

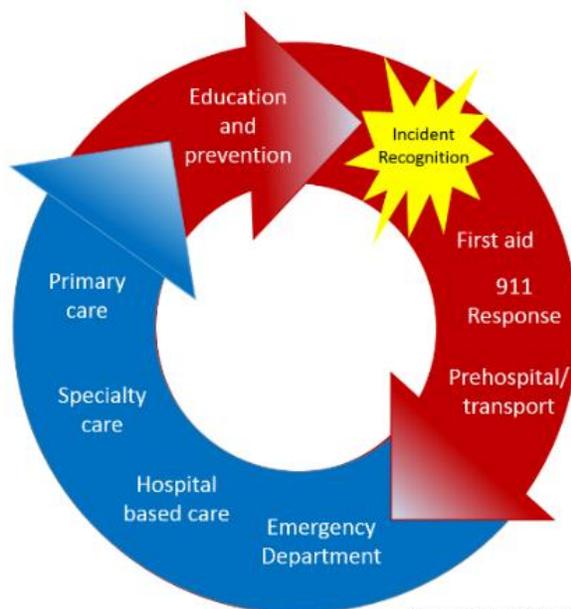
EMERGENCY MEDICAL SERVICES FOR CHILDREN PROGRAM

IMPACT AND OUTCOMES

Established by Congress in 1984, the Emergency Medical Services for Children (EMSC) Program is the only federal program that focuses specifically on addressing the unique medical needs of children by improving the pediatric components of the emergency medical services (EMS) system across the care continuum. This year approximately 30 million children will visit the emergency department (ED), but emergencies involving children can occur anytime, anywhere. The EMSC program is designed to ensure that all children and adolescents who have sustained illness or trauma receive appropriate care in a health emergency.

The EMS for Children program has improved outcomes from health care services delivery for children who have sustained illness or trauma through programs that:

- support prehospital and hospital based clinical care delivery
- enhance infrastructures to support the needs of children
- drive innovation and research and translation of new knowledge
- enhance the workforce of skilled personnel who can deliver care for children in urgent/emergent care settings



With permission from the EMS for Children Innovation and Improvement Center. Adapted from: National Highway Traffic Safety Administration's Office of EMS. www.ems.gov/what/emsc accessed April 28, 2017

EMS for Children specifically creates economies of scale through programs and structures that can **maximize the ability of communities and states to tailor to their own local needs** improvement strategies derived from national experts that otherwise would not be available locally or in each state. The EMS for Children program helps to **reduce child and youth mortality and morbidity** sustained as a result of severe illness or trauma and **creates infrastructure improvement for children along the continuum of emergency care in the existing EMS system**.

SUPPORTS STATES AND TERRITORIES TO MEET LOCAL NEEDS OF THEIR COMMUNITIES

Every state and territory has received state partnership grants to expand and improve their capacity to reduce and respond to pediatric emergencies. Because of the relative nascence of pediatric emergency medicine, there is a need to grow excellence in the EMSC continuum across the states and territories. EMSC provides state/territory support to tailor resources, skills training, best practices, innovation and research generation, and quality improvement strategies that would not be available otherwise in each state or territory. Approximately 90% of EMS agencies in the US now have online

medical direction when treating pediatric patients and 85% have off-line direction (pediatric inclusive protocols). The majority of hospitals now have interfacility transfer agreements and half have transfer guidelines than incorporate recommended pediatric components. The program has been successful at improving quality of infrastructures, improving processes, and improving outcomes as measured through ***Performance Measures applied to the pre-hospital and hospital setting. The program has contributed to a reduction in pediatric morbidity and mortality*** such as that demonstrated in Arizona and Illinois.

ENHANCES PEDIATRIC EMERGENCY MEDICAL CARE IN RURAL AND TRIBAL COMMUNITIES

State Partnership Regionalization of Care (SPROC) grants aim to ***minimize uneven care delivery by helping regions develop systems of care models to improve pediatric emergency care capacity in rural and tribal communities***. This has allowed grantees to develop and implement innovative strategies into regionalization efforts such as e-medicine/telehealth, triage tools for system efficiency, increasing access to pediatric specialists, and strategies for using community setting assessments (including schools and parks) to assess levels of pediatric acute care preparedness. Dissemination of such strategies that can be tailored to local needs is critical to improve care delivery and outcomes in communities.

DRIVES RESEARCH ACROSS THE EMSC CONTINUUM

The Pediatric Emergency Care Applied Research Network (PECARN) conducts rigorous research into the prevention and management of acute illness and injuries in children across the continuum of emergency medicine health care. More details on PECARN's impact can be found in this [Infographic](#).

SUPPORTS INNOVATION FOR PROJECT DEVELOPMENT, IMPLEMENTATION AND DISSEMINATION OF BEST PRACTICES

Targeted Issue grants have been awarded to grantees across the country to ***support innovative, cross-cutting projects focused on improving outcomes across the continuum of pediatric emergency care***. This has allowed the development of best practices for dissemination in other states and communities to be tailored as needed. Advances include development of prehospital training modules and evidence based protocol development, mental health screening tool testing and implementation, optimal and appropriate delivery of pain management for specific populations, and strategies to improve outcomes from resuscitation.

ACCELERATES IMPROVED OUTCOMES THROUGH IMPROVEMENT SCIENCE

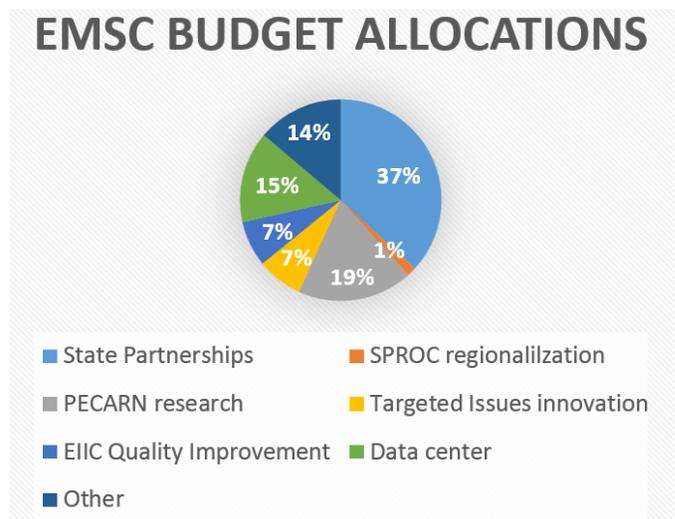
The EMSC Innovation and Improvement Center (EIIC) supports activities of the EMSC continuum collaborating with professional societies, governmental agencies and other entities effecting pediatric emergency care. The center specifically ***supports a foundation of improvement science to accelerate improved outcomes through evidence based practice, analytics, quality improvement (QI) collaboratives, QI and EMSC content education, and patient safety***. The EIIC has supported QI education across the EMSC continuum and across provider types and ***implemented QI collaboratives to increase the number of state, community and institutional infrastructures to make more emergency departments ready to care for children in emergencies***. These improvements in pediatric readiness have

been demonstrated to decrease pediatric morbidity and mortality [National Pediatric Readiness Project]. Similar decreases in pediatric mortality have been demonstrated in septic shock QI collaboratives supported by the EIIC.

The EMSC program supports a data coordinating center which supports EMSC grantees and the Pediatric Emergency Care Applied Research Network to validate data for rigorous studies, as well as performance measure benchmarks set for the states and territories to assure national Program impact. The data infrastructure has produced over 20 public use datasets from PECARN studies. During the last national assessment of Pediatric Readiness, the center was responsible to technical assistance to the states in the collection of data from over 4,000 EDs across the nation. This center supports EMSC Program's effort to remain a data-driven program; allowing for analytics and educational support on data use for national, state and community based work.

HOW DO EMSC DOLLARS FLOW?

EMSC program funds are ***distributed directly to the states and territories*** where pockets of excellence for care delivery and infrastructure development, research, innovation, regionalization efforts, analytics, and quality improvement efforts have demonstrated successes. Other infrastructure support allocated by the program allows for iterative support for program activities within and between the EMSC assets to assure gaps are addressed in a timely fashion within the rapidly changing healthcare landscape.



The ***relatively small EMSC budget has been leveraged to maximize outcomes for high quality care delivery*** and enhance infrastructures in the states and territories (and the communities within them) to assure sustainable outcomes. Because the activities of the EMSC program align with the EMSC continuum, reallocation of resources or resource funding among other programs (eg. trauma, disaster preparedness, etc.) would be unlikely to successfully address the needs of children with severe illness and injury needing emergency care with the same synergism and low cost efforts that currently exists in the current EMSC program structure. Shrinking national community hospital inpatient and/or specialty capability for children's needs intensifies the need for a broad floor of pediatric readiness in the emergency care continuum; an increasing level of regionalization and interfacility transport of children requires more, not less, application and oversight of programmatic performance measures at the system level in order to identify gaps, drive improvement and transform healthcare for better outcomes for children who have sustained severe illness or trauma.

For more information: <https://www.emscimprovement.center>; click onto *Impact and Outcomes of the EMSC Program* button