



JANET T. MILLS
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MICHAEL SAUSCHUCK
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J. SAM HURLEY
 DIRECTOR

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Report to the Maine EMS Board Regarding Pilot Transition to EMT Portfolios

On 3 May 2022, the Maine EMS Board approved a pilot transition from a Psychomotor Skills Exam (PSE) to use of a skills portfolio model. The ask was to report in one year on progress and data of pass rates and post-graduation performance.

Measuring Performance

The skills portfolio consists of student minimum competencies (SMCs) set by the Board. With competency reported by each Training Center Director, there was a 100% SMC pass rate. Limited data was available on post-graduation performance as Training Centers were not yet set up to be able to collect data from graduates or employers.

The limited graduate and employer feedback that was obtained was discussed at the Education Committee meetings and with the licensure course Program Directors by Maine EMS. The overwhelming observation from the group was that student skills confidence at graduation in portfolio cohorts was notably improved over that of graduate student cohorts requiring PSEs. It should be noted, however, that MCCS has since begun deploying graduate and employer surveys for the EMT level at six- and twelve-months post-graduation.

NREMT Cognitive Exam Data

Maine EMS performed a retrospective review of cognitive exam pass rates using NREMT State “Pass/Fail” report data. The Office reviewed data for the years 2017 – 2023, looking for performance trends and constants. First attempt pass rate data was the primary metric looked at.

Data Results

Traditional PSE Only

- 2017-2021 - Average pass rate on the NREMT cognitive exam was 61.4%.
- 2022 - Average pass rate on the NREMT cognitive exam was 64%.

These are below the national average of 68%, and below the Maine EMS target of 70%.

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PHONE: (207) 626-3860

TTY: (207) 287-3659

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With offices located at the Central Maine Commerce Center, 45 Commerce Drive, Suite 1, Augusta, ME 04330

After Skills Portfolio Implementation

- April 2022 – September 2023 included a mix of traditional PSEs and the new skills portfolios. The first attempt pass rate was 65%, which is among the highest the state of Maine had between 2017 and 2022.
- September 2022 – September 2023 is almost entirely the new skills portfolios and shows a first attempt pass rate of 74%. This exceeds both the national average, as well as the goal of 70% set by Maine EMS.

Other Factors

The only **significant** change in the EMT curriculum (versus addition of skills or changes in scope of practice) in Maine since 2017 has been the transition to the use of student minimum competencies and skills portfolios, which involves a significant change in course design and delivery for the EMT course.

Conclusions

The pass rate for the one-year period since introduction of portfolios has increased 10% from 2022, and 12.6% above the 2017-2021 average. Given this, it would appear that the introduction of skills portfolios has had positive effect on the increase in pass rates. More data needs to be collected in order to provide better evidence that the use these portfolios results in improved entry-level competency and graduate skills confidence.

In addition to the improvement in first-attempt NREMT exam pass rates, it should also be noted that use of portfolios has also had the intended effect of mitigating many of the challenges to Training Centers and the Maine EMS Office posed by the cost and operational challenges of using traditional PSEs.

Recommendations

The Maine EMS Board should implement a full state transition to skills portfolios for EMT and EMR courses. The NREMT currently requires this for all paramedic programs and will soon mandate the same for the AEMT curriculum. Per NREMT, each state sets the standards for EMT and EMR courses. Skills portfolios are supported by the NREMT and the National Association of State EMS Officials, providing credibility to support the change for Maine at the EMT and EMR level.

Ask

Maine EMS asks that the Maine EMS Board move, via motion and rules change as necessary, to a full implementation of EMT and EMR skills portfolios by January 1, 2025 and require Training Centers to report to Maine EMS annually the following:

- Student and employer survey data regarding graduate skills confidence and employer confidence in graduate entry-level competence.
- Continue to collect and analyze NREMT exam pass rate data for all licensure courses delivered.
- If not currently using the skills portfolio, a plan to implement this by January 1, 2025.

Thank you for your consideration.

Respectfully,

Christopher M. Azevedo, BS, NRP, I/C
EMS Education Coordinator
Maine EMS

**Maine State Report NREMT Cognitive Pass Rates- EMT
25 Aug 2023**

NREMT State Program Pass/Fail Report EMT Jan – Dec (1st - 4th Quarters)							
Year	Attempted Exam	1st Attempt	Cumulative 3rd Attempt	Cumulative 6th Attempt	Failed All	Eligible for Retest	Incomplete
2017	451	59% (266)	74% (333)	75% (337)	0% (2)	0% (0)	25% (112)
2018	521	65% (337)	80% (416)	81% (420)	1% (3)	0% (0)	19% (98)
2019	455	61% (277)	78% (355)	79% (360)	0% (1)	0% (0)	21% (94)
2020	413	62% (257)	77% (316)	78% (322)	0% (0)	0% (0)	22% (91)
2021	378	60% (227)	78% (296)	81% (305)	0% (0)	5% (20)	14% (53)
2022	530	64% (341)	77% (409)	78% (414)	0% (1)	22% (119)	0% (0)

NREMT State Program Pass/Fail Report EMT Jan – Sep (1st - 3rd Quarters 2023)							
Year	Attempted Exam	1st Attempt	Cumulative 3rd Attempt	Cumulative 6th Attempt	Failed All	Eligible for Retest	Incomplete
Jan - Sep 2023	260	72% (186)	76% (197)	76% (197)	0% (0)	24% (63)	0% (0)

NREMT State Program Pass/Fail Report EMT Apr 2022 – Sep 2023 (2nd Quarter 2022 – 3rd Quarter 2023)							
Year	Attempted Exam	1st Attempt	Cumulative 3rd Attempt	Cumulative 6th Attempt	Failed All	Eligible for Retest	Incomplete
Apr 2022 – Sep 2023	717	65% (469)	76% (542)	76% (547)	0% (1)	24% (169)	0% (0)

NREMT State Program Pass/Fail Report EMT July 2022 – Aug 2023 (3rd Quarter 2022 – 3rd Quarter 2023)							
Year	Attempted Exam	1st Attempt	Cumulative 3rd Attempt	Cumulative 6th Attempt	Failed All	Eligible for Retest	Incomplete
July 2022 – Aug 2023	443	74% (326)	79% (350)	79% (352)	0% (0)	21% (91)	0% (0)