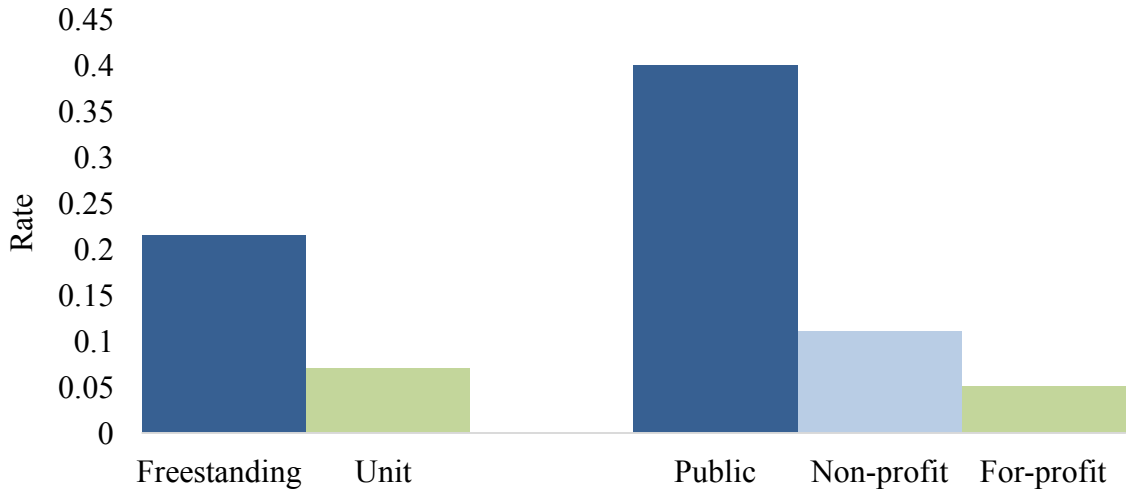
Notes
[1]Inverted so that higher percentile is associated with better performance and lower rates

Rate of Restraint

Measure
Rate of restraint is abstracted from charts and calculated as the number of hours in all forms of physical restraints (numerator) per 1,000 patient hours (denominator). Leave days are excluded from the denominator.

Findings
While difficult to interpret rates of restraint on their own, relative comparisons can be made. Freestanding and public facilities had the highest median rate of restraint. For-profits had the lowest median rate of restraint.

Graph 1: Overall performance by facility type and ownership



The median rate of restraint in Massachusetts (0.11) is 83.33% higher than the national median rate (0.06). Twenty (39.21%) MA facilities performed in the upper 50% of facilities nationally. Four of these facilities had a perfect rate of zero restraint, performing better than 74% of hospitals nationally.

Table 4: Massachusetts facilities with a perfect rate of zero

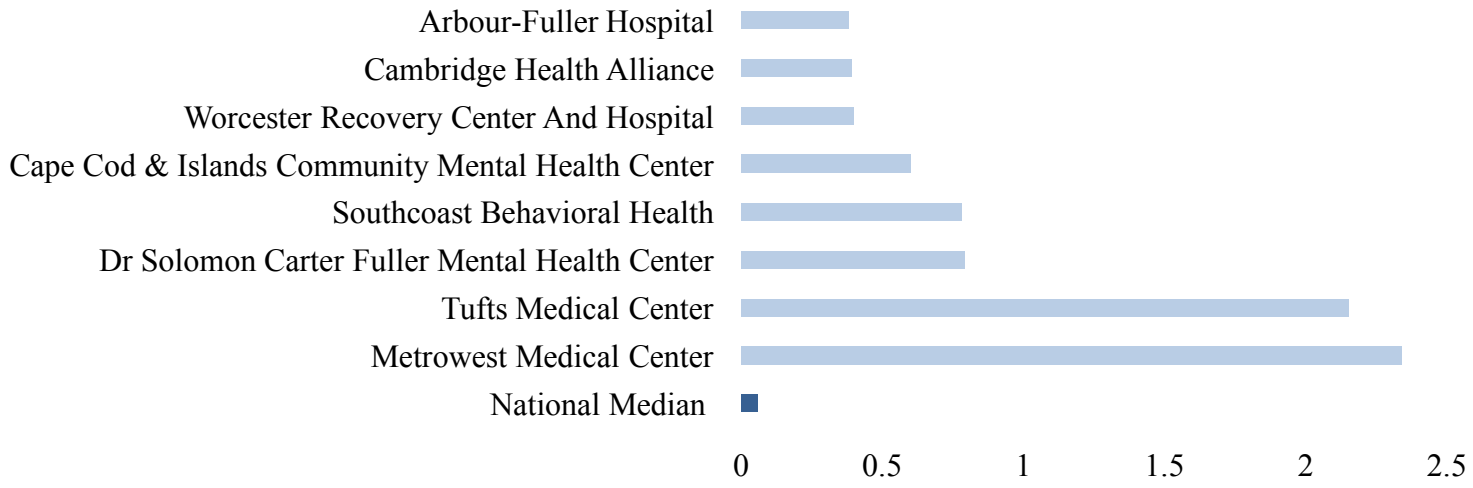
	Facility	City
1	Beth Israel Deaconess Hospital Plymouth	Plymouth
2	Good Samaritan Medical Center	Brockton
3	Nashoba Valley Medical Center	Ayer
4	St Vincent Hospital	Worcester

Thirty-one (60.78%) MA facilities performed in the bottom 50% of facilities nationally. Eight (15.69%) of these facilities performed in the bottom 20% of facilities nationally.

Table 5: Massachusetts facilities in the bottom 20% of facilities nationally

	Facility	National Percentile Rank	Rate	City
1	Metrowest Medical Center	4th	2.34	Framingham
2	Tufts Medical Center	4th	2.15	Boston
3	Dr. Solomon Carter Fuller Mental Health Center	10th	0.79	Boston
4	Southcoast Behavioral Health	10th	0.78	Dartmouth
5	Cape Cod & Islands Community Mental Health Center	13th	0.6	Pocasset
6	Worcester Recovery Center And Hospital	18th	0.4	Worcester
7	Cambridge Health Alliance	19th	0.39	Cambridge
8	Arbour-Fuller Hospital	20th	0.38	South Attleboro

Graph 2: Rate of restraint for MA facilities in the bottom 20% nationally, relative to the national median rate of restraint (lower is better)



Limitations of this measure

This measure is reported as a rate of hours of restraint per 1,000 patient hours. As such, we are unable to determine the number of unique restraint encounters overall, the number of unique patients with restraint encounters, the degree to which certain patients experience more than one restraint encounter, and the average length of time in restraints or range per restraint encounter. Further, this measure includes only *physical* restraint in the numerator as opposed to other variants (it is unclear from the specification manual to what extent chemical restraint is captured as *physical* restraint). Moreover, this measure does not capture the extent to which de-escalating techniques were attempted prior to the restraint encounter.

Rate of Seclusion

Measure
Rate of seclusion is abstracted from charts and calculated as the number of hours in seclusion (numerator) per 1,000 patient hours (denominator). Leave days are excluded from the denominator.

Findings
While difficult to interpret rates of seclusion on their own, relative comparisons can be made. Essentially all facility types and ownership had a median rate of 0. The median rate of seclusion in Massachusetts is at zero compared to a national median rate of 0.02. Thirty-six (70.59%) MA facilities performed in the upper 50% of facilities nationally. Of these, 30 (58.82%) had a perfect rate of zero seclusion, performing better than 58% of facilities nationally.

Table 6: Massachusetts facilities with a perfect rate of zero

	Facility Name	City
1	Metrowest Medical Center	Framingham
2	Dr. Solomon Carter Fuller Mental Health Center	Boston
3	Cape Cod & Islands Community Mental Health Center	Pocasset
4	Arbour-Fuller Hospital	South Attleboro
5	UMASS Memorial Healthcare Wing Memorial Hospital	Palmer
6	Emerson Hospital	Concord
7	Arbour Hospital	Boston
8	Cooley Dickinson Hospital Inc.	Northampton
9	Northest Hospital Corporation	Beverly
10	Arbour Human Resource Institute	Brookline
11	Dr. John C Corrigan Mental Health Center	Fall River
12	Noble Hospital	Westfield
13	Anna Jaques Hospital	Newburyport
14	Norwood Hospital	Norwood
15	Harrington Memorial Hospital-1	Southbridge
16	Holyoke Medical Center	Holyoke
17	Whittier Pavilion	Haverhill
18	Saint Anne's Hospital	Fall River
19	Walden Behavioral Care, LLC	Waltham
20	St Elizabeth's Medical Center	Brighton
21	Baldpate Hospital	Georgetown
22	Holy Family Hospital	Methuen
23	Morton Hospital	Taunton
24	UMASS Memorial Healthcare-Clinton Hospital	Clinton
25	Heywood Hospital	Gardner
26	Signature Healthcare Brockton Hospital	Brockton
27	Beth Israel Deaconess Hospital Plymouth	Plymouth

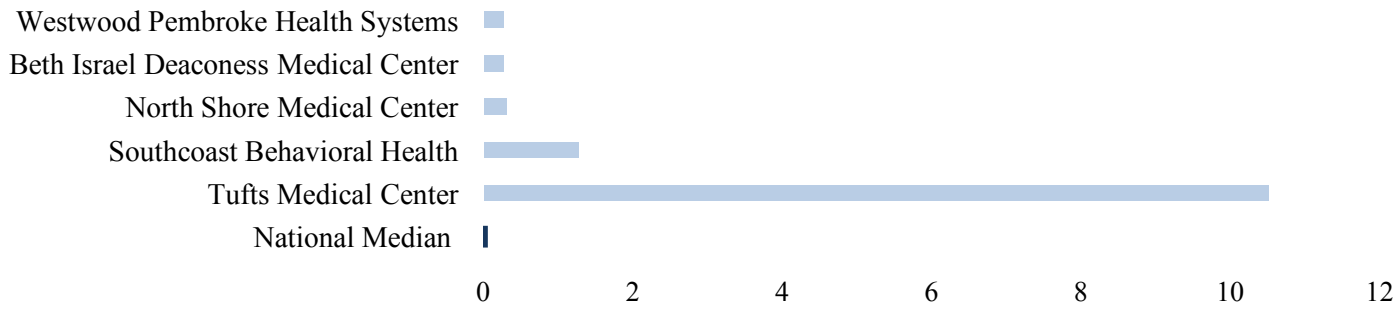
28	Good Samaritan Medical Center	Brockton
29	Nashoba Valley Medical Center	Ayer
30	St Vincent Hospital	Worcester

Fifteen (29.41%) MA facilities performed in the bottom 50% of facilities nationally. Five (9.8%) of these facilities performed in the bottom 20% of facilities nationally.

Table 7: Massachusetts facilities in the bottom 20% of facilities nationally

	Facility	National Percent Rank	Rate	City
1	Tufts Medical Center	1st	10.51	Boston
2	Southcoast Behavioral Health	4th	1.27	Dartmouth
3	North Shore Medical Center	18th	0.3	Salem
4	Beth Israel Deaconess Medical Center	19th	0.27	Boston
5	Westwood Pembroke Health Systems	19th	0.26	Westwood

Graph 3: Rate of seclusion for MA facilities in the bottom 20% nationally, relative to the national median rate of restraint (lower is better)



Limitations of this measure

The limitations of this measure are similar to those of the restraint measure. This measure is reported as a rate of hours of seclusion per 1,000 patient hours. As such, we are unable to determine the number of unique seclusion encounters overall, the number of unique patients with seclusion encounters, the degree to which certain patients experience more than one seclusion encounter, and the average length of time in seclusion or range per seclusion encounter. Further, this measure defines seclusion as the involuntary confinement of a patient who is physically prevented from leaving an enclosed area, which might not capture other forms of seclusion such as cracked door seclusion or incentivizing cooperation with seclusion through the threat of privilege restriction or chemical restraint. Moreover, this measure does not capture the extent to which de-escalating techniques were attempted prior to the seclusion encounter.

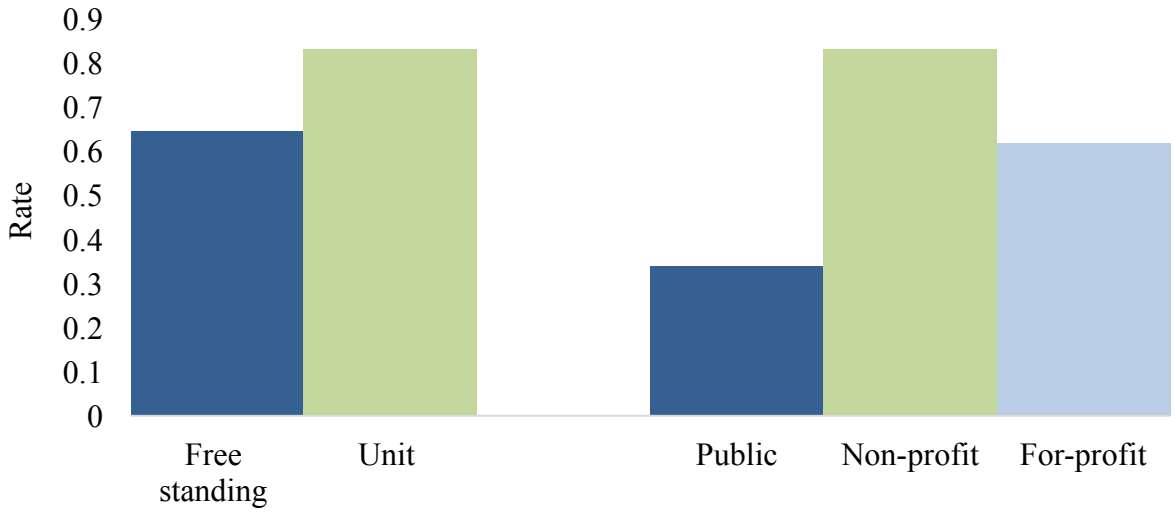
Appropriate Justification for Multiple Antipsychotics at Discharge

Measure
Rate of appropriate justification for multiple antipsychotics at discharge is abstracted from charts and calculated as the proportion of patients discharged on two or more antipsychotics with appropriate justification. The numerator includes patients discharged on multiple antipsychotics with appropriate justification. The denominator includes all patients discharged on two or more antipsychotics. This measure excludes patients who had a stay of three days or less, died, and who were discharged due to elopement or failure to return from leave. Appropriate justification includes only the following three evidence based reasons:

- Three failed attempts at monotherapy included in the patients' medical record.
- Documentation of a plan to taper to monotherapy or cross-tapering by decreasing the dosage of one or more antipsychotics while increasing the level of another.
- Documentation of augmentation of Clozapine.

Findings
Freestanding facilities performed the worst (64.28%) compared to units (82.84%). Public facilities performed the worst (33.9%) and non-profit (82.84%) performed the best.

Graph 4: Overall performance by facility type and ownership



Only 27 (52.94%) MA facilities reported on appropriate justification for multiple antipsychotics, which is higher than the national rate for measure completion. The median rate for appropriate justification of multiple antipsychotics was 75% in Massachusetts, performing worse than the national median rate of 82%. Among those with reported data, 12 (44.44%) facilities performed in the upper 50% of facilities nationally. Of these, three (11.11%) had a perfect rate of 100%, performing better than 82% of facilities nationally. Seven (25.93%) had a rate above 90%, considered to be *high performing*.

Table 8: Massachusetts' facilities with a perfect rate of 100%

	Facility	City
1	Whittier Pavilion	Haverhill
2	Massachusetts General Hospital	Boston
3	Faulkner Hospital-Brigham And Women's	Jamaica Plain

Table 9: Massachusetts' facilities who were high performers, with a rate of 90% or higher

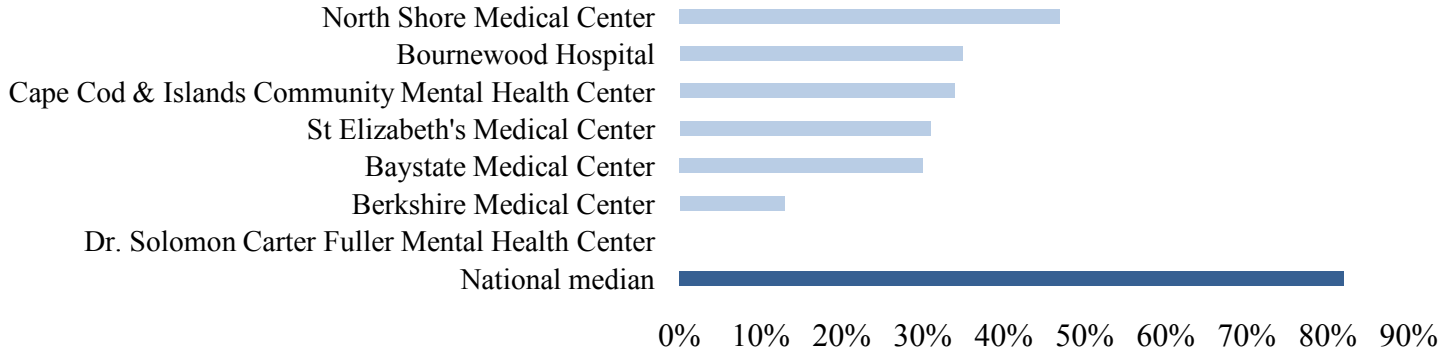
	Facility	National percentile rank	Rate	City
1	Whittier Pavilion	82nd	100%	Haverhill
2	Massachusetts General Hospital	82nd	100%	Boston
3	Faulkner Hospital-Brigham And Women's	82nd	100%	Jamaica Plain
4	Worcester Recovery Center And Hospital	79th	97.59%	Worcester
5	Holyoke Medical Center	76th	96.43%	Holyoke
6	Newton-Wellesley Hospital	66th	91.30%	Newton
7	UMASS Memorial Healthcare Wing Memorial Hospital	65th	90.91%	Palmer

Of those with reported rates, 15 (55.56%) MA facilities performed in the bottom 50% of facilities nationally. Seven (25.93%) of these facilities performed in the bottom 20% of facilities nationally, with Dr. Solomon Carter Fuller Mental Health Center having a concerning rate of 0%.

Table 10: Massachusetts facilities in the bottom 20% of facilities nationally

	Facility	National percentile rank	Rate	City
1	Dr. Solomon Carter Fuller Mental Health Center	<4th	0%	Boston
2	Berkshire Medical Center	6th	12.94%	Pittsfield
3	Baystate Medical Center	10th	30%	Springfield
4	St Elizabeth's Medical Center	10th	30.91%	Brighton
5	Cape Cod & Islands Community Mental Health Center	12th	33.90%	Pocasset
6	Bournewood Hospital	12th	34.88%	Brookline
7	North Shore Medical Center	19th	46.88%	Salem

Graph 5: Rate of appropriate justification for antipsychotics at discharge for MA facilities in the bottom 20% nationally, relative to the national median rate of restraint (higher is better)



Limitations of this measure

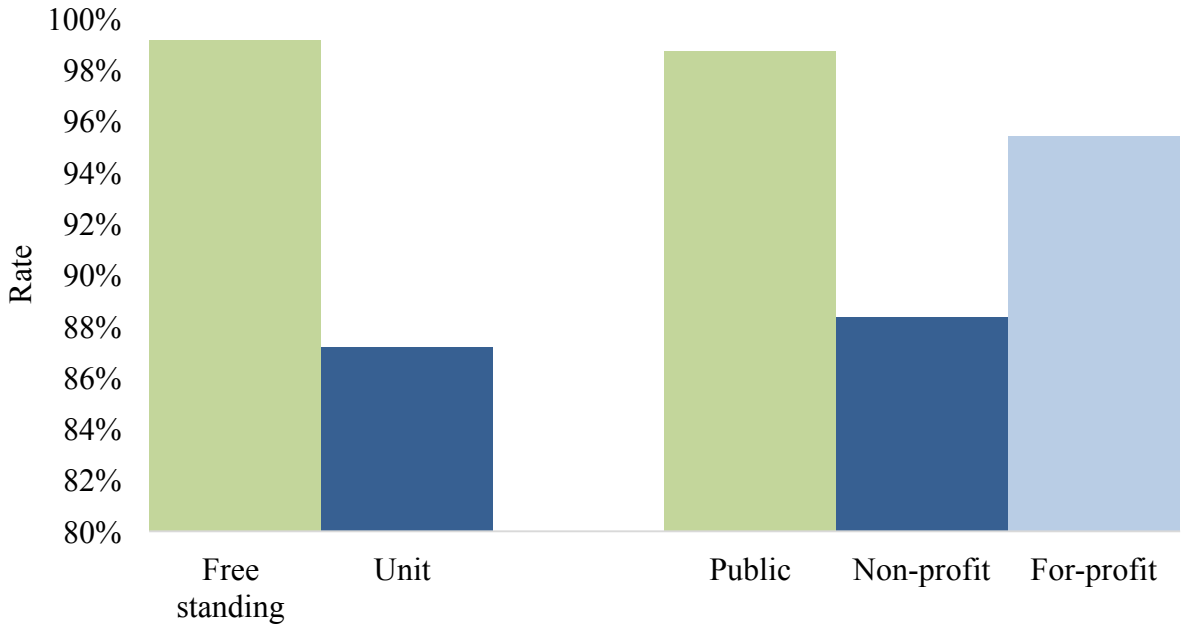
In prior years, there was a separate measure reported for the overall percentage of patients discharged on multiple antipsychotics. This measure provided insight into the overall proportion of the population discharged on multiple antipsychotics, which is not discernable from this remaining measure. Currently, data are not reported if the denominator is too small and the total patient population is not reported. Moreover, due to a lack of patient-level data, there is no way to determine to what degree there is variation in diagnoses by facility or differences in who presents to the facility already on multiple antipsychotics, though the appropriate justifications outlined above would still be relevant regardless. An argument can be made that quality of continuity of care post-discharge would influence the degree to which the outlined justifications are sufficient or practical (e.g., ability to fulfill the plan for cross-tapering). This measure does not provide information regarding other forms of polypharmacy outside of multiple antipsychotics, the degree to which patients are discharged on *any number* of antipsychotics, or to what extent patients collaborated with providers in the creation of their discharge medication plan.

Post-discharge continuing care plan created

Measure
Rate for post-discharge continuing care plan creation is chart abstracted and calculated as the proportion of patients who are discharged with a continuing care plan created out of all discharges. The continuing care plan has to include reason for hospitalization, principal discharge diagnosis, discharge medications and next level of care recommendations in order to qualify for the numerator. Excluded patients are those who died, unplanned discharge due to elopement or failure to return after leave, patients or guardians who refuse after care, patients or guardians who refuse to sign authorization to release information, patients readmitted to the same facility within 5 days after discharge, and patients who do not reside in the United States and will be returning to another country at discharge.

Findings
Units performed the worst (87.15%) compared to freestanding facilities (99.12%). Public facilities performed the best (98.7%) and non-profits performed the worst (88.33%).

Graph 6: Overall performance by facility type and ownership



One facility had a missing rate. The median rate for post-discharge continuing care plan creation was 94% in Massachusetts, performing worse than the national median rate of 97%, though this difference is perhaps trivial. Excluding the one hospital without data, 17 (34%) of MA facilities performed in the upper 50% of facilities nationally. However, the threshold for the upper 50% was high at a rate of 97.24% given the overall high national performance rate. Only one facility had a perfect rate of 100%, performing better than 83% of facilities nationally. Overall, including those technically performing in the bottom 50% of facilities nationally, 28 (56%) were *high performers* with a rate of 90% or higher.

Table 11: Massachusetts' facilities with a perfect rate of 100%

	Facility	City
1	Tauntan State Hospital	Taunton

Table 12: Massachusetts' facilities who were high performers, with a rate of 90% or higher

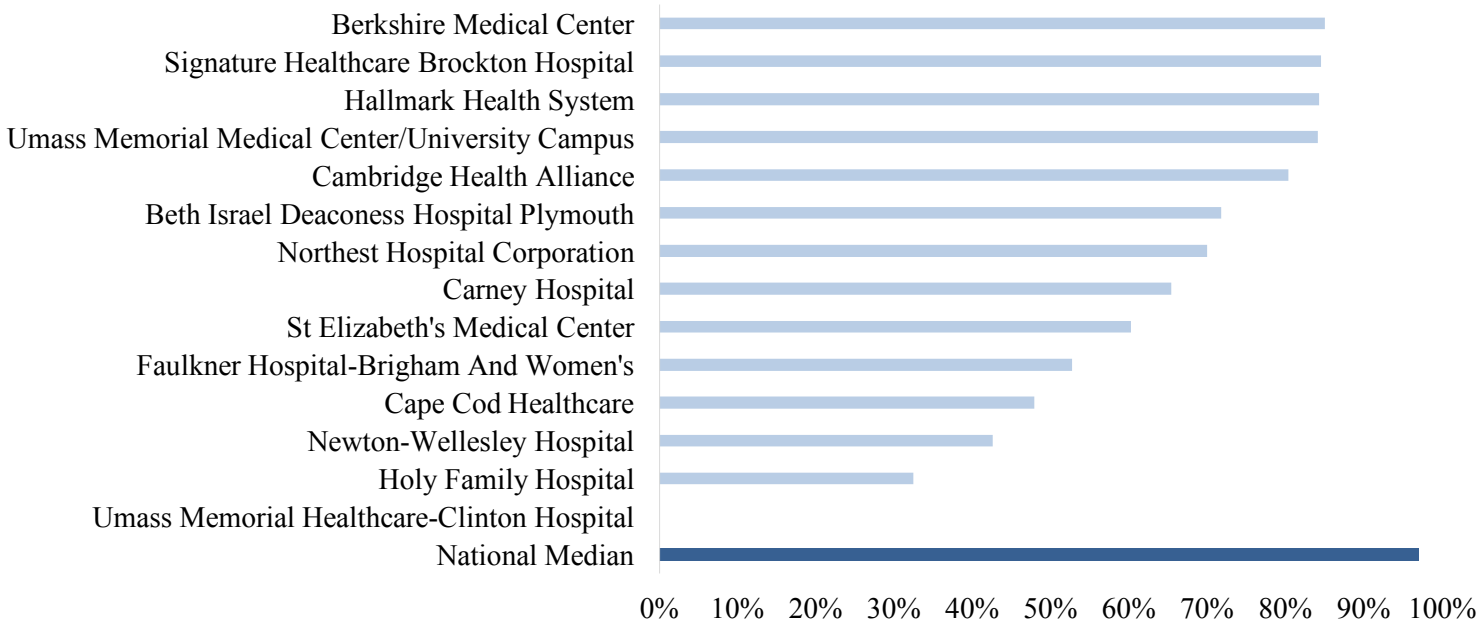
	Facility	National Percentile Rank	Rate	City
1	Noble Hospital	76th	99.64%	Westfield
2	Westwood Pembroke Health Systems	72nd	99.40%	Westwood
3	Cape Cod & Islands Community Mental Health Center	71st	99.38%	Pocasset
4	Arbour-Fuller Hospital	71st	99.36%	South Attleboro
5	Bournewood Hospital	70th	99.28%	Brookline
6	Arbour Human Resource Institute	68th	99.15%	Brookline
7	Baldpate Hospital	68th	99.12%	Georgetown
8	Holyoke Medical Center	64th	98.83%	Holyoke
9	Whittier Pavilion	62nd	98.73%	Haverhill
10	Worcester Recovery Center And Hospital	62nd	98.69%	Worcester
11	Harrington Memorial Hospital-1	62nd	98.64%	Southbridge
12	Mount Auburn Hospital	56th	98.13%	Cambridge
13	Massachusetts General Hospital	54th	97.85%	Boston
14	Tufts Medical Center	50th	97.24%	Boston
15	Dr. Solomon Carter Fuller Mental Health Center	49th	97.06%	Boston
16	Good Samaritan Medical Center	45th	96.39%	Brockton
17	Saint Anne's Hospital	43rd	95.83%	Fall River
18	Mclean Hospital Corporation	41st	95.38%	Belmont
19	Cooley Dickinson Hospital Inc.	40th	95.09%	Northampton
20	Walden Behavioral Care, LLC	40th	94.97%	Waltham
21	Norwood Hospital	39th	94.73%	Norwood
22	Morton Hospital	35th	93.58%	Taunton
23	Heywood Hospital	34th	93.54%	Gardner
24	UMASS Memorial Healthcare Wing Memorial Hospital	32nd	92.51%	Palmer
25	Dr. John C Corrigan Mental Health Center	30th	91.89%	Fall River

Of those with reported rates, 33 (66%) of MA facilities performed in the bottom 50% of facilities nationally. Fourteen (28%) of these facilities performed in the bottom 20% of facilities nationally, with UMASS Memorial Healthcare-Clinton Hospital having a concerning rate of 0%.

Table 13: Massachusetts facilities in the bottom 20% of facilities nationally

	Facility	National percentile rank	Rate	City
1	UMASS Memorial Healthcare-Clinton Hospital	<1st	0.00%	Clinton
2	Holy Family Hospital	3rd	32.43%	Methuen
3	Newton-Wellesley Hospital	4th	42.56%	Newton
4	Cape Cod Healthcare	5th	47.88%	Hyannis
5	Faulkner Hospital-Brigham And Women's	6th	52.73%	Jamaica Plain
6	St Elizabeth's Medical Center	7th	60.25%	Brighton
7	Carney Hospital	9th	65.37%	Boston
8	Northeast Hospital Corporation	10th	69.96%	Beverly
9	Beth Israel Deaconess Hospital Plymouth	11th	71.77%	Plymouth
10	Cambridge Health Alliance	15th	80.33%	Cambridge
11	UMASS Memorial Medical Center/University Campus	18th	84.07%	Worcester
12	Hallmark Health System	18th	84.27%	Melrose
13	Signature Healthcare Brockton Hospital	18th	84.51%	Brockton
14	Berkshire Medical Center	19th	85.00%	Pittsfield

Graph 7: Rate of continuing care plan creation for MA facilities in the bottom 20% nationally, relative to the national median rate of restraint (higher is better)



Limitations of this measure

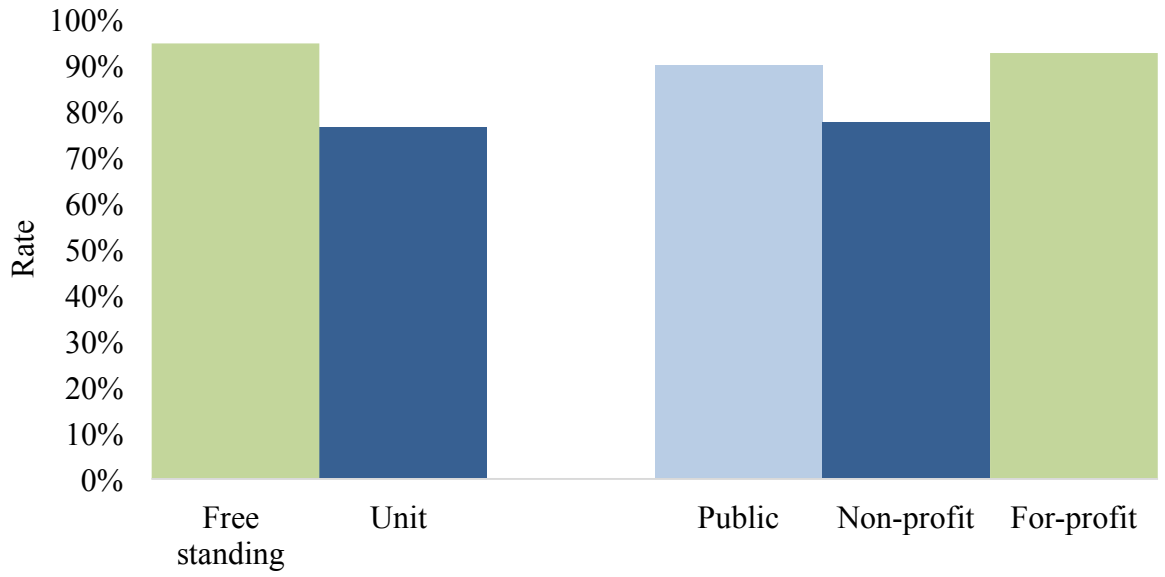
This measure does not capture the *quality* and appropriateness of care plan created or to what extent patients collaborated with providers in the creation of their continuing care plan.

Post-discharge continuing care plan transmitted to next level of care provider upon discharge

Measure
Rate for transmitting the continuing care plan to the next level is chart abstracted and reported as the proportion of patients who had a continuing care plan transmitted to the next level of care out of all discharges. The care plan needs to include the same elements as described for the previous measure. This measure excludes the same patients as described for the previous measure.

Findings
Units performed the worst (76.57%) compared to freestanding facilities (94.82%). Non-profits performed the worst (77.61%) and for-profits performed the best (92.78%).

Graph 8: Overall performance by facility type and ownership



Three (5.88%) facilities had missing rates. The median rate for transmitting the continuing care plan was 84%, performing worse than the national median rate of 93%. Excluding facilities with missing data, 17 (35.42%) performed in the upper 50% of facilities nationally. No facility had a perfect rate of 100%. Overall, 18 (37.5%) were *high performers* with a rate of 90% or higher.

Table 14: Massachusetts' facilities who were high performers, with a rate of 90% or higher

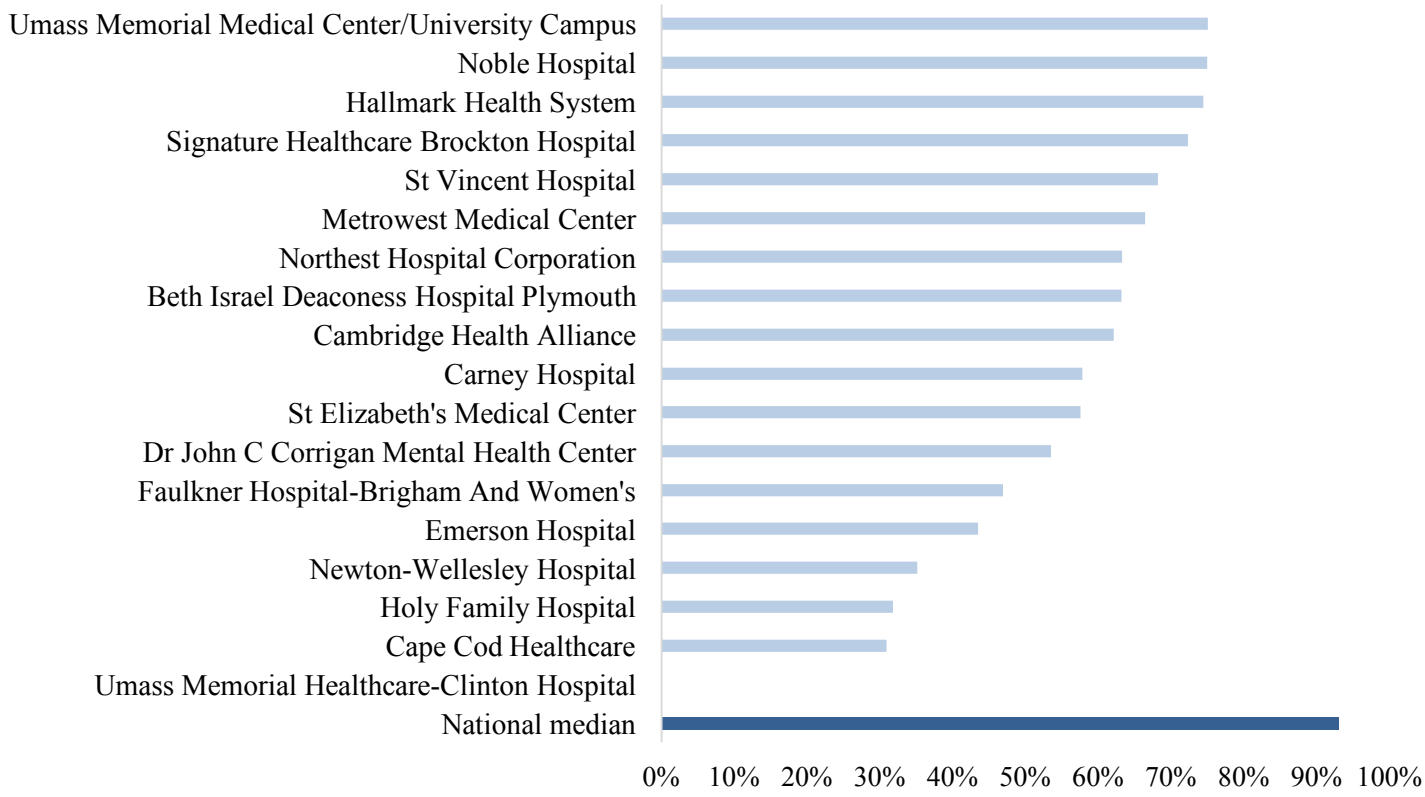
	Facility	National percentile rank	Rate	City
1	Baldpate Hospital	89th	99.71%	Georgetown
2	Cape Cod & Islands Community Mental Health Center	85th	99.38%	Pocasset
3	Whittier Pavilion	75th	97.92%	Haverhill
4	Westwood Pembroke Health Systems	75th	97.85%	Westwood
5	Taunton State Hospital	69th	97.22%	Taunton
6	Harrington Memorial Hospital-1	69th	97.08%	Southbridge
7	Good Samaritan Medical Center	64th	96.39%	Brockton
8	Mount Auburn Hospital	64th	96.25%	Cambridge
9	Arbour-Fuller Hospital	63rd	96.00%	South Attleboro
10	Massachusetts General Hospital	61st	95.70%	Boston
11	Beth Israel Deaconess Medical Center	59th	95.14%	Boston
12	Saint Anne's Hospital	58th	95.00%	Fall River
13	Arbour Human Resource Institute	57th	94.89%	Brookline
14	Walden Behavioral Care, LLC	57th	94.74%	Waltham
15	Holyoke Medical Center	54th	94.14%	Holyoke
16	Norwood Hospital	51st	92.90%	Norwood
17	Morton Hospital	50th	92.66%	Taunton
18	UMASS Memorial Healthcare Wing Memorial Hospital	43rd	90.54%	Palmer

Of those with reported rates, 31 (64.85%) of MA facilities performed in the bottom 50% of facilities nationally. 18 (37.5%) of these facilities performed in the bottom 20% of facilities nationally, with UMASS Memorial Healthcare-Clinton Hospital having a concerning rate of 0%.

Table 15: Massachusetts facilities in the bottom 20% of facilities nationally

	Facility	National percentile rank	Rate	City
1	UMASS Memorial Healthcare-Clinton Hospital	<1st	0.00%	Clinton
2	Cape Cod Healthcare	4th	30.89%	Hyannis
3	Holy Family Hospital	5th	31.76%	Methuen
4	Newton-Wellesley Hospital	5th	35.12%	Newton
5	Emerson Hospital	7th	43.46%	Concord
6	Faulkner Hospital-Brigham And Women's	8th	46.88%	Jamaica Plain
7	Dr. John C Corrigan Mental Health Center	9th	53.51%	Fall River
8	St Elizabeth's Medical Center	11th	57.51%	Brighton
9	Carney Hospital	11th	57.80%	Boston
10	Cambridge Health Alliance	13th	62.16%	Cambridge
11	Beth Israel Deaconess Hospital Plymouth	13th	63.16%	Plymouth
12	Northeast Hospital Corporation	13th	63.22%	Beverly
13	Metrowest Medical Center	15th	66.45%	Framingham
14	St Vincent Hospital	16th	68.16%	Worcester
15	Signature Healthcare Brockton Hospital	18th	72.30%	Brockton
16	Hallmark Health System	19th	74.44%	Melrose
17	Noble Hospital	20th	74.91%	Westfield
18	UMASS Memorial Medical Center/University Campus	20th	75.00%	Worcester

Graph 9: Rate of transmitting the continuing care plan for MA facilities in the bottom 20% nationally, relative to the national median rate of restraint (higher is better)



Limitations of this measure

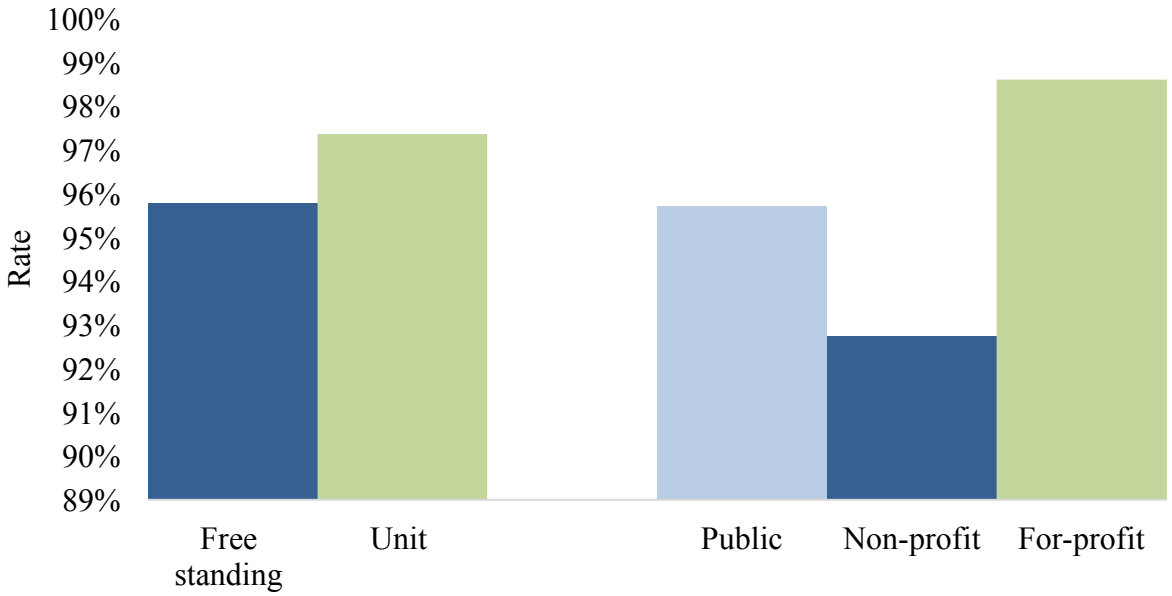
Similar to the previous measure, this measure does not capture the *quality* and appropriateness of care plan created or to what extent patients collaborated with providers in the creation of their continuing care plan. Moreover, this measure does not capture the extent to which the next level provider is an appropriate fit for the patient's' needs, the accessibility of the provider's location to where the patient lives, or the ease at which patients are able to get an appointment with the next level provider after discharge.

Alcohol Use Screening

Measure
Rate for alcohol screening is chart abstracted and reported as the proportion of patients who received the screening. The numerator includes individuals who received a screening for alcohol use using a validated measure within the first day of admission. The denominator includes all patients who are 18 years or older. Individuals are excluded from the denominator if they are younger than 18, cognitively impaired, or have Comfort Measures Only documented.

Findings
All facility types and ownership performed above 90%. For-profits performed the best (98.6%) and non-profits performed the worst (92.73%)

Graph 10: Overall performance by facility type and ownership



One facility had a missing rate. The median rate for alcohol screening was 96%, performing slightly lower than the national median rate of 98%, though this difference is perhaps trivial. Excluding the one facility with missing data, 23 (23/50) performed in the upper 50% of facilities nationally. One facility had a perfect rate of 100%, scoring better than 82% of facilities nationally. Overall, 37 (74%) were *high performers* with a rate of 90% or higher, though many of these facilities fell below the 50th national percentile due to very high national performance.

Table 16: Massachusetts' facilities with a perfect rate of 100%

	Facility	City
1	Tauntan State Hospital	Taunton

Table 17: Massachusetts' facilities who were high performers, with a rate of 90% or higher

	Facility	National percentile rank	Rate	City
1	Taunton State Hospital	>82nd	100.00%	Taunton
2	Saint Anne's Hospital	79th	99.75%	Fall River
3	Whittier Pavilion	78th	99.70%	Haverhill
4	Cape Cod Healthcare	76th	99.65%	Hyannis
5	Anna Jaques Hospital	71st	99.40%	Newburyport
6	Noble Hospital	71st	99.39%	Westfield
7	Massachusetts General Hospital	69th	99.28%	Boston
8	Signature Healthcare Brockton Hospital	69th	99.26%	Brockton
9	Baldpate Hospital	66th	99.03%	Georgetown
10	Morton Hospital	64th	98.91%	Taunton
11	Norwood Hospital	64th	98.91%	Norwood
12	Bournewood Hospital	64th	98.88%	Brookline
13	Good Samaritan Medical Center	64th	98.88%	Brockton
14	Metrowest Medical Center	62nd	98.75%	Framingham
15	Arbour Hospital	61st	98.74%	Boston
16	UMASS Memorial Healthcare Wing Memorial Hospital	59th	98.61%	Palmer
17	Carney Hospital	59th	98.60%	Boston
18	Cooley Dickinson Hospital Inc.	56th	98.31%	Northampton
19	Beth Israel Deaconess Medical Center	55th	98.06%	Boston
20	St Elizabeth's Medical Center	54th	98.05%	Brighton
21	Nashoba Valley Medical Center	53rd	97.92%	Ayer
22	Baystate Medical Center	50th	97.69%	Springfield
23	Holy Family Hospital	46th	97.02%	Methuen
24	St Vincent Hospital	42nd	96.36%	Worcester
25	Southcoast Behavioral Health	41st	96.24%	Dartmouth
26	Arbour-Fuller Hospital	41st	96.14%	South Attleboro
27	Worcester Recovery Center And Hospital	39th	95.85%	Worcester
28	Dr. Solomon Carter Fuller Mental Health Center	39th	95.71%	Boston

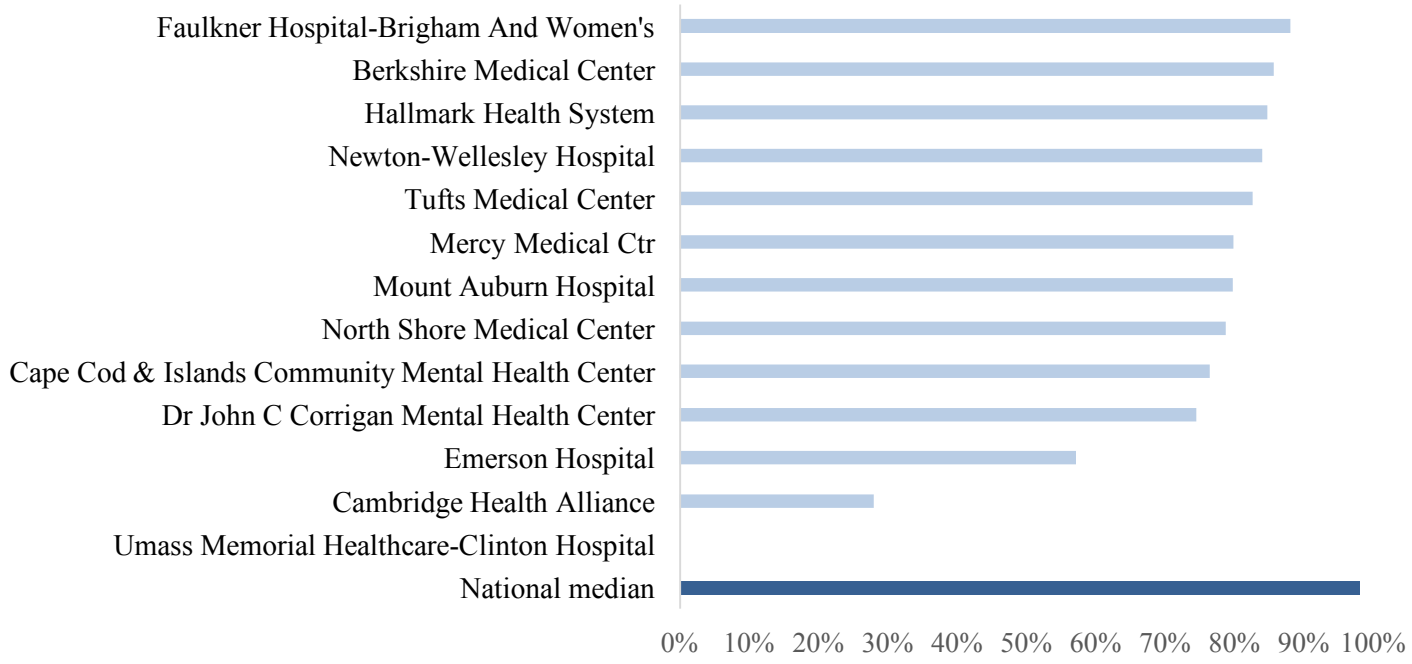
29	Heywood Hospital	38th	95.58%	Gardner
30	Holyoke Medical Center	38th	95.53%	Holyoke
31	Mclean Hospital Corporation	36th	94.99%	Belmont
32	Walden Behavioral Care, LLC	35th	94.74%	Waltham
33	Harrington Memorial Hospital-1	35th	94.66%	Southbridge
34	Westwood Pembroke Health Systems	31st	93.65%	Westwood
35	Northeast Hospital Corporation	25th	90.79%	Beverly
36	Beth Israel Deaconess Hospital Plymouth	24th	90.32%	Plymouth
37	Arbour Human Resource Institute	23rd	90.08%	Brookline

Of those with reported rates, 28 (56%) of MA facilities performed in the bottom 50% of facilities nationally. 13 (26%) of these facilities performed in the bottom 20% of facilities nationally, with UMASS Memorial Healthcare-Clinton Hospital again having a concerning rate of 0%.

Table 18: Massachusetts facilities in the bottom 20% of facilities nationally

	Facility	National percentile rank	Rate	City
1	UMASS Memorial Healthcare-Clinton Hospital	<2nd	0.00%	Clinton
2	Cambridge Health Alliance	3rd	27.90%	Cambridge
3	Emerson Hospital	7th	57.04%	Concord
4	Dr. John C Corrigan Mental Health Center	10th	74.43%	Fall River
5	Cape Cod & Islands Community Mental Health Center	11th	76.40%	Pocasset
6	North Shore Medical Center	12th	78.65%	Salem
7	Mount Auburn Hospital	13th	79.72%	Cambridge
8	Mercy Medical Center	13th	79.83%	Springfield
9	Tufts Medical Center	15th	82.58%	Boston
10	Newton-Wellesley Hospital	15th	83.98%	Newton
11	Hallmark Health System	16th	84.72%	Melrose
12	Berkshire Medical Center	17th	85.56%	Pittsfield
13	Faulkner Hospital-Brigham And Women's	19th	87.98%	Jamaica Plain

Graph 11: Rate of alcohol screening for MA facilities in the bottom 20% nationally, relative to the national median rate of restraint (higher is better)



Limitations of this measure

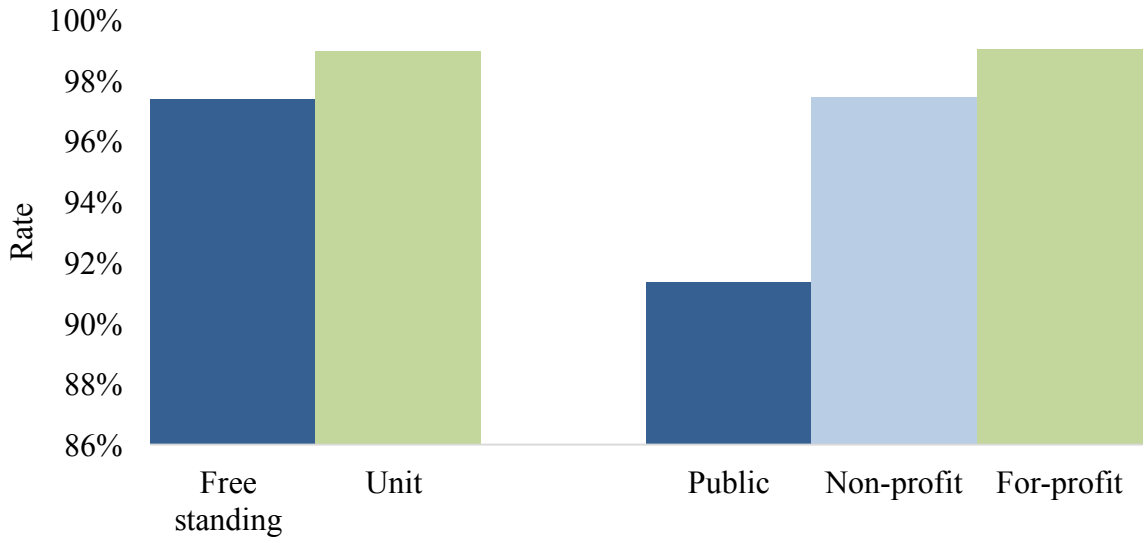
This measure is focused on alcohol and does not capture other substance use. Further, the screener for substance use is not standardized. Moreover, this measure does not capture treatment provided, however additional CMS measures do assess for this.

Tobacco Use Screening

Measure
Rate for tobacco screening is chart abstracted and reported as the proportion of patients who received the screening. The numerator includes the number of patients screened within the first day of admission for tobacco use within the past 30 days. The denominator includes all patients who are 18 years or older. Individuals are excluded from the denominator if they are younger than 18, cognitively impaired, or have Comfort Measures Only documented.

Findings
All facility types and ownership performed above 90%. For-profits performed the best (99.03%) and public facilities performed the worst (91.34%)

Graph 12: Overall performance by facility type and ownership



The median rate of for tobacco use screening was 98%, one percentage point lower than the national median rate of 99%. Twenty-two (43.14%) performed in the upper 50% of facilities nationally. Among those with reported data, eight (15.69%) facilities had a perfect rate of 100%, performing better than 74% of facilities nationally. Overall, 41 (80.39%) were *high performers* with a rate of 90% or higher, though many of these facilities fell below the 50th national percentile due to very high national performance.

Table 19: Massachusetts' facilities with a perfect rate of 100%

	Facility	City
1	Cambridge Health Alliance	Cambridge
2	Emerson Hospital	Concord
3	Nashoba Valley Medical Center	Ayer

4	Good Samaritan Medical Center	Brockton
5	Morton Hospital	Taunton
6	Norwood Hospital	Norwood
7	Saint Anne's Hospital	Fall River
8	Taunton State Hospital	Taunton

Table 20: Massachusetts' facilities who were high performers, with a rate of 90% or higher

	Facility	National percentile rank	Rate	City
1	Cambridge Health Alliance	>74th	100.00%	Cambridge
2	Emerson Hospital	>74th	100.00%	Concord
3	Nashoba Valley Medical Center	>74th	100.00%	Ayer
4	Good Samaritan Medical Center	>74th	100.00%	Brockton
5	Morton Hospital	>74th	100.00%	Taunton
6	Norwood Hospital	>74th	100.00%	Norwood
7	Saint Anne's Hospital	>74th	100.00%	Fall River
8	Taunton State Hospital	>74th	100.00%	Taunton
9	UMASS Memorial Healthcare Wing Memorial Hospital	68th	99.72%	Palmer
10	Whittier Pavilion	68th	99.70%	Haverhill
11	Holy Family Hospital	67th	99.66%	Methuen
12	Holyoke Medical Center	65th	99.61%	Holyoke
13	Baystate Medical Center	63rd	99.54%	Springfield
14	Harrington Memorial Hospital-1	57th	99.27%	Southbridge
15	Walden Behavioral Care, LLC	54th	99.11%	Waltham
16	Heywood Hospital	54th	99.10%	Gardner
17	St Elizabeth's Medical Center	53rd	99.03%	Brighton
18	Beth Israel Deaconess Medical Center	53rd	99.03%	Boston
19	Carney Hospital	53rd	99.03%	Boston
20	Cooley Dickinson Hospital Inc.	52nd	98.95%	Northampton
21	Berkshire Medical Center	51st	98.94%	Pittsfield
22	Mercy Medical Center	50th	98.85%	Springfield
23	UMASS Memorial Medical Center/University Campus	49th	98.70%	Worcester
24	St Vincent Hospital	48th	98.63%	Worcester
25	Baldpate Hospital	47th	98.55%	Georgetown
26	Worcester Recovery Center And Hospital	45th	98.39%	Worcester
27	Massachusetts General Hospital	38th	97.66%	Boston
28	Mclean Hospital Corporation	36th	97.44%	Belmont
29	Arbour Human Resource Institute	36th	97.40%	Brookline
30	Tufts Medical Center	36th	97.37%	Boston

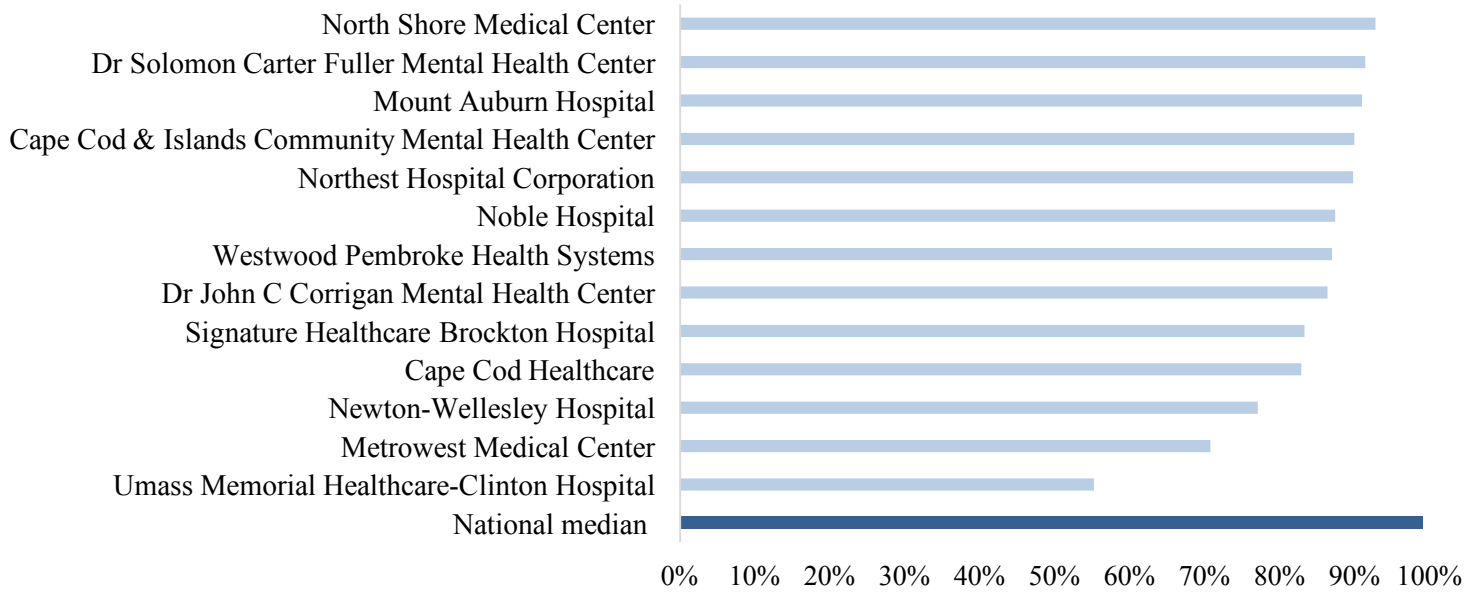
31	Arbour Hospital	36th	97.30%	Boston
32	Bournewood Hospital	35th	97.27%	Brookline
33	Faulkner Hospital-Brigham And Women's	35th	97.24%	Jamaica Plain
34	Anna Jaques Hospital	35th	97.22%	Newburyport
35	Southcoast Behavioral Health	34th	96.99%	Dartmouth
36	Arbour-Fuller Hospital	34th	96.95%	South Attleboro
37	Beth Israel Deaconess Hospital Plymouth	33rd	96.83%	Plymouth
38	Hallmark Health System	26th	95.37%	Melrose
39	North Shore Medical Center	19th	92.72%	Salem
40	Dr. Solomon Carter Fuller Mental Health Center	17th	91.34%	Boston
41	Mount Auburn Hospital	16th	90.96%	Cambridge

Of those with reported rates, 29 (56.86%) of MA facilities performed in the bottom 50% of facilities nationally. Thirteen (25.49%) of these facilities performed in the bottom 20% of facilities nationally.

Table 21: Massachusetts facilities in the bottom 20% of facilities nationally

	Facility	National Percentile Rank	Rate	City
1	UMASS Memorial Healthcare-Clinton Hospital	3rd	55.22%	Clinton
2	Metrowest Medical Center	5th	70.74%	Framingham
3	Newton-Wellesley Hospital	7th	77.00%	Newton
4	Cape Cod Healthcare	10th	82.80%	Hyannis
5	Signature Healthcare Brockton Hospital	10th	83.27%	Brockton
6	Dr. John C Corrigan Mental Health Center	12th	86.36%	Fall River
7	Westwood Pembroke Health Systems	13th	86.93%	Westwood
8	Noble Hospital	13th	87.32%	Westfield
9	Northeast Hospital Corporation	15th	89.72%	Beverly
10	Cape Cod & Islands Community Mental Health Center	15th	89.89%	Pocasset
11	Mount Auburn Hospital	16th	90.96%	Cambridge
12	Dr Solomon Carter Fuller Mental Health Center	17th	91.34%	Boston
13	North Shore Medical Center	19th	92.72%	Salem

Graph 13: Rate of tobacco screening for MA facilities in the bottom 20% nationally, relative to the national median rate of restraint (higher is better)



Limitations of this measure

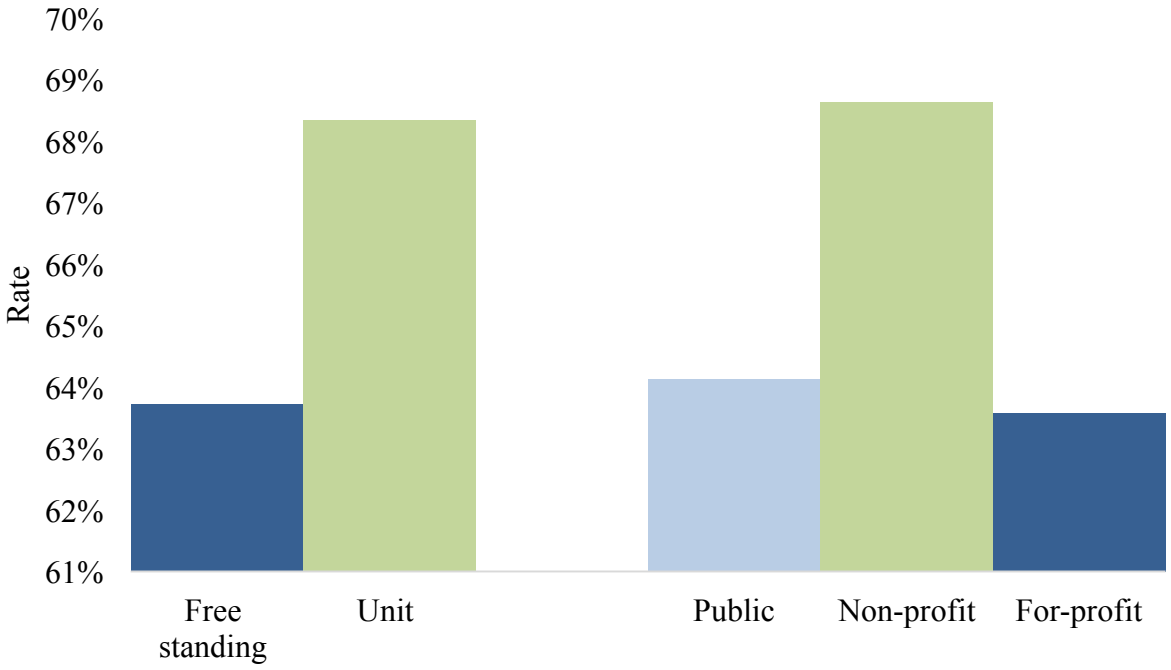
This measure does not capture tobacco use within the facility or the facility's policies regarding tobacco use. Further, it is unclear to what extent a provider will screen a patient if the provider is already aware that the patient is a smoker. Moreover, this measure does not capture treatment provided, however additional CMS measures do assess for this.

30-Day Follow Up

Measure
The measure for follow up with outpatient services within 30 days is calculated using Medicare fee-for-service claims data and is calculated as the proportion of such patients who received outpatient services within 30 days of discharge.

Findings
All facility types had low performance hovering between 60-70%. Units (68.35%) performed better than freestanding facilities (63.73%). Non-profits (68.63%) performed the best and for-profits performed the worst (63.57%).

Graph 14: Overall performance by facility type and ownership



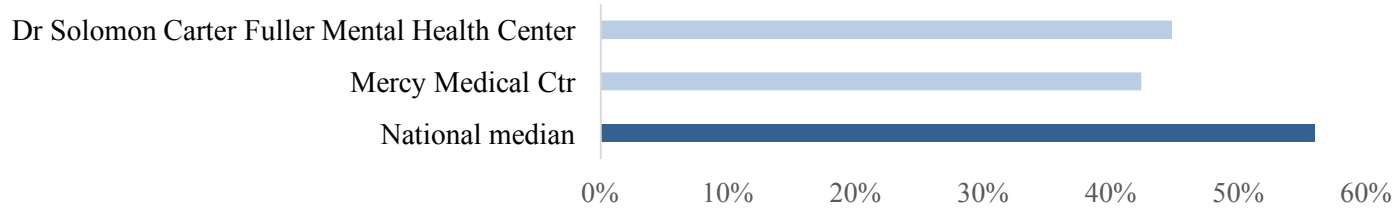
Data was missing for four facilities. The median rate was 66%, 10 percentage points higher than the national median rate. This rate stands in contrast to the 84% rate for transmitting a continuing care plan to the next level of care. However, it is difficult to make inferences about the follow-up rate for those who had a continuing care plan transmitted since these data are not linked at that level and also because the follow-up measures pull only from Medicare beneficiaries. Among those with reported rates, 39 (82.98%) performed in the upper 50% of facilities nationally. No facility had a perfect rate of 100%. Despite above average performance relative to national performance, no facility had a rate above 90% and thus there were no *high performers (*highest rate was 81.12%*)*.

Of those with reported rates, eight (17.02%) of MA facilities performed in the bottom 50% of facilities nationally. Two (4.26%) of these facilities performed in the bottom 20% of facilities nationally.

Table 22: Massachusetts facilities in the bottom 20% of facilities nationally

	Facility	National Percentile Rank	Rate	City
1	Mercy Medical Center	16th	42.37%	Clinton
2	Dr. Solomon Carter Fuller Mental Health Center	20th	44.74%	Framingham

Graph 15: Rate of 30-day follow up for MA facilities in the bottom 20% nationally, relative to the national median rate of restraint (higher is better)



Limitation of this measure

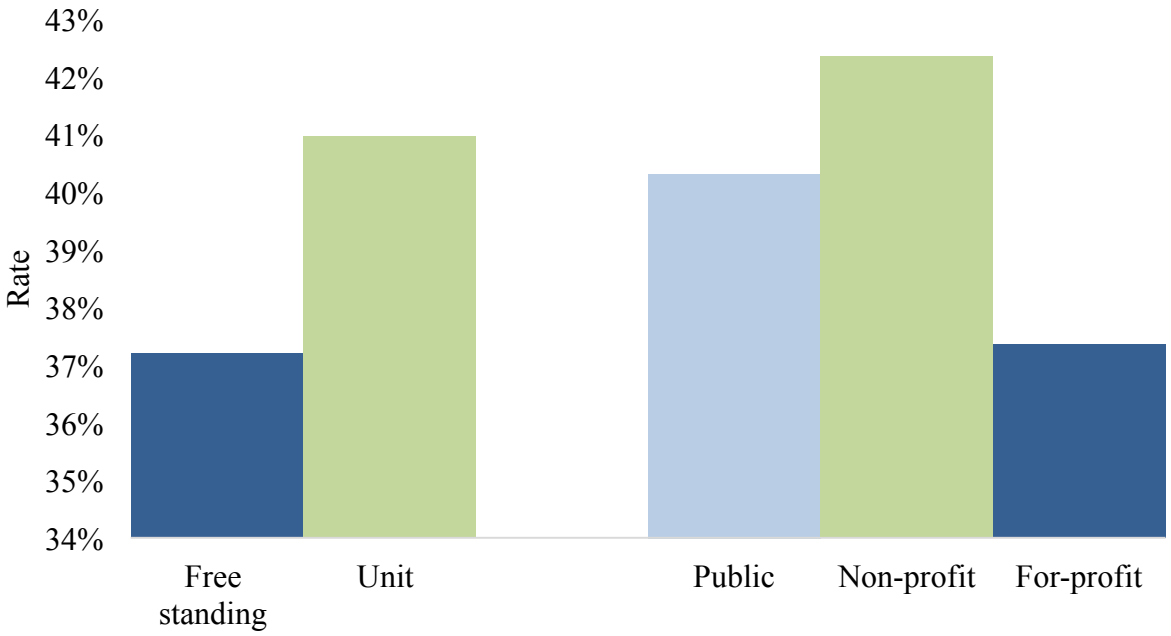
This measure only uses data from Medicare fee-for-service and therefore cannot be generalized to all individuals serviced within a facility nor does it capture the quality or appropriateness of the follow-up experience.

7-Day Follow Up

Measure
The measure for follow up with outpatient services within 7 days is calculated using Medicare fee-for-service claims data and is calculated as the proportion of such patients who received outpatient services within 7 days of discharge.

Findings
All facility types had low performance hovering between 37 – 43%. Units (40.98%) performed better than freestanding facilities (37.22%). Non-profits (42.35%) performed the best and for-profits performed the worst (37.35%).

Graph 16: Overall performance by facility type and ownership



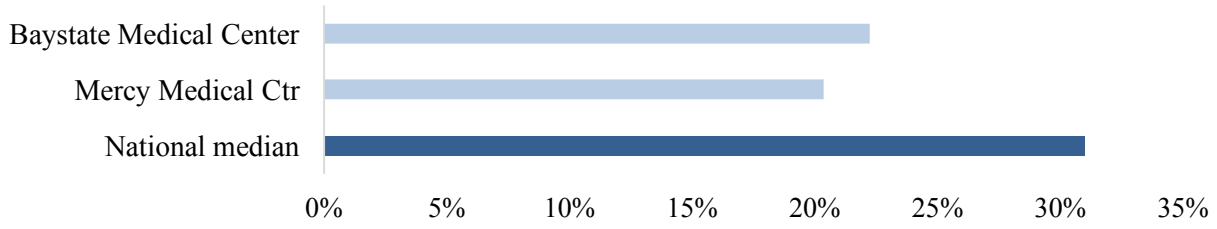
Data was missing from nine facilities. The median rate was 41%, 10 percentage points higher than the national median rate. Of those with reported rates, 35 (83.33%) performed in the upper 50% of facilities nationally. No facility had a perfect rate of 100%. Despite above average performance relative to national performance, no facility had a rate above 90% and thus there were no *high performers (*highest rate was 58.79%*)*.

Of those with reported rates, seven (16.67%) of MA facilities performed in the bottom 50% of facilities nationally. Two (4.76%) of these facilities performed in the bottom 20% of facilities nationally.

Table 23: Massachusetts facilities in the bottom 20% of facilities nationally

	Facility	National Percentile Rank	Rate	City
1	Mercy Medical Center	14th	20.34%	Springfield
2	Baystate Medical Center	20th	22.22%	Springfield

Graph 17: Rate of 7-day follow up for MA facilities in the bottom 20% nationally, relative to the national median rate of restraint (higher is better)



Limitation of this measure

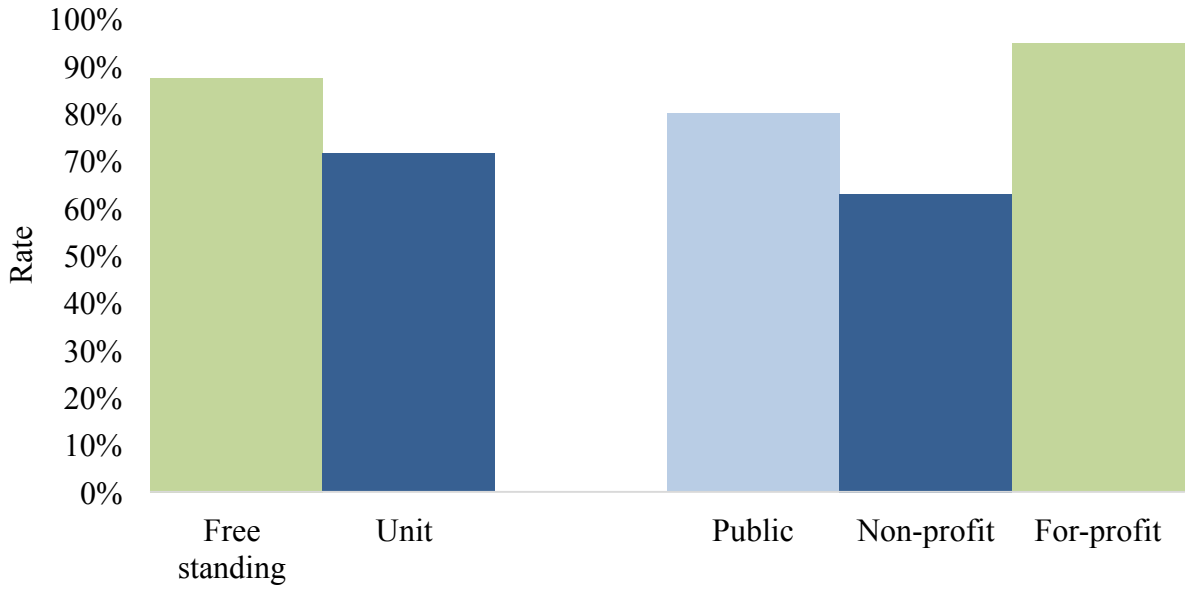
This measure only uses data from Medicare fee-for-service and therefore cannot be generalized to all individuals serviced within a facility nor does it capture the quality or appropriateness of the follow-up experience.

Patient Experience

Measure
The assessment of patient experience is web-based reported at the facility level. Facilities are asked to report if they assess the patient experience with response options of "yes" or "no." Facilities can use any instrument of their choosing and do not have to report actual responses.

Findings
A greater proportion of freestanding facilities (87.5%) assess the patient experience relative to units (71.34%). Nearly all for-profits (94.74%) assess the patient experience compared to 62.96% of non-profits.

Graph 18: Proportion of facilities that assess the patient experience



Thirty-nine (76.47%) facilities responded that they do assess the patient experience and 12 (23.53%) responded that they do not assess the patient experience. This rate is similar to the national aggregate, with 1,242 (76.38%) stating that they assessed patient experience.

Table 24: Massachusetts facilities who stated that they **do not** assess the patient experience

	Facility	City
1	Whittier Pavilion	Haverhill
2	Harrington Memorial Hospital-1	Southbridge
3	Mount Auburn Hospital	Cambridge
4	UMASS Memorial Healthcare Wing Memorial Hospital	Palmer
5	Heywood Hospital	Gardner

6	Baystate Medical Center	Springfield
7	Tufts Medical Center	Boston
8	Worcester Recovery Center And Hospital	Worcester
9	UMASS Memorial Medical Center/University Campus	Worcester
10	Signature Healthcare Brockton Hospital	Brockton
11	Newton-Wellesley Hospital	Newton
12	UMASS Memorial Healthcare-Clinton Hospital	Clinton

Limitations of this measure

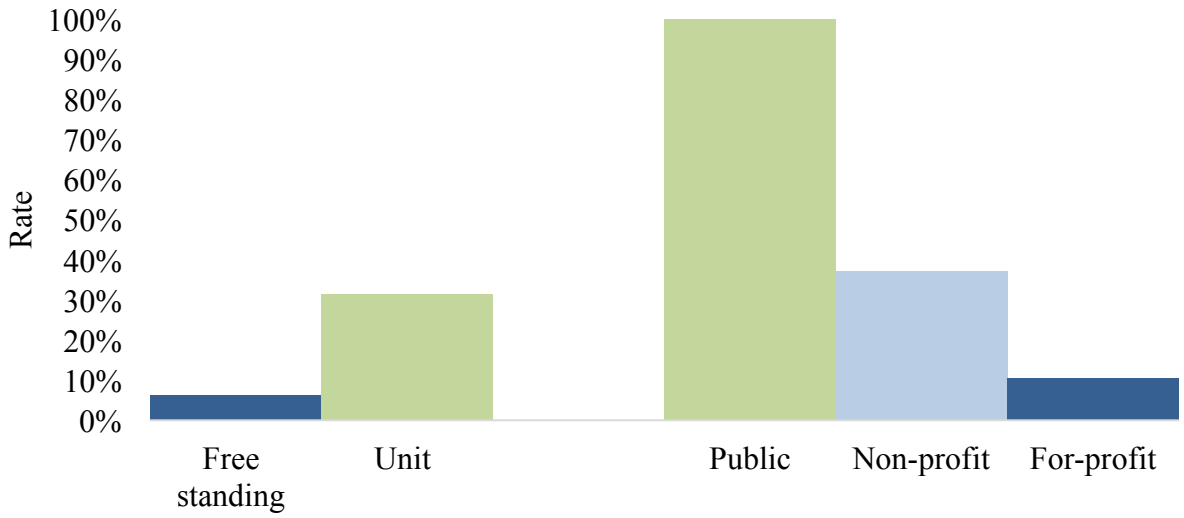
This measure only asks if a facility measures the patient experience. This measure does not capture what type of instrument the facility used, to which patients it was administered, how the instrument was administered, the time frame for administration (e.g., within the facility at discharge, six weeks following discharge), or the response rate. Moreover, this measure does not report actual performance on the patient experience measure.

Electronic Health Record

Measure
Use of electronic health record technology is web-based reported at the facility level and assessed through a multiple choice question with three response options: certified EHR technology, not certified EHR technology, and paper or other form (includes email). In order to be certified, the EHR technology must be certified under The Office of the National Coordinator for Health Information Technology (ONC) Health IT Certification Program.

Findings
A greater proportion of units (31.43%) utilize certified EHR technology relative to freestanding facilities (6.25%). All public facilities (100%) utilize certified EHR technology. Only 10.53% of for-profits and 37.04% of non-profits utilize certified EHR technology.

Graph 19: Proportion of facilities that utilize certified electronic health records



Twelve (23.53%) MA facilities responded that they use certified EHR technology, which is lower than the national rate of 38.06%. Thirty-eight (74.51%) of MA facilities responded that they use paper or other forms of communication for transmitting health records, which is higher than the national rate of 59.53%. One (1.96%) facility responded that they use uncertified EHR technology, Mount Auburn Hospital, which is lower than the national rate of 2.39%.

Table 25: Massachusetts facilities who stated that they **do** use certified EHR technology

	Facility	City
1	Harrington Memorial Hospital-1	Southbridge
2	Arbour Human Resource Institute	Brookline
3	Holyoke Medical Center	Holyoke

4	Heywood Hospital	Gardner
5	Baystate Medical Center	Springfield
6	Hallmark Health System	Melrose
7	Signature Healthcare Brockton Hospital	Brockton
8	St Vincent Hospital	Worcester
9	Beth Israel Deaconess Hospital Plymouth	Plymouth
10	Cambridge Health Alliance	Cambridge
11	Emerson Hospital	Concord
12	Cape Cod Healthcare	Hyannis

Limitations of this measure

This measure assesses the overall use of certified EHR technology but does not capture the degree to which the technology is used for all patients, the process for consenting to information sharing, and which referring or post-discharge providers collaborate with the facility's EHR technology. Further, is unclear to what extent EHR technology is beneficial for psychiatric patients and how a quality metric of this sort is viable given special Health Insurance Portability and Accountability Act protections (HIPAA, 42 CFR).[10] These special protections are a known hindrance to both integrated care and research efforts for the behavioral health population but are important rules when it comes ensuring patients' right to privacy. While this measure is an important first step in assessing the structural landscape for certified EHR technology, any future iterations might assess the extent to which patients consent to information sharing among those facilities with the structural capabilities.

[10] Retrieved from: https://www.samhsa.gov/about-us/who-we-are/laws/confidentiality-regulations-faqs

Summary of Findings

Massachusetts performed worse on seven of the IPFQR measures relative to national performance. However, not all differences are meaningful given ceiling effects. For example, Massachusetts had a lower median rate for alcohol screening (96%) relative to the national median rate (98%), but both rates are high and the differences are minuscule. A more meaningful approach to evaluate MA's performance is to highlight low performers within the state rather than compare aggregated performance at the state level. Measures with at least 50% of MA facilities performing at 90% or higher include creating a continuing care plan, alcohol use screening, and tobacco use screening. There were quite a few facilities with relatively high rates of restraint (e.g., Metrowest Medical Center and Tufts Medical Center) and low rates of appropriately justifying multiple antipsychotics at discharge (e.g., Dr. Solomon Carter Fuller Mental Health Center and Berkshire Medical Center) compared to national performance. The majority of MA facilities *do not* use certified EHR technology but a majority *do* assess the patient experience.

MA public hospitals performed the best on process measures and the worst on measures more closely associated with safety and clinical appropriateness. For-profits generally out-performed non-profits, with the exception of appropriate justification for multiple antipsychotics at discharge, 30 and 7-day follow up, and use of certified EHR technology. Despite non-profits being the worst at creating and transmitting continuing care plans, they had the highest rate of 30-day and 7-day follow up relative to for-profit and public facilities; this suggests that the continuing care plan measures might not have predictive validity. However, the measures draw from different patient populations and are not linked at the individual level. Moreover, potential differences in case-mix (population of patients at non-profits/units relative to those at freestanding private and public facilities) could influence performance on the follow-up measures as performance depends, in part, on patient action.

These findings suggest that quality is multidimensional and these measures, as a group, are not capturing the entire construct of quality. For-profit facilities were not low-performing outliers relative to non-profits and government facilities. However, several for-profit facilities in MA have been under federal investigation. For example, Westwood Lodge, a facility reported on in this report (combined with Pembroke) was permanently closed in August of 2017.[11] Further, the IPFQR measures do not allow for stratification on patient characteristics or patient-level analysis. Therefore, while these measures are an important starting point for monitoring and national comparisons, they are not sufficient. Additional research is needed to understand variation in performance on these measures relative to patient-reported outcomes and iatrogenic events.

[11] Retrieved from: https://www.bostonglobe.com/metro/2017/08/28/state-permanently-closes-psychiatric-hospital-just-weeks-after-declaring-safe/rj8NlWbWZ4ffpo98mfZJ5H/story.html

Recommendations

Recommendations are provided to both the state of Massachusetts and CMS and are grouped into five overarching themes.

Increase state-level involvement with analysis and dissemination

- Massachusetts should annually analyze MA's IPFQR performance and make selective results accessible to stakeholders. The Statewide Quality Advisory Committee and The Center for Health Information and Analysis (CHIA) might be able to effectively leverage resources and expertise. IPFQR performance can be linked to all-payer claims data, facility characteristics, and finances in order to support richer research. CHIA might consider requiring reporting on freestanding psychiatric services.

- CHIA might also provide assistance in more robustly assessing 30-day and 7-day follow up. The current CMS follow-up measures rely exclusively on Medicare fee-for-service claims and therefore cannot be generalized to the entire patient population within each facility for which data are reported or compared against any of the other measures in the IPFQR measure set.

- DMH has focused initiatives on monitoring and reducing rates of restraint and seclusion within the Commonwealth. As a validity check, DMH could utilize any secondary reporting mechanisms on these constructs to assess congruence between CMS and DMH rates of restraint and seclusion.

- Massachusetts should consider implementing their own quality monitoring system or at least administering their own patient experience measure to patients of DMH owned or licensed facilities, regardless of payer.

Publically report patient and facility characteristics

- Ability to make inferences using IPFQR measures is limited by lack of patient-level data or even aggregated rates of patient characteristics such as diagnoses, race/ethnicity, age, gender, payer, housing status, substance use, etc. It is important to understand variation in quality of care by certain demographic and clinical factors and to what extent there are imbalances in the clustering of certain patient populations across facilities. In 2016, CMS began requiring facilities to report aggregate rates of age, payer, and diagnoses. Currently, CMS has no plans to make these data publically available, but doing so would drastically help research and quality improvement efforts. Moreover, CMS should consider requiring facilities to report on facility type, ownership, number of beds, and staff-patient ratios and make these data publically available.

Improve accountability mechanisms based on the IPFQR measures and beyond

- MA should follow up with both low and high performing facilities to support quality improvement. It is important to understand why facilities are struggling or excelling on certain measures and gain insights

into how the state can support low performers in improving performance and high performers in maintaining or innovating.

- Public records request for complaints and inspection reports are laborious and expensive to execute. DMH should create an online repository of such information and upload documents in real-time after redacting identifying information. Trend analyses should be performed utilizing complaints and inspection reports and in linkage with the IPFQR data.

- While not included in this report, number of complaints received by DMH and substantiated complaints per bed were assessed by facility type and ownership.[12] Public facilities were found to have a higher rate of both. However, DMH-owned facilities might have more streamlined reporting relative to private facilities as well as more patient advocates involved (e.g., lawyers). MA should consider exploring ways to strengthen mechanisms for reporting of complaints, though a standardized patient experience measure might be more useful.

- While pay-for-performance is not in the foreseeable future, CMS and MA could attempt to employ other reputation-based incentives revolving around the IPFQR program, such as providing recognition for performance and quality improvement efforts, or special certification/accreditation for staff training in identified best practices

Improve accessibility of public data

- CMS should better integrate the IPFQR measures into the Hospital Compare interface, rather than only having a link to www.data.medicare.gov. Making the IPFQR measures more accessible to consumers will enable the measures to be used for their intended purposes (e.g., reduce information asymmetry and hold facilities to account).

- The specification manual that is most accessible for the CMS IPFQR program is for the most current year (2017) and not for the year from which the most currently available data are reported (2015). Given that CMS has been fluctuating what measures are included in the IPFQR program, it would be helpful if there was a more accessible location where all manual years are located (recognizing that Quality Net has years 15-17), in addition to being able to acquire the appropriate specification manual on www.data.medicare.gov.

- The CMS specification manual is ambiguous when it comes to the denominator for the restraint and seclusion measures. The manual reads as if the measure is number of hours out of total patient hours. On the National Quality Forum and TJC websites, however, the specifications indicate that the measure is number of hours out of every 1,000 patient hours.

[12] You can contact the author at mshields@brandeis.edu if you are interested in the results of this separate analysis.

Improve measures within the IPFQR program

- CMS should audit the IPFQR measures to bolster accuracy, confidence, and ultimate usability of the measures. Further, CMS should continue to improve upon the IPFQR measures (see limitations sections under each measure section for more detailed considerations).

- The biggest gap is arguably the lack of patient experience data. CMS should decide upon a standardized measure of patient experience, data collection parameters, and ultimately make reports publically available. There are options for tools, including the Inpatient Consumer Survey, developed by the National Association of State Mental Health Program Directors Research Institute, Inc. and endorsed by the National Quality Forum (#0726),[13] as well as the Combined Assessment of Psychiatric Environments, which was developed by Dr. Kathleen Delaney using patient-centered approaches and funded by the Patient-Centered Outcomes Research Institute.[14] CMS should seriously consider administering this measure at discharge as opposed to after discharge so as to support robust response rates and accuracy of recall. However, data collection at discharge could place too big of a burden on facilities. Alternatively, CMS could utilize a vendor to administer the measure through various channels, including phone, mail, and email – though this approach will encounter barriers related to HIPAA, in addition to compromised response rates and recall bias.

- CMS might also consider adapting their reporting requirements for restraint and seclusion so that it is discernable how many unique restraint and seclusion encounters there were as well as unique patients having such experiences.

- In addition, similar to the measure of appropriate justification for multiple antipsychotics at discharge, best practices for de-escalation, process, and follow-up after a restraint and seclusion encounter could be delineated into a list. As a rate, being in the numerator would require documented fulfillment of best practices as defined in the list and the denominator would include all encounters of restraint or seclusion.

[13] Retrieved from: www.qualityforum.org
[14] Delaney, K. R., Johnson, M. E., & Fogg, L. (2015). Development and testing of the combined assessment of psychiatric environments: A patient-centered quality measure for inpatient psychiatric treatment. *Journal of the American Psychiatric Nurses Association*, *21*(2), 134-147.

Conclusions

This is the first known report analyzing MA's performance on the IPFQR measures. Contrary to MA's reputation of provisioning high quality healthcare, this report suggests room to grow when it comes to inpatient psychiatry, even on the most rudimentary metrics available through the IPFQR program. Further, these measures, as a group, are not capturing the entire construct of quality. For-profit facilities as a group were not low-performing outliers relative to non-profits and government facilities. However, several for-profit facilities in MA have been under federal investigation. For example, Westwood Lodge, a facility reported on in this report (combined with Pembroke) was permanently closed in August of 2017.[15] Further, the IPFQR measures do not allow for stratification on patient characteristics or patient-level analysis. Therefore, while these measures are an important starting point for monitoring and national comparisons, they are not sufficient. Massachusetts's should analyze the IPFQR measures annually and consider implementing their own state-level quality monitoring system, including a standardized patient experience measure.

In considering the uptick of news coverage focused abuse, neglect, and even death at several MA-based inpatient psychiatric facilities, as well as the new evolving Medicaid Accountable Care Organizations, now is the time for state leadership to grapple with improving quality within, and accountability of, inpatient psychiatric facilities. Improvement of care at inpatient psychiatric facilities should not deter efforts to strengthen community-based services; indeed, strengthening community based services is one way to lessen the burden on facilities, especially through the expansion of alternatives such as MA's peer respite, Afiya.[16]

It is the author's hope that this report will help facilitate improvement of care for an especially vulnerable patient population.

[15] Retrieved from: https://www.bostonglobe.com/metro/2017/08/28/state-permanently-closes-psychiatric-hospital-just-weeks-after-declaring-safe/rj8NlWbWZ4ffpo98mfZJ5H/story.html
[16] Retrieved from: http://www.westernmassrlc.org/afiya

Appendix A

Table 26: Massachusetts facilities analyzed in this report

Facility Name	City	Type	Total Beds	Ownership	Population
[1]Mercy Medical Center	Springfield	[11]Freestanding	104	Non-profit	child, adolescent, adult, geriatric
Baystate Medical Center	Springfield	Unit	22	Non-profit	adult
Carney Hospital	Boston	Unit	50	For-profit	adolescent, adult, geriatric
Heywood Hospital	Gardner	Unit	32	Non-profit	adult and geriatric
[2]Baldpate Hospital	Georgetown	Freestanding	59	For-profit	adolescent, adult, geriatric
[3]Dr. John C Corrigan Mental Health Center	Fall River	Freestanding	16	State	adolescent, adult, geriatric
Holy Family Hospital	Methuen	Unit	47	For-profit	adult
[4]Noble Hospital	Westfield	Unit	20	Non-profit	adult
St Vincent Hospital	Worcester	Unit	13	For-profit	adult
^Arbour Hospital	Boston	Freestanding	136	For-profit	adolescent and adult
[5]^Westwood Pembroke Health Systems	Westwood	Freestanding	209	For-profit	child, adolescent, geriatric
[6]UMASS Memorial Healthcare Wing Memorial Hospital	Palmer	Unit	28	Non-profit	adult and geriatric
[7]Signature Healthcare Brockton Hospital	Brockton	Unit	22	Non-profit	adult
Whittier Pavilion	Haverhill	Freestanding	71	For profit	adult and geriatric
^Arbour-Fuller Hospital	South Attleboro	Freestanding	88	For-profit	adolescent and adult
Holyoke Medical Center	Holyoke	Unit	20	Non-profit	adult
Tufts Medical Center	Boston	Unit	20	Non-profit	adult
Berkshire Medical Center	Pittsfield	Unit	20	Non-profit	adult
Anna Jaques Hospital	Newburyport	Unit	20	Non-profit	adult
Mount Auburn Hospital	Cambridge	Unit	15	Non-profit	geriatric
St Elizabeth's Medical Center	Brighton	Unit	63	For-profit	adult and geriatric
Emerson Hospital	Concord	Unit	31	Non-profit	adult
Norwood Hospital	Norwood	Unit	61	For profit	adult and geriatric
Harrington Memorial Hospital-1	Southbridge	Unit	14	Non-profit	adult
Bournewood Hospital	Brookline	Freestanding	90	For-profit	child, adolescent, adult
^Arbour Human Resource Institute	Brookline	Freestanding	62	For-profit	adult
Walden Behavioral Care, LLC	Waltham	Freestanding	47	For-profit	adult
Cooley Dickinson Hospital Inc.	Northampton	Unit	22	Non-profit	adult
Hallmark Health System	Melrose	Unit	22	Non-profit	adult
Newton-Wellesley Hospital	Newton	Unit	45	Non-profit	adult
[8]Northeast Hospital Corporation	Beverly	Unit	18	Non-profit	adult
Metrowest Medical Center	Framingham	Unit	86	For-profit	child, adolescent, adult, geriatric
Saint Anne's Hospital	Fall River	Unit	16	For-profit	geriatric
UMASS Memorial Medical Center/University Campus	Worcester	Unit	27	Non-profit	adult
Cambridge Health Alliance	Cambridge	Unit	45	[10]Non-profit	child, adolescent, adult
Beth Israel Deaconess Medical Center	Boston	Unit	25	Non-profit	adult
Faulkner Hospital-Brigham And Women's	Jamaica Plain	Unit	24	Non-profit	adult

North Shore Medical Center	Salem	Unit	26	Non-profit	adult
Cape Cod Healthcare	Hyannis	Unit	20	Non-profit	adult
[9]Cape Cod & Islands Community Mental Health Center	Pocasset	Freestanding	16	State	children, adolescents, adults
Massachusetts General Hospital	Boston	Unit	24	Non-profit	adult
Mclean Hospital Corporation	Belmont	Freestanding	200	Non-profit	adult and geriatric
Beth Israel Deaconess Hospital Plymouth	Plymouth	Unit	19	Non-profit	geriatric
UMASS Memorial Healthcare-Clinton Hospital	Clinton	Unit	20	Non-profit	geriatric
Worcester Recovery Center And Hospital	Worcester	Freestanding	320	State	adolescent and adult
Good Samaritan Medical Center	Brockton	Unit	16	For-profit	geriatric
Dr. Solomon Carter Fuller Mental Health Center	Boston	Freestanding	60	State	adult
Southcoast Behavioral Health	Dartmouth	Freestanding	120	For-profit	adult, adolescent, geriatric
Nashoba Valley Medical Center	Ayer	Unit	20	For-profit	geriatric
Morton Hospital	Taunton	Unit	19	For-profit	geriatric
Taunton State Hospital	Taunton	Freestanding	48	State	adult

Notes:
^Universal Health Services Inc. facilities that have been under recent federal investigation
[1]Also called Providence Behavioral Health Hospital
[2]No longer licensed by DMH
[3]As of 2017, BMC has taken over operating emergency services
[4]Also called Baystate Nobel Hospital
[5]Combined Westwood Lodge and Pembroke Hospital
[6]Also called Baystate Wing Hospital
[7]Also called Brockton Hospital
[8]Also called Beverley Hospital
[9]Also called Pocasset Mental Health Center
[10]Owned by local government
[11]Satellite of a general hospital