Prescription Drug Overdose (PDO) Grant:

2025 Training of the Trainer Evaluation Report (TOT)

CPES
Center for Prevention Evaluation and Statistics

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OUTCOME HIGHLIGHTS

Improved Knowledge: 67.7% of participants increased their scores on the post-training survey, with significant gains in identifying opioid-related myths and naloxone distribution requirements.

Reduced Stigma: Survey results and group discussions indicated a measurable decrease in stigmatizing attitudes toward individuals with substance use disorders.

High Satisfaction: Nearly all participants rated the TOT sessions as “Satisfied” or “Very satisfied,” praising instructor expertise and content relevance.

Training Confidence: The majority of attendees reported feeling “Confident” or “Very confident” in their ability to deliver overdose prevention training to EMS providers in their communities.

INTRODUCTION

The Connecticut Train-the-Trainer (TOT) program is a half-day training designed to expand the capacity of Emergency Medical Services Instructors (EMSIs) to teach opioid overdose recognition and response. By preparing EMSIs to serve as trainers, the program strengthens the state's ability to increase naloxone knowledge and skills among EMS personnel, ultimately supporting broader overdose prevention efforts across Connecticut.

Each TOT session lasted four hours and provided EMSIs with both clinical and community-focused content. Training topics included the prevention initiatives of Regional Behavioral Health Action Organizations (RBHAOs), the identification of overdose signs and symptoms, and basic life support techniques. Guest speakers with lived experience were also included to emphasize the importance of stigma reduction and to highlight the unique role EMS can potentially contribute to community prevention. The program aimed to train 40 EMSIs in each of Connecticut's Department of Mental Health and Addiction Services (DMHAS) five planning regions. This evaluation reviews the development and implementation of the program, examines outcomes, and offers recommendations for strengthening future training and maximizing statewide impact.

TRAINING IMPLEMENTATION & SURVEY RESPONSE

The Connecticut Train-the-Trainer (TOT) program was delivered in two cycles. The first cycle included five in-person sessions, while the second cycle offered three hybrid sessions. This report focuses on data collected during the first cycle, though the number of EMS instructors trained through the program has continued to grow beyond the scope of this analysis.

During the initial cycle, training sessions were facilitated by an EMS Education Coordinator from the Office of Emergency Medical Services (OEMS), Prevention Specialists from Regional Behavioral Health Action Organizations (RBHAOs), and Guest Speakers with lived experience. In addition to Emergency Medical Services Instructors (EMSIs), there were some attendees who identified other professional roles (i.e. registered nurses and educators).

Evaluation of the first cycle was based on pre- and post-survey data collected from participating EMSIs. Response rates were strong, with 97.3% of EMSIs completing the pre-survey and 83.8% completing the post-survey, for an average overall response rate of 90.5%. Across the five DMHAS planning regions, pre-survey response rates ranged from 89.5% to 100.0%, while post-survey response rates ranged from 70.0% to 100.0%. Despite consistently high response rates, regional representation was uneven due to lower attendance at sessions in regions 3 and 5.

Table 1. EMSI Survey Response Rates by Region

Date of Session	DMHAS Region	RBHAO	# of Attendees	Pre-survey Response Rate	Post-survey Response Rate
5/14/2025	Region 5	Wester CT Coalition	10	100.0%	70.0%
5/20/2025	Region 3	SERAC	6	100.0%	100.0%
5/22/2025	Region 1	Catalyst CT The Hub	20	100.0%	90.0%
6/4/2025	Region 2	APW	19	89.5%	84.2%
6/9/2025	Region 4	Amplify	19	100.0%	78.9%

PARTICIPANT DEMOGRAPHICS

Participant demographics were collected through pre-training surveys administered at the start of each TOT session. The majority of respondents (92.3%) identified as EMS instructors, confirming that the program reached its intended audience of trainers responsible for delivering overdose prevention education. Six respondents who did not identify as EMSIs were excluded from further analyses. For the purposes of this report, the term TOT participants refers exclusively to EMSIs.

The Connecticut TOT program engaged a diverse group of EMS instructors in terms of gender, age, racial, and ethnic backgrounds. Compared with national EMS workforce demographics, the participant group showed similar representation across ethnic categories but demonstrated less racial diversity overall. Gender distribution among participants aligned with national trends in the EMS field, while age distribution skewed older than the national EMS average (M_{age} = 38, SD_{age} = 10.8); this age difference may reflect the additional professional experience typically required to qualify as an EMS instructor.[1,2]

Table 2. Demographic Characteristics of EMSIs Compared to National EMS Workforce

TOT Participants *(N = 72)*		**National EMS Workforce *(N = 73,329)*[1]**	
Demographic Characteristic	***Count (%)***	***Demographic Characteristic***	***Count (%)***
Gender		*Sex*	
Woman	23 *(30.6)*	Female	17,894 *(24.5)*
Man	49 *(68.1)*	Male	55,017 *(75.5)*
Nonbinary	0 *(0.0)*		
Transgender	0 *(0.0)*		
Prefer to self-describe	0 *(0.0)*		
Prefer not to answer	1 *(1.4)*		
*Race and Ethnicity**		*Race and Ethnicity**	
White	61 *(84.7)*	White	60,01 *(84.7)*
Asian	2 *(2.8)*	Asian	3 *(2.8)*
Black or African American	2 *(2.8)*	Black or African American	1,271 *(2.8)*
Hispanic or Latino	5 *(6.9)*	Hispanic or Latino	3,561 *(6.9)*
American Indian or Alaskan Native	0 *(0.0)*	American Indian or Alaskan Native	4,123 *(0.0)*
Native Hawaiian or other Pacific Islander	0 *(0.0)*	Native Hawaiian or other Pacific Islander	1,523 *(0.0)*
Prefer not to Answer	2 *(2.8)*	Prefer not to Answer	696 *(2.8)*
Age			
18-20	0 *(0.0)*	*Data not reported*	
21-24	1 *(1.4)*		
25-34	10 *(13.9)*		
35-44	14 *(19.4)*		
45-54	18 *(25.0)*		
55-64	21 *(29.2)*		
65 and older	8 *(11.1)*		

Note. National EMS workforce counts and percentages are calculated using demographic information collected from nationally certified EMS professionals in the U.S. that recertified between October 1, 2018 and March 31, 2019.
*All groups other than Hispanic or Latino are non-Hispanic.

ASSESSMENT OF PROGRAM DEVELOPMENT

Prior to implementation a focus group was convened with 10 participants, including seven EMS instructors (EMSIs). Representatives from the Department of Mental Health and Addiction Services (DMHAS), the EMS Education Coordinator, the Department of Public Health (DPH), and the program evaluators also attended. During this session, the EMS Education Coordinator presented the TOT training and gathered feedback to strengthen program content. Focus group participants emphasized the need to clearly define the role of Regional Behavioral Health Action Organizations (RBHAOs), dispel myths about fentanyl exposure, enhance overdose response content, refine training language, and expand instruction on naloxone administration and leave-behind kit (LBK) distribution.

Additional input was gathered from RBHAO staff, who contributed expertise on addiction, stigma, and harm reduction. Their feedback ensured that the curriculum was relevant to the TOT trainer responsibilities and aligned with the PDO program priority of EMS distribution of leave behind kits (LBKs). This collaborative, feedback-driven process strengthened both the clarity and applicability of the training, helping to ensure its effectiveness in practice.

Table 3. Timeline of TOT Program Development

Date	Event
4/14/2025	EMS Coordinator sent out focus group calendar invite to DMHAS and CPES.
4/17/2025	TOT focus group occurred via Teams.
4/17/2025	QR codes and preview link to TOT pre- and post- training surveys shared to EMS Coordinator by CPES.
4/25/2025	DMHAS Program Coordinator communicated via email that the EMS Coordinator was still completing registration setup on CT-Train and finalizing the curriculum.
4/28/2025	EMS Coordinator requested edits of suggestions for the presentation from the RBHAOs.
5/5/2025	EMS Coordinator updated the presentation with input from the RBHAOs.
5/9/2025	EMS Coordinator requested CPES to provide 2-3 bullet points explaining their role in this project to complete the training slide deck.
5/12/2025	Training slide deck being finalized based on further input from RBHAOs.
5/12/2025	Train the Trainer (DMHAS PPTS) EMS Opioid Overdose slide deck updated on BaseCamp.
5/14/2025	First TOT session in Region 5 at 3:00 PM - 7:00 PM.

CHALLENGES WITH REGISTRATION & ATTENDANCE

Enrollment for the TOT sessions was managed exclusively through CT Train and opened only about one week prior to the first training. This short registration window may have limited outreach efforts and contributed to lower attendance in the early sessions. Scheduling constraints within the EMS workforce further influenced participation, as many registrants were unable to attend due to inflexible work schedules. For example, the first session drew only six participants, and several sessions experienced no-shows despite confirmed registrations.

Across all five regions, a total of 74 individuals attended the training, 71 of whom were EMS instructors (EMSIs). While this represents meaningful reach, the total fell short of anticipated participation. These challenges highlight the need for a more flexible and timely registration process to maximize attendance. In addition, adjustments were made to training flow and materials based on early session feedback, including improvements to slide readability and pacing, which helped strengthen the overall delivery of subsequent sessions.

ASSESSMENT OF EMSI KNOWLEDGE GAINS

Each TOT session included two surveys: a pre-training survey administered at the start of the session and a post-training survey completed immediately after. Both surveys contained 11 questions designed to measure EMSIs' knowledge on topics such as the role of Regional Behavioral Health Action Organizations (RBHAOs), overdose response, and stigma (see Appendix B for survey questions). This assessment focuses on short-term knowledge changes, as it compares pre- and post-training survey results without follow-up to measure long-term retention.

Analysis was limited to participants who completed both surveys (n = 61). Overall, the majority of participants scored above 70% on both surveys, with a maximum score of 100%. The pre-survey minimum score (27.3%) was notably lower than the post-survey minimum (63.6%). Additionally, both the mean and median scores increased from pre- to post-survey, indicating measurable knowledge gains among EMSIs as a result of the TOT training.

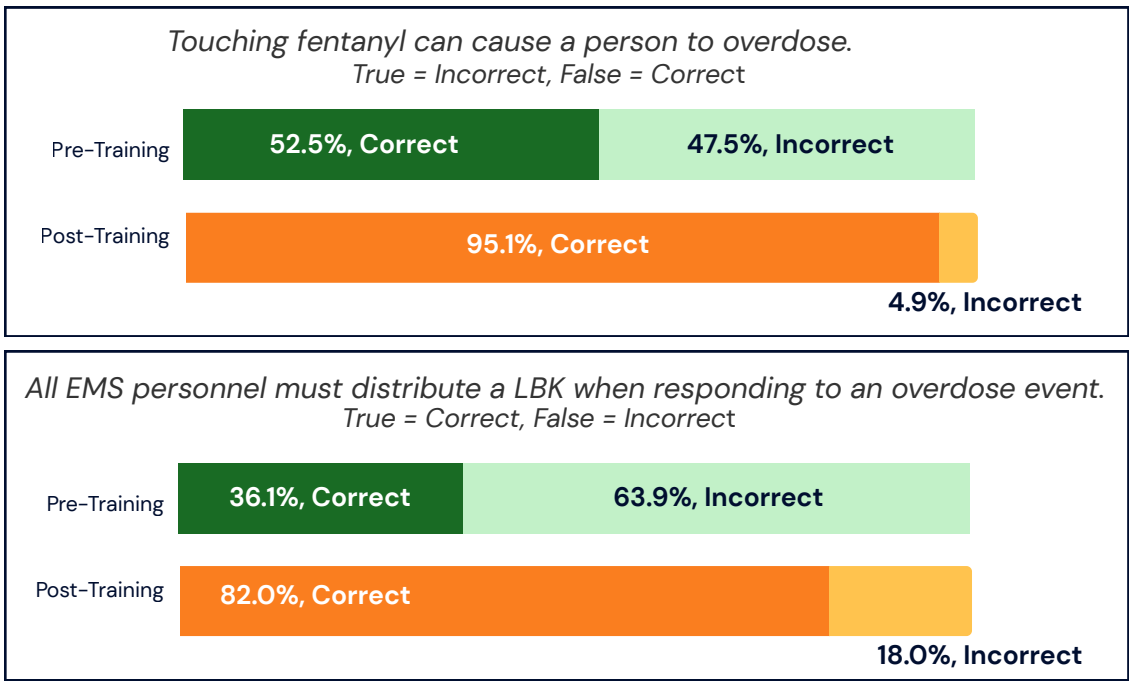
Table 4. Descriptive Statistics of Survey Scores

Score	Minimum	Mean	Median	Maximum
Pre-training	27.3	78.2	81.8	100.0
Post-training	63.6	88.8	90.9	100.0

Participants' change in knowledge was assessed by examining the difference between their pre- and post-survey scores. The majority of participants (67.7%) scored higher on the post-survey compared to the pre-survey. Fifteen participants (24.2%) maintained the same score, while four participants (6.5%) scored lower after the training. Statistical comparison of mean differences in pre- and post- scores indicated a significant increase in knowledge ($t(60) = 6.89$, $p < .001$), providing strong evidence that the TOT sessions effectively enhanced overall EMSI knowledge.

The largest knowledge gains were observed in two areas: (1) identification of common myths among EMS professionals and (2) understanding the requirement to distribute leave-behind kits (LBKs), see Figure 1. For example, before the training, only 52.5% of participants correctly recognized that the statement "Touching fentanyl can cause a person to overdose" was false. After the training, 95.1% of participants identified this misconception. Similarly, only 36.1% of participants knew that EMS personnel are required to distribute LBKs prior to the session, demonstrating a marked improvement following the TOT training.

Figure 1. Survey Questions with Apparent Knowledge Gains (*n* = 61 matched EMSIs)



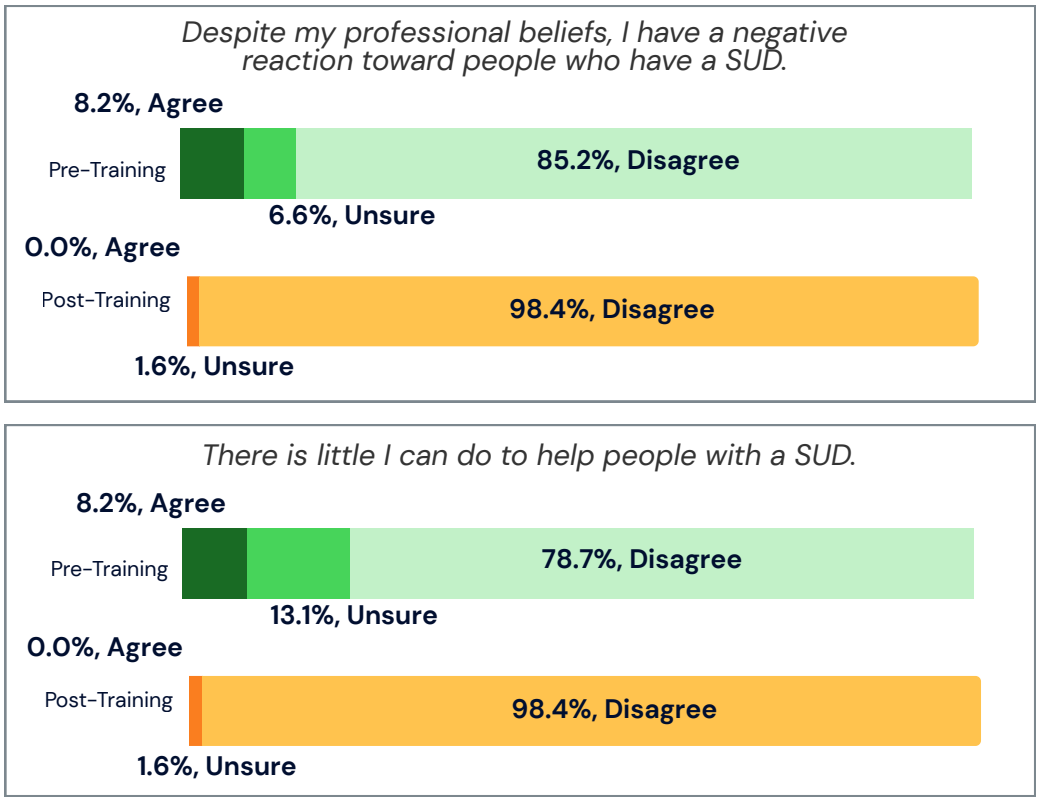
Impact of TOT Training on EMSI Attitudes Toward Substance Use

Stigma remains a significant barrier to prevention and treatment of substance use disorders (SUD), often discouraging individuals from seeking help or contributing to denial of care.[3] First responders are typically the first to arrive at overdose events and may hold negative perceptions about naloxone administration or individuals with an SUD. This may be due to repeated exposure to the same individuals experiencing overdoses, which can lead to frustration and the perception that substance use is a matter of personal choice rather than a medical condition. In addition, limited training on addiction and harm reduction, combined with broader societal stigma surrounding drug use, can reinforce negative attitudes toward patients with substance use disorders.[4] The TOT training addressed these challenges by incorporating content on stigma reduction, patient-centered care, emphasizing nonjudgmental interaction and effective overdose response.

Pre- and post-training surveys included questions to assess participants' attitudes toward individuals with SUD and evaluate the impact of the training on reducing stigma. During each session, a guest speaker shared their lived experiences, including personal and familial impacts of SUD, and facilitated group discussions about stigma. Topics included whether naloxone enables continued opioid use and whether it encourages individuals to seek treatment. Participants demonstrated high engagement during these segments, setting aside phones and laptops to fully participate and openly discuss perspectives with the speaker and peers.

Survey results indicated a reduction in stigmatizing attitudes among trainees. Prior to training, a small percentage of participants agreed or were unsure about statements such as, "Despite my professional beliefs, I have a negative reaction toward people who have a substance use disorder," or, "There is little I can do to help with a substance use disorder." Post-training, a greater proportion of participants disagreed with these statements (see Figure 2), suggesting improved comfort in assisting individuals during overdose events and stronger support for harm reduction approaches. Overall, the TOT training appeared to positively influence EMSI attitudes critical to effective overdose response and patient care.

Figure 2. Stigma Levels Pre- and Post-TOT Session (*n* = 61 matched EMSIs)



PARTICIPANT SATISFACTION & TRAINING CONFIDENCE

Post-training survey results indicated high levels of satisfaction with the TOT program. As shown in Figure 3, most participants rated their overall experience as "Satisfied" or "Very satisfied." Nearly all 62 post-survey respondents agreed that the session content was comprehensive, the information presented was useful, the instructors were knowledgeable, and the instructors were receptive to comments and questions. In addition, all respondents agreed that the instructors were well-prepared. Written feedback reinforced these findings, with participants praising the expertise of instructors, clarity of information, and the training's relevance to their professional roles. Representative comments included:

- "Fantastic presentation."
- "Speakers were clearly well trained, pleasant and responsive to questions."
- "Great training, keep up the good work."

Participants also shared constructive feedback to strengthen future sessions, such as improving slide readability, updating visual materials, and expanding content on referral pathways and sustainability goals.

Beyond satisfaction, the post-survey assessed participants' confidence in delivering overdose prevention training to EMS providers in their communities. As shown in Figure 4, nearly all respondents reported feeling "Confident" or "Very confident" in their ability to conduct the training after completing the TOT session. These results demonstrate that the program effectively prepared participants with both the knowledge and practical skills needed to train others.

Figure 3. EMSI TOT Training Satisfaction (*n* = 72 EMSIs)

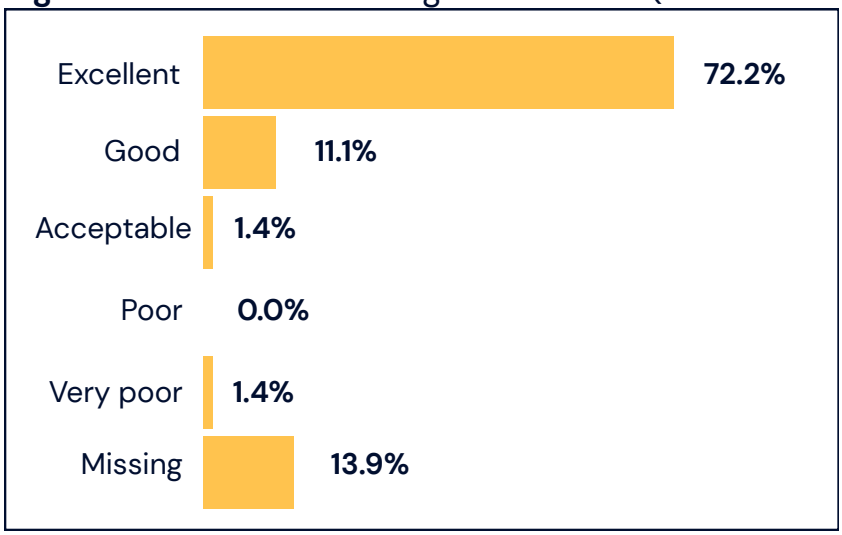
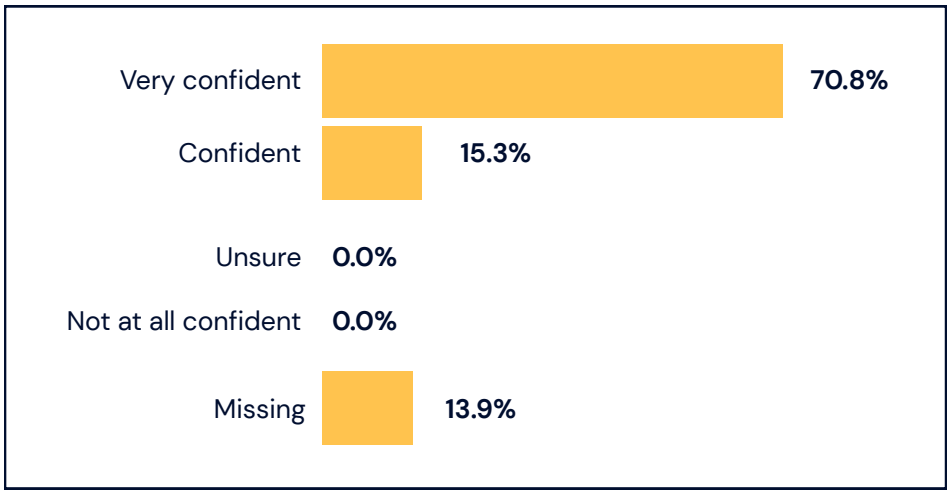


Figure 4. Confidence in Delivering EMSIS TOT Training (*n* = 72 EMSIs)



CONCLUSION

The EMSI Training of Trainers (TOT) program demonstrated effectiveness in enhancing knowledge, reducing stigma, and preparing participants to deliver overdose prevention training within their communities. Evaluation results showed significant gains in participants' understanding of key overdose response concepts, including naloxone use and harm reduction practices. The inclusion of lived-experience guest speakers fostered meaningful discussions that helped shift attitudes and reduce stigma toward individuals with substance use disorders.

High levels of satisfaction and reported confidence among participants further reflect the program's impact, with nearly all attendees indicating that they were both prepared and motivated to provide training to other EMS providers. Constructive feedback offered by participants also provided valuable guidance for refining future sessions, ensuring continued improvement and sustainability of the program.
Overall, the EMSI TOT has proven to be a critical step in building a knowledgeable, compassionate, and well-equipped EMS workforce capable of expanding access to effective overdose prevention strategies across the state.

APPENDICES

APPENDIX A: EVALUATION METHODOLOGY

The evaluation of the Training of Trainers (TOT) program employed a **mixed methods design** incorporating formative, process, and outcome assessments. This approach allowed evaluators to capture both quantitative and qualitative data to understand the program's implementation, participant experience, and early outcomes. Data collection included focus groups, structured observations, and pre- and post-training surveys.

FORMATIVE ASSESSMENT
Formative evaluation activities were conducted prior to and during the implementation of the TOT sessions. A focus group was held pre-implementation to obtain feedback on training content, which was used to refine materials and delivery methods. Additional formative feedback occurred during training sessions to identify opportunities for real-time adjustments.

PROCESS EVALUATION
Process data were collected through **in-person structured observations** conducted at all five TOT sessions. CPES evaluation team members documented factors influencing training delivery and participant engagement, including logistical issues (e.g., start times, seating arrangements, technical difficulties), instructor methods, and real-time interactions between trainers and participants. Observers also reviewed the materials distributed by Regional Behavioral Health Action Organizations (RBHAOs) to compare consistency and comprehensiveness of resources provided.

OUTCOME EVALUATION
Outcome data was collected using **Qualtrics pre- and post-training surveys** administered to all Emergency Medical Services Instructors (EMSIs) participating in the TOT sessions. The surveys assessed:

- **Knowledge acquisition**: Understanding of RBHAO roles and relevant Connecticut Public Acts.
- **Stigma reduction**: Attitudes toward individuals with substance use disorders and perceptions of opioid overdose response.
- **Training satisfaction**: Participant satisfaction with content, materials, and instructor delivery.
- **Demographics**: Age, gender, race/ethnicity, and occupation, used to identify gaps in training reach and inform future program tailoring.

Surveys were administered at the beginning and conclusion of each training. Responses were matched using a four-digit anonymous ID code generated by combining select letters and numbers from personal identifiers (e.g., last letter of name, birth date, mother's maiden name initial). Paper surveys were made available for participants who preferred a non-digital option.

DATA COLLECTION TIMELINE AND SCOPE
Data collection occurred between **May 14, 2025, and June 9, 2025**, coinciding with the five regional TOT sessions held across Connecticut's DMHAS prevention planning regions: Southern, Southcentral, Eastern, Northcentral and Western. Each session was led by instructors from the Office of Emergency Medical Services (OEMS), DMHAS, and the local RBHAO and was observed by a member of the CPES evaluation team.

DATA ANALYSIS
Quantitative survey data were analyzed using descriptive statistics to assess pre- to post-training changes in knowledge, attitudes, and satisfaction. Knowledge scores for each survey were calculated as follows:

$$s = \left(\frac{\#\ correct\ answers}{11}\right) * 100$$

Participants' change in knowledge was calculated using the difference (d) between their pre- and post-survey scores:

$$d = s_{post} - s_{pre}$$

A one-sample t-test was conducted to determine whether the mean difference in scores was significantly greater than zero.

Qualitative observation notes were reviewed and coded thematically to identify patterns related to training delivery, participant engagement, and contextual factors influencing implementation. Findings from both data sources were integrated to provide a comprehensive understanding of program performance and inform recommendations for improvement.

APPENDIX B: KNOWLEDGE SURVEY QUESTIONS

The following questions were asked in the pre- and post-training survey to assess change in TOT participants' knowledge. Correct answers are italicized.

1. Touching fentanyl can cause a person to overdose.
   a. True
   b. *False*
2. A leave-behind-kit is…
   a. A notice left at a site where an opioid overdose occurred.
   b. A bag containing harm reduction or safe use supplies, provided to someone with a substance use disorder.
   c. *A bag that includes naloxone and is provided by first responders to equip people with knowledge and resources to potentially save a life in the case of an opioid overdose.*
   d. A first aid kit that also includes information for local substance use resources, provided by first responders to a person who refuses transport to the hospital.
3. What does RBHAO stand for?
   a. Reaching Better Help Advocates on Opiates
   b. *Regional Behavioral Health Action Organization*
   c. Regional Bureau of Helpful Advisory Operations
   d. Report Better Health Advocacy Opportunity
4. RBHAOs can provide…
   a. Training for first responders and other community members and organizations.
   b. Leave-Behind-Kits and naloxone supply.
   c. Substance use and mental health resources.
   d. *All of the above.*
   e. Only options A and C.
5. A leave-behind-kit can be given to…
   a. Only the person who experienced the overdose.
   b. *Any individual on the scene including the person who experienced the overdose, friend, family member or bystander.*
   c. Only an immediate family member of the person who experienced the overdose.
   d. Only a person who have received formal training in administration of naloxone.
6. All EMS personnel must distribute a leave-behind-kit when responding to an overdose event.
   a. *True*
   b. False

7. Why is it important for EMS to properly document use of naloxone in the field?
    a. It is a legal and clinical requirement.
    b. To help accurately track opioid overdoses.
    c. To identify need for naloxone and leave-behind-kits.
    d. *All of the above*.
8. Where can EMS source naloxone in their community? (Select all that apply)
    a. *RBHAO*
    b. Public library
    c. *Local Health Department*
    d. Town Hall
9. Stigma can…
    a. Make people feel badly about themselves.
    b. Stop people from getting help.
    c. Worsen a mental health or substance use condition.
    d. *All of the above*.
10. Which phrase is non-stigmatizing?
    a. A person who is addicted to drugs
    b. Opioid user
    c. *A person with a substance use disorder*
    d. Drug abuser
11. As an EMSI, I can help reduce stigma around substance misuse and opioids within the first responder community.
    a. *True*
    b. False

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