National PRP

Prehospital Pediatric Readiness Project

Ensuring Emergency Care for All Children

Prehospital Pediatric Readiness

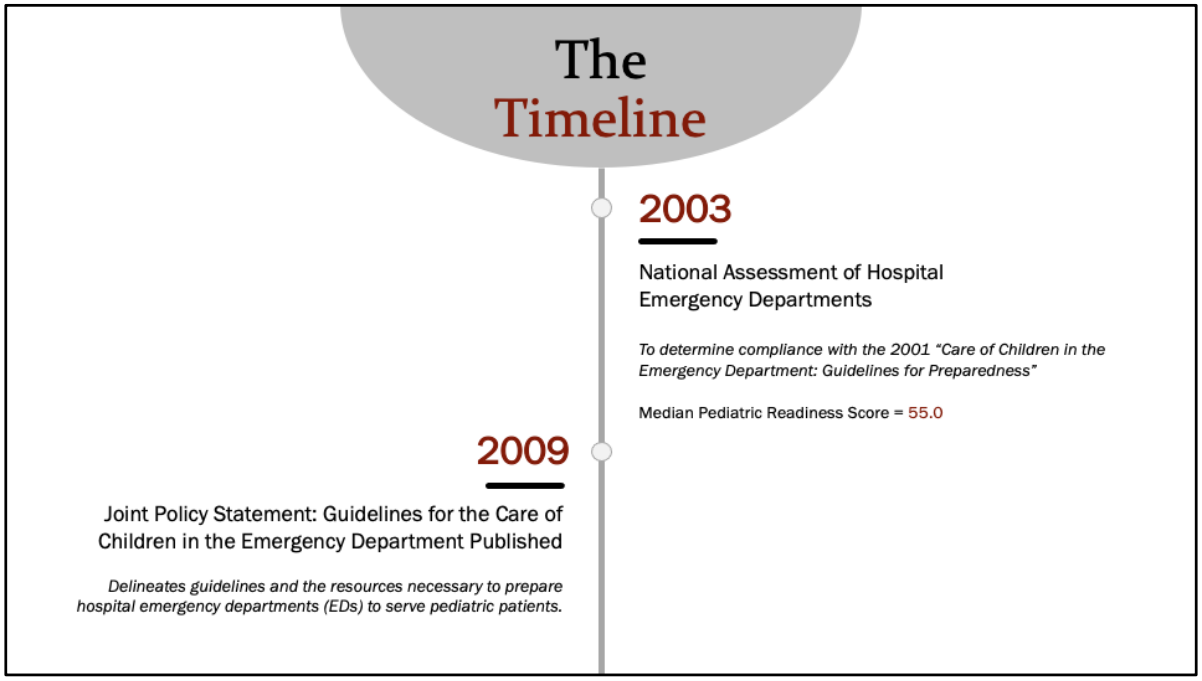
A National Collaborative to Address Gaps in Pediatric Prehospital Care

Recognizing pediatric readiness gaps in emergency systems across the U.S., the Prehospital Pediatric Readiness Project has as its primary purpose the improvement of pediatric emergency care outcomes and patient safety within the prehospital environment (local, regional and state levels). The Steering Committee will collaborate to address these pediatric gaps, while creating and sharing guidelines and resources essential to the provision of safe and effective prehospital care to children.

The Vision

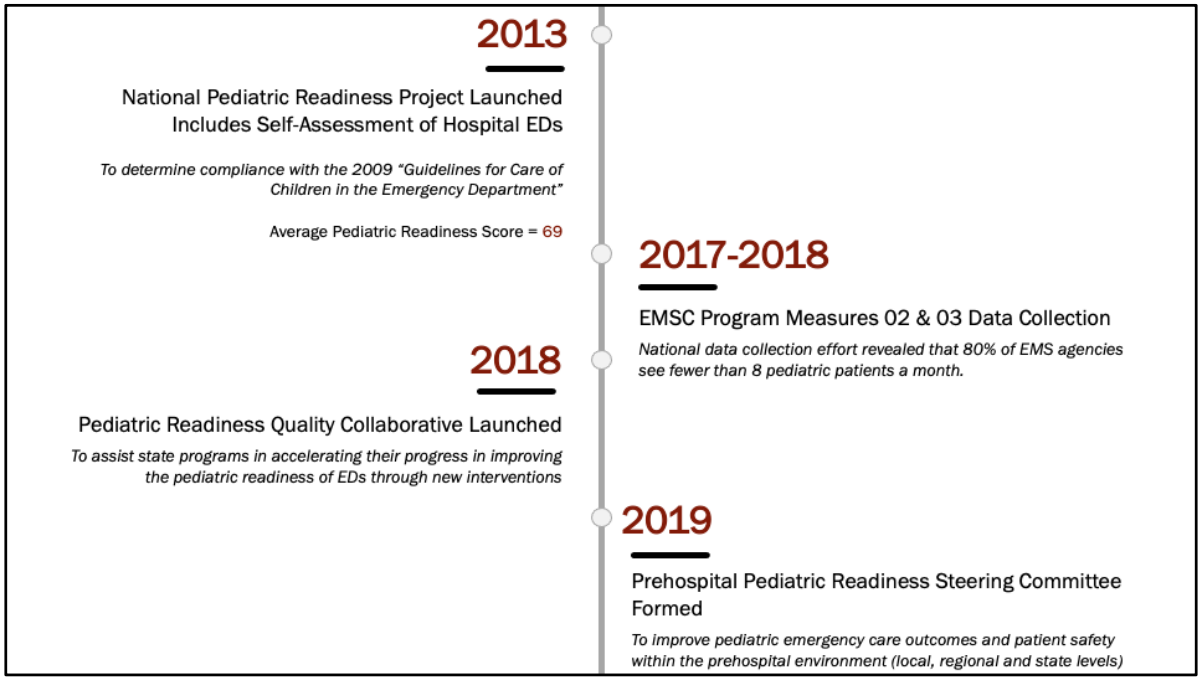
That all EMS agencies have the appropriate resources, including physician oversight, trained and competent staff, education, policies, medications, equipment, and supplies, to provide effective emergency care for children.

Resource availability across EMS agencies is variable, making it essential that EMS physician medical directors, administrators, and personnel collaborate with outpatient and hospital-based pediatric experts, especially those in EDs, to optimize prehospital emergency care for children



- In 2003, under a grant from the federal Emergency Medical Services for Children (EMSC) Program, the Guidelines Project Steering Committee conducted an assessment of all U.S. hospitals to determine their compliance with the AAP/ACEP "Care of Children in the Emergency Department: Guidelines for Preparedness." Results revealed that most hospitals were unaware of the national guidelines and few hospitals had all of the equipment and essential care policies listed in the recommended guidelines.\

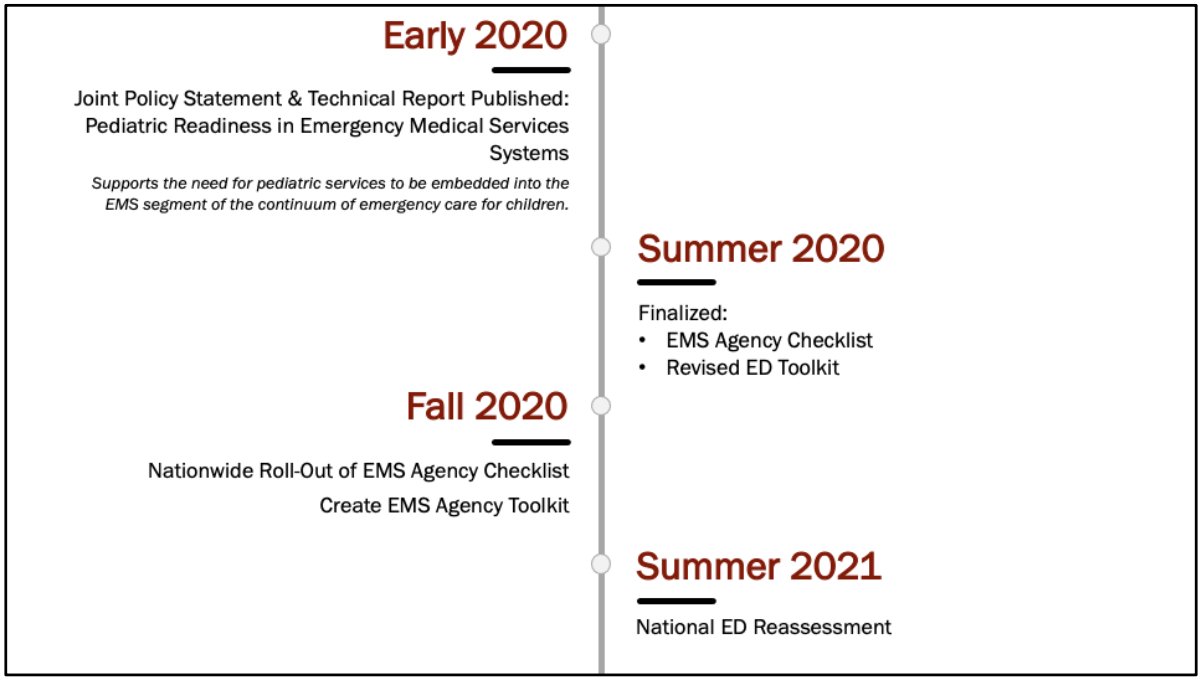
- In 2009, AAP, ACEP, and ENA released the joint policy statement "Guidelines for Care of Children in the Emergency Department" to replace the 2001 Guidelines for Preparedness. Endorsed by 22 national organizations, this statement offers recommendations for essential equipment, medications, personnel training, and key policies necessary for optimal pediatric emergency care.



- In 2013, through a collaborative effort with our national partners, the National Pediatric Readiness Project (NPRP) was created with the goal of ensuring high quality emergency care for all children. These efforts began with quality improvement programs and resource development to improve pediatric readiness within our hospital emergency departments.

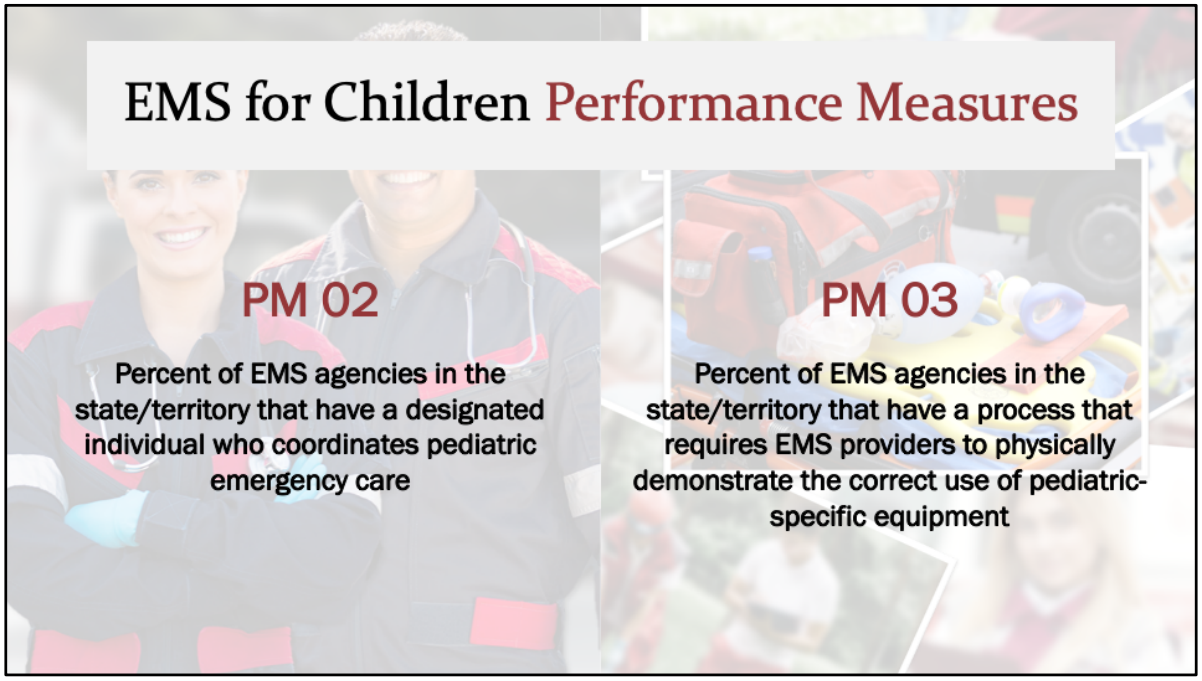
- 2017-2018: New Performance Measures were launched for EMSC State Partnership Programs in 2017. A national survey was conducted in 2017-2018 to assess the status of two these measures.

- 2018: The EMSC Innovation & Improvement Center (EIIC) launched a QI collaborative to assist state programs in accelerating their progress in improving the pediatric readiness of EDs through new interventions. A Train-the-Trainer model was used to provide regional networks with tools to improve pediatric readiness.



- 2019: The EIIC convened a Prehospital Pediatric Readiness Steering Committee to help guide and plan next steps for pediatric readiness in the prehospital setting. This includes identifying gaps and priority areas of focus and coordinating complimentary public relations activities among our national partners, so as to support and not duplicate efforts.

- EMS Agency Checklist finalized July 2020; Pilot completed early fall 2020; FAQ in development to be released with full rollout – late fall 2020.



PM 02: The Institute of Medicine (IOM) report "Emergency Care for Children: Growing Pains"1 recommends that EMS agencies and emergency departments (EDs) appoint a pediatric emergency care coordinator to provide pediatric leadership for the organization. This individual need not be dedicated solely to this role and could be personnel already in place with a special interest in children who assumes this role as part of their existing duties.

Gausche-Hill et al.2 in a national study of EDs found that the presence of a physician or nurse pediatric emergency care coordinator was associated with an ED being more prepared to care for children.

EDs with a coordinator were more likely to report having important policies in place and a quality improvement plan that addressed the needs of children than EDs that reported not having a coordinator.

The IOM report further states that pediatric coordinators are necessary to advocate for improved competencies and the availability of resources for pediatric patients.

The presence of an individual who coordinates pediatric emergency care at EMS agencies may result in ensuring that the agency and its providers are more prepared to care for ill and injured children.

1 Institute of Medicine Committee on the Future of Emergency Care in the U. S. Health System (2007). Emergency care for children: growing pains.

2 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 depart- ments. *JAMA Pediatrics,* 169(6), 527–534.

PM 03: The Institute of Medicine (IOM) report "Emergency Care for Children: Growing Pains"1 states that because EMS providers rarely treat seriously ill or injured pediatric patients, providers may be unable to maintain the necessary skill level to care for these patients. For example, Lammers et al.2 reported that paramedics manage an adult respiratory patient once every 20 days compared to once every 625 days for teens, once every 958 days for children, and once every 1,087 days for infants. As a result, skills needed to care for pediatric patients may deteriorate. Another study by Su et al.3 found that EMS provider knowledge rose sharply after a pediatric resuscitation course, but when providers were retested six months later, their knowledge was back to baseline.

Continuing education such as the Pediatric Advance Life Support (PALS) and Pediatric Education for Prehospital Professionals (PEPP) courses are vitally important for maintaining skills and are considered an effective remedy for skill atrophy. These courses are typically required only every two years. More frequent practice of skills using

1 Institute of Medicine Committee on the Future of Emergency Care in the U. S. Health System (2006). Emergency care for children: growing pains.

2 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.

3 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.

2020 EMSC Data Collection

- 16,316 EMS agencies surveyed
- 8,525 EMS agency responses in dataset (after data cleaning*)
- Over 80% of EMS agencies see fewer than 8 pediatric patients per month (includes those who reported no pediatric calls)

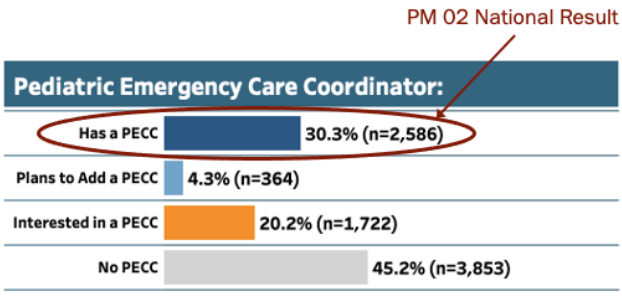
** Data cleaning includes removing agencies that do not respond to 911, duplicates, etc.*

Annual 911 Pediatric Call Volume

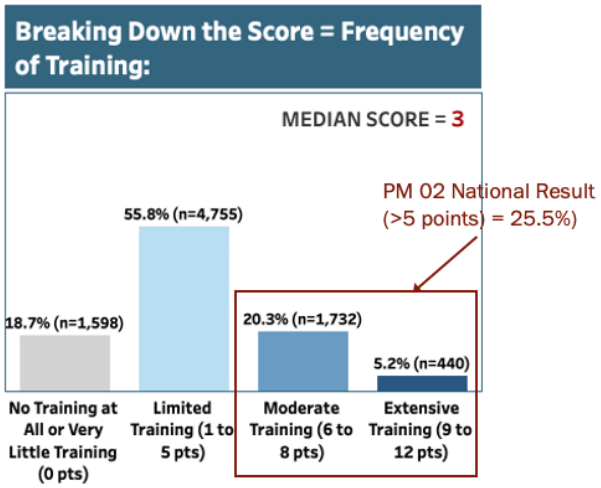
NONE: No pediatric calls in the last year	2.8% n=236
LOW: 12 or fewer pediatric calls in the last year (1 or fewer pediatric calls per month)	40.8% n=3,478
MEDIUM: Between 13-100 pediatric calls in the last year (1-8 pediatric calls per month)	37.2% n=3,169
MEDIUM-HIGH: Between 101-600 pediatric calls in the last year (8-50 pediatric calls per month)	14.9% n=1,267
HIGH: More than 600 pediatric calls in the last year (more than 50 pediatric calls per month)	4.0% n=337
No Response	0.4% n=38

- A second National Assessment was conducted in early 2020 (repeating the survey conducted in 2017-2018)

2020 Data Collection Results: PM 02



2020 Data Collection Results: PM 03



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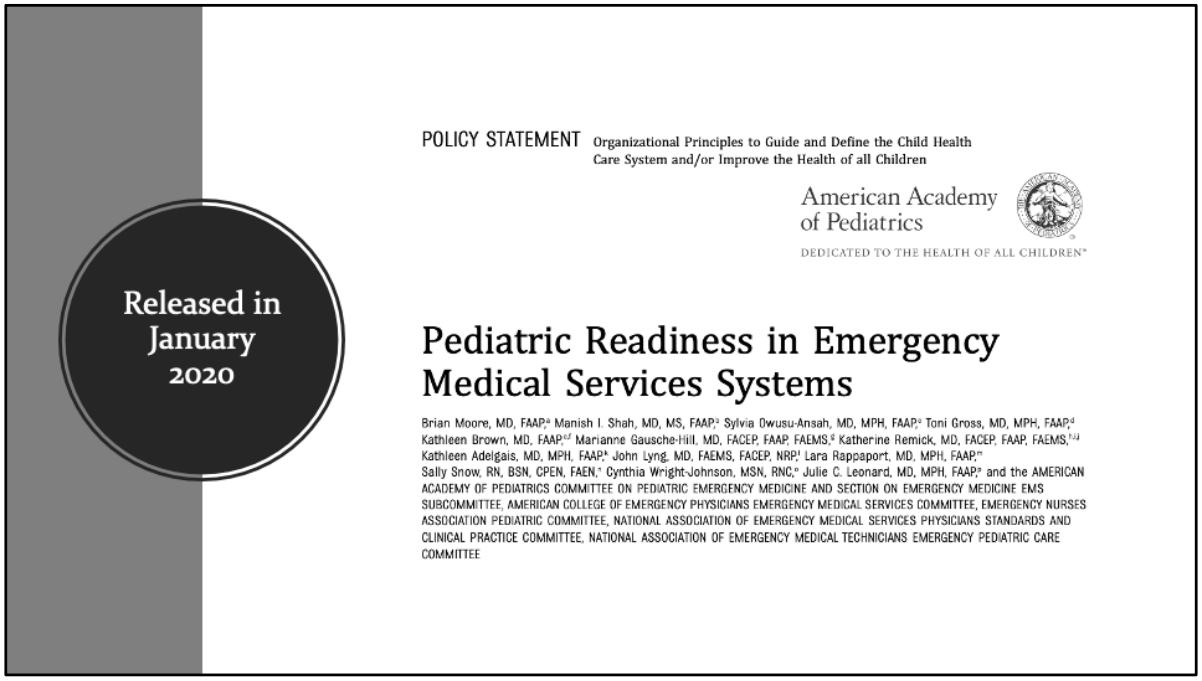


It is important that all EMS agencies have the appropriate resources, including physician oversight, trained and competent staff, education, policies, medications, equipment, and supplies, to provide effective emergency care for children. Resource availability across EMS agencies is variable, making it essential that EMS physician medical directors, administrators, and personnel collaborate with outpatient and hospital-based pediatric experts, especially those in EDs, to optimize prehospital emergency care for children. The principles in the policy statement "Pediatric Readiness in Emergency Medical Services Systems", and the accompanying technical report establish a foundation on which to build optimal pediatric care within EMS systems and serve as a resource for clinical and administrative EMS leaders.

Steering Committee Members

- Subject Matter Experts from the National (ED) Pediatric Readiness Project
- Authors of both the Policy Statement and Technical Report
- EMSC grant recipients/partners (EIIC, Family Advisory Network, NEDARC, State Partnership grantees, PECARN)
- Federal Partners (ASPR ECCC, HRSA EMSC, IHS, NHTSA OEMS)
- Multiple National Organizations with an interest in prehospital pediatric care (AAP, ACEP, ACS-COT, ENA, IAEMSC, IAFC, IAFF, NAEMSE, NASEMSO, NAEMSP, NAEMT, NEMSMA, NREMT, NVFC)

Steering Committee Charter

Steering Committee Work Groups

Dissemination

Marketing

Creation of FAQ to accompany Checklist Rollout

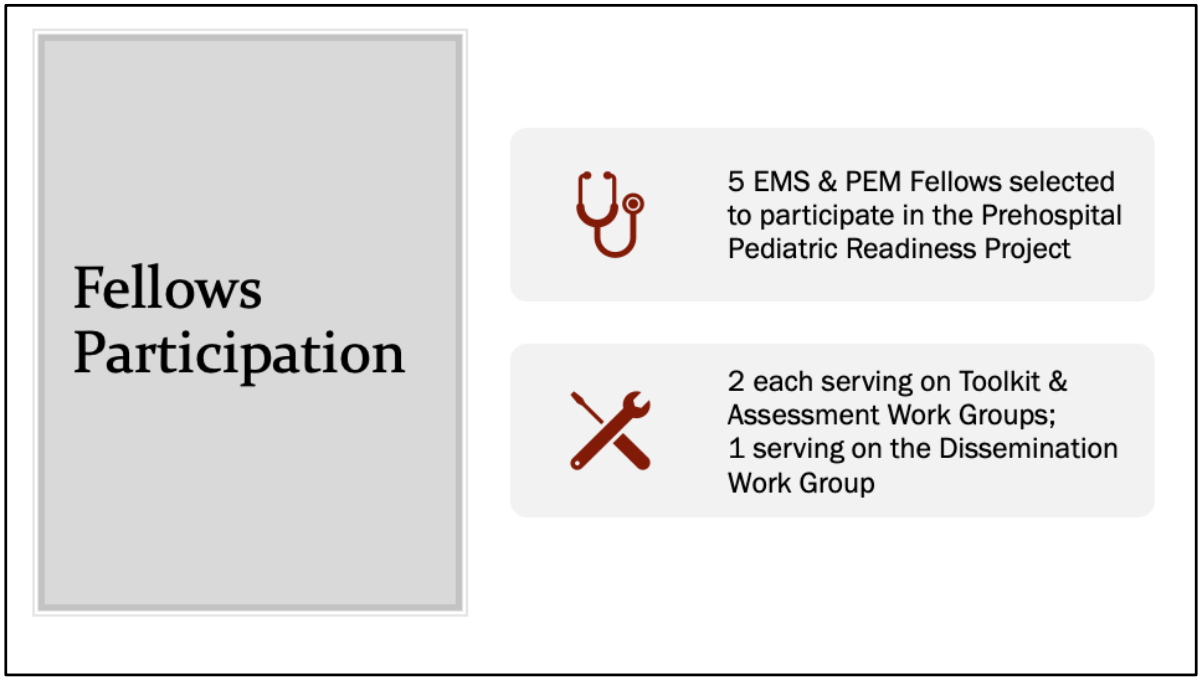
Toolkit

Curation of materials to support EMS agency pediatric readiness

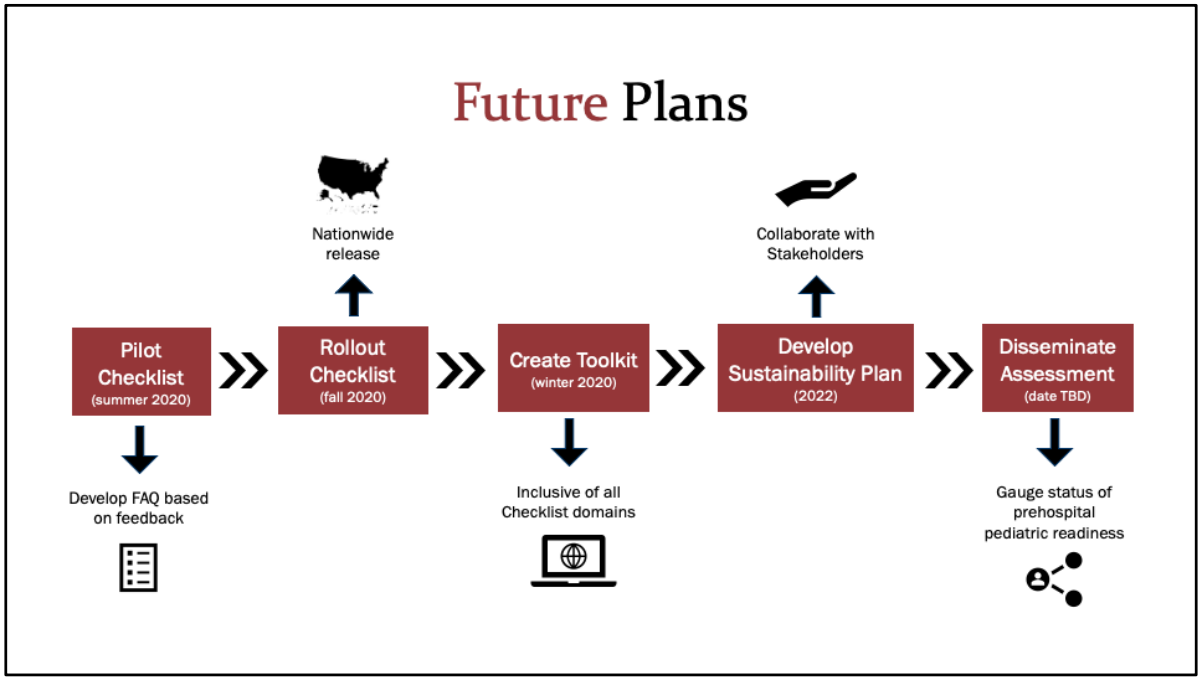
Assessment

Determine which Checklist items should be assessed at an agency-level

Write questions



Mentoring of future EMSC leaders



Checklist – based on the Policy Statement (with a cross-walk to the domains from the Technical report). Purpose is to help an EMS agency determine if they are ready to care for children.

The Checklist PILOT helped us clarify any items on the checklist and provide information to help us create a Frequently Asked Questions document that will be included in the nationwide roll-out of the Checklist.