# Supporting Children of the Opioid Epidemic: NH-ME LEND ECHO Training Evaluation

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**NH-ME LEND PROGRAM**

## Problem

- In the United States, **every twenty-five minutes an infant is born with neonatal abstinence syndrome (NAS).**[1]
- Opioid deaths in ME and NH exceed the national average; Rates reported of opioid deaths per 100,000 in US (21), ME (23), NH (33).[2]
- Exposure in utero can lead to disturbances within the central nervous system and may manifest as lower birth weight, respiratory conditions, feeding difficulties, seizures, longer hospital stays, and increased risk for developmental problems.[1]

**What is Neonatal Abstinence Syndrome?**

A group of postnatal withdrawal symptoms that develop from maternal substance misuse, including opioid exposure.[3]

## Aim

To evaluate the effectiveness of the **NH-ME LEND PROJECT ECHO SCOPE** on impacting early intervention (EI) service providers knowledge, skills, attitudes, and use of evidence-base practices with children with NAS and their families.
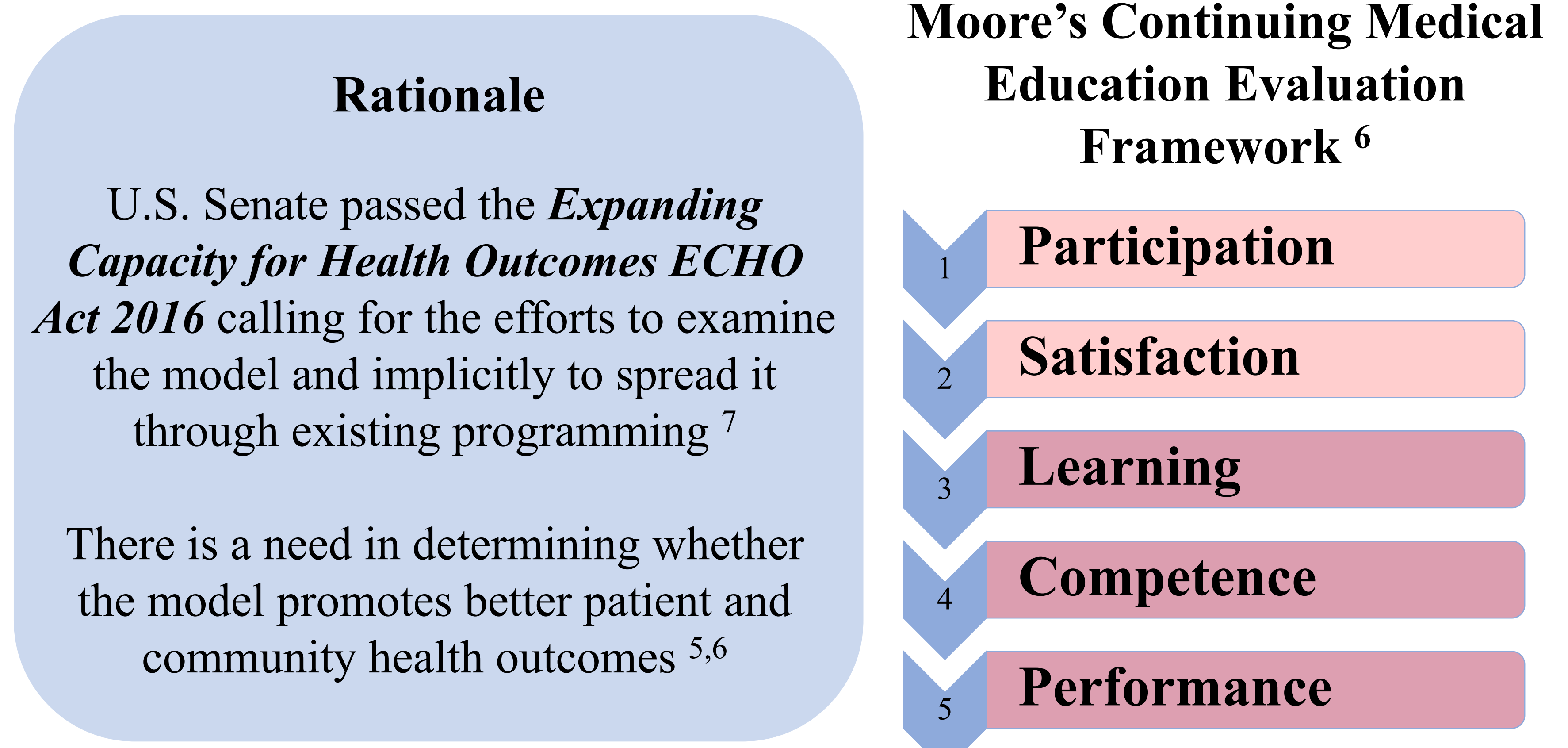
**What is the ECHO® model?**

"Extension for Community Healthcare Outcomes" is a web-based educational model that has been useful in disseminating expert knowledge to at-risk and/or remote locations to enable professional service providers to deliver specialized care.[5,6]

**NH-ME Project ECHO SCOPE**

- Ten educational sessions aimed at increasing the capacity of service providers to support the complex needs of children with NAS and their families
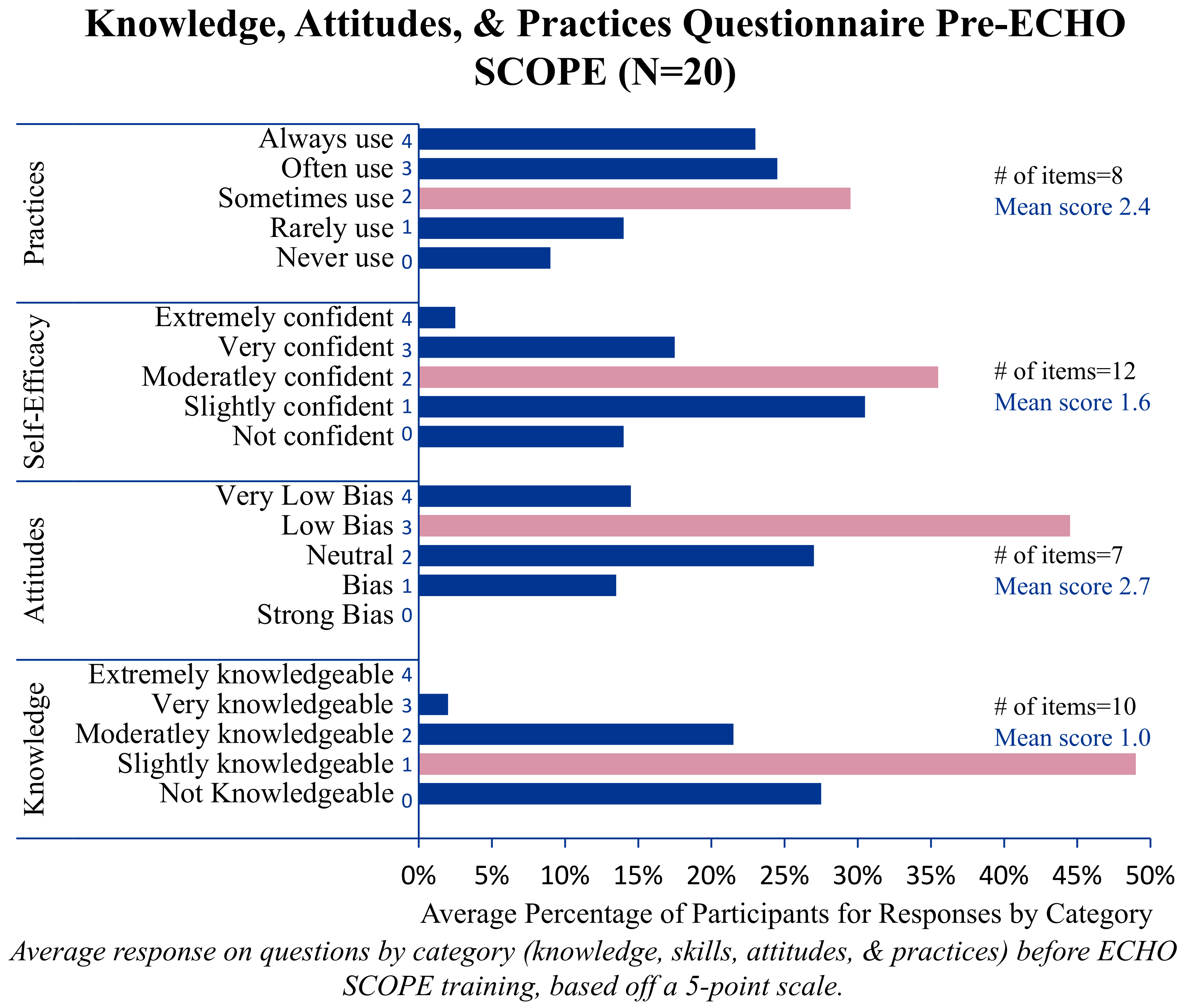- Program delivered online via Zoom using the ECHO Model®[4]

## Program Evaluation

**Rationale**

U.S. Senate passed the *Expanding Capacity for Health Outcomes ECHO Act 2016* calling for the efforts to examine the model and implicitly to spread it through existing programming[7]

There is a need in determining whether the model promotes better patient and community health outcomes[5,6]

**Moore's Continuing Medical Education Evaluation Framework[6]**

1. Participation
2. Satisfaction
3. Learning
4. Competence
5. Performance
6. Patient Health
7. Community Health

## Methods

N=40 EI providers

Main Components:
1. Quasi-experimental, one group **time series design**; the intervention group's knowledge, skills, attitudes, and practices will be examined pre-, post-, and 3-months following ECHO training using a self designed instrument (KAPQ – Knowledge, Attitudes, & Practices Questionnaire); analyze via one-group, time series ANOVA
2. Quasi-experimental **two-group comparison**; compare intervention group with control group at the 3-month follow up using the KAPQ; analyze via ANOVA
3. **Qualitative interviews** (N=10, 60-minute); explore EI provider perceptions of the effectiveness of the training and how it has impacted their practices; analyze by thematic analysis

### Participants to date; N=20 EI (OT, SLP, PT, EDUC)

| Demographics | % / Average |
| --- | --- |
| **Sex** (Female) | 100% |
| **Race** (White) | 100% |
| **Age** | - |
| 25-44 | 40% |
| 45->65 years | 60% |
| **State** (New Hampshire) | 70% |
| **Education** (Advanced Degree) | 65% |
| **Years of Experience Working with Children 0-5 years old** | 15.9 |
| **Provide Home-Based Care** | 60% |
| **Experience working with a child exposed to opiates in-utero** (Yes) | 95% |

## Preliminary Results of KAPQ

**Knowledge, Attitudes, & Practices Questionnaire Pre-ECHO SCOPE (N=20)**



Practices:
- Always use 4
- Often use 3
- Sometimes use 2
- Rarely use 1
- Never use 0

# of items=8
Mean score 2.4

Self-Efficacy:
- Extremely confident 4
- Very confident 3
- Moderatley confident 2
- Slightly confident 1
- Not confident 0

# of items=12
Mean score 1.6

Attitudes:
- Very Low Bias 4
- Low Bias 3
- Neutral 2
- Bias 1
- Strong Bias 0

# of items=7
Mean score 2.7

Knowledge:
- Extremely knowledgeable 4
- Very knowledgeable 3
- Moderatley knowledgeable 2
- Slightly knowledgeable 1
- Not Knowledgeable 0

# of items=10
Mean score 1.0

Average Percentage of Participants for Responses by Category (0% – 50%)

*Average response on questions by category (knowledge, skills, attitudes, & practices) before ECHO SCOPE training, based off a 5-point scale.*

## Conclusion

Preliminary results show that prior to the NH-ME LEND PROJECT ECHO SCOPE the majority of EI service providers were **slightly knowledgeable** about NAS, had some **stigma**, felt **moderately confident** implementing recommended strategies, and reported **using best practices sometimes**.

## Future Implications

Future analysis will provide insight on how Project ECHO SCOPE has impacted knowledge, skills, attitudes, and beliefs of EI providers and add to the limited literature on the effectiveness of the ECHO training model.

## References

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