

Logic Model: Pediatric Emergency Care Applied Research Network (PECARN)

HRSA Goals for EMSC-NDDP Cooperative Agreement Program

- Maintain a research infrastructure or network designed to be the platform from which to conduct investigations on the efficacy of treatments, transport, and care responses of acutely ill and injured children.
- Utilize the infrastructure to overcome present difficulties in assessing efficacy and quality of care that result from the relatively small incidence rates of pediatric emergency events.
- Utilize the infrastructure to conduct observational and interventional studies on a variety of issues related to Emergency Medical Services for Children (EMSC) including processes involved in transferring research results to treatment settings.

	Program Goals	Resources/Inputs	Network Organizing Activities	Network Scientific Activities and Engagement	Network Scientific Outputs	Outcomes	Impact
<p>Vision To work with diverse demographic populations and across varied geographical regions to promote the health of children in all phases of emergency care.</p>	<p>Conduct high priority, high impact EMSC research using rigorous study design and methodologies</p>	<p>HRSA/MCHB/EMSC Recognition of network importance Project Officer support/input</p>	<p>PECARN infrastructure, organization bylaws, policies</p>	<p>Conduct emergency medicine research across the continuum of emergency care for children including preventive care, prehospital, emergency, and acute care settings</p>	<p>High priority/high impact research findings</p>	<p>New knowledge relevant to EMSC</p>	<p>Improved pediatric emergency and prehospital care for children</p>
<p>Mission To conduct meaningful and rigorous multi-institutional research into the prevention and management of acute illnesses and injuries in children and youth across the continuum of emergency medicine health care.</p>	<p>Maintain a research and development process to: ✓ Develop projects ✓ Attain extramural funding ✓ Carry out investigations ✓ Communicate results ✓ Develop young investigators ✓ Improve investigator skills</p>	<p>Infrastructure funding for PECARN ED Nodes, Prehospital Node and Data Coordinating Center (DCC)</p>	<p>Conduct regular meetings: ✓ Executive Committee ✓ PECARN Steering Committee meetings ✓ Future investigators meetings ✓ Subcommittee meetings ✓ Study working groups ✓ Expert guests</p>	<p>Translate/disseminate findings to academic and non-academic communities</p>	<p>Research results that are reliable, valid and statistically sound</p>	<p>Knowledge translation and implementation of research findings in the clinical community</p>	<p>Decreased morbidity and mortality in the pediatric emergency population</p>
<p>PECARN Values</p> <ul style="list-style-type: none"> ➤ Pediatric focus ➤ Collaboration to generate and disseminate new knowledge ➤ Transparency and honesty in communication within the network and the greater scientific community ➤ Commitment to the highest integrity and quality in the conduct of research 	<p>Facilitate translation of research results to EMSC practices</p>	<p>Extramural research funding</p>	<p>Intra-nodal organization and accountability</p>	<p>Mentor/engage new EMSC researchers</p>	<p>Disseminate research results: ✓ Peer reviewed publications ✓ Scientific conference presentations ✓ Decision rules ✓ Knowledge translation ✓ EMSC tool-boxes</p>	<p>Strengthen pediatric emergency medicine (PEM) and prehospital clinical care and research</p>	<p>Improved systems of care</p>
	<p>Collaborate with EMS providers, researchers, networks</p>	<p>National Resource Center (NRC) support</p>	<p>EMSC research agenda</p>	<p>Engage other research networks</p>	<p>Future investigator meetings, individual mentoring</p>	<p>Develop the next generation of PEM/prehospital researchers</p>	<p>Improved infrastructure for pediatric emergency care research</p>
		<p>Network organizational structure</p>	<p>Establish/maintain plan for disseminating research results</p>	<p>Participate in multi-network and international research projects</p>	<p>Research collaboration with national and international research networks and other outside partners, which grows the infrastructure for EMSC research nationally and internationally</p>	<p>Public use data sets</p>	
		<p>Affiliation with and support from local CTSA's and Medical Schools</p>	<p>Establish/maintain network evaluation plan</p>	<p>Develop and assess scientific protocols and grants</p>	<p>Engage policy makers and funding agencies</p>	<p>International research collaboration and impact</p>	
		<p>Collaboration with Federal stakeholders in emergency medicine research</p>	<p>Establish/maintain network performance metrics to demonstrate efficiency and quality of research process</p>	<p>Strengthen PECARN capacity; engage content experts and leverage strengths of other innovative resources</p>	<p>Maximize EMSC funding opportunities</p>	<p>Growing visibility and impact of PECARN</p>	
		<p>Biostatistical expertise (DCC)</p>	<p>Data Coordinating Center: ✓ Policy development ✓ Technical support ✓ Standardization ✓ Project management ✓ Quality improvement</p>	<p>Data Coordinating Center support : ✓ Research protocol and grant development ✓ Data management ✓ Statistical analyses ✓ Regulatory compliance ✓ Education, training</p>		<p>Increased EMSC funding opportunities</p>	



Challenges

- Obtaining adequate research funding to support large multi-center studies
- Translating findings to general hospitals without specialized pediatric emergency services
- Enrolling adequate numbers of diverse pediatric patients to provide robust data