

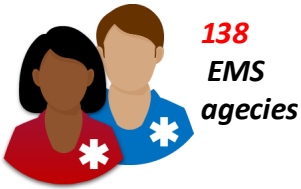


2021 North Carolina EMS for Children Survey Results

432 EMS agencies sent survey

To better understand the EMS system's ability to care for pediatric patients, the North Carolina EMS for Children Program conducted a survey of EMS agencies. The following are the results of this quality improvement effort. EMS agencies can learn more about their state efforts by contacting their state EMS for Children Program Manager shown in the Resources sections of this 3-page report.

Who took the survey?



138 EMS agencies

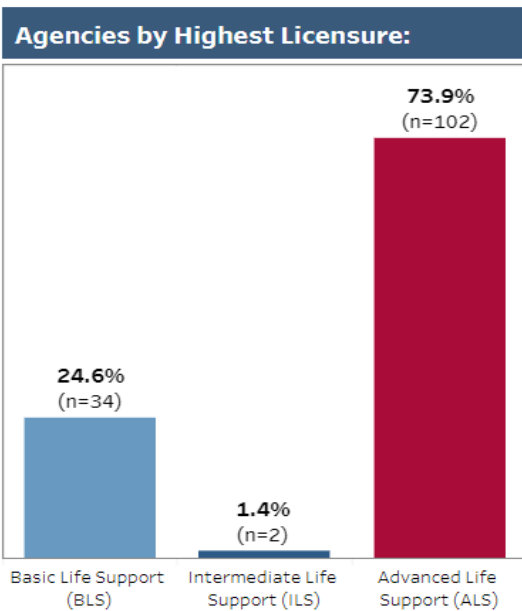


public 911 transporting & NON-transporting EMS agencies



From across the state

Agencies by Highest Licensure



Type of Providers Reported

Type of Providers Reported*:

Emergency Medical Responder (EMR)	1.8% (n=169)
Emergency Medical Technician (EMT)	42.9% (n=3,928)
Advanced EMT (AEMT)	7.1% (n=653)
Paramedic	48.2% (n=4,414)

* Number of Responding Agencies Not Reporting: 1

Pediatric Call Volume by Number and % of Agencies

Pediatric Call Volume by Number of Agencies and Association with PECCs:

	Num of Agencies	Num of PECCs	% of those Agencies with a PECC
HIGH: More than 600 pediatric calls in the last year (more than 50 pediatric calls per month)	16	9	56.3%
MEDIUM HIGH: Between 101-600 pediatric calls in the last year (8 - 50 pediatric calls per month)	30	6	20.0%
MEDIUM: Between 13-100 pediatric calls in the last year (1 - 8 pediatric calls per month)	50	13	26.0%
LOW: Twelve (12) or fewer pediatric calls in the last year (1 or fewer pediatric calls per month)	39	7	17.9%
None	2	0	0.0%
Did Not Respond to Question	1	0	0.0%
Grand Total	138	35	25.4%

Prepared by the National EMS for Children Data Analysis Resource Center (NEDARC), located at the University of Utah School of Medicine. FY 2021

This report is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of the Emergency Medical Services for Children Data Center award totaling \$3,000,000 with 0% financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government. For more information, please visit HRSA.gov.



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Types of Methods for Physically Demonstrating Correct Use of PEDIATRIC-SPECIFIC Equipment



Demonstration



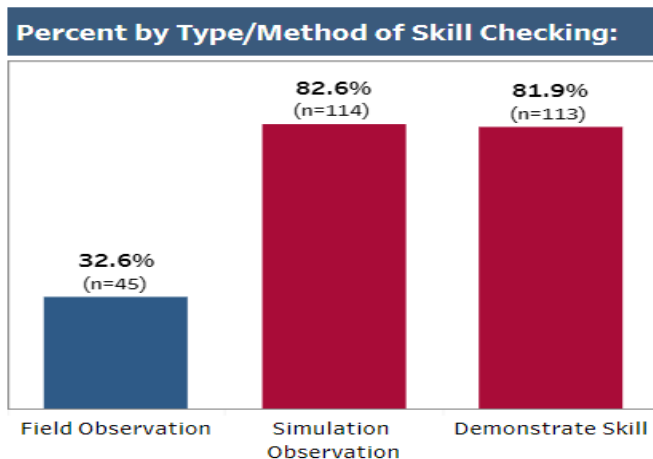
Simulation Observation



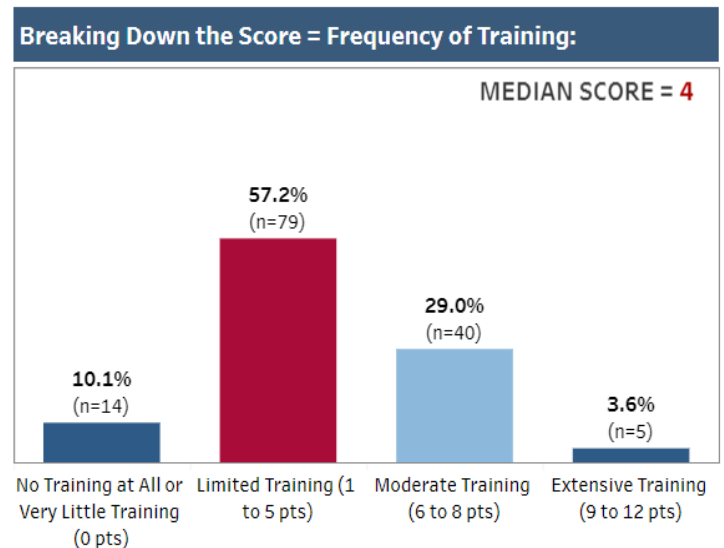
Field Observation

Use of Pediatric-Specific Equipment Results

Percent & Type/Method Skill



Frequency of Skill-Checking



Significance

The processes & frequency of skill-checking evaluations for EMS providers has long been established as important for the maintenance of skills when treating patients for improved patient outcomes.¹⁻³

Miller's Model of Clinical Competence provides a framework for clinical evaluation that theorizes that competency for clinical skills can be demonstrated for EMS through a combination of skill stations, case scenarios & simulations, & real-life field observations with a frequency of at least twice a year.³⁻⁴

- Lammers, R. L., Byrwa, M. J., Fales, W. D., & Hale, R. A. (2009). [Simulation-based Assessment of Paramedic Pediatric Resuscitation Skills](#). *Prehospital Emergency Care*, 13(3), 345-356.
- Su, E., Schmidt, T. A., Mann, N. C., & Zechnich, A. D. (2000). [A Randomized Controlled Trial to Assess Decay in Acquired Knowledge Among Paramedics Completing a Pediatric Resuscitation Course](#). *Academic Emergency Medicine*, 7(7), 779-786.
- Miller GE. [The Assessment of Clinical Skills/Competence/Performance](#). *Acad Med* 1990; 65:S63-67.
- National EMS for Children Data Analysis Resource Center (NEDARC). [EMS for Children Performance Measures: Implementation Manual for State Partnership Grantees](#). Salt Lake City, UT: NEDARC; 2017.

Resources

- [Pediatric Readiness in EMS Systems](#)
- [Prehospital Education Toolkit](#)
- (video) [Use of Pediatric-Specific Equipment](#)
- [Pediatric Emergency Knowledge Translation Toolkit](#)
- [Simulation-based assessment of paramedic pediatric resuscitation skills](#) abstract
- Your NC EMS for Children Program Manager:
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Pediatric Emergency Care Coordinator (PECC) Results

What is a PECC?



A designated individual(s), often called a Pediatric Emergency Care Coordinator or PECC, who is responsible for coordinating and championing pediatric-specific activities for an EMS agency. This individual(s) could serve as the PECC for one or more EMS agencies.

PECC at Agencies

Pediatric Emergency Care Coordinator:	
Has a PECC	25.4% (n=35)
Plans to Add a PECC	6.5% (n=9)
Interested in a PECC	16.7% (n=23)
No PECC	51.4% (n=71)

PECC Oversees

Pediatric Emergency Care Coordinator:	
Oversees Multiple Agencies	25.7% (n=9)
Oversees Only Their Agency	74.3% (n=26)

Significance

A study of the readiness of hospital emergency departments (EDs) to care for children has shown that EDs are more prepared to care for children when there is a PECC who is responsible for championing & making recommendations for policies, training, & resources pertinent to the emergency care of children.¹ While this study was conducted in EDs, the 2020 joint policy statement,² *Pediatric Readiness in EMS Systems*, states the importance of EMS physicians, administrators, & personnel to collaborate with pediatric acute care experts to optimize EMS care for children to improve outcomes. In further support of the importance of EMS agency PECCs, a recent study "found that the availability of a PECC in an agency is associated with increased frequency of pediatric psychomotor skills evaluations."³

1. Gausche-Hill, M., Ely, M., Schmuhl, P., Telford, R., Remick, K. E., Edgerton, E. A., & Olson, L. M. (2015). A National Assessment of Pediatric Readiness of Emergency Departments. *JAMA Pediatrics*, 169(6), 527-534.
2. Moore, B., Shah, M. I., Owusu-Ansah, S., Gross, T., Brown, K., Gausche-Hill, M., Remick, K., Adalgais, K., Lyng, J., Rappaport, L., & Snow, S. (2020). *Pediatric Readiness in Emergency Medical Services Systems*. *Prehospital Emergency Care*, 24(2), 175-179.
3. Hewes, H. A., Ely, M., Richards, R., Shah, M. I., Busch, S., Pilkey, D., Dixon Hert, K., & Olson, L. M. (2018). *Ready for Children: Assessing Pediatric Care Coordination and Psychomotor Skills Evaluation in the Prehospital Setting*. *Prehospital Emergency Care*, DOI:

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Agencies who Have a PECC - Reported PECC Duties

Agencies who Have a PECC - Reported PECC Duties:	
Promotes pediatric continuing education opportunities	100.0% (35/35)
Ensures that fellow providers follow pediatric clinical practice guidelines and/or protocols	97.1% (34/35)
Oversees pediatric process improvement initiatives	94.3% (33/35)
Ensures the availability of pediatric medications, equipment, and supplies	88.6% (31/35)
Ensures that the pediatric perspective is included in the development of EMS protocols	80.0% (28/35)
Promotes agency participation in pediatric prevention programs	74.3% (26/35)
Promotes family-centered care	54.3% (19/35)
Promotes agency participation in pediatric research efforts	48.6% (17/35)
Coordinates with the emergency department pediatric emergency care coordinator	34.3% (12/35)
Other Activities	28.6% (10/35)

Resources

- [Pediatric Readiness in EMS Systems](#)
- [Pediatric Emergency Care Coordinator Learning Collaborative](#)
- (video) [Pediatric Emergency Care Coordinator](#)
- [Prehospital Education Toolkit](#)
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