Commonwealth of Massachusetts
Office of the State Auditor
Suzanne M. Bump
Making government work better

Official Audit Report – Issued August 1, 2019

Department of Mental Health

For the period July 1, 2016 through September 30, 2018

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Ms. Joan Mikula, Commissioner
Department of Mental Health
25 Staniford Street
Boston, MA 02114

Dear Ms. Mikula:

I am pleased to provide this performance audit of the Department of Mental Health. This report details the audit objective, scope, methodology, findings, and recommendations for the audit period, July 1, 2016 through September 30, 2018. My audit staff discussed the contents of this report with management of the agency, whose comments are reflected in this report.

I would also like to express my appreciation to the Department of Mental Health for the cooperation and assistance provided to my staff during the audit.

Sincerely,

Suzanne M. Bump
Auditor of the Commonwealth

cc: Brooke Doyle, Deputy Commissioner of Mental Health Services, Department of Mental Health
Marylou Sudders, Secretary, Executive Office of Health and Human Services
Liam Seward, Director of Compliance and Emergency Management, Department of Mental Health

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LIST OF ABBREVIATIONS

CMR	Code of Massachusetts Regulations
DMH	Department of Mental Health
EOHHS	Executive Office of Health and Human Services
MHIS	Mental Health Information System
OSA	Office of the State Auditor

EXECUTIVE SUMMARY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of the Department of Mental Health (DMH) for the period July 1, 2016 through September 30, 2018. In this performance audit, we examined DMH's protocols for the discharge of clients from DMH-funded state psychiatric hospitals.

Below is a summary of our findings and recommendations, with links to each page listed.

Finding 1 **Page 9**	DMH did not effectively manage the discharge of some clients from its psychiatric hospitals to less restrictive community-based settings.
Recommendations **Page 10**	1. DMH should modify its standard protocol to include identifying and/or modifying the anticipated discharge date in the treatment plan meeting notes as the client approaches discharge. 2. DMH should establish monitoring controls to ensure that anticipated discharge dates are properly recorded or that discharge is as timely as possible.
Finding 2 **Page 11**	DMH did not revoke the access of 13 former employees to its Mental Health Information System in a timely manner.
Recommendation **Page 12**	DMH should establish a formal process (e.g., what steps are to be taken, when, by whom, and with what documentation) for disabling former employees' network access as soon as possible, as well as monitoring controls to ensure that this process is followed.

OVERVIEW OF AUDITED ENTITY

The Department of Mental Health (DMH) was established by Section 1 of Chapter 19 of the Massachusetts General Laws, operates under Sections 1 through 36B of Chapter 123 of the General Laws, and is supervised and controlled by the Commissioner of Mental Health. According to DMH's regulations (Section 25.01[2] of Title 104 of the Code of Massachusetts Regulations), the department's primary mission is as follows:

> *The Department, as the state mental health authority, assures and provides access to services and supports to meet the mental health needs of individuals of all ages, enabling them to live, work and participate in their communities.*

DMH operates through its central office in Boston and five area offices, located in central Massachusetts, the Boston metropolitan area, northeast Massachusetts, southeast Massachusetts, and western Massachusetts. These area offices supervise continuing care[1] inpatient services and community-based services at locations such as state-operated or contracted hospitals, community mental health centers, clinics, site offices, and other service locations established directly within DMH or through contracted vendors. According to DMH management, there were approximately 2,720 acute short-term inpatient treatment beds in hospitals throughout the Commonwealth as of October 10, 2018. These hospitals are licensed by DMH but not operated under DMH's supervision or control. In addition, throughout the Commonwealth, DMH operates two state hospitals, units in two Department of Public Health hospitals, one mental health center, and one contracted unit that provide continuing care beds for Commonwealth citizens who have mental health disorders.

DMH Hospital or Facility	Number of Units*	Continuous Care Bed Capacity as of September 2018
Worcester Recovery Center and Hospital	10	260
Worcester Recovery Center and Hospital (Adolescent)	1	30
Taunton State Hospital	3	45
Solomon Carter Fuller Mental Health Center	3	60

1. Patients admitted for continuing care generally present serious and significant psychiatric symptoms requiring extended hospital stays with levels of care beyond those of an acute care hospital. They may also have complex co-occurring medical conditions.

DMH Hospital or Facility	Number of Units*	Continuous Care Bed Capacity as of September 2018
DMH Units at Tewksbury Hospital	5	153
DMH Units at Lemuel Shattuck Hospital	5	115
DMH Contracted Units at Vibra Hospital of Springfield†	1	30
Total	28	693

* Each hospital and facility may define "unit" differently. For example, one unit can be 30 beds in one facility and 9 in another.
† Vibra Hospital of Springfield was planned to close in March 2018; however, it was still open in November 2018. Because this hospital provided care to DMH clients throughout our audit period, it was included in our audit work.

DMH had annual appropriations of approximately $207.4 million for fiscal year 2017 and $210 million for fiscal year 2018 for continuing care. In total, DMH expended $410.3 million to provide continuing care services to people with mental health disorders during these two fiscal years, as illustrated in the table below.

Continuing Care Appropriations and Expenditures

	Fiscal Year 2017		Fiscal Year 2018	
Account	**Appropriations**	**Expenditures**	**Appropriations**	**Expenditures**
5042-5000*	$ 0	$ 0	$ 2,900,930	$ 2,860,114
5046-0000	0	0	1,185,000	1,157,775
5095-0015†	207,398,658	201,778,317	205,955,340	204,545,972
Total	$ 207,398,658	$ 201,778,317	$ 210,041,270	$ 208,563,861

* This appropriation, for child and adolescent mental health, includes the costs of psychiatry-related services for clients who are deemed medically ready for discharge from mental health facilities and are experiencing delays in discharge because of a lack of more appropriate settings.
† The appropriation for inpatient facilities and community-based mental health is for the operation of hospital facilities and community-based mental health services.

The inpatient continuous care bed capacity for psychiatric clients has dramatically decreased since 1970, from approximately 12,000 beds to the current level of 693 continuous care beds. The reduction of beds over the years raises concerns over bed availability. In fact, according to DMH, as of September 30, 2018, the waiting period for a client to be admitted to a DMH hospital held steady during our audit period at about 79 days, underscoring the need to get clients ready for discharge and then properly discharged in a timely manner when possible.

DMH Client Discharge Process

According to DMH management, the discharge process begins as soon as the client is admitted to the hospital. It consists of treatment for the mental health and behavior of the client, with routine treatment plan meetings, and the involvement of family if applicable. As the client improves mentally and behaviorally and approaches his/her treatment goal, the social worker and a community representative work to identify a discharge location that will help the client continue to improve in a less restrictive living arrangement. The location could be a family home, a group home, or independent living arrangements, or the client could receive community-based clinical and rehabilitative services while living on his/her own as much as possible. The anticipated discharge date is entered in the patient file as the date approaches.

Some barriers to timely discharge include the volatility of a client's mental health, unavailability of a discharge location, or inability to pay for housing after discharge.

Under Section 3 of Chapter 123 of the General Laws, DMH can transfer any client from any facility to any other facility that the department deems suitable to provide treatment. If transfer to a private facility is the best option for the client, the DMH area director must first approve the transfer.

Area directors review the Section 3 transfer list (known as DMH Admission Referral Tracking) of people who have been referred for transfer to DMH continuing care facilities from acute psychiatric facilities pursuant to Section 3 of Chapter 123 of the General Laws. People on this list either have been civilly committed[2] while at the acute psychiatric facility or are conditional voluntary[3] patients.

DMH works with acute care hospitals to try to find alternative treatment locations for clients who are waiting for admission to DMH hospitals/facilities. DMH works with community providers and acute care hospitals to ensure that clients' continuous care treatment is not in an overly restrictive environment, where they might occupy one of the scarce inpatient beds, if they do not need that level of care.

2. "Civilly committed" refers to patients who have been committed by a court pursuant to a petition filed by a DMH facility (typically under Sections 7 and 8 of Chapter 123 of the General Laws). Some patients are sent to DMH directly by the criminal courts for evaluation of their competency to stand trial or criminal responsibility (pursuant to Section 15[b] of Chapter 123 of the General Laws). Patients who are found to be incompetent or to lack criminal responsibility may be committed for treatment pursuant to Section 16 of Chapter 123 of the General Laws.
3. Conditional voluntary patients are those who have requested admission to a facility and been accepted by the facility (pursuant to Sections 10 and 11 of Chapter 123 of the General Laws).

Mental Health Information System

DMH uses an information system called the Mental Health Information System (MHIS). MHIS contains all client records, including those of clients who have been admitted to, and discharged from, DMH hospitals. MHIS contains data related to admission and discharge as well as the data generated at monthly treatment plan meetings, including textual data to document the results of those reviews. DMH can query and export certain fields from the Meditech company's Health Care Information System, such as admission date, discharge date, facility name, patient identification number, and legal status (i.e., type of admission) to MHIS. According to the Executive Office of Health and Human Services' (EOHHS's) information system security manager, MHIS has approximately 188,900 patient records, 84 clinical user profiles, and 54 care manager user profiles. EOHHS provides independent oversight of all DMH's information technology systems and data.

AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of certain activities of the Department of Mental Health (DMH) for the period July 1, 2016 through September 30, 2018.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Below is our audit objective, indicating the question we intended our audit to answer, the conclusion we reached regarding the objective, and where the objective is discussed in the audit findings.

Objective	Conclusion
1. Are clinically stable clients discharged in a timely manner to less restrictive environments?	**No; see Findings 1 and 2**

To achieve our objectives, we gained an understanding of DMH's internal control environment related to our audit objectives by reviewing applicable laws, regulations, and agency policies and procedures, as well as conducting inquiries and performing site visits with DMH's staff and management.

We performed the following procedures to obtain sufficient, appropriate audit evidence to address the audit objective.

- We reviewed Joint Commission[4] reports for each DMH-funded facility to assess whether there were risks associated with client discharge.
- We met with area directors to identify their responsibilities in providing oversight of the treatment of continuous care clients to prepare them for discharge.
- We interviewed a DMH official to understand what factors DMH considers barriers to timely client discharge.

4. The Joint Commission, a nationally recognized independent, not-for-profit organization, accredits all DMH facilities. Joint Commission certification reflects a hospital's commitment to meeting the performance standards in the commission's *Comprehensive Accreditation Manual for Hospitals.* All DMH hospitals are surveyed and accredited every three years.

- We inspected case files using a random nonstatistical sample of 67 out of a population of 803 records of clients who received treatment for 30 days to five years after admission and whose discharge dates were no later than September 30, 2018. We performed the following procedures:

    - DMH management has set a goal of discharging clients within 30 days of their anticipated discharge dates. To determine discharge timeliness, we took a conservative approach and used 60 days to factor in barriers such as housing placement or community program availability. We computed the number of days from the anticipated discharge date to the actual discharge date.

    - We inspected the Social Work Discharge Summary, Patient Referral Form, or Clinical Social Work Form[5] for each of the records in our sample to verify that each case file contained the placement location and any relevant notes.

    - We inspected client release forms to assess whether clients or legal representatives signed them to consent to the discharge. In situations where clients or legal representatives refused to sign, we assessed whether DMH included the reason in the case file.

    - We inspected the Social Work Discharge Summary or the Clinical Social Work Form to verify that DMH assigned a case manager to each client's case.

Data Reliability

We reviewed the DMH *Information Security Handbook* and interviewed DMH information technology personnel to assess the management controls of the Mental Health Information System (MHIS), a customized version of the Meditech company's Health Care Information System containing patient medical records.

We performed a data reliability assessment to verify the completeness, accuracy, and reliability of MHIS as it relates to patient case files. We obtained information through MHIS and reviewed the Structured Query Language[6] query documentation to ensure that all records and requested fields were included in the received data. Additionally, we tested the data files to make sure that there were no duplicates; that there were no records with discharge dates after September 30, 2018; and that key fields had the appropriate data with no blank fields. We also took a sample of original source documents; reviewed the values in key data fields of the MHIS data files; and made sure that the fields for patient identification number, date of admission, facility name, and legal status in the original source documents matched the values in MHIS. We reviewed information system access controls that were in place from July 1, 2016

5. The Social Work Discharge Summary is owned by DMH, whereas the Clinical Social Work Form is owned by the Department of Public Health. The forms are nearly identical and are used for the same purpose. The form used depends on the hospital where the patient received care.
6. Structured Query Language is used to communicate with the MHIS database.

through June 30, 2018 for 20 out of 337 employees terminated during that period. We determined that the data were sufficiently reliable for the purposes of the report.

DETAILED AUDIT FINDINGS WITH AUDITEE'S RESPONSE

1. The Department of Mental Health did not effectively manage the discharge of some clients from its psychiatric hospitals to less restrictive community-based settings.

Of the 67 clients in our sample who were deemed clinically stable and therefore ready for discharge from Department of Mental Health (DMH) facilities during our audit period, 4 were not placed in less restrictive settings by DMH within 60 days. One client was not discharged until almost a year after being designated as ready for discharge. Further, for 27 of these clients, anticipated discharge dates were not documented in the files.

Not ensuring that all clients who are ready for discharge are placed in a timely manner may negatively affect clients' mental health and may deprive other clients of the opportunity to be placed in DMH facilities. Further, without ensuring that an anticipated discharge date is documented in each client's file, DMH cannot monitor its client discharge process and identify any problems in this process so they can be addressed in a timely manner.

Authoritative Guidance

According to Section 27.09(1)(a) of Title 104 of the Code of Massachusetts Regulations (CMR),

> *A facility shall arrange for necessary post-discharge support and clinical services. Such measures shall be documented in the medical record.*

According to 104 CMR 27.05(4) and 27.11(6), a client's mental illness must be documented at scheduled treatment plan meetings, which include reviews of his/her discharge status. Each facility has procedures that provide further details on discharge planning. For example, Worcester Recovery Center and Hospital's "Discharge Planning" protocol states,

> *Discharge Planning is a dynamic process that begins soon after a patient's admission into the hospital and continues throughout the patient's stay. The treatment team seeks input and participation from all members of the team.*

The Office of the State Auditor (OSA) believes that the discharge status should be more clearly defined when the client's health has improved to the point where s/he is approaching discharge. DMH management told us that the goal was to discharge clients within 30 days after they are deemed

"discharge ready." For the purpose of compliance, the audit team used 60 days as a threshold for deeming a discharge untimely.

Reasons for Issues

DMH attributed the placements that took more than 60 days to a lack of placement options and issues with client medication that that delayed the discharge planning process. However, in one case, when a client was discharged 354 days after being deemed discharge ready, DMH found that the case manager did not properly manage the discharge process (e.g., failed to organize meetings on behalf of the client or work with the client's social worker to identify a suitable discharge location). DMH attributed the missing anticipated discharge dates to human error. Finally, DMH has not established any monitoring controls to ensure that anticipated discharge dates are properly recorded or that discharge is as timely as possible.

Recommendations

1. DMH should modify its standard protocol to include identifying and/or modifying the anticipated discharge date in the treatment plan meeting notes as the client approaches discharge.

2. DMH should establish monitoring controls to ensure that anticipated discharge dates are properly recorded or that discharge is as timely as possible.

Auditee's Response

DMH disagrees with the finding that DMH "did not effectively manage the discharge of some clients from its psychiatric hospitals to less restrictive community-based settings." Out of 67 clients sampled, the auditors found only 4 who were not discharged within a 60-day time period set by the auditors for their measurement. This is less than .5% of the sample. The auditors reference [27] other records which did not have dates for anticipated discharge specified. Respectfully, there are many reasons why such dates may not have been specified, including lack of consensus among the treatment team as to whether the patient was in fact discharge ready.

The audit report does not cite any evidence to suggest that DMH failed to effectively manage the discharge of these clients.

DMH agrees that there is always opportunity for continuous improvement of its processes for identifying and/or updating an anticipated discharge date in the treatment plan meeting notes as the client improves and approaches discharge, and that internal monitoring controls should be established to ensure that anticipated discharge dates are properly recorded or that discharge is as timely as possible. Accordingly, in the time period following the audit period (7/1/16–9/30/18), DMH has implemented a standardized discharge readiness tracking tool in the Mental Health Information System (MHIS). This tool is completed by the Social Work department which is the professional discipline responsible for coordinating the discharge planning process. As part of the

continuous quality improvement effort with the discharge readiness tool, DMH is removing the discharge date from the treatment plan and utilizing the Discharge Readiness tool for tracking discharge planning dates. This tool will be accessible in MHIS to all inpatient disciplines.

Auditor's Reply

As noted above, our audit showed that in some cases, DMH did not effectively manage the discharge of clients living in its facilities to less restrictive settings. Although DMH management told us that their goal was to discharge clients within 30 days after they are deemed "discharge ready," for our analysis we used double this period (60 days) and still found four instances (6%) where DMH did not meet its target discharge timeframe. We also found that for 27 clients who were discharged, DMH did not indicate a "discharge ready" date in the files. OSA believes that these problems were largely the result of DMH not establishing any monitoring controls to ensure that anticipated discharge dates were properly recorded or that discharge was as timely as possible. Based on its response, DMH is taking measures to address our concerns in this area.

2. DMH did not revoke the access of 13 former employees to its Mental Health Information System in a timely manner.

Of the 20 DMH employees in our sample whose employment with DMH ended during the audit period, 13 did not have their access to the agency's Mental Health Information System (MHIS) revoked immediately upon termination of employment; their access was revoked an average of 128 days after their employment ended. As a result, there is an increased risk of terminated employees improperly accessing and/or altering personal information in MHIS, such as clients' names, addresses, dates of birth, and medical records.

Authoritative Guidance

DMH's *Information Security Handbook* states,

When a DMH Workforce Member ends employment with DMH . . . all access to the DMH Network and/or a DMH Application Not On The DMH Network shall be disabled and/or removed by the time of the Workforce Member's departure from DMH, or if that is not feasible, as soon thereafter as is feasible.

The Massachusetts Executive Office of Technology Services and Security requires all executive department agencies and any agency or third party that connects to the Commonwealth's wide-area

network (Massachusetts Access to Government Network) to comply with its "Access Management Standard," which states,

> *6.1. User and System Access Management*
>
> *User or system access shall be managed throughout the account life cycle from the identification of a user to the granting, modification or revocation of a user's access privileges. . . .*
>
> *6.1.6. Revoke access privileges: Upon a transfer, termination or other significant change to a user's employment status or role, Commonwealth Executive Offices and Agencies must ensure that the user's previous supervisor shall be responsible for informing security administration personnel to take appropriate action.*
>
> *6.1.6.1 Privileges that are no longer required by a user to fulfill his or her job role shall be removed.*
>
> *6.1.6.2 If the termination date of personnel is known in advance, the respective access privileges—specifically those with access to confidential information—shall be configured to terminate automatically.*
>
> *6.1.6.2.1. If not,* ***access must be manually removed within 24 business hours.*** [Emphasis added.]

Reasons for Noncompliance

Although DMH has a policy that requires all former employees to have their access to the DMH network disabled as soon as possible, it has not established a formal process, procedures, or monitoring controls to ensure that this policy is adhered to.

Recommendation

DMH should establish a formal process (e.g., what steps are to be taken, when, by whom, and with what documentation) for disabling former employees' network access as soon as possible, as well as monitoring controls to ensure that this process is followed.

Auditee's Response

The Department agrees with the Audit Finding concerning not revoking the access of 13 former employees to MHIS in a more timely manner. However it is important to note that the system can only be accessed from within the Commonwealth's firewall protected IT system; therefore it would be extremely unlikely that such former employees would have been able to access the system, and in fact there is no evidence that they gained such access. Although during the audit period DMH did have protocols calling for deactivation of such access, we agree that they were not rigorously followed or audited. Since the audit period, DMH has strengthened its processes to

ensure timelier deactivation of access and more rigorous auditing. We are committed to continued attention to this important security function.