



Massachusetts Department of Public Health

Public Health Council Meeting January 10, 2024

Robert Goldstein, Commissioner

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Massachusetts Department of Public Health

Public Health Council Meeting January 10, 2024

Robert Goldstein, Commissioner

Jan. 15 - Martin Luther King Jr. Day



Anti-Abortion Centers

NEWS

Maintaining Integrity, Accessibility, and Transparency in Reproductive Care

1/03/2024

Department of Public Health

Bureau of Community Health and
Prevention

Office of Sexual Health and Youth
Development



Massachusetts Department of Public Health

Public Health Council Meeting January 10, 2024

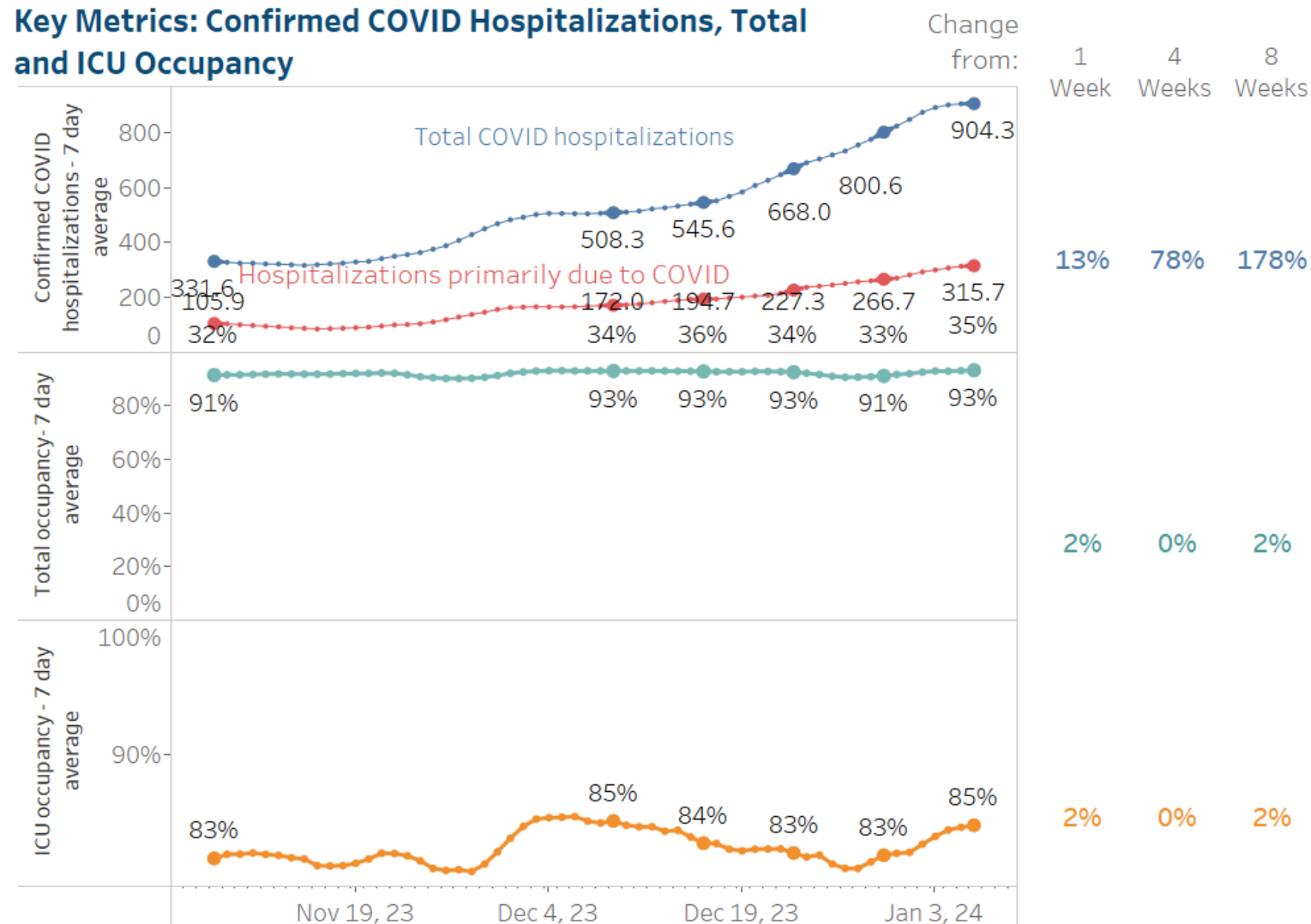
Robert Goldstein, Commissioner

Respiratory Illness Season



- The best way to prevent severe illness is vaccination. It is not too late to get vaccinated!
- Everyone 6 months and older should get flu and COVID-19 vaccines this season. Ask your provider, or to find a public clinic or retail pharmacy near you, visit Vaccines.gov.
- Stay home if you are sick and test for COVID-19 and flu. You may order 4 additional free COVID tests at COVIDTests.gov, up to 8 free tests per household. Seek treatment if you test positive.

Hospital Key Indicators



Includes data through January 6, 2024

EHS Strategic Planning Process

This effort resulted in a consolidated, ambitious strategy for the Secretariat, its 11 Agencies, and MassHealth to **improve health & wellbeing in Massachusetts for the people we serve.**

A “strategy map” approach was used to define strategic objectives over a **3-year time horizon**, while anchoring on a high-level EOHHS vision that looks out as far as 25 years.

Each strategy map captures the agency’s:

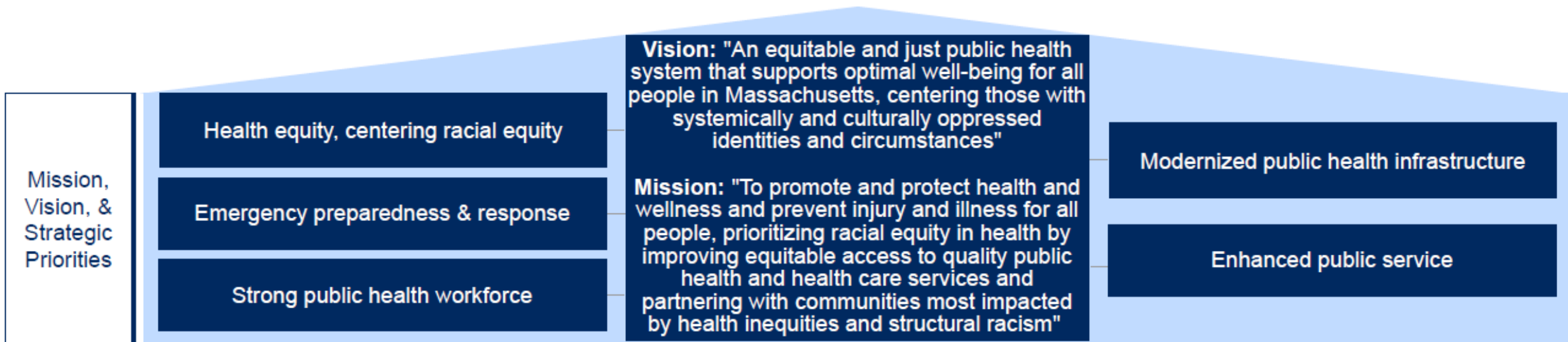
- Mission and vision
- Overarching strategic objectives
- Constituent objectives
- Internal processes and learning / growth required to meet objectives
- Metrics for success, and targets for each metric
- **3-5 prioritized initiatives to support achievement of objectives**

DPH Mission & Vision

Vision: "An equitable and just public health system that supports optimal well-being for all people in Massachusetts, centering those with systemically and culturally oppressed identities and circumstances"

Mission: "To promote and protect health and wellness and prevent injury and illness for all people, prioritizing racial equity in health by improving equitable access to quality public health and health care services and partnering with communities most impacted by health inequities and structural racism"

DPH Strategic Priorities





Massachusetts Department of Public Health

Determination of Need:

*Encompass Health Corporation –
Encompass Health Rehabilitation Hospital of Western
Massachusetts, Substantial Capital Expenditure*

Dennis Renaud

Director - Determination of Need Program

Bureau of Health Care Safety and Quality

Proposed Project Description

Encompass Health Rehabilitation Hospital of Western Massachusetts is a 53-bed facility licensed as a non-acute hospital and designated as an inpatient rehabilitation facility. The existing 53 licensed beds are all located in private rooms.

Through the Proposed Project, the Hospital will add 17 inpatient rehabilitation beds, all private room beds, to its facility through the build-out and renovation of 7,260 square feet of vacant space, bringing the total licensed inpatient rehabilitation beds to 70.

Maximum Capital Expenditure = \$5,862,759.00

Community Health Initiative Contribution = \$293,137.95

Six Factors of a Determination of Need (DoN) Application

Factor 1	Patient Need, Public Health Value and Operational Objectives
Factor 2	Health Priorities
Factor 3	Compliance
Factor 4	Financial Feasibility and Reasonableness of Expenditures and Costs
Factor 5	Relative Merit
Factor 6	Community Health Initiatives

Factor 1: Patient Need, Public Health Value and Operational Objectives - Requirements

In Factor 1, the Applicant must demonstrate:

1. Sufficient Patient Panel Need for the Project
2. The Project will add measurable Public Health Value
3. The Project will meet Operational Objectives

Factor 1: Patient Panel Need Analysis

Demonstration of Patient Panel Need

- High Occupancy Rate
- Projected Increase in 65+ population
- Proximity of Care for Family Participation

Factor 1: Patient Panel Need Analysis- cont.

Currently Operating at a High Occupancy Rate

Encompass Western Massachusetts' Utilization*

Utilization Statistic	CY17	CY18	CY19	CY20	CY21	CY22
Patient Days	17,274	17,287	17,788	17,574	18,161	18,327
Discharges	1,277	1,314	1,364	1,303	1,393	1,440
Avg. Length of Stay	13.5	13.2	13.0	13.5	13.0	12.7
Licensed & Staffed Beds	53	53	53	53	53	53
Average Daily Census	47.3	47.4	48.7	48.0	49.8	50.2
Occupancy	89.3%	89.4%	92.0%	90.6%	93.9%	94.7%

*Data provided by the Applicant – See Application Narrative Page 18

Factor 1: Patient Panel Need Analysis- cont.

Projected Increases in the 65+ Population

Age 65+ Population Projections By County*

County	2025	2030	2035	% Change, 2025-35
Hampden	95,637	105,674	111,180	16.3%
Hampshire	36,174	40,774	42,697	18.0%
Total	131,811	146,448	153,877	16.7%
65+ as a Percent of Total Population	20.6%	22.6%	23.6%	N/A

*Data provided by the Applicant – See Application Narrative Page 19

Factor 1: Patient Panel Need Analysis- cont.

Proximity of Care for Family Participation

1. Direct and active involvement by family and caregivers is a critical component of the patient's rehabilitation process.
2. Without a sufficient number of beds at Encompass Western Mass, patients must travel outside of their local community (a minimum of 53 minutes) to receive equivalent care at other Encompass facilities.
3. Geographically closer options for patients in need of IRF services are units of acute care hospitals, which serve a limited number of patients, predominantly caring for stroke and orthopedic patients.

Factor 1: Public Health Value Analysis – cont.

Health Outcomes and Quality of Life

1. Access to Inpatient Rehabilitation Facility Level of Care
 - Lower patient mortality
 - Fewer readmissions
 - Fewer ER visits
2. Private Rooms
 - Enhance the quality of life for patients in terms of safety, dignity, privacy and ensuring patient-centered care.

Factor 1: Operational Objectives

Efficiency, Continuity, Coordination of Care Analysis

Care Management Program

- Effective communication and coordination of care

Open Medical Staff Model

- Access to specialists as needed during the inpatient stay
- Return to primary care and specialty care physicians upon discharge with no interruption or gap in care.

Factor 2: Health Priorities - Requirements

The expectation is that, using objective data, Applicants will address how the Proposed Project meaningfully contributes to Commonwealth Cost containment goals, improved public health outcomes, and delivery system transformation.

Factor 2: Analysis

Cost Containment

- The expansion of private room beds will allow the Hospital to be accessible to more patients awaiting discharge from higher cost, general acute care hospitals.
- Rehabilitation philosophy that leads to lower readmissions, thereby contributing to cost containment.
- Lower total cost per discharge.

Factor 2: Analysis – cont.

Improved Public Health Outcomes

- Improved access to inpatient rehabilitation care will enable residents to return to independence with greater functionality
- An increase in bed capacity will address an anticipated increase in demand as the population ages
- Avoidance of delays in treatment

Factor 2: Analysis – cont.

Delivery System Transformation

- Family training prior to discharge
- A pre-discharge visit to the patient's home
- Coordination and collaboration of services between the patient and community service providers who will be responsible for providing care to the patient post-discharge.
- Assessment of SDoH

Factor 3: Compliance - Key Requirements and Analysis

Requirements and Analysis

Determination of Need Program staff has determined that the Applicant has provided sufficient evidence of compliance and good standing with federal, state, and local laws and regulations.

Factor 4: Financial Feasibility and Reasonableness of Expenditures and Costs - Requirements

CPA Review

To assess Financial Feasibility in compliance with this Factor, the Applicant must provide sufficient documentation that it has sufficient funds available for capital and ongoing operating costs necessary to support the Proposed Project without negative impacts or consequences to the Applicant's existing Patient Panel. The report is certified by an Independent CPA.

Factor 4: Analysis

CPA Analysis

As a result of the CPA's analysis, the CPA concluded the following:

Based on a review of the projections and relevant supporting documentation, the project and continued operating surplus are reasonable and based upon feasible financial assumptions. Therefore, the proposed 17-bed addition project at Encompass Health Rehabilitation Hospital of Western Massachusetts, LLC is financially feasible and within the financial capability of Encompass Health Corporation.

Factor 5: Relative Merit - Requirements

When evaluating and articulating the relative merit of a Proposed Project, Applicants must include, at a minimum, the quality, efficiency, and capital and operating costs of the Proposed Project relative to potential alternatives or substitutes, including alternative evidence-based strategies and public health interventions.

Factor 5: Analysis

The Applicant considered and rejected two alternatives to the Proposed Project.

Alternative Option 1: Maintain the status quo and continue to serve patients with the existing complement of beds.

Alternative Option 2: Establish a satellite facility in Western Massachusetts.

Factor 6: Community Health Initiatives - Requirements

Community-based Health Initiatives (CHI)

Factor 6, or the CHI, serves to **connect hospital expenditures to public health goals** by making investments in Health Priority Areas—referred to interchangeably as the social determinants of health (SDoH).

CHI projects are a mechanism for Applicants to engage local partners in community health investments, **addressing SDoH and advancing racial and health equity**.

Factor 6 requirements and conditions depend on the Applicant and Application Type, and size of CHI contribution.



Figure adapted from 2017 Massachusetts State Health Assessment

Factor 6: Key Requirements & Analysis

Factor 6 Requirements for this Application	Summary Analysis
<p>As a hospital without a community health planning infrastructure, the Applicant will contribute 5% of the total project costs to the Statewide Community Health and Healthy Aging Funds.</p>	<p>Total required CHI contribution: \$293,137.95</p> <ul style="list-style-type: none">• Full Amount directed to the Statewide Fund <p>As a result of the information provided by the Applicant and additional analysis, staff finds that with the conditions outlined in the staff report, and with their ongoing commitment to meaningful community engagement and based on planning timelines that staff will approve, the Applicant has demonstrated that the Proposed Project has met Factor 6.</p>

Thank you for the opportunity to present this information today.

Please direct any questions to:

Dennis Renaud

Director, Determination of Need Program

Bureau of Health Care Safety and Quality

Dennis.Renaud@mass.gov



Massachusetts Department of Public Health

Post-Comment Revisions to 105 CMR 700.000:

Implementation of M.G.L. c. 94C

Lauren B. Nelson

Deputy Director of the Bureau of Health Professions Licensure

Regulation Overview

105 CMR 700.000: *Implementation of M.G.L. c. 94C*

- Sets forth consistent standards for the safety, security and storage of controlled substances.
- Outlines Drug Control Program (DCP) requirements for practitioners and facilities to receive a Massachusetts Controlled Substances Registration (MCSR).
- Amendments are needed to implement section 42 of the FY2024 General Appropriations Act, which authorizes pharmacists to prescribe and dispense hormonal contraceptive patches and self-administered oral hormonal contraceptives.
- These emergency amendments have been in effect since October 12, 2023, pending PHC's approval to promulgate within 90 days.

Overview of Pre-Comment Changes

Pre-comment emergency amendments to 105 CMR 700.000 include:

- Adding a new subsection to 105 CMR 700.004(B) Exemptions from Requirement to Register, authorizing pharmacists to prescribe and dispense hormonal contraceptive patches and self-administered oral hormonal contraceptives to any person, irrespective of evidence of a previous prescription for such medication, subject to certain requirements under the statute.
- The regulation outlines several pharmacist requirements that are included in the statute. Pharmacists must:
 - ☐ complete a board-approved training program;
 - ☐ provide a self-screening risk assessment tool prior to prescribing;
 - ☐ refer, or advise the patient to consult with, a primary care provider or reproductive health care practitioner;
 - ☐ provide the patient with a written record; and
 - ☐ dispense the medication as soon as practicable after the prescription is issued.

Public Comment Period

A public hearing on the pre-comment changes was held on November 6, 2023, following the presentation to the Public Health Council (PHC).

The Department received comments from **three** stakeholders and from PHC members at the October 11, 2023, pre-comment presentation.

- Comments were universally supportive of the emergency amendments
- Some comments posed additional questions that were largely beyond the scope of the regulatory amendments, as they addressed issues of payment and pharmacist licensure.
- Many of these questions are addressed in sub-regulatory guidance, which was issued by the Department after the emergency amendments were approved.

After consideration of comments received, the Department proposes no further changes to the proposed amendments.

Next Steps

- Based on a comprehensive review of 105 CMR 700.000: *Implementation of M.G.L. c. 94C*, and the review of comments from the public, DPH recommends Public Health Council approval of these amendments for promulgation, as initially proposed.
- DCP sub-regulatory guidance on the amended emergency regulation was issued on [November 1, 2023](#), to ensure awareness, consistency, and compliance.

Thank you for the opportunity to present this information today.

For more information regarding prescribing and dispensing of contraceptives by pharmacists, please find the relevant statutory language and the full current regulation here:

Massachusetts Law:

[Session Law - Acts of 2023 Chapter 28 \(malegislature.gov\)](https://malegislature.gov/SessionLaw/Acts/2023/Chapter28)

Regulation:

[105 CMR 700 \(mass.gov\)](https://www.mass.gov/doc/105-cmr-700-regulation-of-pharmacists-prescribing-and-dispensing-contraceptives)

Please direct any questions to:

DCP.DPH@mass.gov



Massachusetts Department of Public Health

Massachusetts Health System Capacity

Overview of the Current State

Chiara S. Moore, MPH

Supervisory Health Systems Epidemiologist, BHCSQ

Katherine T. Fillo, PhD, MPH, RN-BC

Deputy Bureau Director, BHCSQ

SOCIAL DETERMINANTS AND SOCIAL NEEDS: MOVING BEYOND MIDSTREAM

The infographic illustrates a continuum of social determinants and social needs, represented by a river flowing from upstream to downstream. The river is divided into three sections: upstream, midstream, and downstream. The background features a green landscape with trees and a sun.

UPSTREAM: COMMUNITY IMPACT

STRATEGIES

- Improve Community Conditions

TACTICS

- Laws, policies, and regulations that create community conditions supporting health for all people.

MIDSTREAM: INDIVIDUAL IMPACT

Addressing Individuals' Social Needs

- Include patient screening questions about social factors like housing and food access; use data to inform care and provide referrals.
- Social workers, community health workers, and/or community-based organizations providing direct support/assistance to meet patients social needs

DOWNSTREAM: MEDICAL INTERVENTIONS

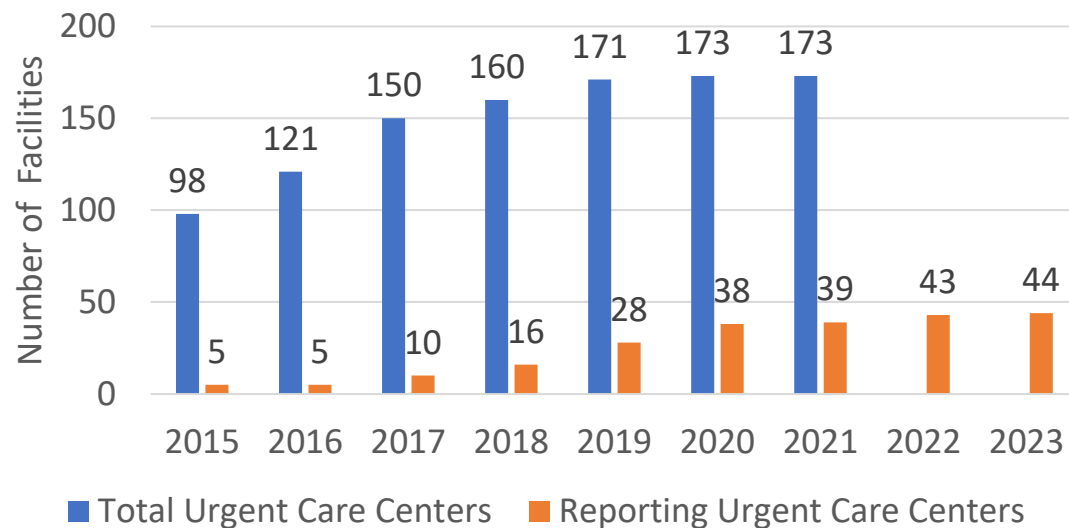
- Providing Clinical Care



Urgent Care

Urgent care centers typically include physicians, physician assistants and nurse practitioners on staff who provide diagnosis and treatment for pressing issues, including viral infections, broken bones requiring x-rays and care for more complex chronic conditions that are not life-threatening; can be an alternate care site for some conditions typically treated in the ED or a healthcare access point for those without a primary care provider available.

Urgent Care Centers and Those Reporting to SyS by Year



Key Points

- Can provide intermediary care between primary care and emergency department care
- May be convenient alternatives to the traditional hours, access, and costs of physician offices and emergency departments
- Can address work and school requirements in a timely manner: In Fall 2023 community health centers responding to an association survey reported an average 8 month wait for new patients needing an annual wellness visit

Urgent Care



EMS



Emergency Department



Inpatient Hospitalization



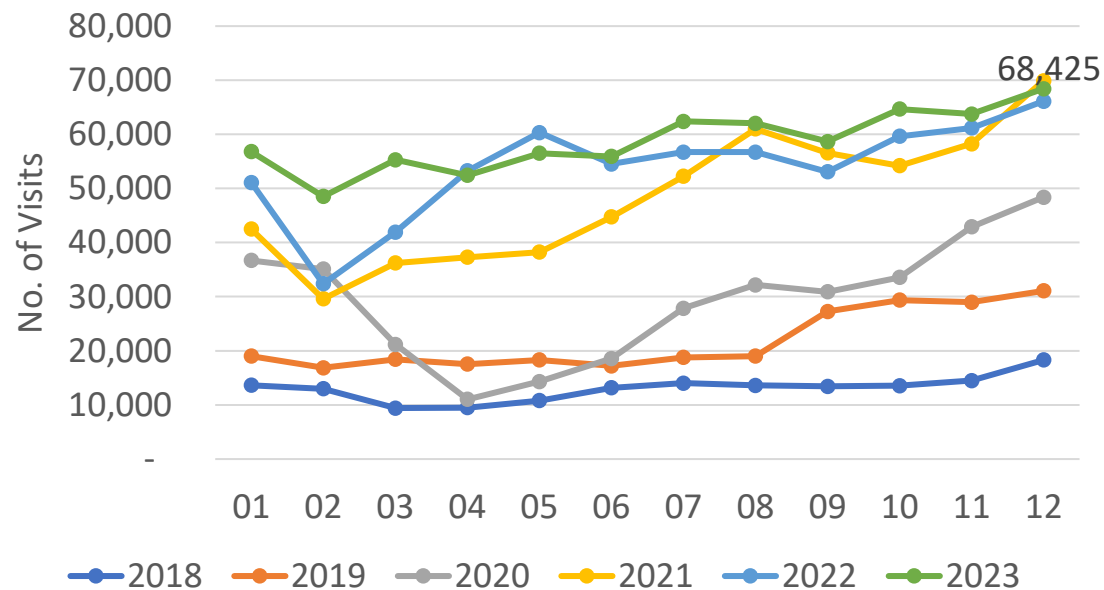
Rehabilitation (SNF)

Data Source: Massachusetts Department of Public Health SyS and Health Policy Commission, extracted 01/04/2024

Urgent Care - Utilization

Urgent care centers typically include physicians, physician assistants and nurse practitioners on staff who provide diagnosis and treatment for pressing issues, including viral infections, broken bones requiring x-rays and care for more complex chronic conditions that are not life-threatening; can be an alternate care site for some conditions typically treated in the ED or a healthcare access point for those without a primary care provider available.

Urgent Care Visits Reported to SyS



Key Points

- Urgent care has expanded rapidly in MA **but only some facilities report to DPH's syndromic surveillance system (SyS)**
- Common reasons for care at urgent care are respiratory infection, UTI, Pain, Rash, and Bites or Stings
- No uniform quality-of-care data or metrics - regulators and licensing would allow MA DPH apply care standards and improve quality of care



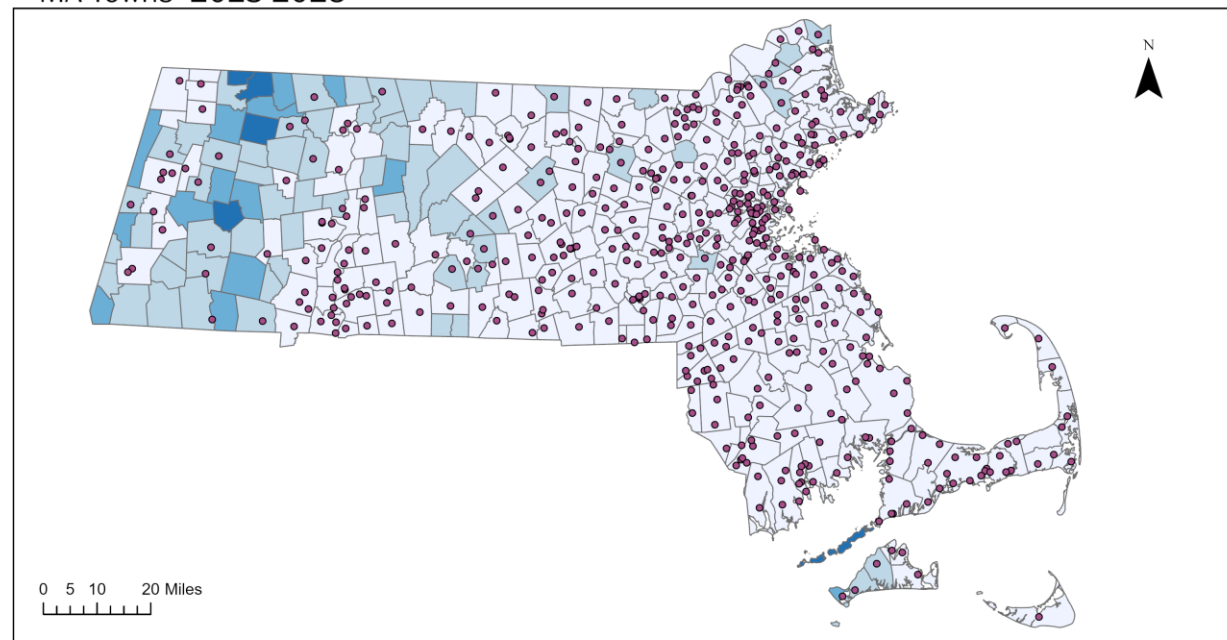
Data Source: Massachusetts Department of Public Health SyS and Health Policy Commission, extracted 01/04/2024

Emergency Medical Services Access

Key Points

- Rural areas, mostly in Western Mass, may have a longer response time
 - First responders that are non-EMS personnel may arrive before an ambulance
- Practice expansion in EMS:
 - Mobile integrated health (MIH) services, community EMS (CEMS) programs
 - Buprenorphine administration in the field by EMS
 - Pediatric transport capacity broadened by deploying high flow nasal cannula devices to 10 EMS agencies

Median EMS Response Times for Emergency Runs Across MA Towns 2018-2023



Notes:

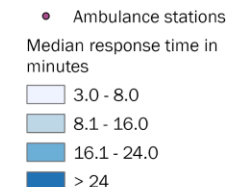
Created by: Bureau of Health Care Safety & Quality on 1/8/24

Sources:

1. Massachusetts Department of Public Health MATRIS V3. Extracted 1/3/23.
2. MA Cities and Towns - MassGIS

Data includes emergency runs where patient was transported by EMS and where the incident city could be reliably identified

Response time is defined as the time in minutes between when an ambulance is notified by dispatch and when the ambulance arrives at the incident scene.



Urgent Care

EMS

Emergency Department

Inpatient Hospitalization

Rehabilitation (SNF)

Emergency Medical Services Workforce

Key Points

- Due to EMS staffing shortages during COVID-19, ambulances were temporarily authorized to be staffed with a minimum of one EMT or paramedic and one first responder.
 - Now, a permanent regulation allows for some ambulances to be staffed by 1 EMT and 1 person trained to the first responder level.

Level	Number of Current Certifications
EMT Basic	18,675 (73%)
Advanced EMT	380 (1.5%)
EMT Paramedic	6,554 (25.5%)
<i>Total</i>	<i>25,609</i>

Urgent Care



EMS



Emergency Department



Inpatient Hospitalization



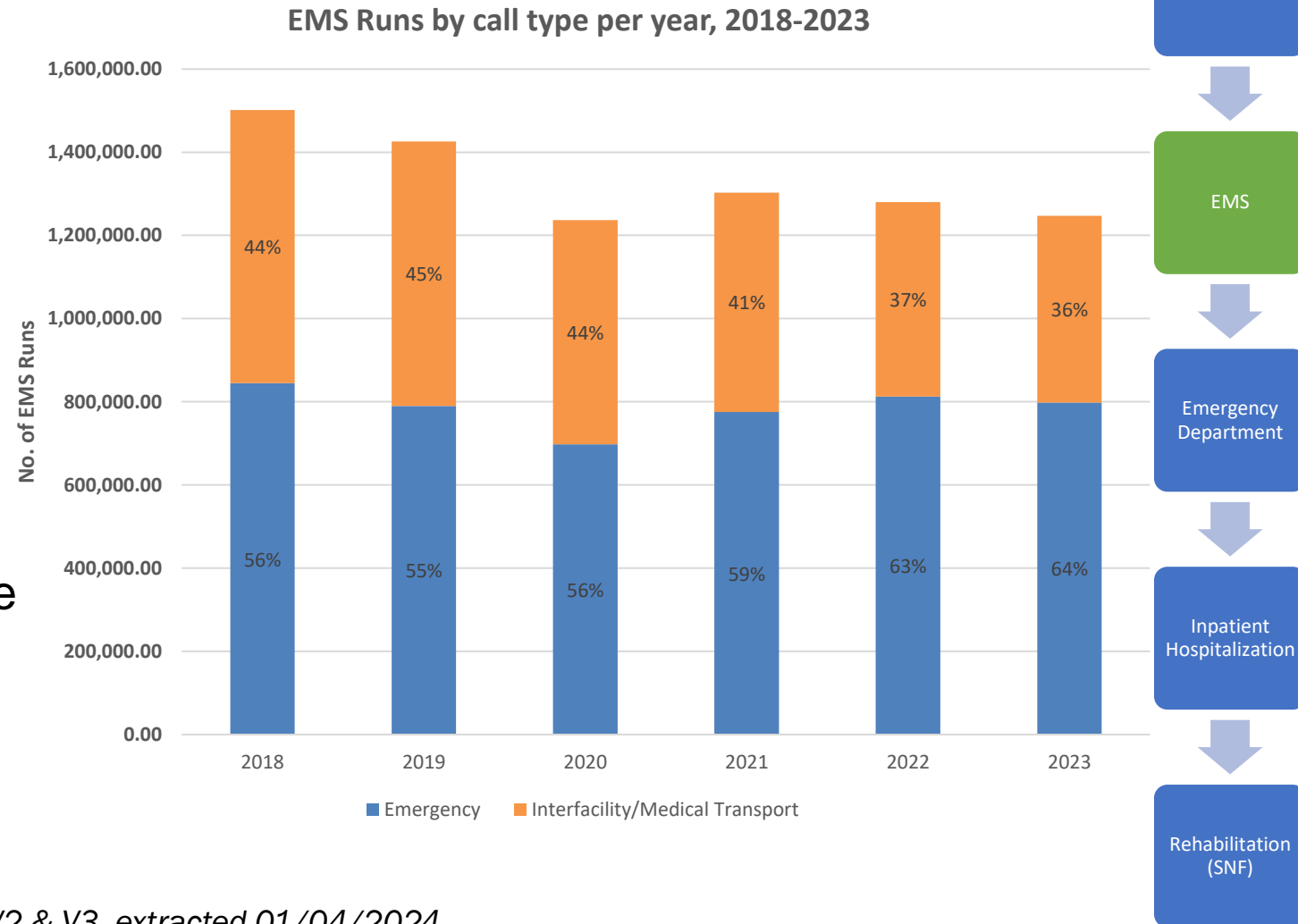
Rehabilitation (SNF)

Data Source: Massachusetts Department of Public Health, Office of Emergency Medical Services, My License Office (MLO), extracted 12/07/2023

Emergency Medical Services Utilization

Key Points

- From 2018 through November of 2023, there were approximately **9.1 million EMS activations**
- Emergency runs make up about 60% of all activations
- Emergency run volume declined in 2020, but has climbed to baseline levels
- While emergency runs have remained stable, interfacility/ medical transfers have declined year over year



Data Source: Massachusetts Department of Public Health MATRIS V2 & V3, extracted 01/04/2024

Acute Care Hospitals - Access

Facilities That Closed 2018-2023	Facility Type	Closure Date	Total beds
Boston Medical Center Newton Pavilion	Acute Hospital	12/23/18	206
North Shore Medical Center/Union Hospital	Acute Hospital	9/30/20	106
Shriners Hospital For Children-Springfield	Acute Hospital	12/31/22	20
Norwood Hospital	Acute Hospital	6/28/20 - Flood	215
Signature Healthcare Brockton Hospital	Acute Hospital	2/7/23 - Fire	197

Key Points

- There are currently **72 acute care hospitals** licensed by the Massachusetts Department of Public Health.
 - Two additional Satellite Emergency Facilities (SEF)
- Since 2018, 3 acute care hospitals have closed, resulting in the closure of 332 beds.
- Additionally, 2 hospitals are temporarily offline due to emergencies.
- North Adams has filed to reopen as a Critical Access Hospital – reclassifying from an SEF

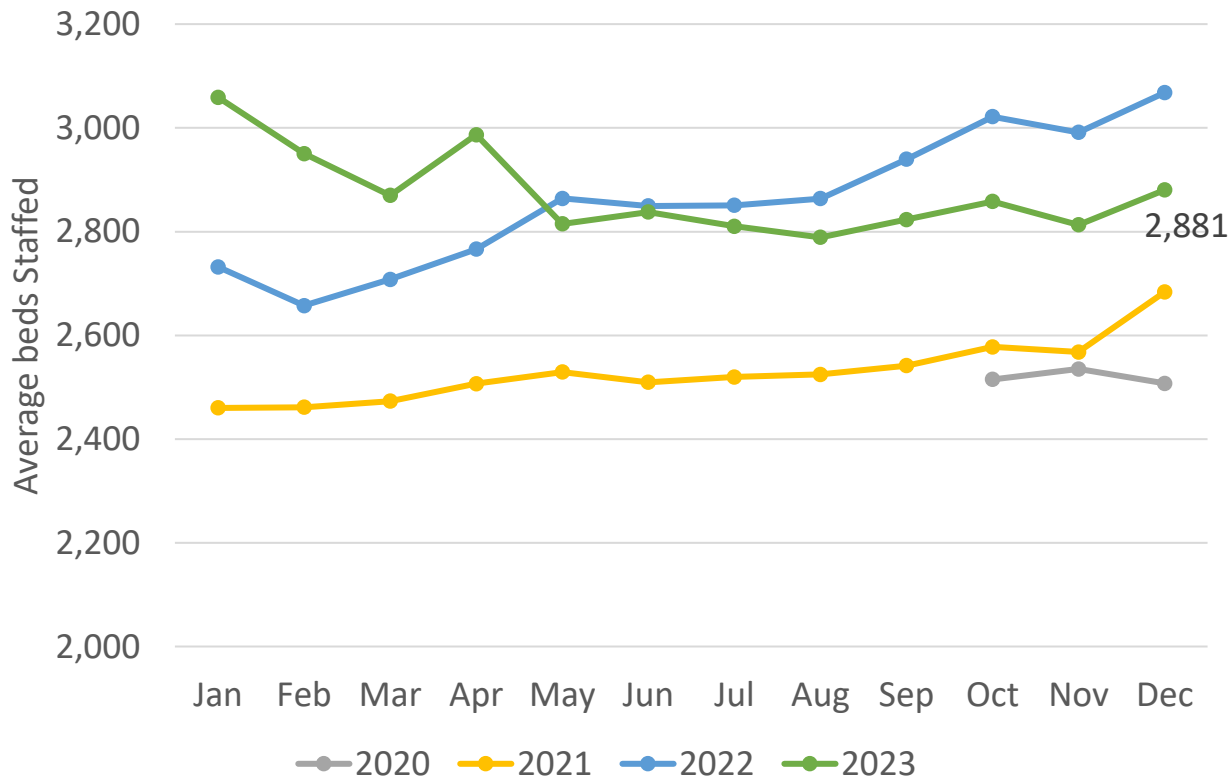


Data Source: Facility Master File (FMF), extracted 12/20/2023

Emergency Department Workforce

WebEOC is a secure, cloud-based emergency management tool used to collect and share situational awareness

Average Daily ED Beds Staffed by Year



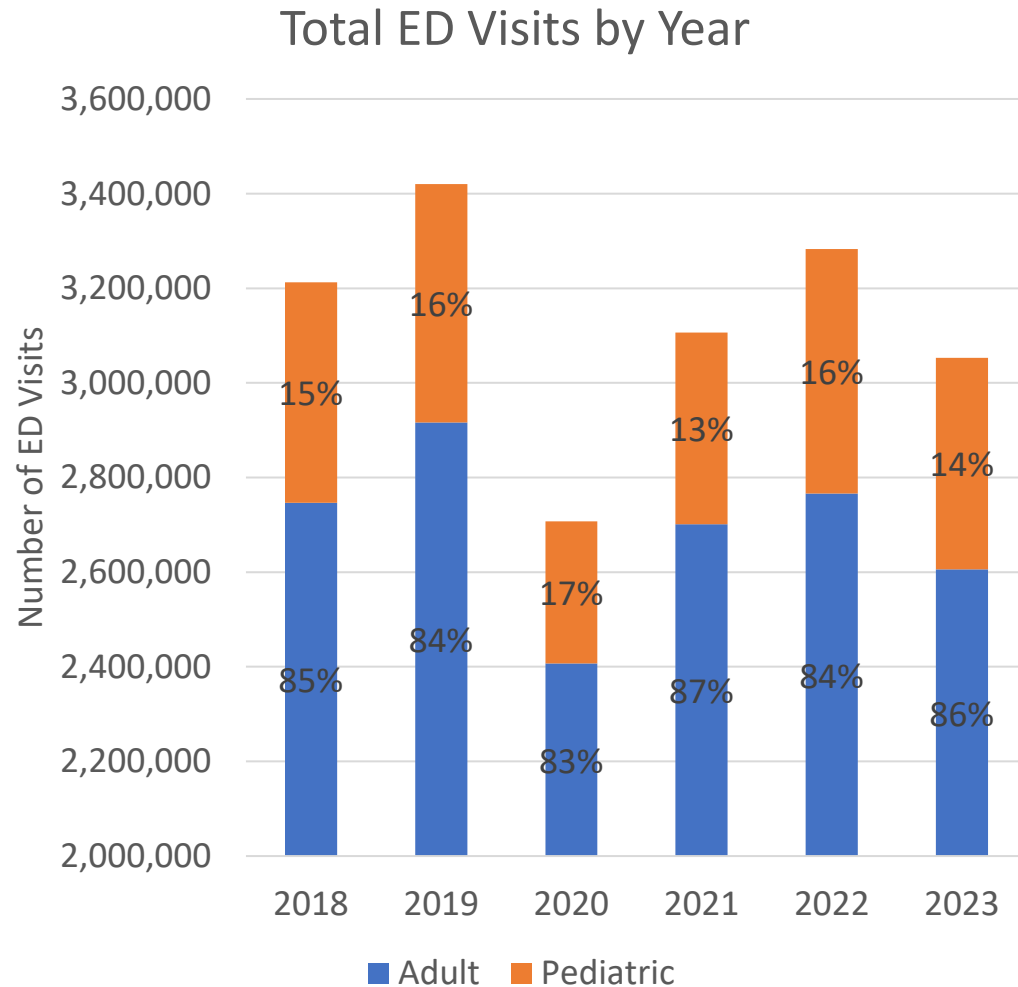
Data Source: WebEOC, January 2024

Key Points

- Expanding scope of practice: buprenorphine administration in the ED, high flow nasal cannula
- ED staffing appears to be improving over time since COVID-19



Emergency Department Utilization



Key Points

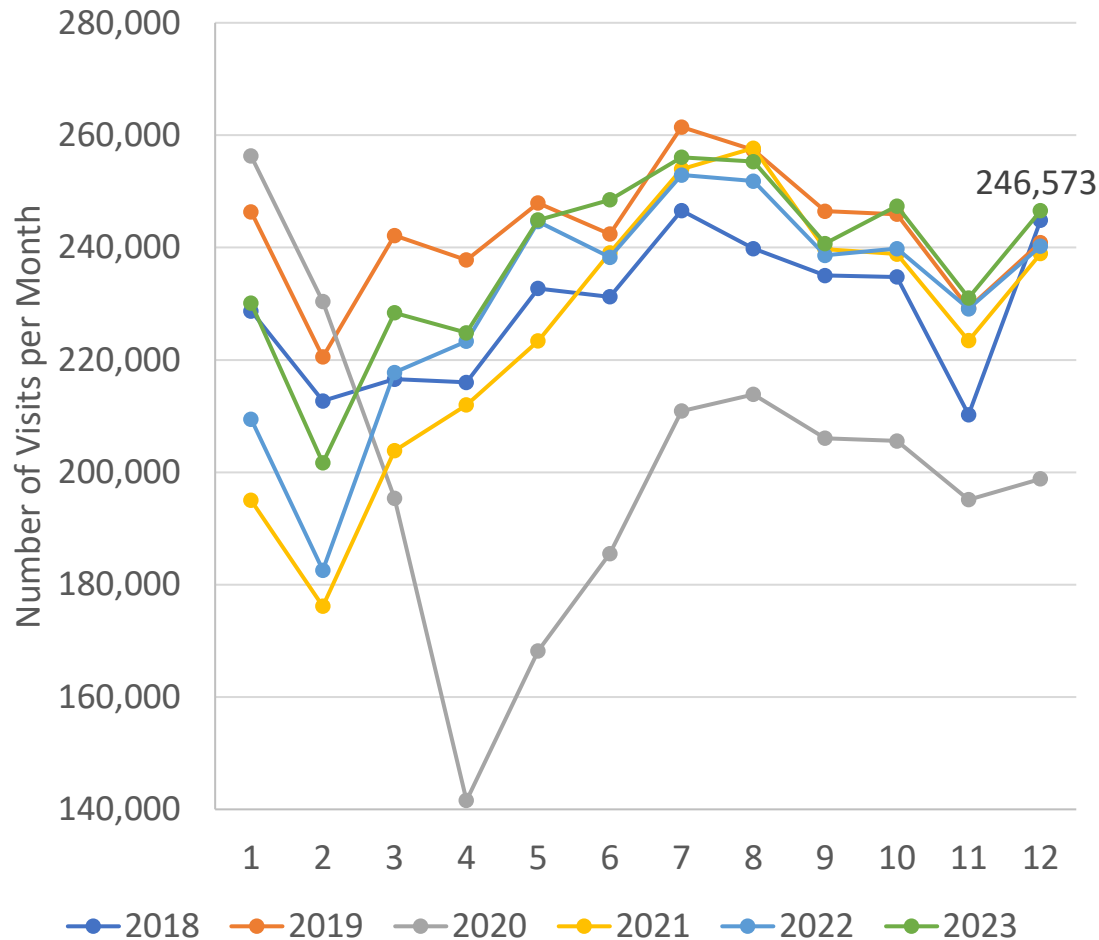
- ED Visit volume declined in 2020, but has returned to pre-pandemic levels
- Generally about 85% of ED visits are adults visits and 15% are pediatric
 - Pediatric defined as <18



Data Source: Massachusetts Department of Public Health SyS, extracted 12/07/2023

Emergency Department Utilization (Adult)

Adult ED Visits



Key Points

- Adult ED admissions in post-pandemic years have been lower than pre-pandemic years, with a notable drop at the onset of the pandemic.
- The top 3 primary diagnoses 2018-2019 were chest pain, headache, and lower back pain. **Beginning 2020, COVID-19 replaced lower back pain in the top 3.**
- The proportion of admissions from direct physician referrals decreased from 18-20% per year during 2018-20, to 14% in 2021-22.

Urgent Care



EMS



Emergency
Department



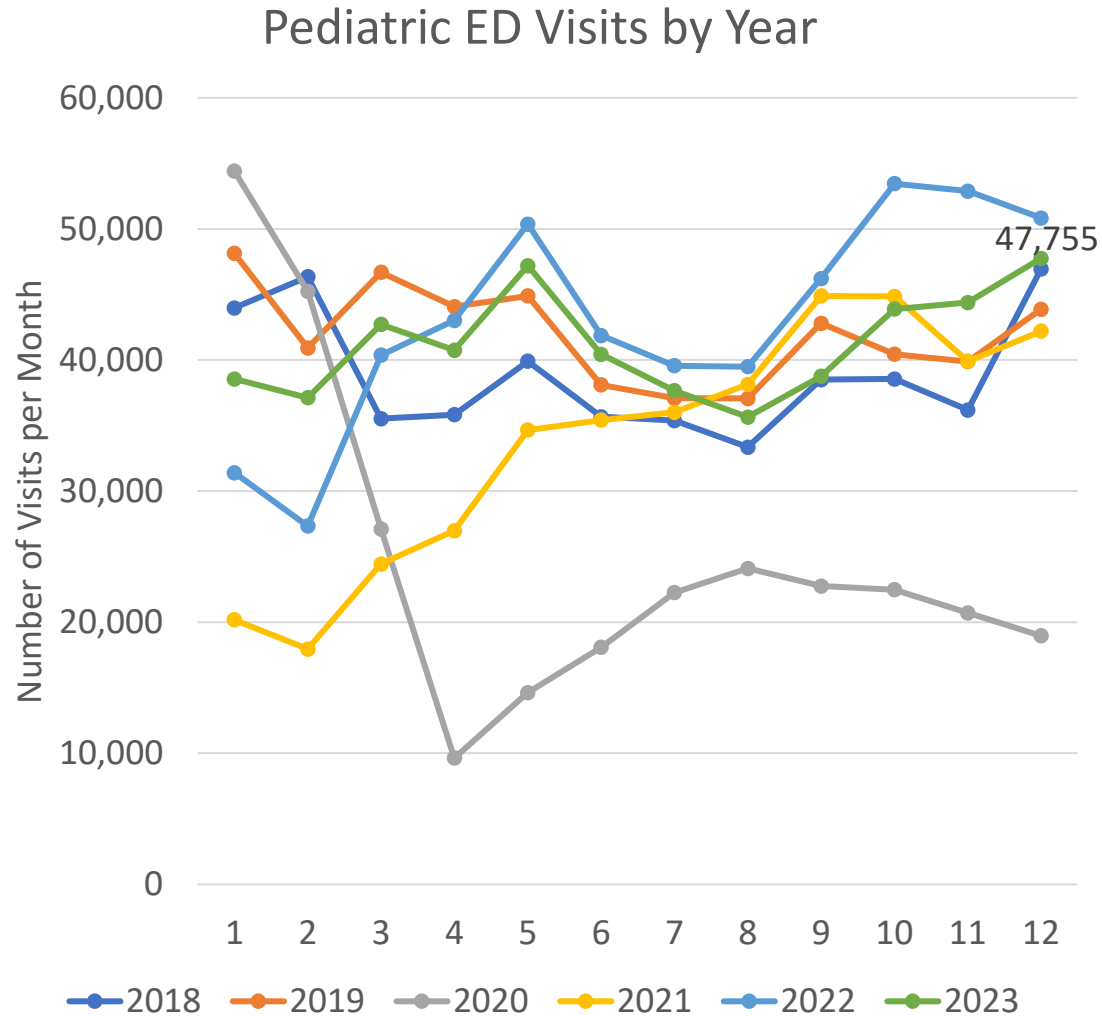
Inpatient
Hospitalization



Rehabilitation
(SNF)

Data Source: Massachusetts Department of Public Health SyS and CHIA CaseMix, extracted 01/04/2024

Emergency Department Utilization (Pediatric)



Key Points

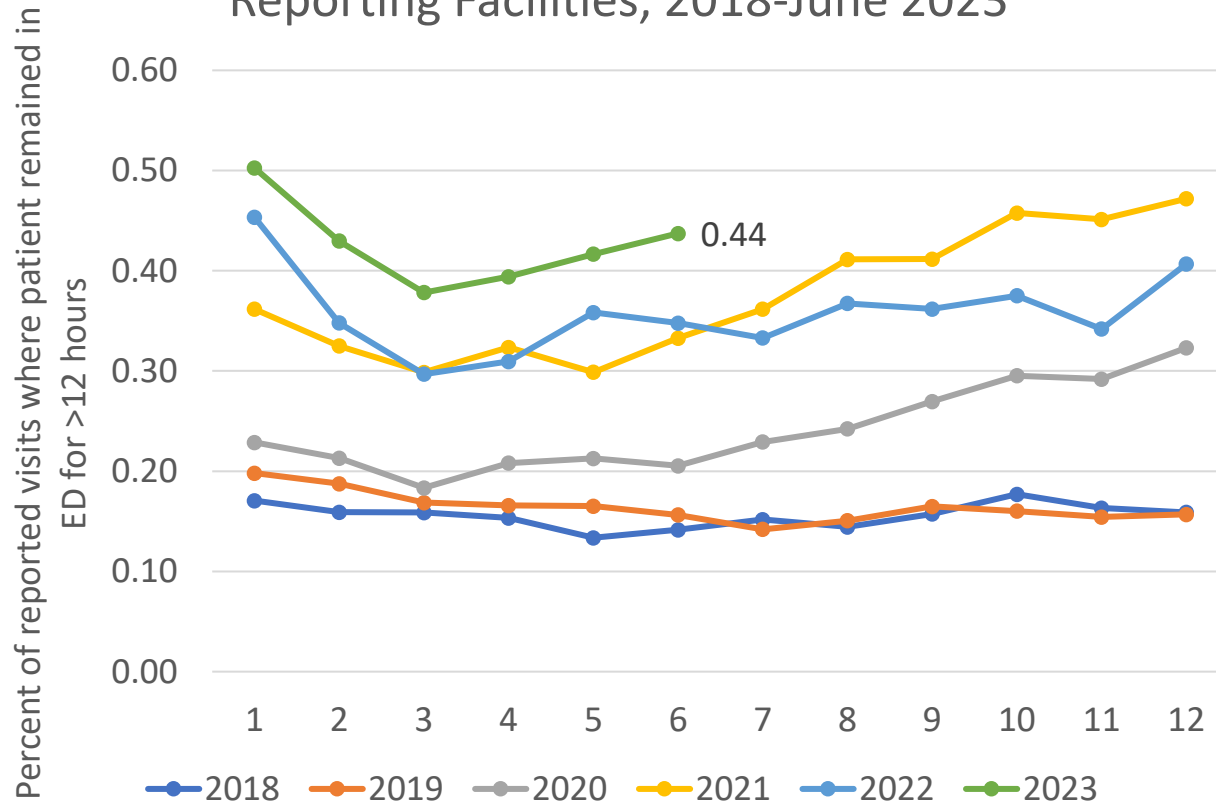
- Pediatric ED admissions decreased dramatically in 2020.
- The top 3 primary diagnoses for all years 2018-2022 have been **acute upper respiratory infection, fever, and viral infection**.
- The proportion of admissions from direct physician referrals peaked in 2020 at 29%, compared to the low of 25% in 2022.



Data Source: Massachusetts Department of Public Health SyS and CHIA CaseMix, extracted 01/04/2024

Emergency Department Quality: Boarding and LOS

Average Monthly Percentage of Patients Remaining in ED for >12 hours Among Reporting Facilities, 2018-June 2023



Key Points

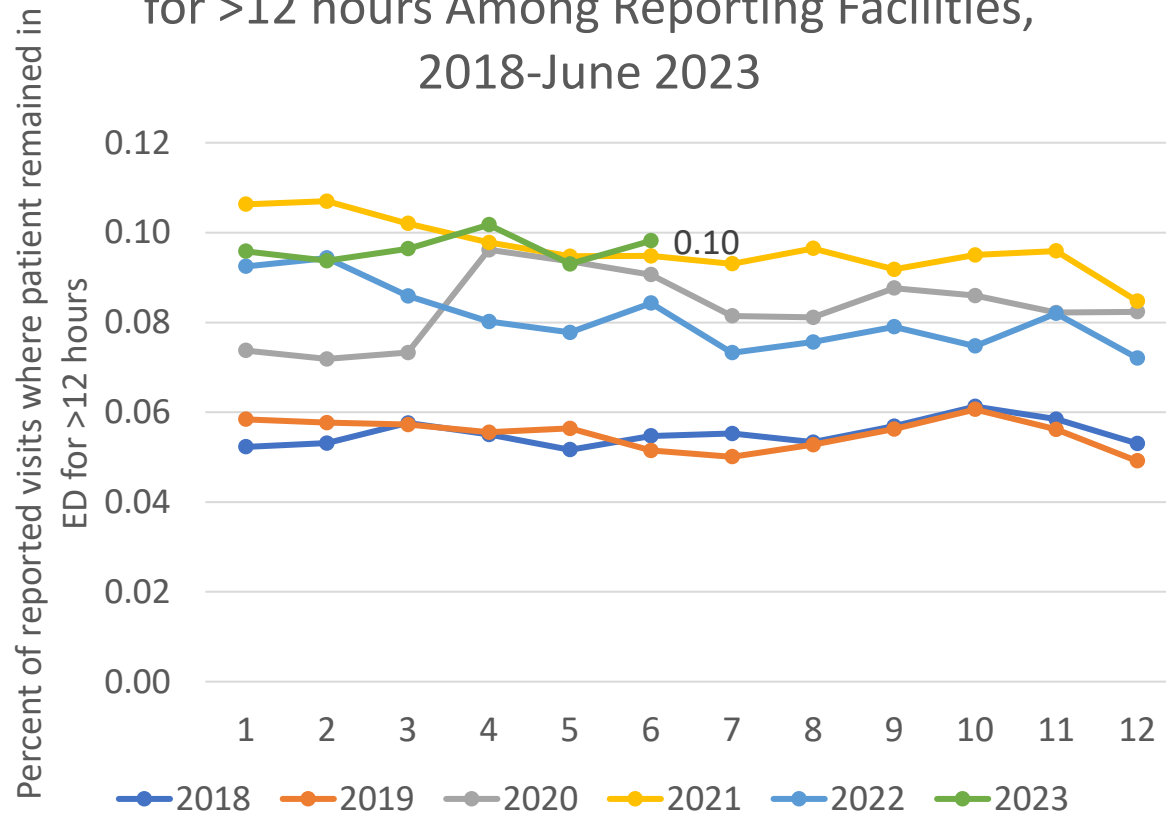
- While most patients move through the ED swiftly, the percentage of patients boarding – or staying for 12 hours or more – has almost tripled since 2018/2019



Data Source: Massachusetts Department of Public Health ED Boarding, extracted 12/07/2023

Emergency Department Quality: Boarding and Length of Stay

Average Monthly Percentage of Patients With Psychiatric Diagnosis Remaining in ED for >12 hours Among Reporting Facilities, 2018-June 2023



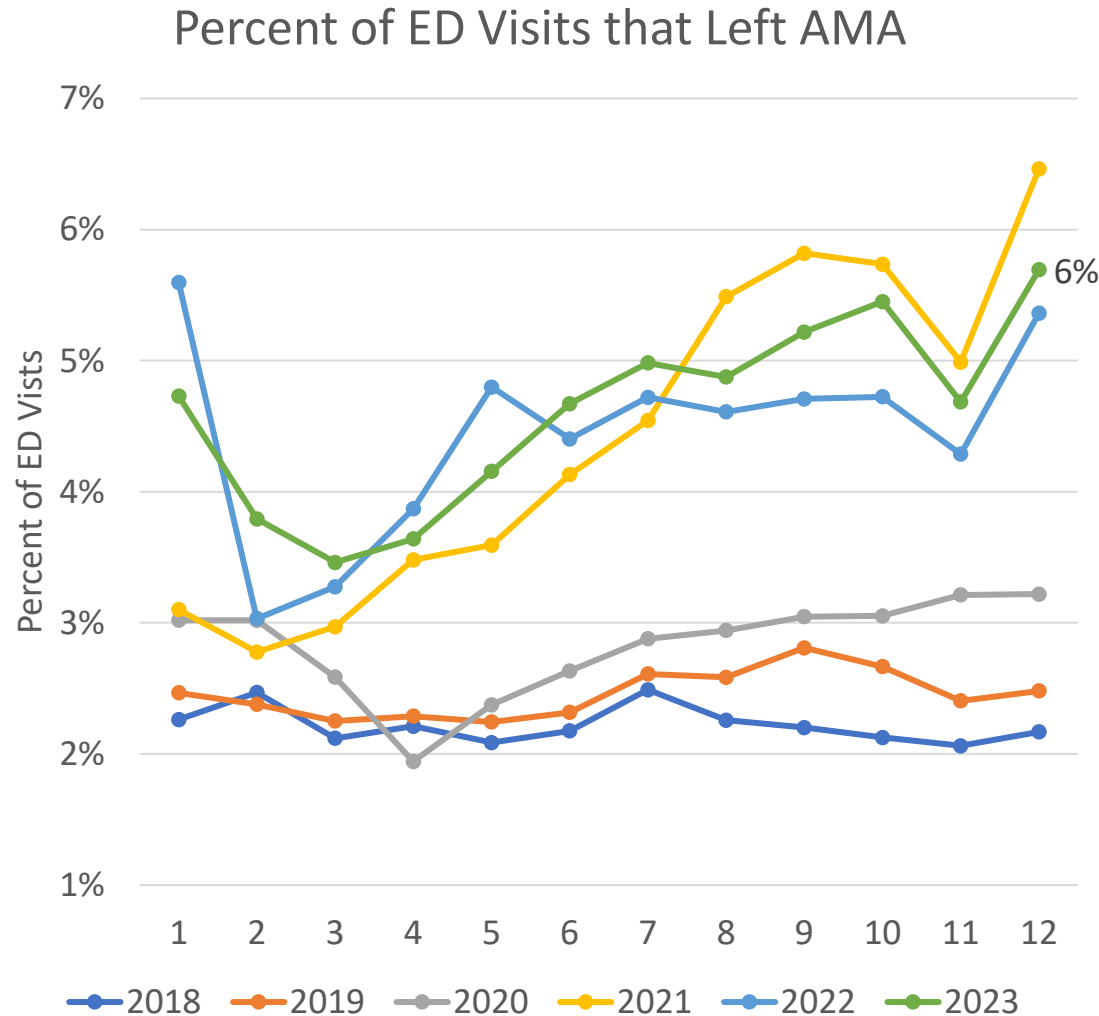
Key Points

- While most patients move through the ED swiftly, the percentage of patients boarding – or staying for 12 hours or more – has almost tripled since 2018/2019
 - A similar increase was observed among patients with a psychiatric diagnosis – though this began in 2020
- Similarly average length of stay has increased compared to 2018/2019



Data Source: Massachusetts Department of Public Health ED Boarding, extracted 12/07/2023

Emergency Department Quality: Left Without Being Seen



Key Points

- Based on CMS reporting, the percentage of patients in Massachusetts who leave without being seen is similar to national levels but reaches 5% compared to the national 3% in 2021.
- The percent of ED visits leaving AMA has increased since 2018/2019 and spikes in the winter months, coinciding with respiratory illness season

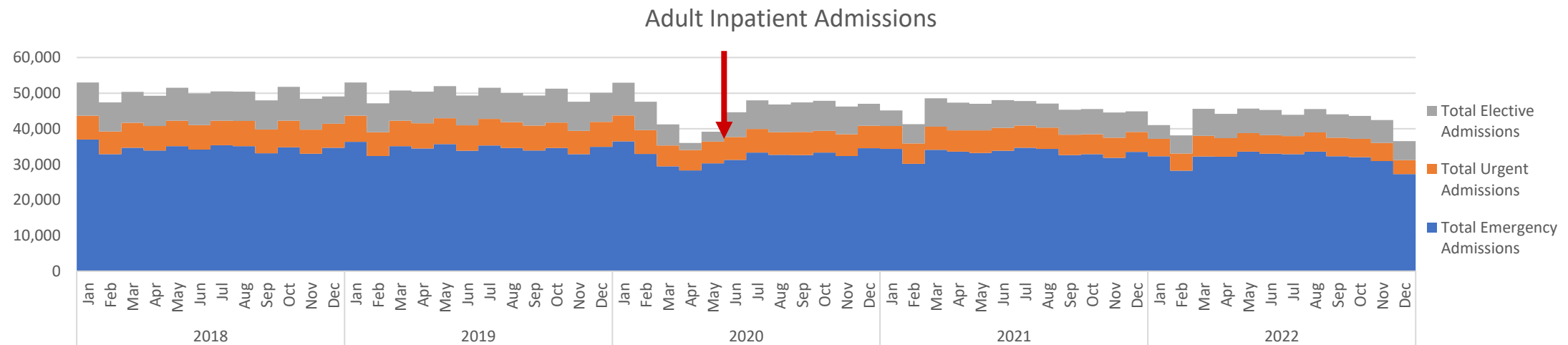


Data Source: Massachusetts Department of Public Health SyS , 01/04/2024; CMS Hospitals Data, extracted 12/13/2023

Inpatient Utilization - Adult

Key Points

- Overall adult inpatient admissions have been declining
 - Emergency admissions have seen the smallest decline at just 90% of volumes seen in 2018/2019
- Elective admissions were paused as part of the COVID-19 response, though we did not see a corresponding increase in emergent or urgent admissions
 - Elective admissions in 2022 were at **72%** of the elective admission volumes seen in 2018/2019



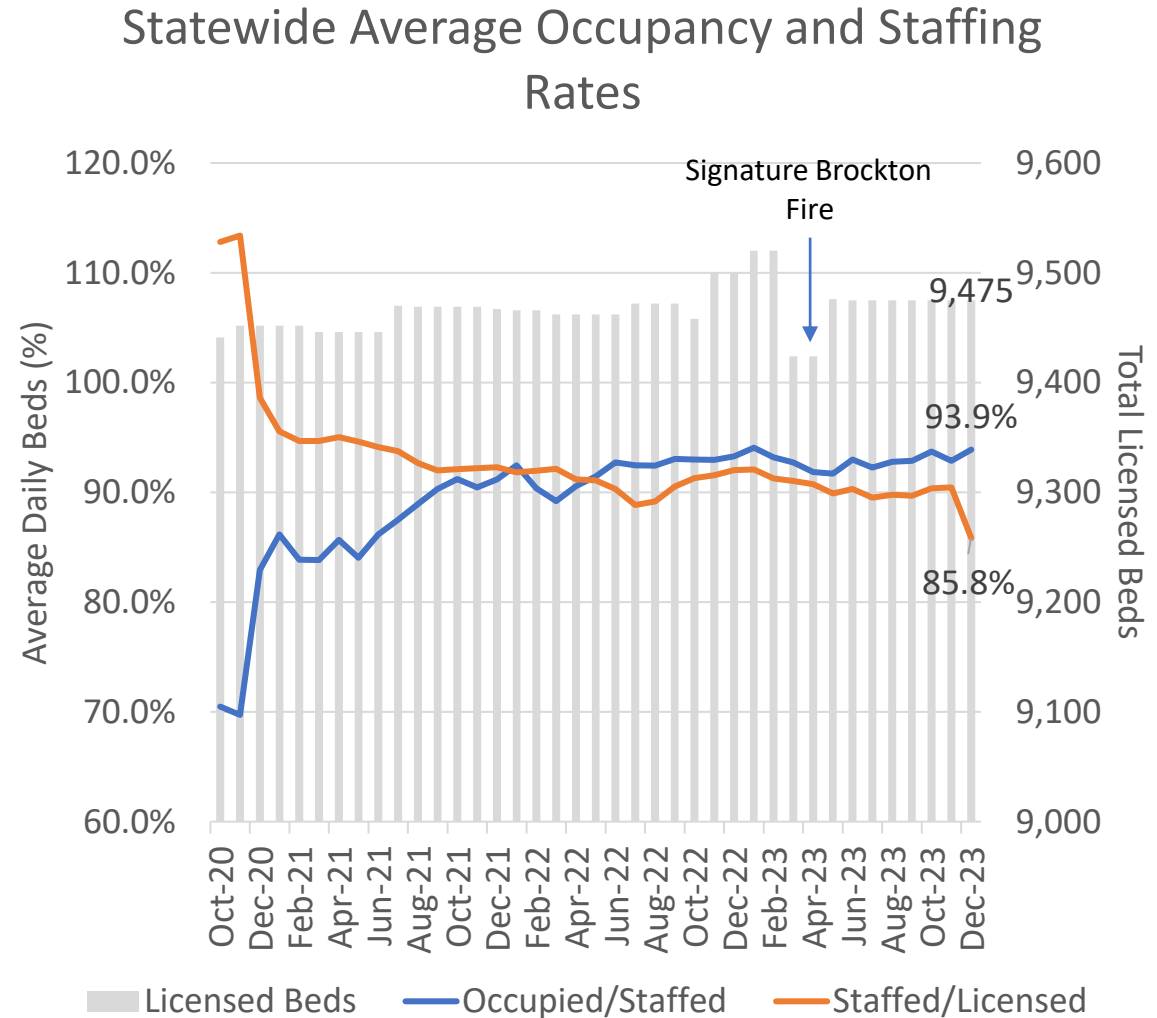
Data Source: CaseMix, extracted 01/03/2024



Inpatient Utilization – Adult Med/Surg

Key Points

- By the end of 2021, beds staffed and beds occupied converged to just above 90%.
 - There is variation in staffing and occupancy trends by hospital type and region.



Data Source: Facility Master File (FMF) and WebEOC, extracted 01/02/2024

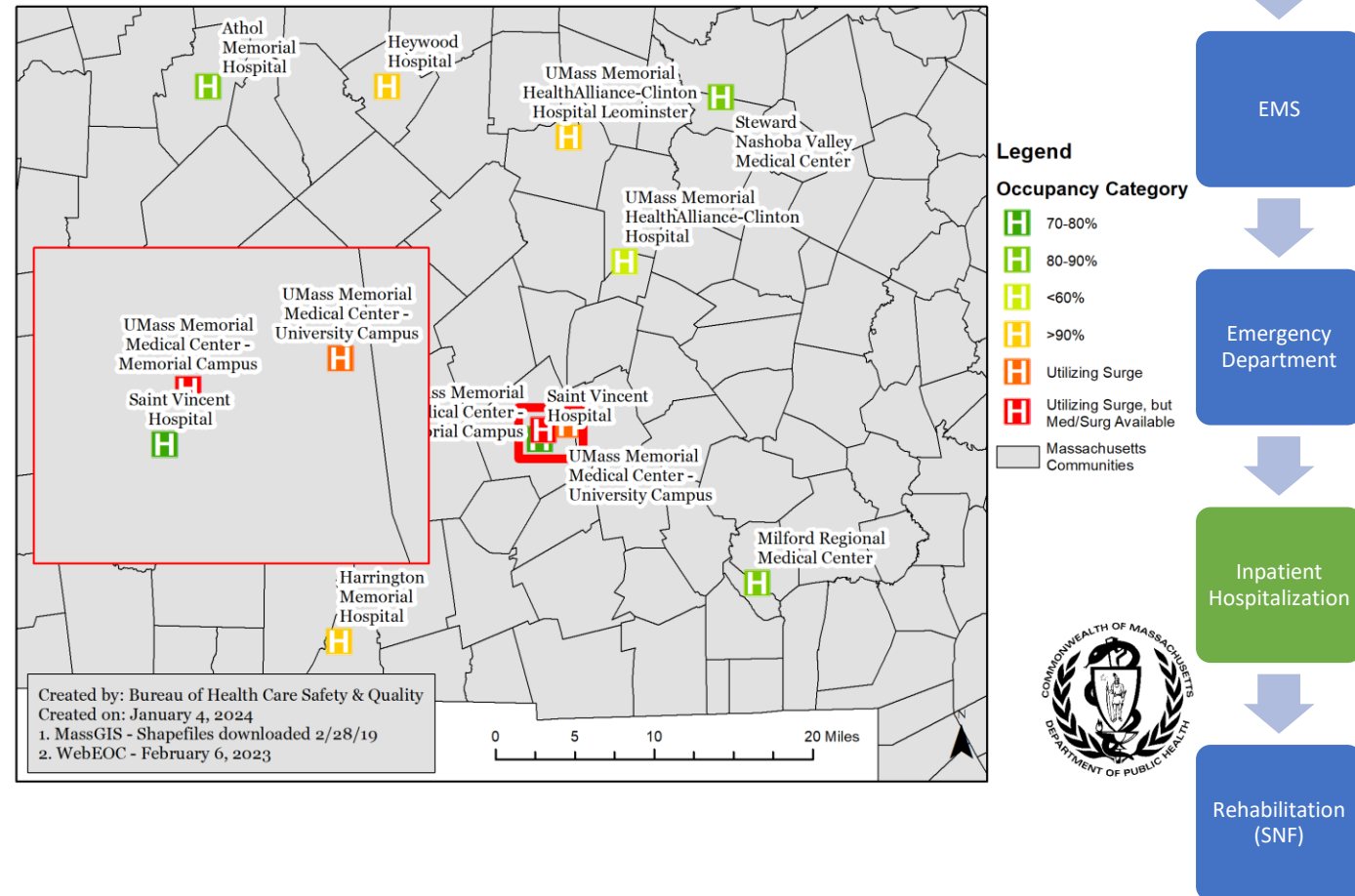
Inpatient Utilization – Adult Med/Surg

Key Points

- By the end of 2021, beds staffed and beds occupied converged to just above 90%.
 - There is variation in staffing and occupancy trends by hospital type and region.
- This is one example of a region where some hospitals were using surge space, but nearby hospitals may have had staffed beds available

Example Med/Surg Utilization in HMCC Region 2

On February 6, 2023

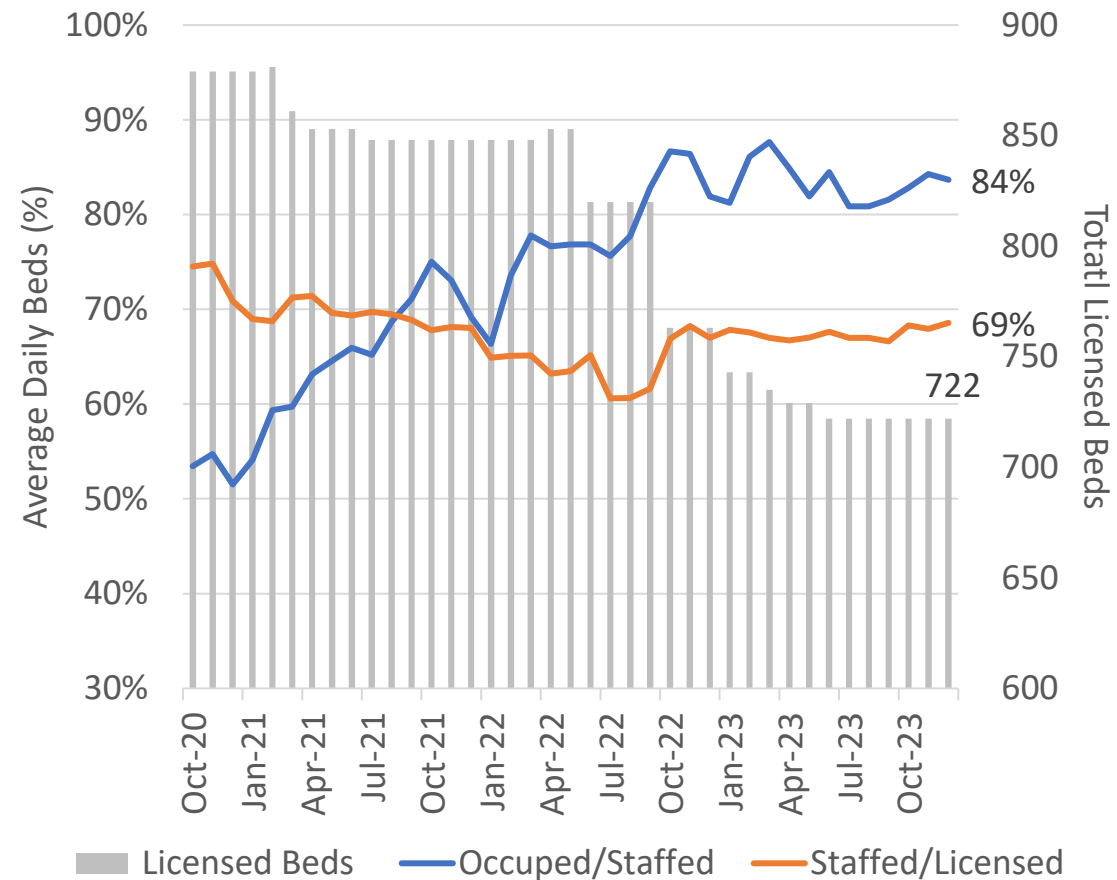


Inpatient Utilization - Pediatric

Key Points

- There has been an 18% reduction in pediatric beds in the state since 2020
- Many licensed units are not staffed, or not fully staffed
 - Staffing rates range between 61 and 75%, but never reach the 90% that we see for adults
 - As reported on 12/29/2023 **twenty** hospitals were not staffing their pediatric beds, and **twelve** were not fully staffing their licensed capacity, but **three** were using surge space – though two had licensed beds unstaffed

Average Daily Pediatric Service Beds
Occupied, Staffed, and Licensed



Data Source: Facility Master File (FMF) and WebEOC, extracted 01/02/2024

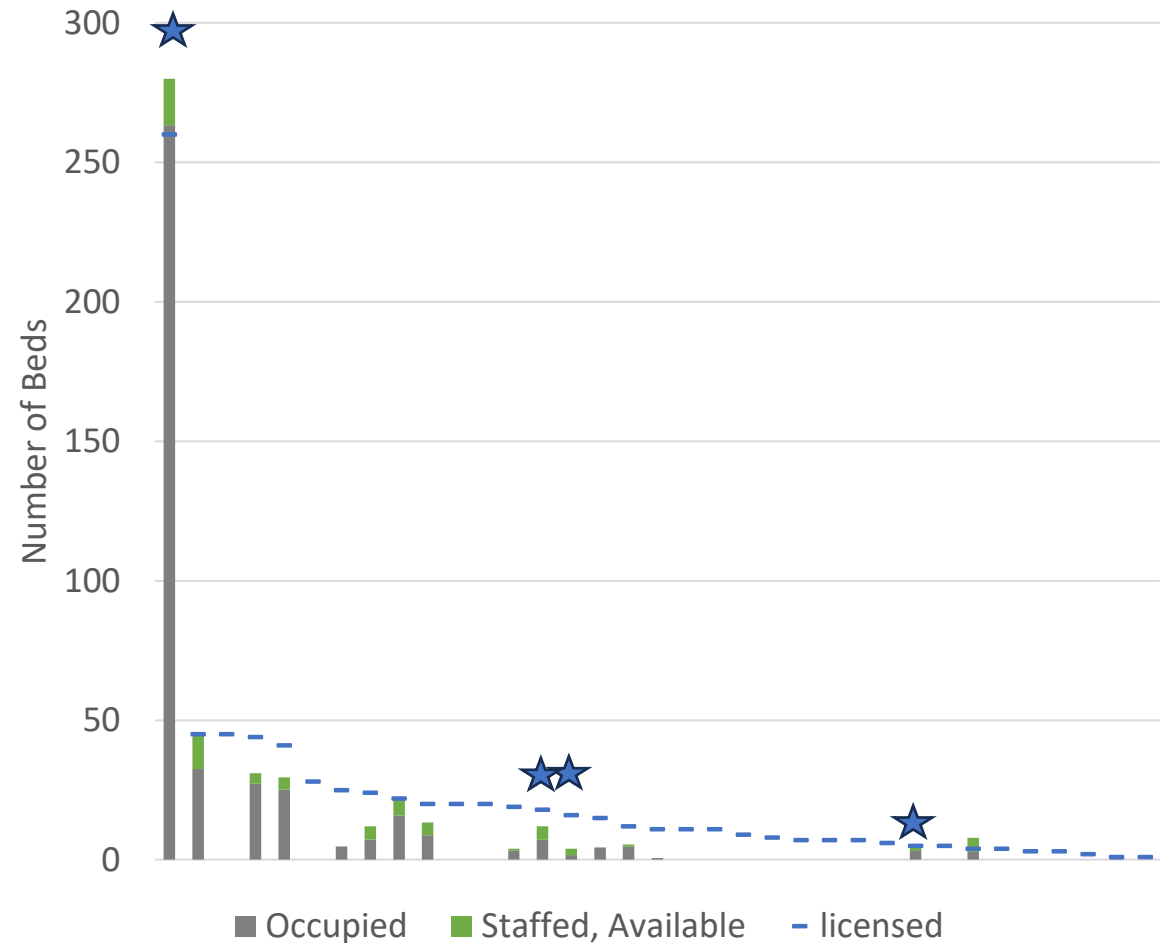
Inpatient Utilization - Pediatric

Key Points

- There has been an 18% reduction in the number of licensed pediatric beds in the state since 2020
- Many licensed units are not staffed or not fully staffed
 - Staffing rates range over time from 61 to 75% of licensed beds being staffed, but never reach the 90% that we see for adults
 - 12/29/2023 **twenty** hospitals not staffing pediatric beds, **twelve** not fully staffing their licensed capacity, **three** using surge space
- Most pediatric admissions are due to respiratory concerns, but 2021 and 2022 admissions due to major depressive disorder and psychosis were the second and third most common admitting diagnosis, respectively

★ Utilizing surge space

Pediatric Bed Summary December 2023



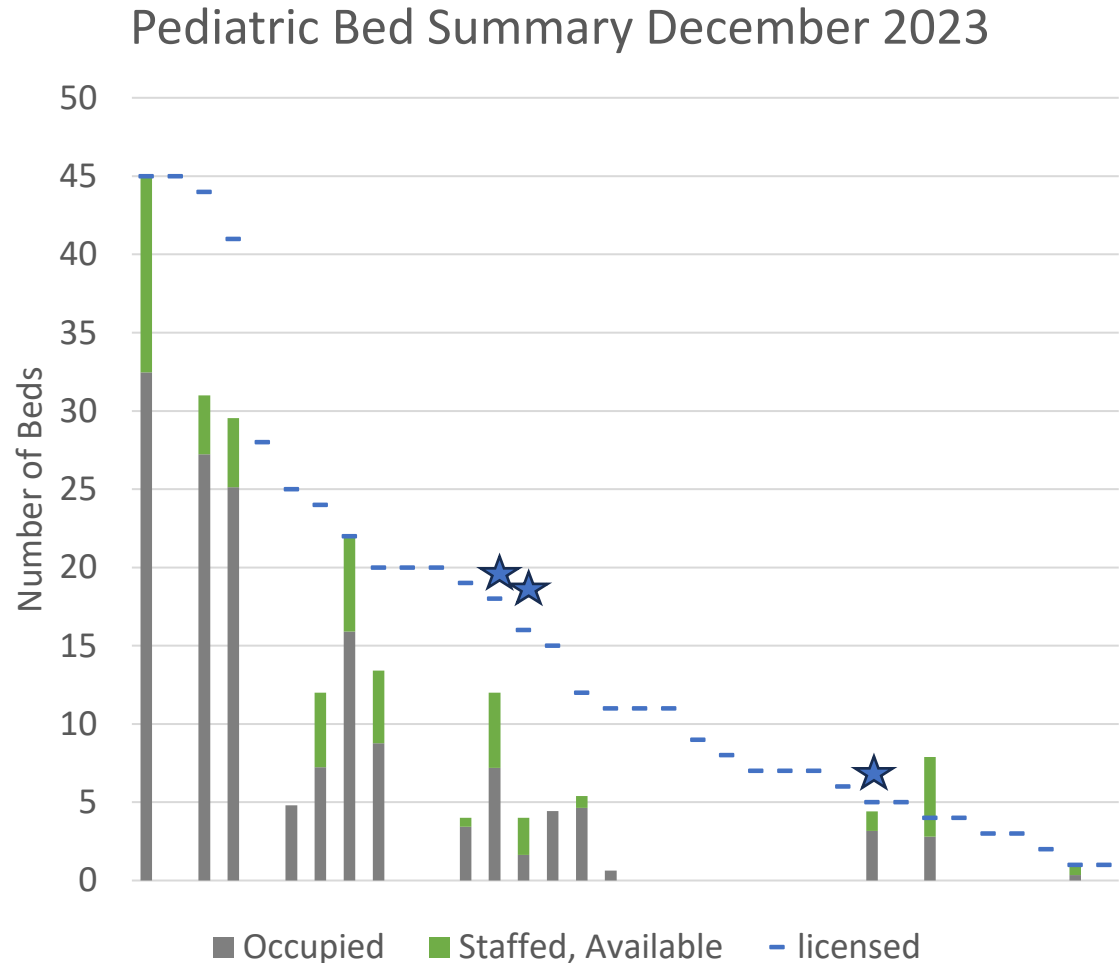
Data Source: Facility Master File (FMF) and WebEOC, extracted 01/02/2024

Inpatient Utilization - Pediatric

Key Points

- There has been an 18% reduction in the number of licensed pediatric beds in the state since 2020
- Many licensed units are not staffed or not fully staffed
 - Staffing rates range over time from 61 to 75% of licensed beds being staffed, but never reach the 90% that we see for adults
 - 12/29/2023 **twenty** hospitals not staffing pediatric beds, **twelve** not fully staffing their licensed capacity, **three** using surge space
- Most pediatric admissions are due to respiratory concerns, but 2021 and 2022 admissions due to major depressive disorder and psychosis were the second and third most common admitting diagnosis, respectively

★ Utilizing surge space



Note: This graph excludes dedicated pediatric service hospital, see slide 20.



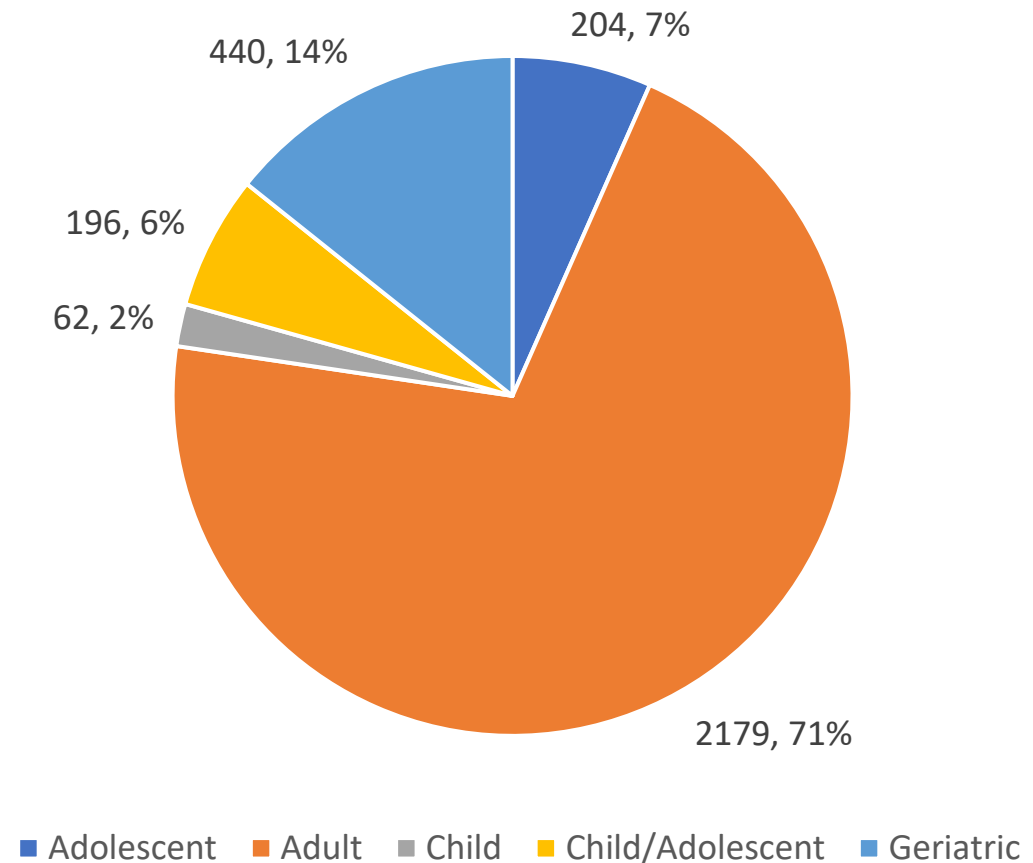
Data Source: Facility Master File (FMF) and WebEOC, extracted 01/02/2024

Inpatient Utilization – Licensed Psych Units

Key Points

- Among the 72 acute care hospitals, **41 have DMH licensed psych units**
- 2 Adolescent units closed in 2023 due to short staffing
- There are an additional 20 free standing psychiatric hospitals in Massachusetts
- 15% or 462 beds are designated for adolescents and children

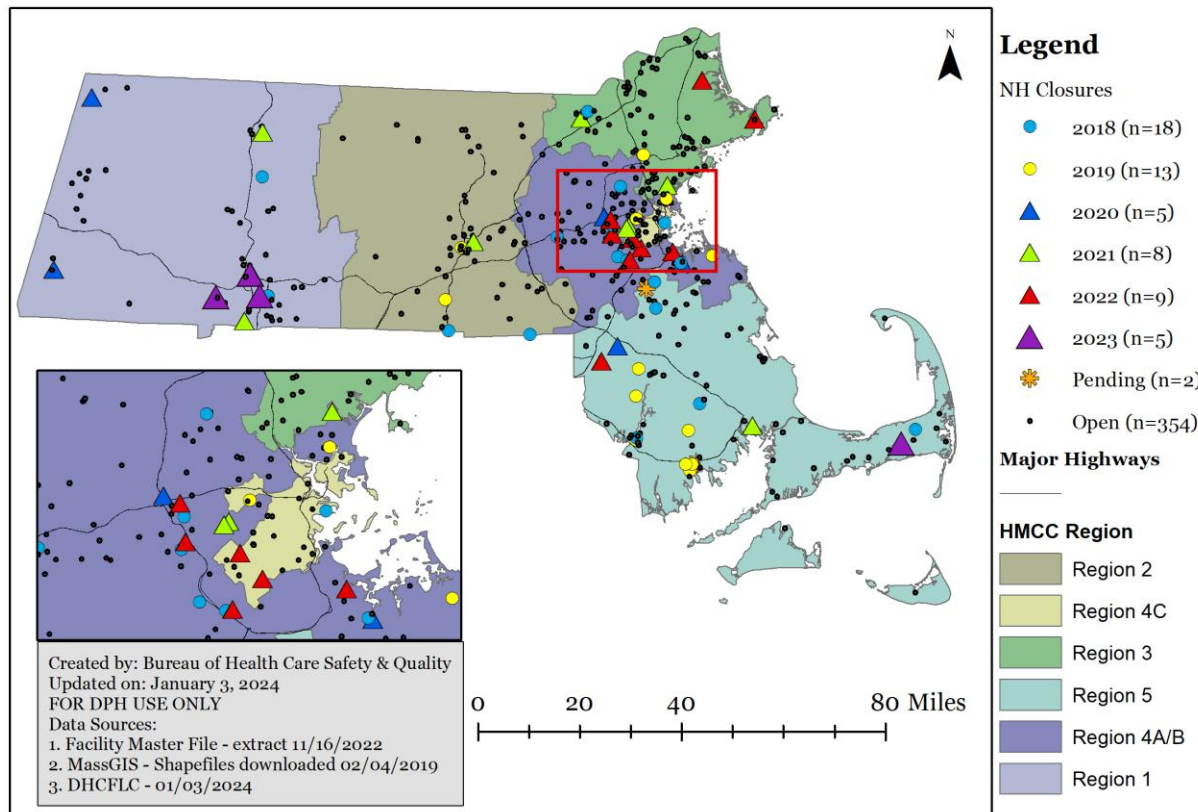
Psychiatric Unit Capacity as of January 2024



Data Source: Department of Mental Health (DMH), 01/04/2024

Nursing Home Access

Nursing Home Closures As of January 3, 2024



Key Points

- There were 354 open NHs at the end of 2023
- The number of NHs decreased 15% from 415 in 2018 to the end of 2023
- There are 41,429 total licensed beds in 2023 decreased by 13% from 47,823 in 2018

Urgent Care

EMS

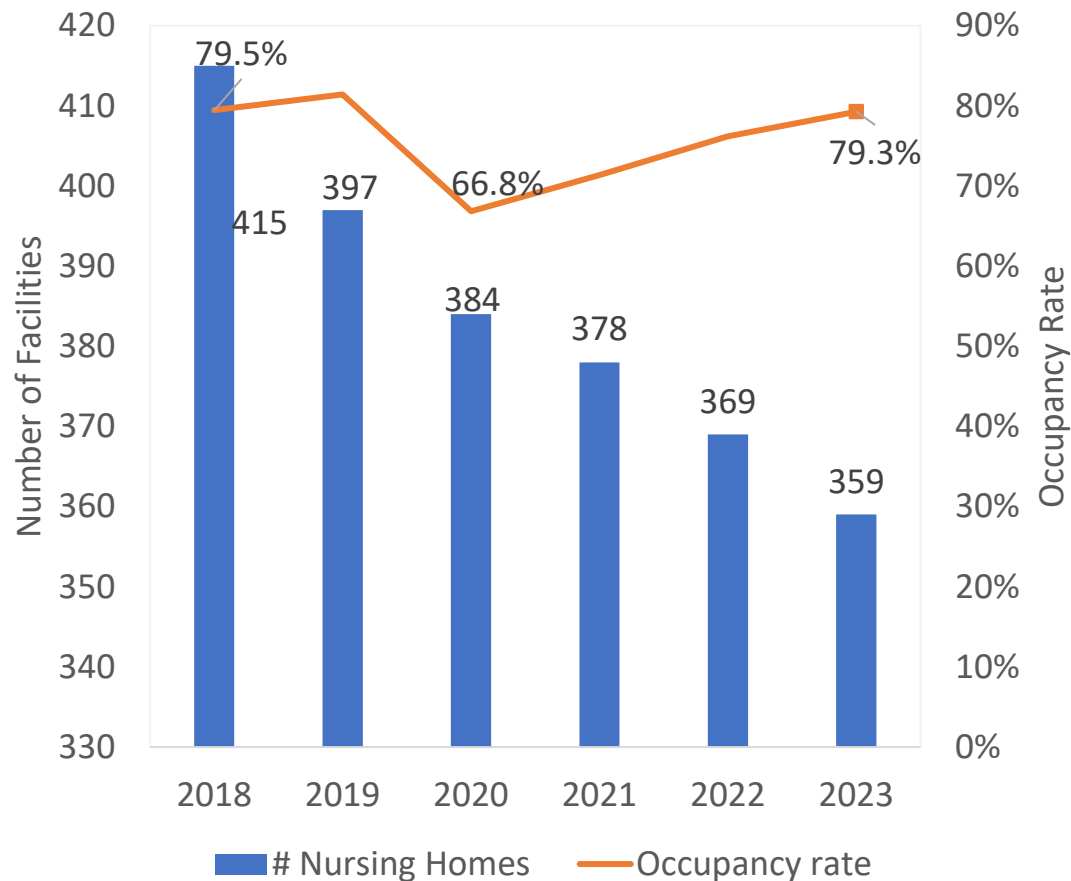
Emergency
Department

Inpatient
Hospitalization

Rehabilitation
(SNF)

Nursing Home Access

Nursing Homes and Occupancy Rate
(2018 – 2023)



Data Source: Facility Master File and CMS Minimum Data Set, 12/04/2023

Key Points

- There were 354 open NHs at the end of 2023
- The number of NHs decreased 15% from 415 in 2018 to the end of 2023
- There are 41,429 total licensed beds in 2023 decreased by 13% from 47,823 in 2018
- Nursing home census also decreased from 37,998 in 2018 to 32,844 (14%)
- 72% of nursing homes operating in 2023 are for profit
- 37% of nursing homes have a CMS 4 or 5 star-rating

Urgent Care



EMS



Emergency
Department



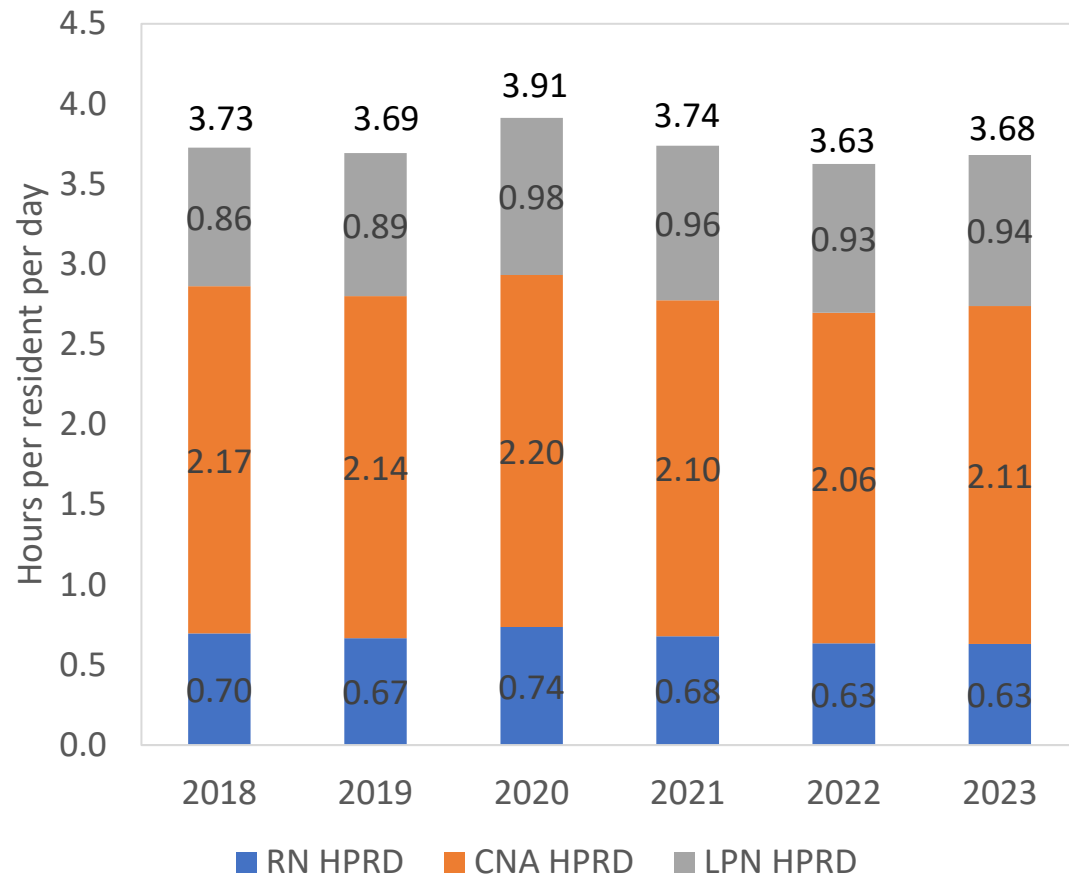
Inpatient
Hospitalization



Rehabilitation
(SNF)

Nursing Home - Workforce

Nursing Hours Per Resident Per Day,
Average 2018 - 2023



Data Source: CMS Payroll Based Journal, 10/31/2023

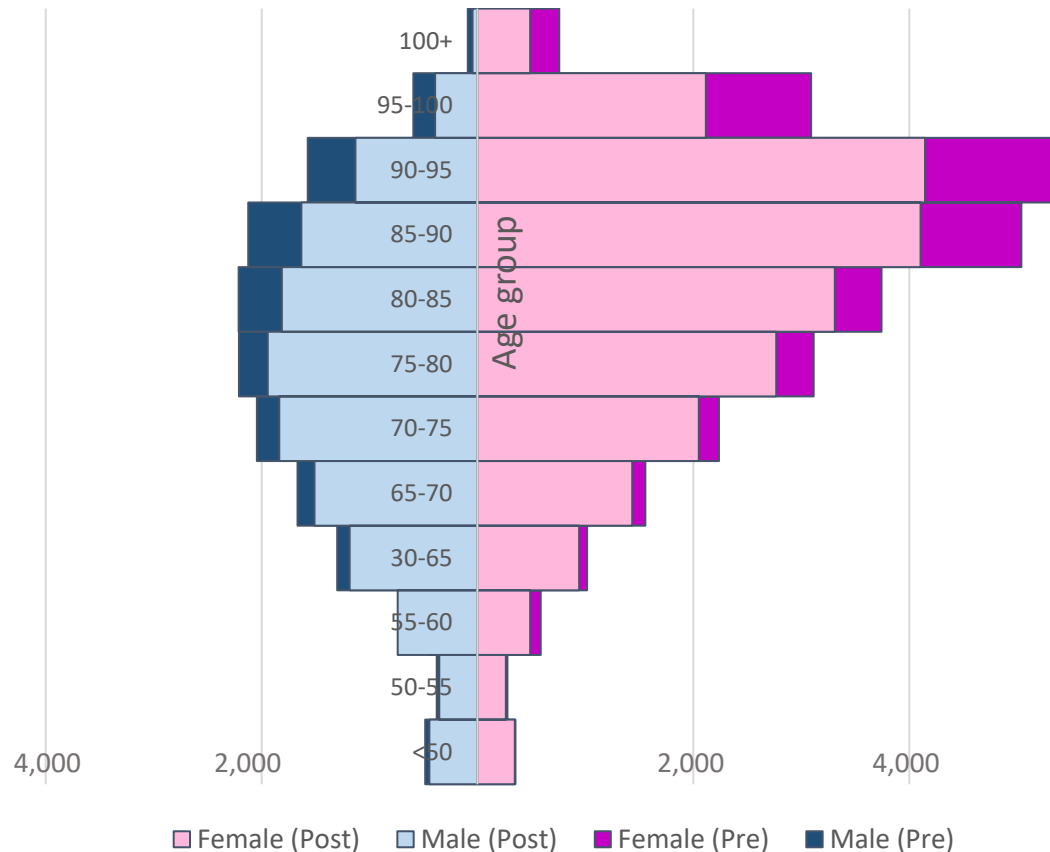
Key Points

- Increased staffing is associated with improved quality of care
- Clinical care in nursing facilities is primarily provided by three types of providers: Registered Nurses (RNs), Licensed Practical Nurses (LPNs), and Certified Nursing Aides (CNAs)
- In Massachusetts, total nursing hours per resident day remained fairly steady between 2018 and 2023
 - The share of hours performed by contractors increased from 3% to 15% for RNs and 2% to 12% for CNAs



Nursing Home Utilization

Population Pyramid in MA Nursing Homes:
Pre-COVID-19 to Post-COVID-19



Key Points

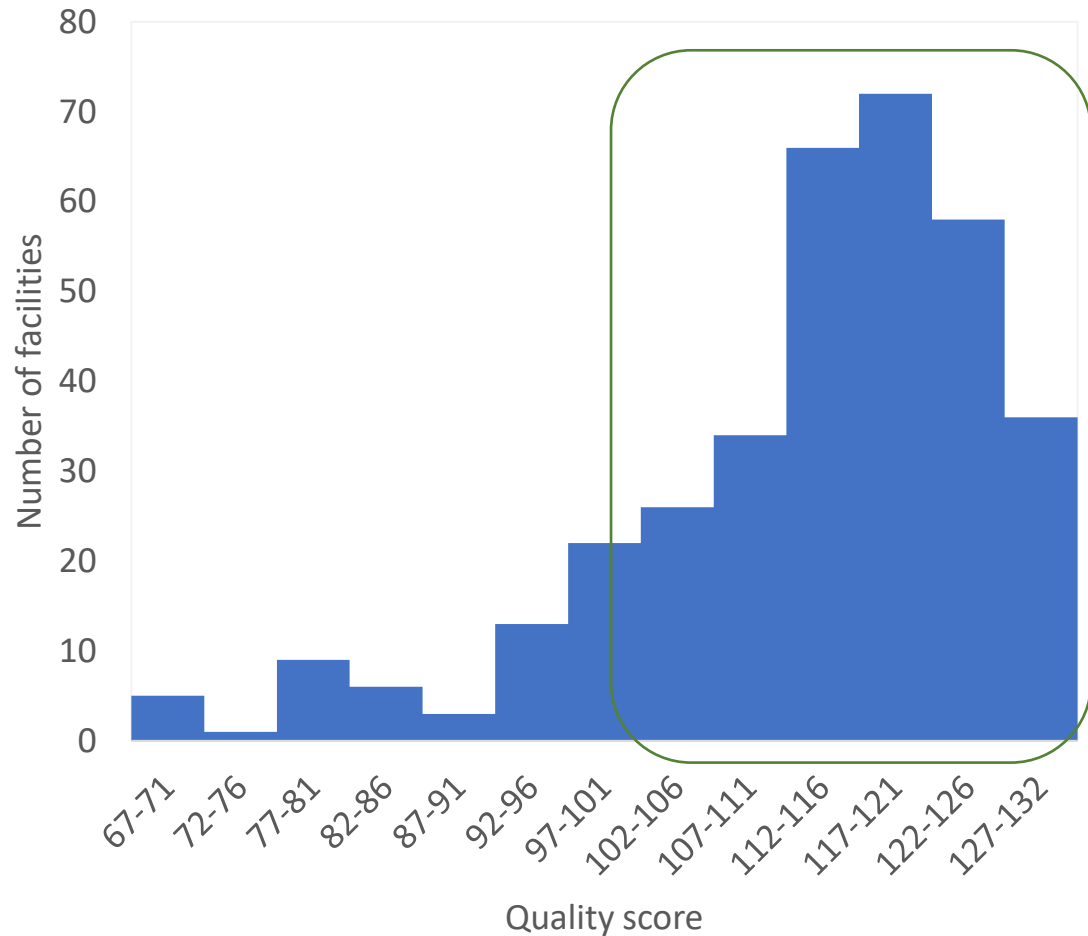
- COVID-19 deeply impacted nursing home residents with severe mortality
- The average population after COVID-19 is younger and more likely to have behavioral health diagnoses as compared to before COVID-19
 - DPH is working to increase nursing home substance use disorder(SUD) capability through a SUD in LTC program



Data Source: CMS Minimum Data Set, extracted May 2021

Nursing Home Quality

Nursing Home Quality Score



Key Points

- State nursing home performance tool measures 4 domains – administration, nursing, resident rights, and food and facility environment
- Most Massachusetts facilities have high quality scores (>100)

Urgent Care



EMS



Emergency Department



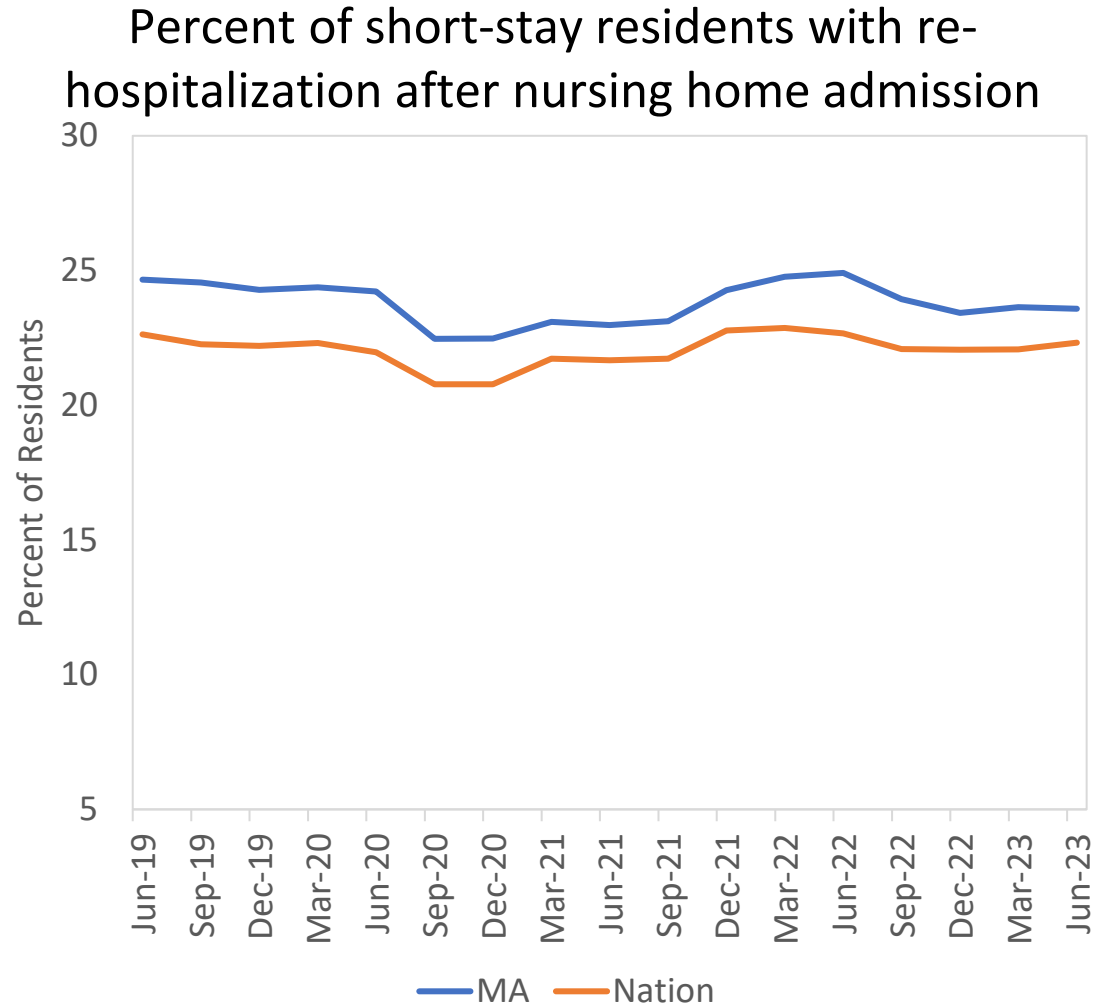
Inpatient Hospitalization



Rehabilitation (SNF)

Data Source: Nursing Home Survey Performance Tool, December 2023

Nursing Home Quality



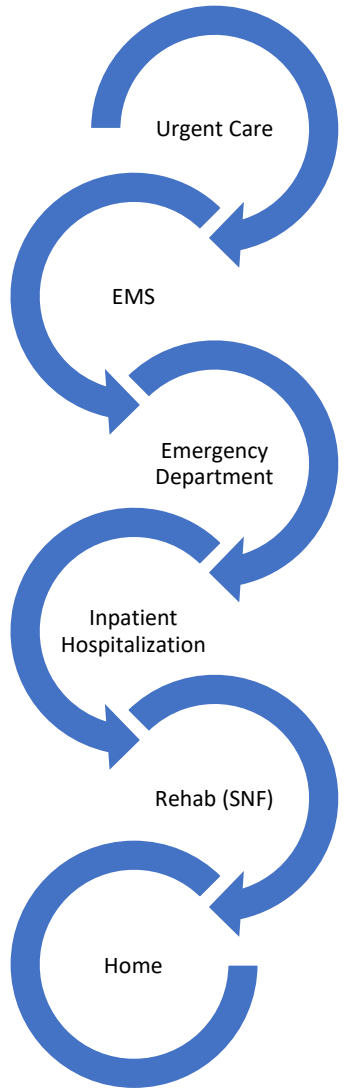
Key Points

- State nursing home performance tool measures 4 domains – administration, Nursing, resident rights, food and facility environment
- Most Massachusetts facilities have high quality scores (>100)
- 25% of the short-stay residents were re-hospitalized after within 30 days of their nursing home admission



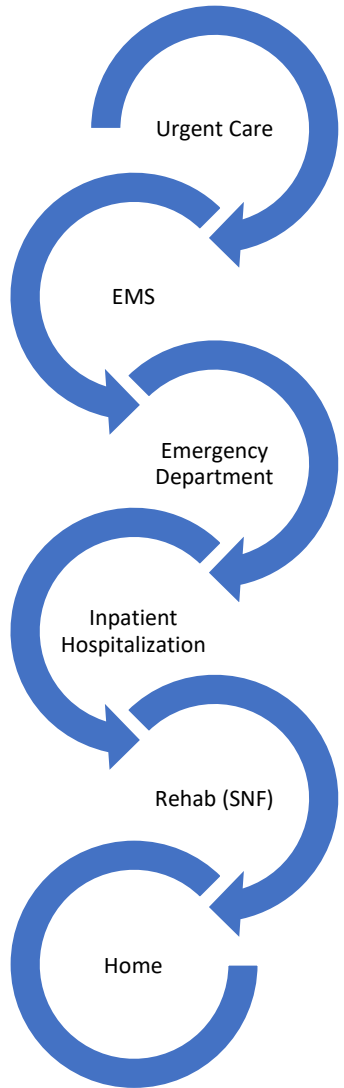
Data Source: CMS Nursing Home Compare, December 2023

Themes across the health system



- COVID-19 pandemic had long-term impacts and changes in care seeking
 - More urgent and emergent care visits observed
 - Some inpatient stays now are outpatient procedures, increased use of community or home-based care
- System has available beds but staffing is a major limitation across settings

Recommendations



- Primary care provider expansion to enable physician assistants to practice autonomously as NPs to meet primary care demand
- Promote telehealth - care in community settings
- Standardize oversight of all urgent care centers through licensure to increase quality and oversight
- Investment in MH programs
- Increase capacity and utilization for retro-transfers to community hospital settings
 - MA ACORN to support hospitals in identifying near real-time bed availability

Data Sources, References, and Technical Notes

Urgent Care:

- [Health Policy Commission](#)
- Syndromic Surveillance, MA DPH

- ED Boarding, MA DPH
- [CMS Hospitals Data](#)
- Department of Mental Health

Emergency Medical Services

- Massachusetts Ambulance Trip Record System (MATRIS)
- MassGIS, cities and towns shapefile
- My License Office, Office of Emergency Medical Services

Hospitals (ED and Inpatient):

- Facility Master File (FMF), MA DPH
- WebEOC
- Syndromic Surveillance, MA DPH
- CaseMix, Center for Health Information and Analysis (CHIA)

Nursing Homes:

- Facility Master File (FMF), MA DPH
- Office of Preparedness and Emergency Management, HMCC Shapefile
- Division of Health Care Facility Certification and Licensure, pending closures
- CMS Minimum Data Set
- [CMS Payroll Based Journal](#)
- [Massachusetts Nursing Home Survey Performance Tool](#)
- [CMS Nursing Home Compare](#)

Thank you for the opportunity to present this information today.

Please direct any questions to:

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Massachusetts Department of Public Health

Modernization of Hospital Occupancy Data Collection

Kerin Milesky

Director, Office of Preparedness and Emergency Management

Tools to surveil hospital capacity

- Understanding health system capacity requires timely, actionable data.
- Existing tools are good for retrospective analysis or disease surveillance but lack the ability to look “now” to support in the moment operational capacity decisions.

COVID-19 Hospital Data Reporting

- During the beginning of the COVID-19 pandemic, the US HHS Secretary requested, then required through Centers for Medicare and Medicaid (CMS) rules, hospital capacity data be submitted daily.
- DPH certified to collect and report on MA hospitals' behalf.
- The CMS mandated, state collected, hospital capacity data has nearly 80,000 *manual* entries over three years, from acute care hospitals.

MA Automated Capacity and Occupancy Reporting Network (MA ACORN) Overview

- DPH applied and was awarded CDC Epidemiology and Laboratory Capacity (ELC) supplemental funding to implement automation of hospital capacity reporting
 - 1 of 3 states awarded this funding
 - Preliminary indications that additional funding will be available from CDC to support maintenance and enhancement of activities
- Automated, near-real time data feed without the need for manual data reporting
 - GE HealthCare (GEHC) works with hospitals to set up automated, aggregated data extracts
 - Extracts are then automatically sent to meet CMS's rule, as well as to provide DPH and facilities with near-real time capacity reporting

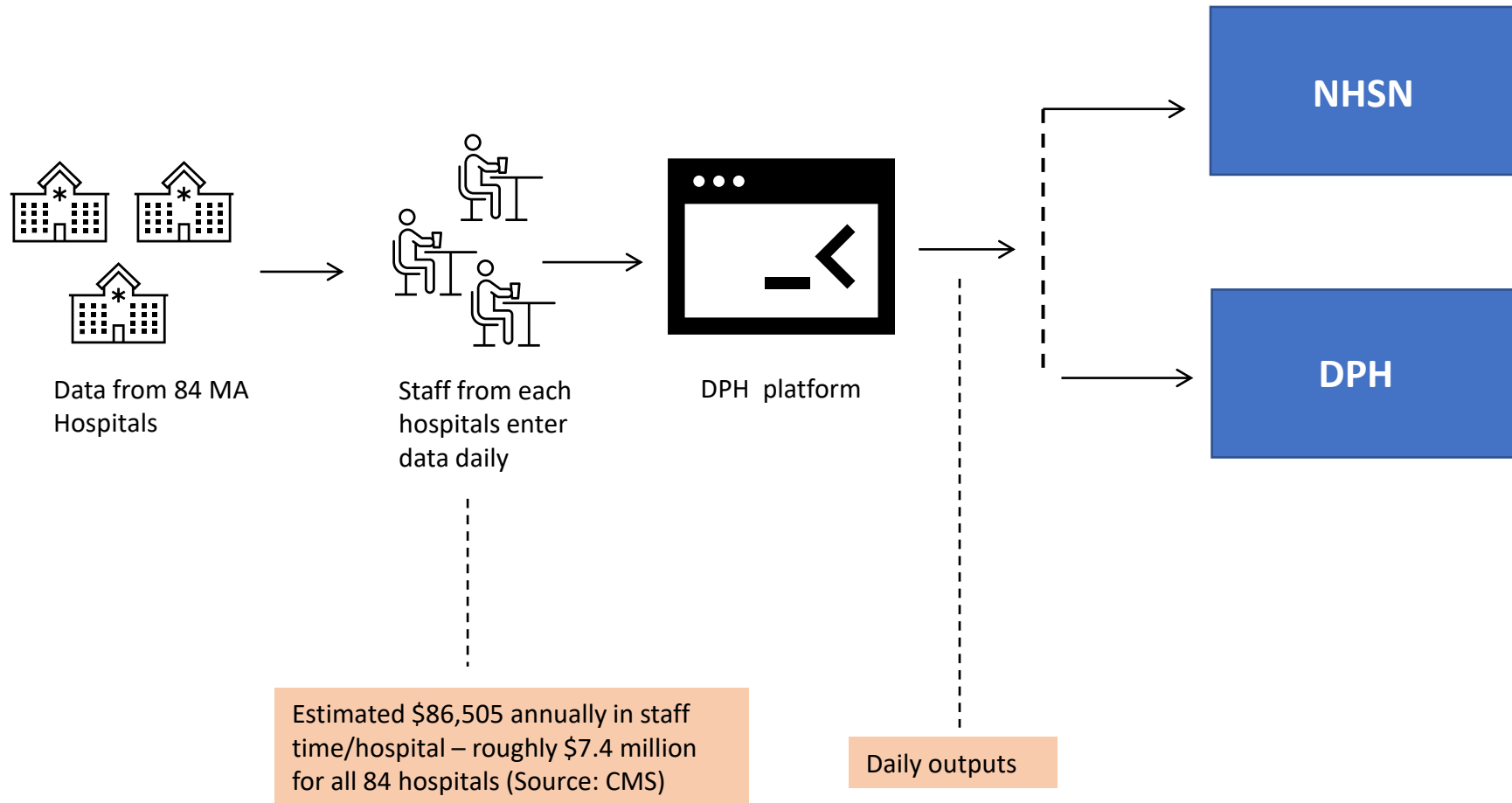
Benefits of MA ACORN

- Dramatically reduces reporting burden on hospitals
- Near real-time identification of capacity supports hospital load balancing
- Provides facilities and DPH situational awareness of occupancy for more informed decision making
- Retaining use of DPH reporting platforms allow hospitals to continue manually inputting some or all data

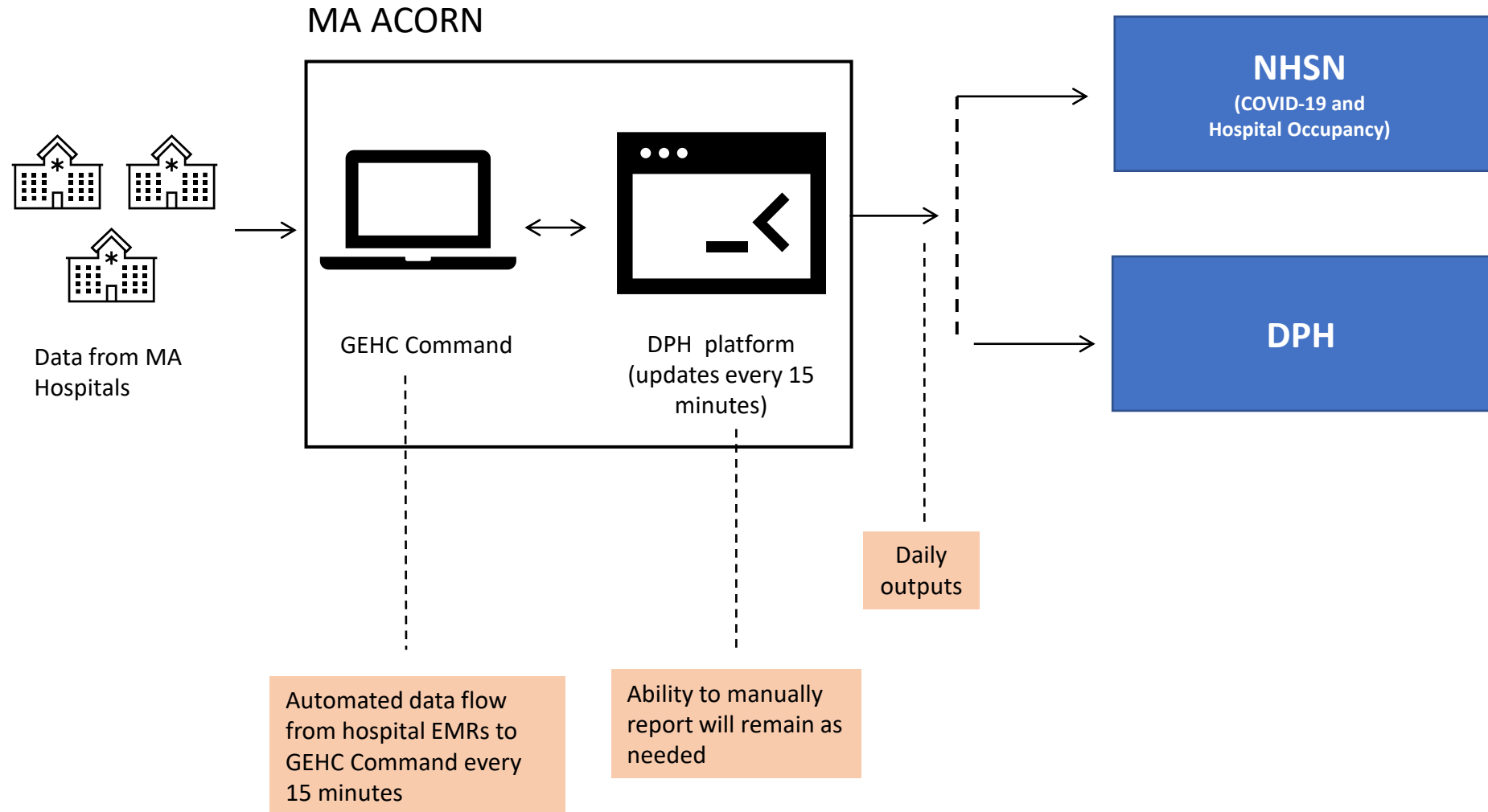
MA ACORN Use Cases

- Pediatric Respiratory Virus Surge
 - Unprecedented surge of pediatric in-patients
 - Limited pediatric capacity in most hospitals required extensive, manual outreach to identify available beds
 - With MA ACORN hospitals would have better access to locate these scarce specialty beds in near real-time instead of “bed shopping”, which is labor and time intensive
- Brockton Hospital Fire and Evacuation
 - 150+ patients evacuated
 - Manual reporting process required around capacity
 - With MA ACORN they would immediately be able to visualize capacity of nearby facilities and coordinate accordingly

Hospital Data Flow in Massachusetts Today



Hospital Data Flow in Massachusetts after Transition



How Does This File Transfer Work?

- Data extracts are sent by hospitals and picked up by GEHC's technology. GEHC is not entering hospitals' electronic medical records (EMRs).
- There is no change to public-facing information. Data access remains the same as it is currently.
- Data currently accessible on DPH platform becomes near real-time (every ~15 min.) as it and GEHC will have a bidirectional data flow.
- Data is encrypted at-rest and in-flight.

Comparison With Current Reporting System

No Change

Same data is collected

Same DPH end-user platform

Same access for hospitals

Same public-facing data shared

Improvements

Eliminates or decreases manual data entry from facilities

More up-to-date information
(every 15 minutes)

Status of the Project

- Procurement of the software is complete.
- GE HealthCare is in the process of standing up the virtual environment to be able to receive data.
- DPH and GE HealthCare will work with hospitals to support implementation with IT teams.
- DPH will identify 2-5 hospitals as early adopters, with GE HealthCare and DPH supporting implementation of all additional interested hospitals on a rolling basis.
- 36 hospitals have signaled early interest in participating.

Hospitals with Early Interest in Participating (as of 1/9/2024)

Facility Name	EMR	Region
BAYSTATE MEDICAL CENTER	Cerner	1
BAYSTATE FRANKLIN MEDICAL CENTER	Cerner	1
BAYSTATE NOBLE HOSPITAL	Cerner	1
BERKSHIRE MEDICAL CENTER	Meditech	1
FAIRVIEW HOSPITAL	Meditech	1
WESTERN MASSACHUSETTS HOSPITAL	Meditech	1
CLINTON HOSPITAL	EPIC	2
HEALTHALLIANCE HOSPITALS, INC	EPIC	2
NASHOBA VALLEY MEDICAL CENTER	Meditech	2
UMASS MEMORIAL - MEMORIAL CAMPUS	EPIC	2
UMASS MEMORIAL - HARRINGTON HOSPITAL	EPIC	2
UMASS MEMORIAL - UNIVERSITY CAMPUS	EPIC	2
HOLY FAMILY HOSPITAL	Meditech	3
MERRIMACK VALLEY HOSPITAL	Meditech	3
TEWKSBURY HOSPITAL	Meditech	3
CHA- CAMBRIDGE HOSPITAL	EPIC	4AB
CHA- EVERETT HOSPITAL	EPIC	4AB

Facility Name	EMR	Region
LAHEY HOSPITAL & MEDICAL CENTER, BURLINGTON	EPIC	4AB
METROWEST MEDICAL CENTER- FRAMINGHAM	Cerner	4AB
METROWEST MEDICAL CENTER- NATICK	Cerner	4AB
SOUTH SHORE HOSPITAL	EPIC	4AB
UMASS MEMORIAL HEALTH-MARLBORO HOSPITAL	EPIC	4AB
BOSTON CHILDREN'S HOSPITAL	Cerner	4C
BOSTON MEDICAL CENTER	EPIC	4C
CARNEY HOSPITAL	Meditech	4C
DANA-FARBER CANCER INSTITUTE	EPIC	4C
HEBREW REHABILITATION CENTER	Meditech	4C
ST. ELIZABETH'S MEDICAL CENTER	Meditech	4C
CAPE COD HEALTHCARE	EPIC	5
GOOD SAMARITAN MEDICAL CENTER	Meditech	5
MARTHA'S VINEYARD HOSPITAL INC	EPIC	5
MORTON HOSPITAL AND MEDICAL CENTER	Meditech	5
NANTUCKET COTTAGE HOSPITAL	EPIC	5
SAINT ANNE'S HOSPITAL	Meditech	5
SIGNATURE HEALTHCARE BROCKTON HOSPITAL	Meditech	5
STURDY MEMORIAL HOSPITAL	Cerner	5



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**Next Meeting:
February 14, 2024**