Massachusetts Department of Public Health

TRAUMA SYSTEMS COMMITTEE

January 28, 2026

Bureau of Health Care Safety and Quality
Massachusetts Department of Public Health

Meeting Agenda

- Department Updates
- Substance Use Screening Among Patients Treated for Trauma in MA Before, During, and After COVID-19 Pandemic
- Health Care Emergency Preparedness and Response Systems
- Public Comment (if time allows)

Department Update

- **Prehospital Blood Transfusion Protocol Update**

- **Themes from "Future of Trauma Systems Committee Meetings"**
  - Biggest Problems in Trauma Care and Possibilities for Improvement:
    - Lack of post-acute beds and need for more
    - Increased hospital costs
    - Improved and more interfacility transfers
    - Improved regional communication (CMED)
  - Future Contributions from the Committee:
    - Active participation
    - Access to more data

Massachusetts Trauma Registry Updates

- All data through Calendar Year (CY) 2025 Quarter 3 were due December 12, 2025
- Quality improvement activities are ongoing
- CY 2026 data specifications will be posted after registry vendor implements updates, expected spring 2026

Quarter	Reporting Period	Data Submission Deadline
CY 2026 Q1	January 1-March 31	June 12
CY 2026 Q2	April 1-June 30	September 11
CY 2026 Q3	July 1-September 30	December 11
CY 2026 Q4	October 1-December 31	March 12

*All dates are subject to change by the Department.

Trauma Registry Data Submissions from Community Hospitals

- Community Hospitals continue to receive support from DPH and the vendor ESO to improve reporting
  - This includes reviewing specifications, feedback on submission files and data quality reporting
- Nearly all community hospitals that have submitted data have completed submissions
- 9 community hospitals have not made successful Trauma Registry submissions for CY 2025

Count of Community Hospital Trauma Registry Submissions by Year			
Year	Number of Facilities	# Community Hospitals Reporting some Quarters	# Up to Date
FFY 2021	44	0	42
FFY 2022	44	0	42
CY2022 Q4 (10/1/2022-12/31/2022)	44	0	42
CY 2023*	44	4	40
CY 2024	44**	2	38
CY2025 Q1-Q3	41^	4	29

*Signature Brockton Hospital exempt from CY2023 Q2 through CY2024 Q2 due to Feb 2023 fire

**Melrose Wakefield Hospital became designated trauma center Jan 2024. North Adams Regional Hospital became community hospital June 2024

^Carney Hospital and Nashoba Hospital closed August 2024. Cape Cod Hospital became a trauma center Jan 2025

Data Source: Massachusetts Trauma Registry, extracted 12/17/2025

Trauma Registry Data Submissions from Designated Trauma Centers

- All Massachusetts Trauma Centers have successfully submitted data to Trauma Registry CY2024
- Nearly all Massachusetts Trauma Centers have successfully submitted data for CY2025 Q1 through Q3
- CY2025 Q4 (10/01/2025-12/31/2025) data submission is due March 13, 2026
- Submissions are being reviewed for data quality

Count of Trauma Center Registry Submissions by Year			
Year	Number of Facilities	# Trauma Centers reporting some Quarters	# Up to Date
CY 2024	18	n/a	18
CY 2025 Q1-Q3	19	1	18

Data Source: Massachusetts Trauma Registry, extracted 12/17/2025

Massachusetts Trauma Updates

Updated trauma center destination maps and list by EMS Region with trauma level designation

EMS Region	Trauma Center	Adult Trauma Level	Pediatric Trauma Level
Region 1 - Western MA	Baystate Medical Center	Level I	Level II
	Berkshire Medical Center	Level III	
Region 2- Central MA	UMASS Memorial Medical Center	Level I *	Level I
Region 3 - Northeastern MA	Beverly Hospital	Level III *	
	Merrimack Health Lawrence Hospital	Level III *	
	Lowell General Hospital	Level III	
	MelroseWakefield Healthcare Melrose Wakefield Hospital	Level III	
	Salem Hospital	Level III	
Region 4 - Metropolitan Boston	Beth Israel Deaconess Medical Center	Level I	
	Boston Children's Hospital		Level I
	Boston Medical Center	Level I	Level I
	Brigham and Women's Hospital	Level I	
	Lahey Hospital and Medical Center	Level I	
	Massachusetts General Hospital	Level I	Level I
	South Shore Hospital	Level II	
	Tufts Medical Center	Level I *	
Region 5 - Southeastern MA/Cape Cod	Boston Medical Center - South	Level III	
	Southcoast Health - St. Luke's Hospital	Level II	
	Cape Cod Hospital	Level III *	

*Facility trauma level designation reverified since 1/1/2025

Substance Use Screening Among Patients Treated for Trauma Injuries in Massachusetts Before, During, and After the COVID-19 Pandemic

Will Correira, Leah Pinckney, Jiankun Kuang, Katherine Saunders

Introduction

- Previous DPH analyses suggest that the COVID-19 pandemic may have affected MA trauma injury incidence and reporting beginning in March 2020.

- Evidence from other states suggests that substance use among trauma patients may have increased during the pandemic; however, state-level trends in MA have not been examined.[1,2]

- Research is needed to inform population-specific treatment and prevention strategies related to substance use and trauma injury.

Objective

Explore reported substance use screening among MA trauma patients before, during, and after the COVID-19 pandemic.

- Provide updated estimates of trauma injury incidence and reported frequency of substance use screening; and

- Describe variation in substance use screening by select patient and geographic characteristics.

Methods: Data Source

MA State Trauma Registry

- Database maintained by DPH to collect information about patients who received medical care for trauma injuries.[3]
- DPH Hospital Licensure Regulations require all acute care hospitals to submit quarterly data to the Registry.[4]
- Records collect a comprehensive clinical view of trauma patients' diagnoses, outcomes, and characteristics.[3]

Methods: Identifying Events of Interest

- **Cases must have sustained ≥1 traumatic injury within 14 days of hospital encounter.**

- To be eligible for inclusion, records must include specific ICD-10 codes and meet specific patient admission criteria.[3]

- Data from March 2018 – March 2024 and available as of July 10, 2025 were included in analyses.

Methods: Exposure of Interest

- **Examined three time periods:**
  - Pre-pandemic period: March 24, 2018 – March 23, 2020
  - Pandemic period: March 24, 2020 – March 23, 2022
  - Post-pandemic period: March 24, 2022 – March 23, 2024
- Pandemic period selected in consideration of the stay-at-home order issued by Governor Baker on March 23, 2020.[5]

Methods: Outcomes of Interest

- **Primary Outcome:** Administration of a substance use screen within 24 hours of first hospital encounter.

- **Secondary Outcome:** Positive test result for ≥1 drug after administration of a substance use screen within 24 hours of first hospital encounter.

Status	Test Result
Included	Amphetamine
	Barbiturate
	Benzodiazepines
	Cocaine
	Methamphetamine
	Ecstasy
	Methadone
	Opioid
	Oxycodone
	Phencyclidine
	Tricyclic Antidepressant
	Cannabinoid
	Other
	None (excludes drugs used for patient treatment)
Excluded	Not Tested

Methods

- **Described substance use screening by time, patient characteristics, and geography.**
  - Time: Before, during, and after the COVID-19 pandemic
  - Patient: Age, gender, and race/ethnicity
  - Geography: Facility location (EMS region)

Methods: Statistical Analyses

- Chi-square tests were used to compare the frequency of reported substance use screening and positivity during each period, with the time before the pandemic considered the referent period.

- A Poisson generalized linear model, which included an offset term accounting for trauma variation over time, was used to assess the trend in substance use screening following pandemic onset.

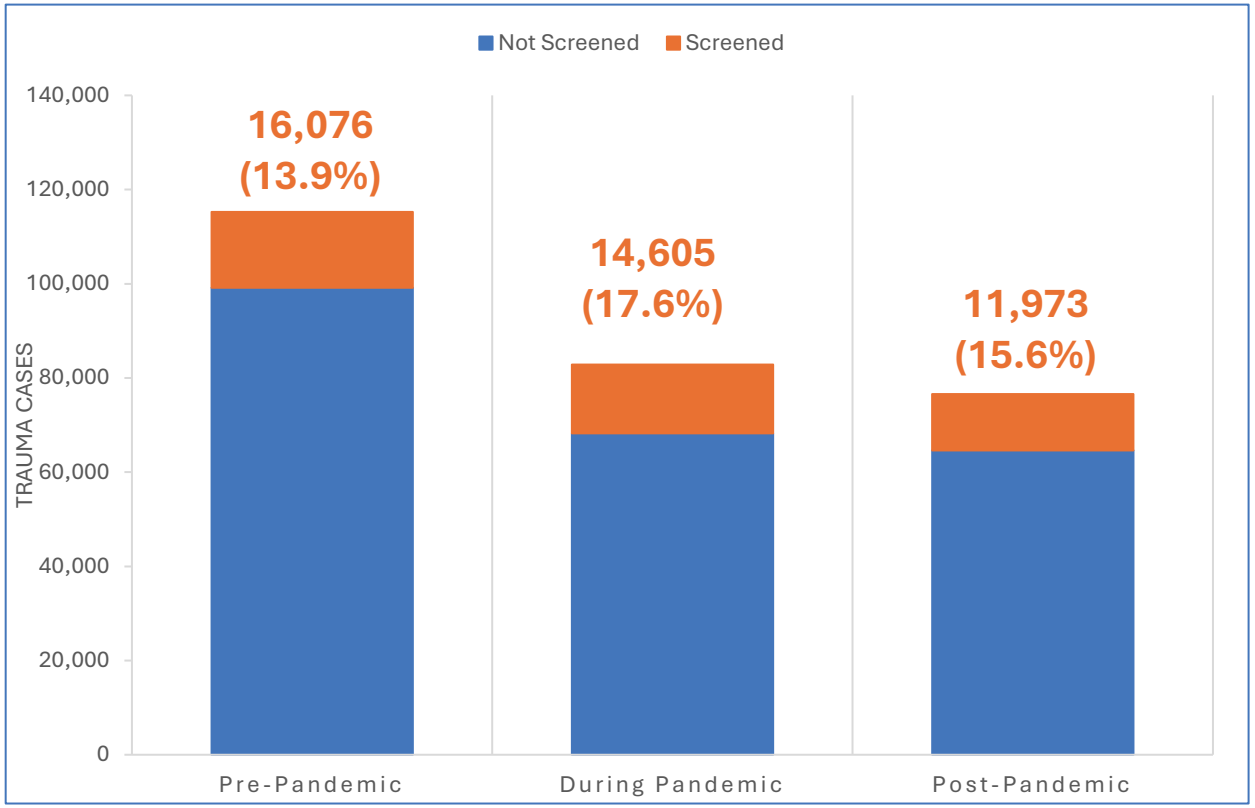
- Analyses were conducted in July 2025 using SAS Studio.

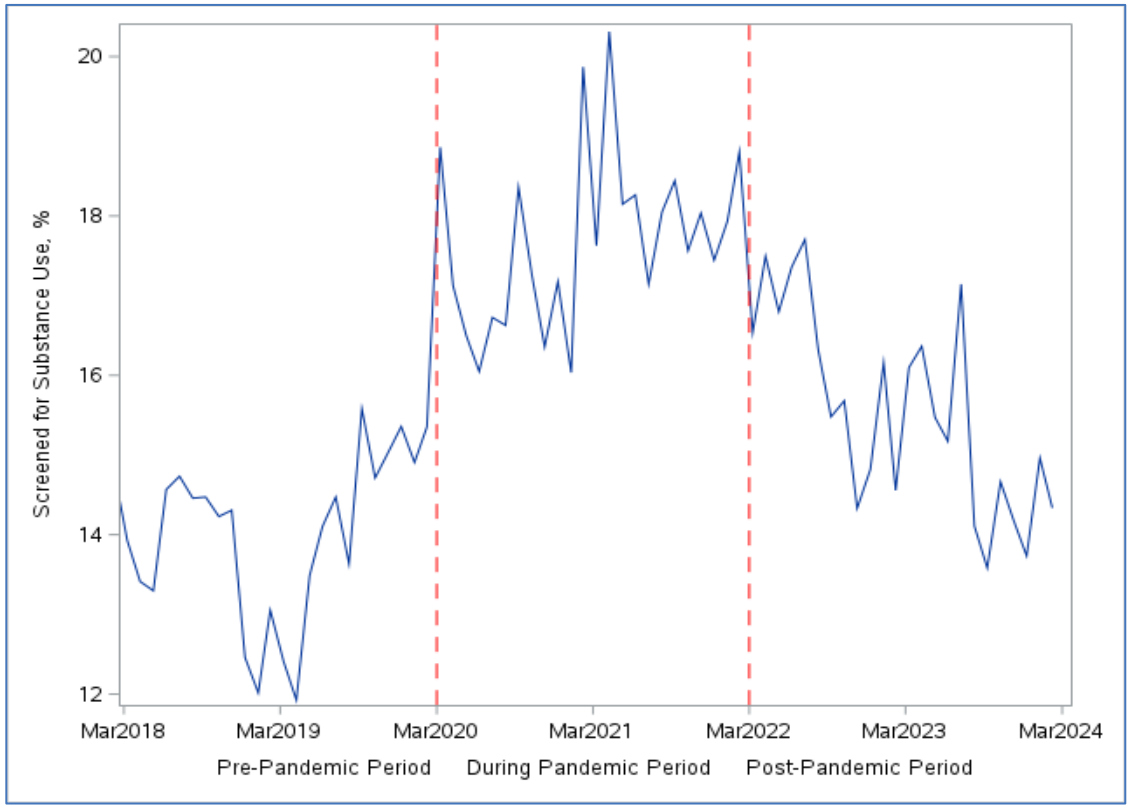
Results

- **Study sample comprised 274,664 trauma cases:**
  - Pre-pandemic: 115,245 (42.0%)
  - During: 82,838 (30.2%)
  - Post-pandemic: 76,581 (27.9%)

Trauma Cases Screened for Substance Use Before, During, and After the COVID-19 pandemic

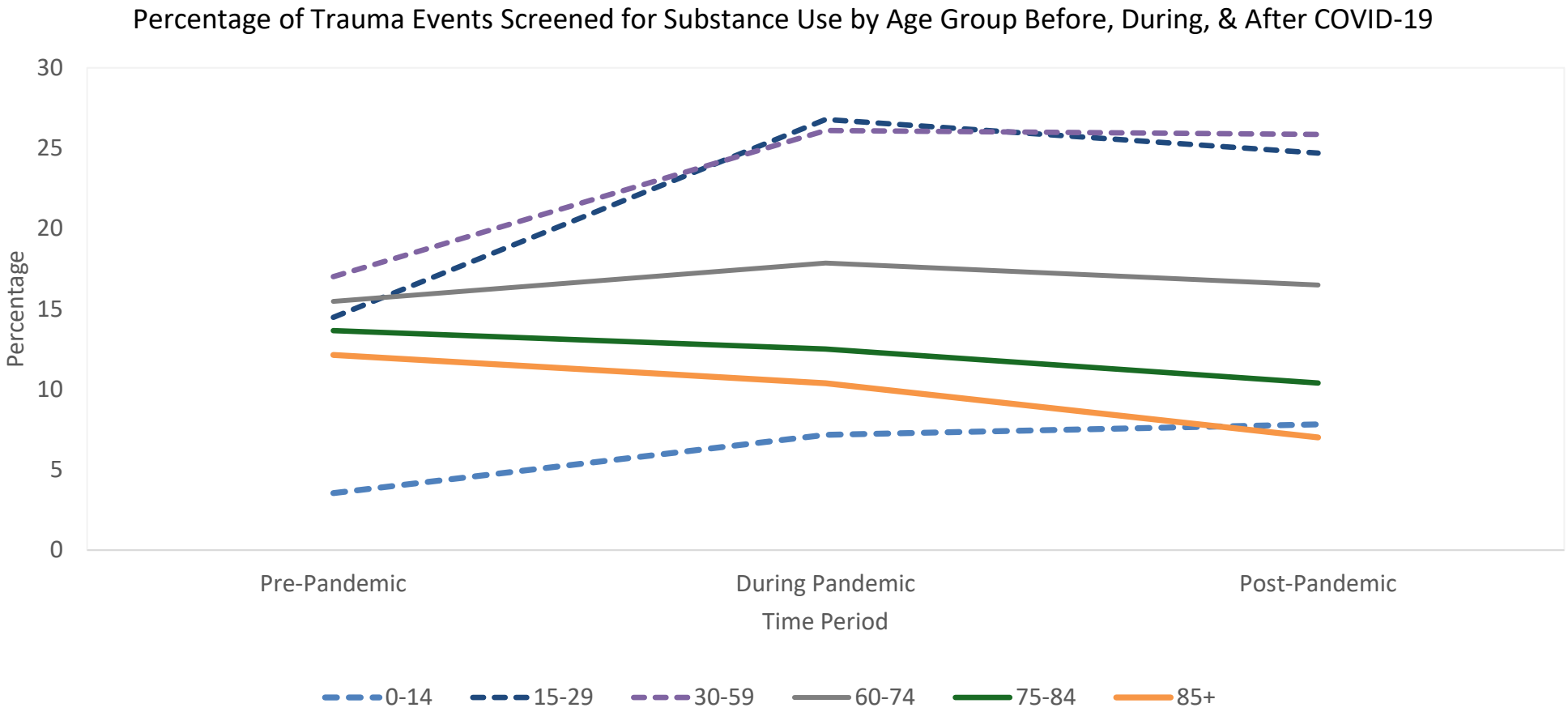
- Compared to the pre-pandemic period, the trauma cases **decreased** by 25%
- The proportion of trauma patients screened **increased** from a pre-pandemic low of 12% to a peak of 20% after accounting for temporal variations in case volume.





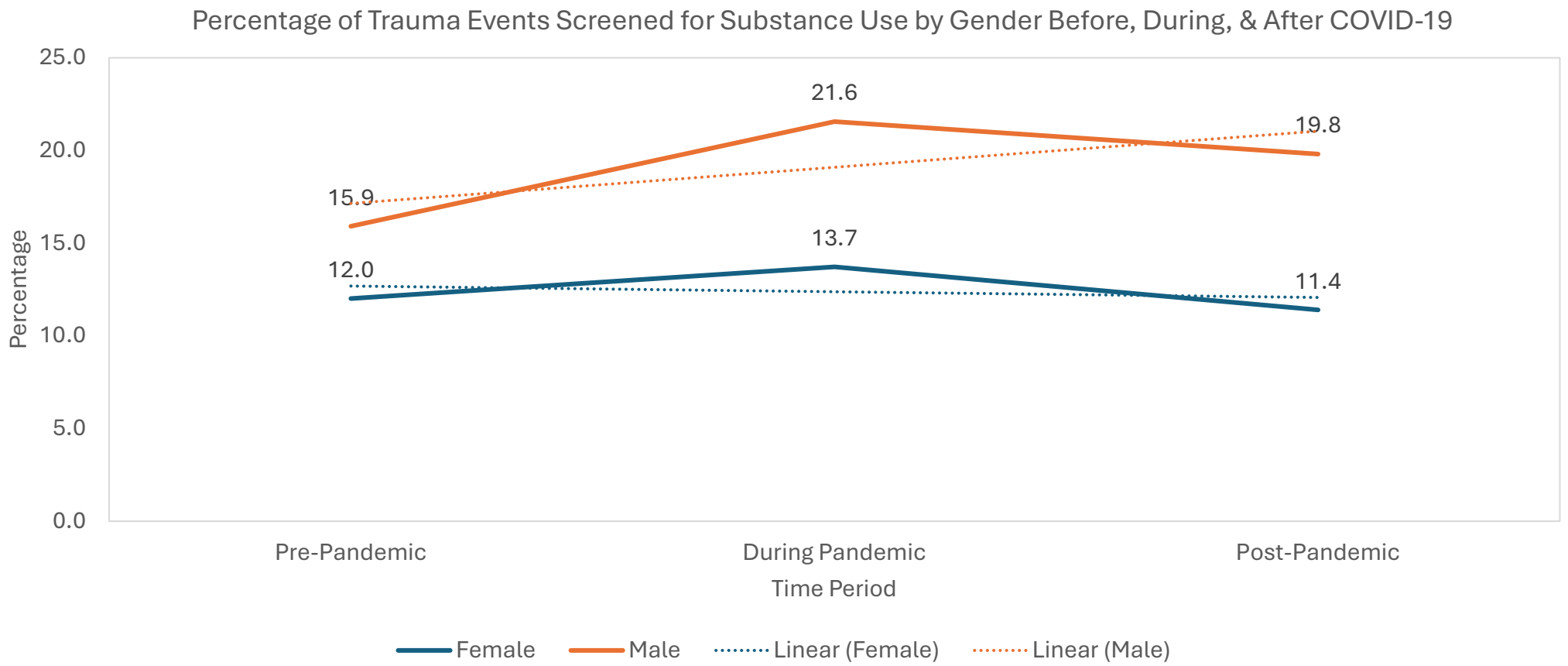
Characteristics of Trauma Cases Screened for Substance Use Before, During, and After the COVID-19 Pandemic: Age group

- Patients younger than 60 years old had an overall increase in substance use screening compared to that of the pre-pandemic period.
- Older adults 75+ years old experienced an overall decrease in substance use screening from pre- to post-pandemic.



Characteristics of Trauma Cases Screened for Substance Use Before, During, and After the COVID-19 Pandemic: Gender

- Male patients were screened more frequently than female patients.
- Overall, female patients experienced a **decrease** in substance use screening whereas male patients experienced an **increase** in screening.

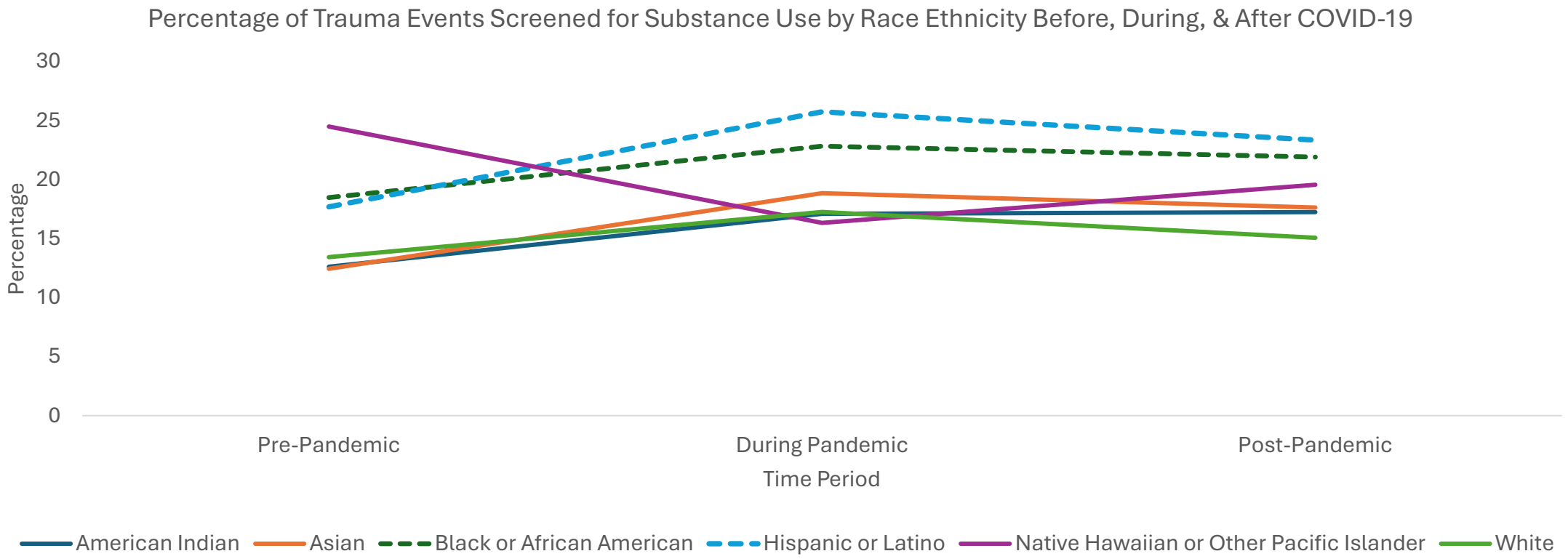


Trauma Cases Screened for Substance Use by Race Ethnicity Before, During, and After the COVID-19 Pandemic

	Pre-Pandemic		During Pandemic		Post-Pandemic	
Race/Ethnicity	**Cases**	**Screens (%)**	**Cases**	**Screens (%)**	**Cases**	**Screens (%)**
All	115,245	16,076 (13.9)	82,838	14,605 (17.6)	76,882	11,983 (15.6)
American Indian	111	14 (12.6)	117	20 (17.1)	87	15 (17.2)
Asian	2,645	329 (12.4)	1,677	316 (18.8)	1,810	319 (17.6)
Black or African American	**6,512**	**1,203 (18.5)**	**5,082**	**1,160 (22.8)**	**4,518**	**990 (21.9)**
Hispanic or Latino	**6,841**	**1,210 (17.7)**	**5,913**	**1,522 (25.7)**	**6,058**	**1,414 (23.3)**
Native Hawaiian or Pacific Islander	49	12 (24.5)	49	8 (16.3)	46	9 (19.6)
Two or More	185	16 (8.6)	1,141	25 (2.2)	1,631	22 (1.3)
Unknown	5,537	756 (13.7)	6,523	799 (12.2)	6,841	797 (11.7)
White	93,365	12,536 (13.4)	62,336	10,755 (17.3)	55,891	8,417 (15.1)

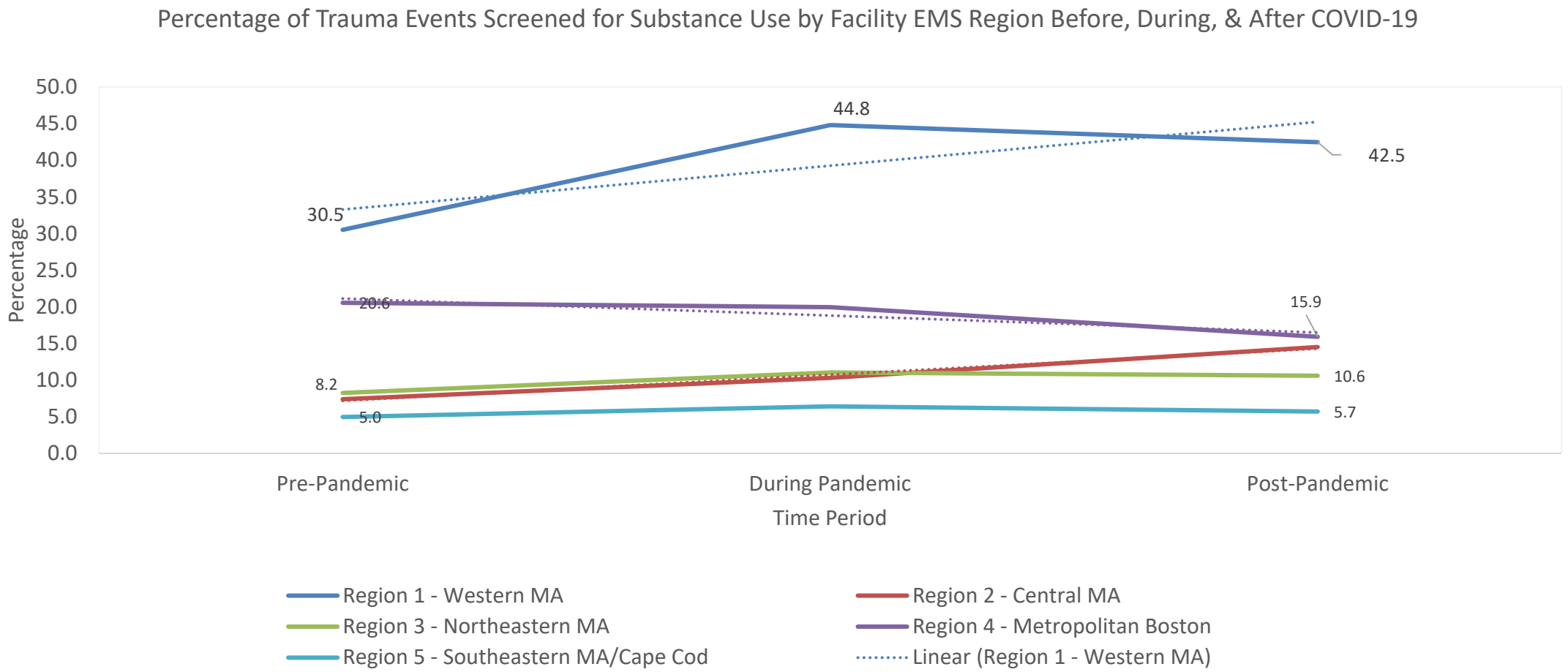
Characteristics of Trauma Cases Screened for Substance Use Before, During, and After the COVID-19 Pandemic: Race/Ethnicity

- Overall, substance use screening was highest among Hispanic patients followed by Black patients; whereas screening was lowest among White patients.
- Substance use screening increased during the pandemic and decreased after the pandemic across race ethnicity.



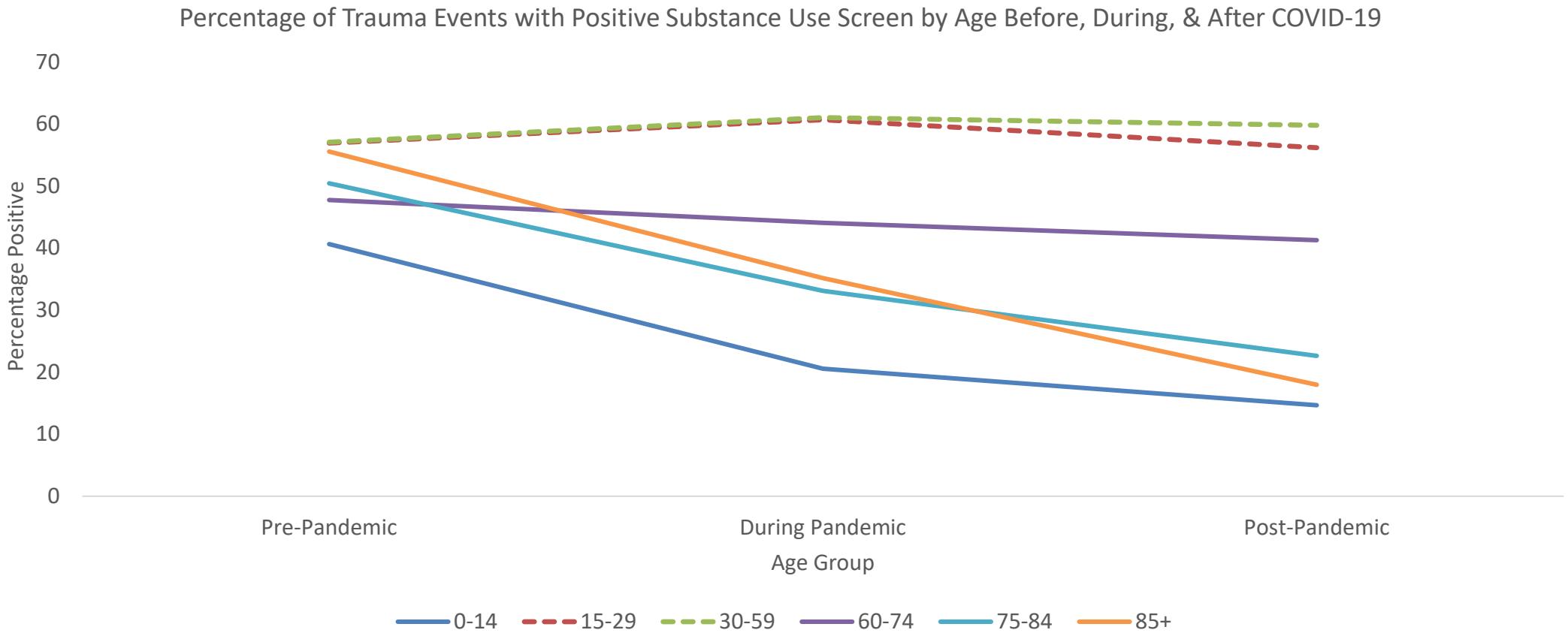
Characteristics of Trauma Cases Screened for Substance Use Before, During, and After the COVID-19 Pandemic: Facility location

- Overall, substance use screening increased among all the regions except metropolitan Boston.
- Western MA had the highest screening rate and increased during and after the pandemic (50% increase). Metropolitan Boston decreased by 20%



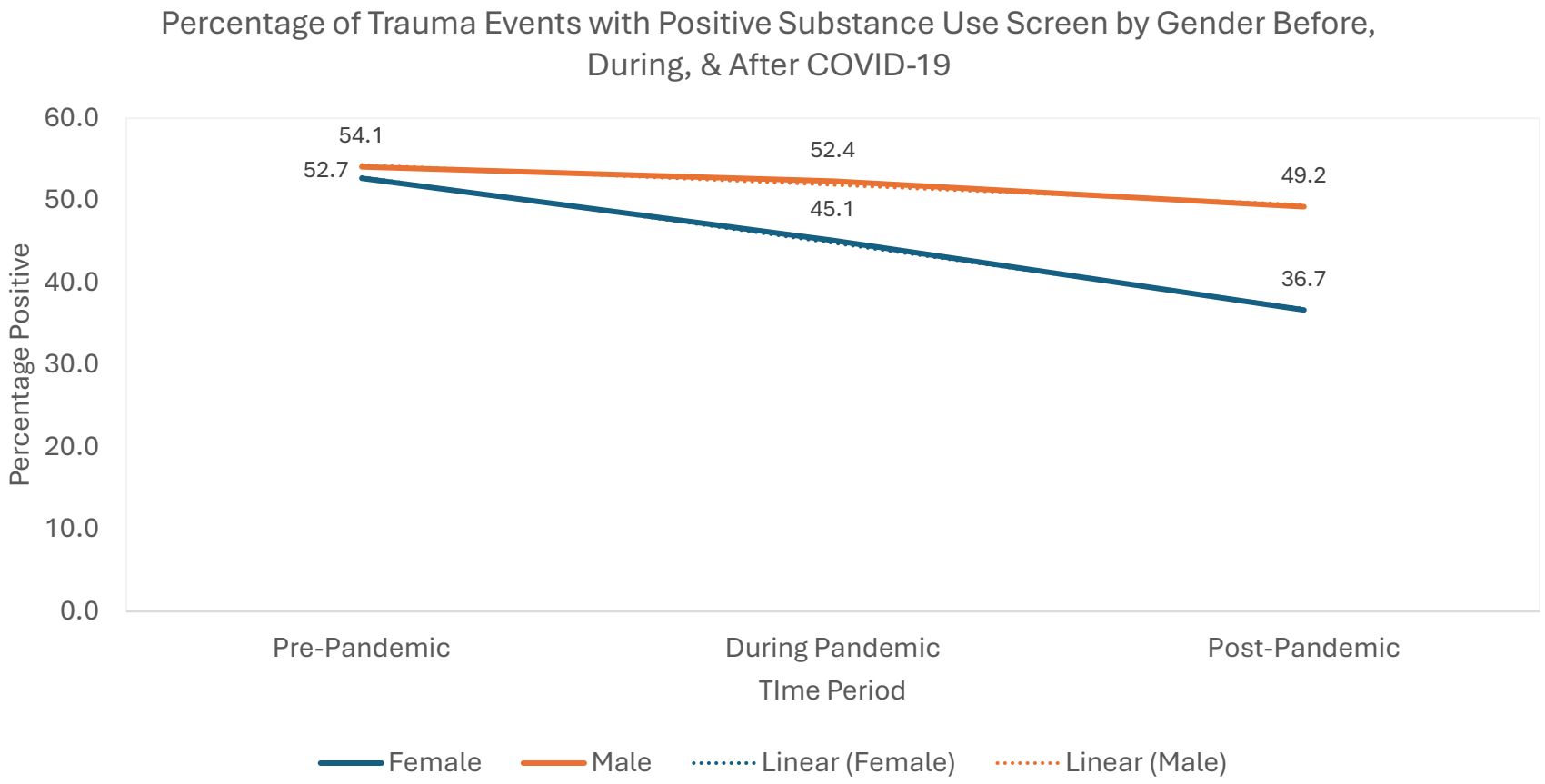
Trauma Cases Screened Positive for Substance Use Before, During, and After the COVID-19 Pandemic: Age Group

- Overall, trauma patients screening positive for substance use decreased across the pandemic period.
- However, trauma patients under 60 years old who were screened consistently tested positive more than their older adult counterparts.



Characteristics of Trauma Cases Screened Positive for Substance Use Before, During, and After the COVID-19 Pandemic: Gender

- Male patients screened positive for substance use more frequently than female patients.
- All patients experienced a decrease in positive screens During and Post-Pandemic compared to Pre-Pandemic.

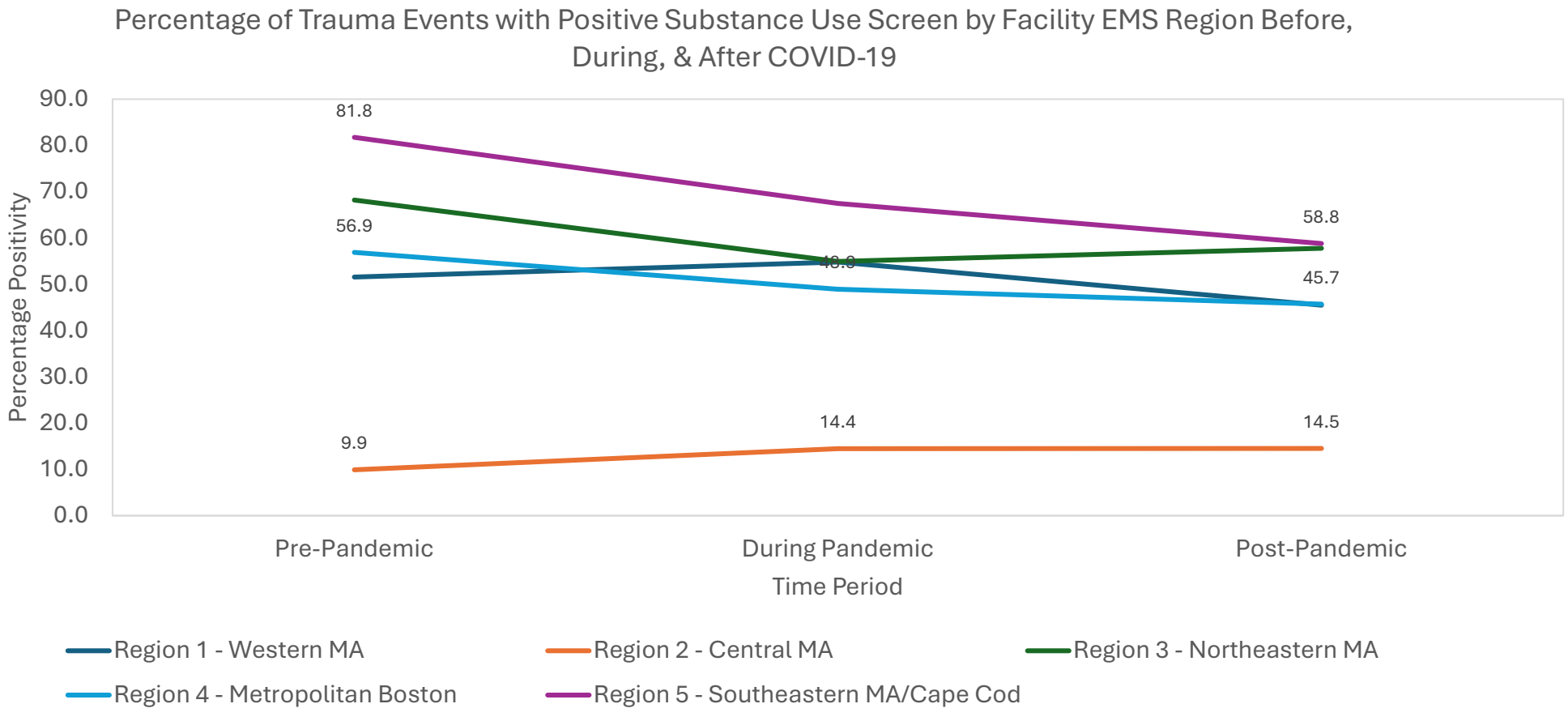


Trauma Cases Screens and Positivity for Substance Use by Race Ethnicity Before, During, and After the COVID-19 Pandemic

	Pre-Pandemic		During Pandemic		Post-Pandemic	
Race/Ethnicity	Screen Cases	Positive Screens (%)	Screen Cases	Positive Screens (%)	Screen Cases	Positive Screens (%)
All	**16,076**	**8,599 (53.5)**	**14,605**	**7,236 (49.5)**	**11,973**	**5,349 (44.6)**
American Indian	14	5 (35.7)	20	11 (55)	15	3 (20)
Asian	329	157 (47.7)	316	89 (28.2)	319	68 (21.3)
Black or African American	1,203	711 (59.1)	1,160	691 (59.6)	990	577 (58.3)
Hispanic or Latino	**1,210**	**580 (47.9)**	**1,522**	**781 (51.3)**	**1,414**	**733 (51.8)**
Native Hawaiian or Pacific Islander	**12**	**4 (33.3)**	**8**	**3 (37.5)**	**9**	**7 (77.8)**
Two or More	**16**	**5 (31.3)**	**25**	**14 (56)**	**22**	**14 (63.6)**
Unknown	**756**	**289 (38.2)**	**799**	**421 (52.7)**	**797**	**416 (52.2)**
White	12,536	6,848 (54.6)	10,755	5,226 (48.6)	8,417	3,531 (42)

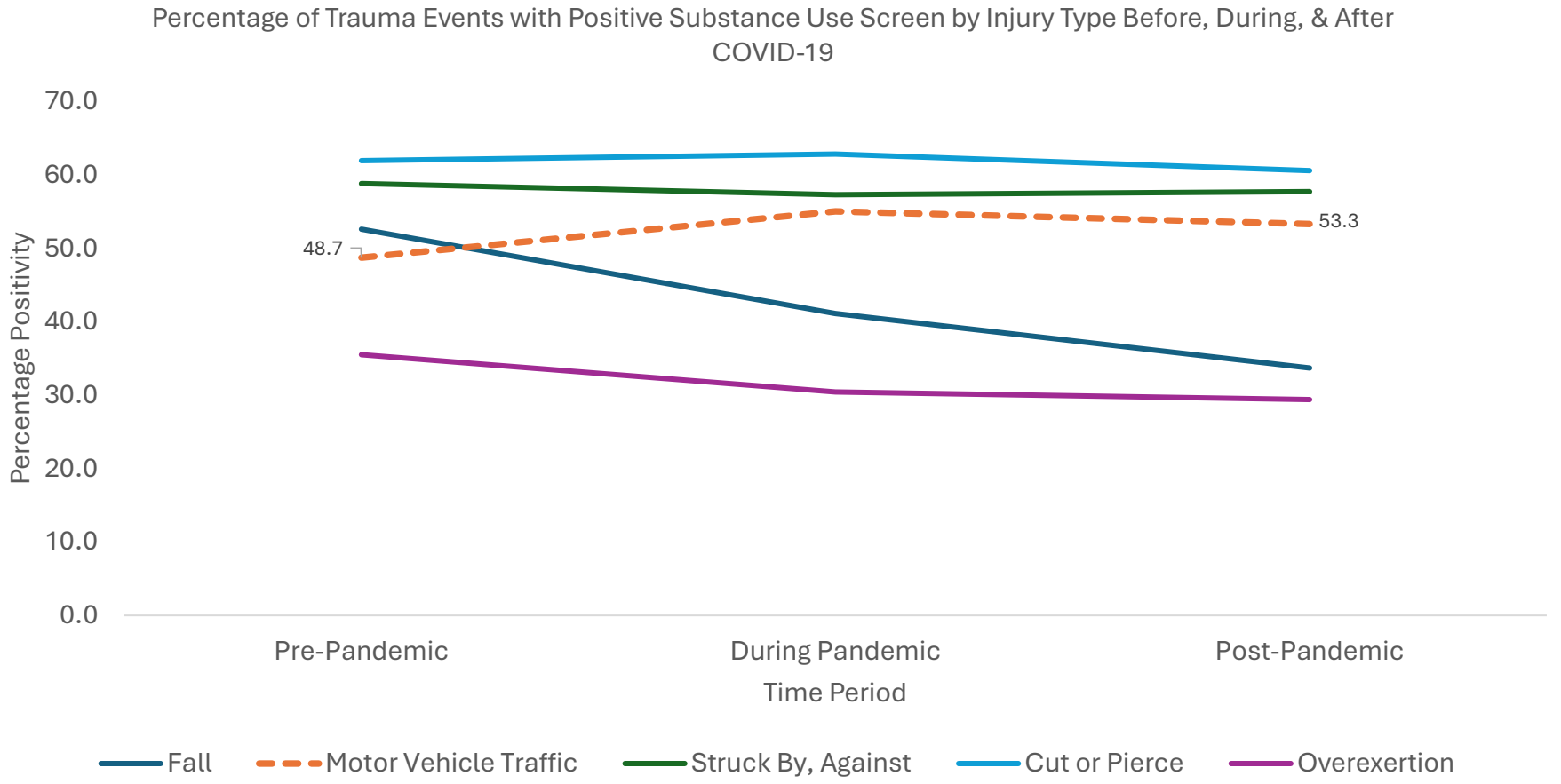
Trauma Cases Screened Positive for Substance Use Before, During, and After the COVID-19 Pandemic: Facility Location

- Overall, positive substance use screening decreased across the pandemic.
- Central MA observed an increase in positive substance use screens



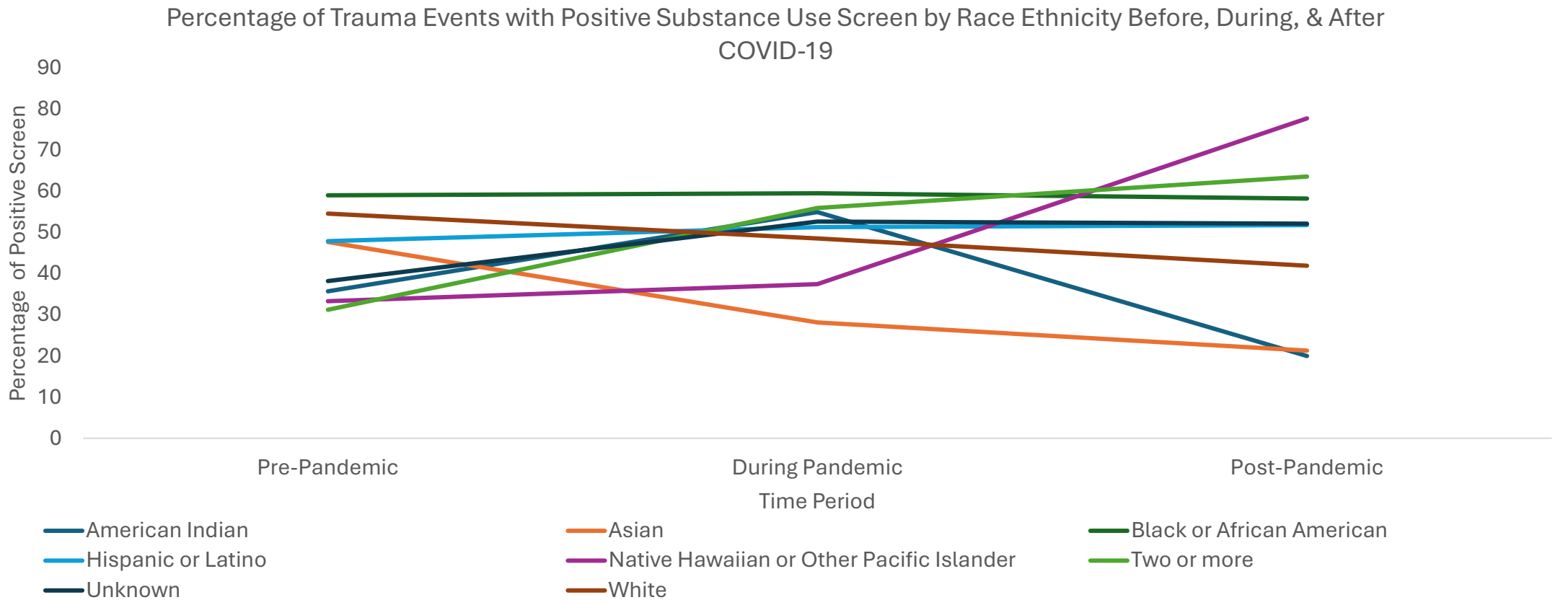
Trauma Cases Screened Positive for Substance Use Before, During, and After the COVID-19 Pandemic: Injury Type

- Overall, positive screens decreased for the top 5 most common injury types across the pandemic.
- Notably, Motor Vehicle Traffic injury-related trauma cases screening positive for substance use increased 10% During the Pandemic and remained elevated Post-Pandemic compared to Pre-Pandemic.



Trauma Cases Screened Positive for Substance Use Before, During, and After the COVID-19 Pandemic: Race/Ethnicity

- Overall, positive substance use screening increased during and the decreased after the pandemic.
- However, Native Hawaiian or Other Pacific Islander, Two or more races, and Unknown observed a decrease in positive substance use screens.



Discussion

- 13.9% of patients treated for trauma injuries in MA were reportedly screened for substance use before the COVID-19 pandemic compared to 15.6% after.

- Demographic and geographic differences in reported substance use screening were identified.

- Additional longitudinal research is needed to examine trends in substance use screening and positivity among trauma patients.

Limitations

- Analyses relied on MA Trauma Registry Data which were not collected for this research.
- Seasonality of trauma injuries was not accounted for.
- Appropriateness of administering substance use screenings for trauma cases was not assessed.

Conclusion

- **Among patients treated for trauma injuries in MA, we found evidence of increased substance use screening following the COVID-19 pandemic.**

- **These results also highlight wide variability in substance use screening by patient and geographic characteristics.**

Acknowledgements

References

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2. Young, K. N., Yeates, E. O., Grigorian, A., Schellenberg, M., Owattanapanich, N., Barmparas, G., … Nahmias, J. (2021). Drug and alcohol positivity of traumatically injured patients related to COVID-19 stay-at-home orders. *The American Journal of Drug and Alcohol Abuse*, *47*(5), 605–611. https://doi.org/10.1080/00952990.2021.1904967
3. State Trauma Registry Data Submission Guide | Mass.gov. Accessed July 14, 2025. State Trauma Registry Data Submission | Mass.gov
4. 105 CMR 130.000: Hospital Licensure | Mass.gov. Accessed July 14, 2025.
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