

EMSC: A Historical Perspective

History of the Emergency Medical Services for Children Program

1966



National Highway Traffic Safety Administration Created

Congress passes the Highway Safety Act of 1966, establishing the National Highway Traffic Safety Administration (NHTSA). The agency's purpose is to help states start their own coordinated EMS programs.

1973



Emergency Medical Services Systems Act of 1973 Passed

Congress passes the Emergency Medical Services (EMS) Systems Act of 1973, a program managed by the Health Resources and Services Administration (HRSA), to provide additional resources to state and local governments for implementing comprehensive EMS systems.

1975-1979



Gaps in Pediatric Emergency Medical Services Identified

State EMS systems dramatically improve the outcomes for adults. However, pediatric surgeons, pediatricians, and other concerned groups begin to realize that children's outcomes weren't keeping up the pace.

1979



Multifaceted EMS Programs with Pediatric Focus Proposed

Calvin Sia, MD, president of the Hawaii Medical Association, urges members of the American Academy of Pediatrics (AAP) to develop multifaceted emergency medical service programs designed to decrease disability and death in children.

1983-1984



Multifaceted EMS Programs with Pediatric Focus Supported

Senator Daniel Inouye (D-HI) joins Dr. Sia's crusade after learning about the emergency care provided to a senior staff member's daughter. Her treatment demonstrates the average ED's shortcomings in treating a child in crisis. Senators Orrin Hatch (R-UT) and Lowell Weicker (R-CT), backed by other staff members with similar experiences, join Sen. Inouye in sponsoring legislation to create the EMSC Program.

1984



Federal Funds for EMSC Enacted

U.S. Congress enacts [legislation](#) authorizing the use of federal funds for EMSC. Administered by the HRSA's Maternal and Child Health Bureau (MCHB), the EMSC Program provides states grant money to help improve emergency medical services for critically ill and injured children. The program does not promote the development of a separate EMS system for children but rather enhances the pediatric capability of existing EMS systems.

1985



EMSC Grant Announcement Published

United States Congress appropriates initial funds for EMSC; first program grant announcements published.

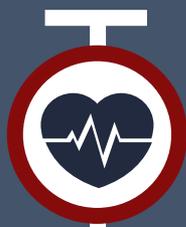
1986



First Federal Grants Awarded

EMSC awards first federal grants to Alabama, California, New York, and Oregon, specifically earmarked to improve pediatric emergency medical services.

1987



Pediatric Advanced Life Support Course Made Available

The first Pediatric Advanced Life Support (PALS) course is made available to all emergency care providers.

1988



Additional EMSC State Grants Awarded

EMSC awards eight additional EMSC state grants to Arkansas, Washington D.C., Florida, Hawaii, Maine, Maryland, Washington, and Wisconsin.

1989



EMSC Reauthorizing Legislation Passed by Congress

U.S. Congress passes first EMSC reauthorizing legislation.

Additional EMSC State Grants Awarded

Four additional EMSC state grants awarded to Alaska, Idaho, Louisiana, and Vermont.

Pediatric Emergency Medicine Course Made Available

The first National Pediatric Emergency Medicine (PEM) course is introduced by the American College of Emergency Physicians (ACEP) and the AAP.

1990



Additional EMSC State Grants Awarded

Four additional EMSC state grants awarded to New Mexico, North Carolina, Ohio, and Utah.

EMSC Establishes Resource Centers to Support EMSC Activities and the Program

HRSA's MCHB establishes the EMSC Resource Network, which includes the EMSC National Resource Center (NRC), located in Washington, DC, and the National EMSC Resource Alliance (NERA), located in Los Angeles, CA. The role of these resource Centers was to assist grantees in developing state programs to decrease mortality and morbidity of children needing emergency care across the continuum of care, while promoting greater public and professional awareness of the unique care needs of children. These centers were also to assist in building partnerships to support the development and implementation of professional educational courses, standards and guidelines to better integrate the care needs of children into the existing emergency systems of care.

1991



Pediatric Emergency Medicine Becomes Approved Subspecialty

Pediatric emergency medicine is approved as a subspecialty in Emergency Medicine and Pediatrics.

Additional EMSC State Grants Awarded

Seven additional EMSC state grants awarded to Illinois, Michigan, Missouri, Nevada, New Hampshire, New Jersey, Oklahoma, and Texas. Illinois passes the first state legislation – “An Act in Relation to Emergency Medical Services for Children.”

Minimum Pediatric Prehospital Equipment Guidelines Approved

Minimum Pediatric Prehospital Equipment Guidelines developed and approved by American College of Surgeons (ACS), National Association of EMS Physicians (NAEMSP), AAP, ACEP, and EMSC Stakeholder group.

1992



First State Level Office of EMSC is Developed and First Targeted Issue Grants Released

New Jersey becomes first state to establish an Office of EMSC within its state health department to protect the children within its boundary. California, New York, and Idaho become the first states to be awarded an EMSC Targeted Issue (TI) grant. Through the competitive TI grant mechanism, the EMSC Program funds schools of medicines to find new approaches to providing the best possible emergency care for children across the nation. Typically, the projects result in a new product or resource, or demonstrate effectiveness and value of a model system component.

1993



Emergency Medical Services for Children Report Released by Institute of Medicine

The Institute of Medicine (IOM) releases The Emergency Medical Services for Children report. This report details the nature, extent, and outcomes of pediatric illness and traumatic emergencies, and reveals continued deficiencies in pediatric emergency care for many areas of the country.

Model EMSC Statute Published to Encourage Children's Emergency Medical and Injury Prevention Systems Act

Harvard Journal of Legislation publishes a model EMSC statute to encourage states to establish a "Children's Emergency Medical and Injury Prevention Systems Act." The Act, as proposed, addresses EMSC standards and advisory panels for both EMSC and injury prevention programs.

1994



Children with Special Health Care Needs Gain Focus

National Workgroup formed to address the emergency care needs of children with Special Health Care Needs.

Additional EMSC State Grants Awarded

Three additional states secure EMSC Funding: Pennsylvania, South Carolina, and Tennessee.

1995



National EMSC Data Analysis Resource Center (NEDARC) Created

To help address "the need for more and better data on the volume, nature, and outcomes of pediatric emergency care," a major shortcoming identified in the IOM report, MCHB funds the [National EMSC Data Analysis Resource Center \(NEDARC\)](#), located in Salt Lake City, UT. NEDARC's primary mission is to assist EMSC grantees in collecting and analyzing data.

EMSC 5-Year Plan Published

EMSC publishes a 5-Year Plan to guide future program activities and endeavors.

Pediatric Disaster Life Support Course Developed

EMSC sponsors workshop, which leads to the development of the Pediatric Disaster Life Support Course.

First Pediatric Emergency School Nurse Course Developed

University of Connecticut receives a TI grant to update their school nurse training program and host a national train-the-trainer course for other schools and emergency nurses. The Illinois EMSC team has since continued updating and revising this course while creating an instructor manual that continues to be used in many states across the country.

1996



EMSC Partnership for Children Consortium Established

MCHB establishes the EMSC Partnership for Children Consortium to promote and support collaboration between national organizations with an interest in pediatric emergency care. Members include the Ambulatory Pediatric Association, AAP, ACEP, the National Association of EMT's, the American Trauma Society, and others. These partnerships have enabled the program to broaden its impact far beyond the actual EMSC program funding.

1997



State Partnership Grantees Introduced

MCHB reports that every state, the District of Columbia, and four U.S. territories have received grant support at some time since the program's establishment. Many elements of a model EMSC system have been developed since the program's implementation, including prehospital protocols for triage and treatment of children, curricula for prehospital and ED staff, and standards for hospital facilities accepting pediatric patients. In addition, [State Partnership grants](#) are first introduced to help states improve, refine, and integrate pediatric care within the state EMS system.

EMSC Regions Form

EMSC regions form and the first regional meeting(s) are held.

1998



First National Congress on Childhood Emergencies Event Held

MCHB sponsors the first National Congress on Childhood Emergencies. This historic event marks the first nation-wide gathering of all medical and non-medical individuals interested in improving health care for children. During a special luncheon at the Congress, HRSA announces the recipients of its first National Heroes Awards. The purpose of the awards program is to identify, honor and recommend as models the efforts of a select handful of men and women who excel in improving children's emergency health care.

Interagency Committee on Emergency Medical Research (ICER) Created

[Interagency Committee on Emergency Medical Research \(ICER\)](#) is created. Its purpose is to improve the quality and quantity of EMSC research to foster collaboration between federal agencies in highlighting EMSC research topics during development of research agendas and reduce barriers to the production of high-quality EMSC research. Participating agencies include: HRSA, the Agency for Health Care Research and Quality (AHRQ), the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), and the National Institutes of Health (NIH), among others.

Emergency Guidelines for Schools for Helping an Ill or Injured Student when the School Nurse is not Available Published

First edition of Emergency Guidelines for Schools for Helping an Ill or Injured Student when the School Nurse is not Available is published.

Family Advisory Network (FAN) Created

Recognizing that families are a valuable resource in the planning, development, and evaluation of prehospital and acute care services for children, the EMSC NRC creates [the Family Advisory Network \(FAN\)](#). FAN representatives impart a consumer's perspective and serve as community allies to support patient- and family- centered health services throughout the continuum of care.

First Model of Standards for Emergency Departments Approved for Pediatrics Published

California develops and publishes the first model of standards for emergency departments approved for pediatrics.

Healthy People 2010 Released by DHHS

Department of Health and Human Services (DHHS) releases [Healthy People 2010](#), a national health promotion and disease prevention initiative that identifies 28 focus areas and 467 objectives to improve the health of all Americans. The plan's final version includes two EMSC-related objectives: 1) increase the number of states and the District of Columbia that have implemented statewide pediatric protocols for online medical direction and 2) increase the number of states and the District of Columbia that have adopted and disseminated pediatric guidelines that categorize acute care facilities with the equipment, drugs, trained personnel, and other resources necessary to provide varying levels of pediatric emergency and critical care.

Emergency Response Plan for Schools Developed

Massachusetts School Health Program, in conjunction with Massachusetts EMSC, develops Emergency Response Plan for Schools.

First EMSC Related Multi-Agency Program Announcement Made

First multi-agency program announcement made in NIH Guide for Grants and Contracts, outlining research needs for EMSC.

State by State Trauma Systems Needs Survey Conducted

EMSC partners with ORHP and NHTSA to conduct a State by State Trauma Systems needs survey; develop a national stakeholders group on trauma/EMS systems, inclusive of rural communities; and enhance the existing comprehensive trauma/EMS data system.

Providing Family Centered Prehospital Care Guidelines Published

NAEMT publishes Guidelines for Providing Family Centered Prehospital Care.

1999



2000



2001



Pediatric Emergency Care Applied Research Network (PECARN) Cooperative Agreement Created

EMSC funds four cooperative agreements through a competitive funding mechanism known as the Network Development Demonstration Project. These cooperative agreements form the [Pediatric Emergency Care Applied Research Network \(PECARN\)](#), the first federally-funded, multi-institutional network for research in pediatric emergency medicine.

Care of Children in the Emergency Department Guidelines for Preparedness Released

AAP and ACEP release “Care of Children in the Emergency Department Guidelines for Preparedness.”

National EMS for Children Day Established

ACEP includes information about the first-ever National EMS for Children Day in its National EMS Week promotional materials. The first National EMSC Day is celebrated May 23, 2001. Working in partnership with the EMSC NRC, [EMSC Day](#) is now celebrated annually on the third Wednesday of May.

2002



EMSC National Public Information and Education (PIE) Campaign

DHHS adopts the EMSC theme, The Right Care When It Counts, as the focus of its annual observance of Child Health Month (October). The centerpiece of this year’s celebration is the EMSC National Public Information and Education [\(PIE\) campaign](#), a 3-year initiative designed to: 1) help prepare caregivers in addressing the distinctive needs of children in medical emergencies; and 2) raise awareness among parents about the critical need to work closely with their healthcare providers to better prepare for a pediatric medical emergency.

PECARN Cooperative Agreement Awarded to University of Utah

The University of Utah receives a cooperative agreement to serve as the [EMSC Data Coordinating Center](#) for PECARN.

2004



Development of the First Set of EMSC Performance Measures

The EMSC NRC commences a 2-year endeavor to develop the first set of EMSC performance measures to demonstrate the results of program funding given to states/territories. The final measures were: 1) The degree to which the State has ensured the operational capacity to provide pediatric emergency care, 2) The adoption of requirements by the state for pediatric emergency education for the license renewal of basic life support (BLS) and advanced life support (ALS) providers, and 3) The degree to which the State has established permanence of EMSC in the State. These measures become the basis for all State Partnership grants.

2005



Twenty Years of Emergency Medical Services for Children: A Cause for Celebration and a Call for Action Published

Recognizing the 20 year anniversary of EMSC, Steven Krug, MD and Nathan Kuppermann, MD, MPH publish [Twenty Years of Emergency Medical Services for Children: A Cause for Celebration and a Call for Action](#), outlining how the EMSC program has helped lead the way toward systematic improvements in the delivery of emergency care to children in every state in the U.S.

2006



Future of Emergency Care Series Released by IOM

IOM releases the [Future of Emergency Care](#), a series of reports that included “Emergency Medical Services at the Crossroads,” “Hospital-Based Emergency Care: At the Breaking Point,” and “Emergency Care for Children: Growing Pains.” The reports comprehensively describe the “fragmented” system of emergency care with emphasis in the pediatric report on the “uneven” nature of emergency care for children.

Tribal EMS Program Focus

Essential information for EMSC Grantee Managers working with Tribal EMS Programs presented at annual EMSC Grantee Meeting.

EMSC Performance Measures Rolled Out

EMSC Performance measures rolled out to EMSC with data collection plan.

2007



PECARN Dexamethasone Trial Published

PECARN completes its first major trial looking at the use of [dexamethasone](#) for the treatment of infant bronchiolitis. The study is published in the July 26, 2007, edition of the New England Journal of Medicine.

EMSC Performance Measures Data Collected

First set of EMSC Performance Measure data collected and analyzed. Analysis identifies gaps for states and initiated state specific EMSC Strategic Plan creation and implementation.

2008



EMSC Research Applications Released by NIH

National Institute of Health releases [special program announcement](#), inviting applications for EMSC research. This first-ever multi-agency program Funding Opportunity Announcement is designed to expand and improve the quality and quantity of research related to EMSC.

2009



Ambulance Equipment Guidelines Updated

[Ambulance equipment guidelines](#) updated and EMSC adopts specific pediatric equipment recommendations as part of its performance measure.

Guidelines for Care of Children in the Emergency Department Updated

[Joint Policy Statement - Guidelines for Care of Children in the Emergency Department](#) updated by 17 organizations, to include AAP, ACEP, and Emergency Nurses Association (ENA). The policy statement identifies guidelines and resources needed to prepare hospital emergency departments to serve pediatric patients.

EMSC Turns 25

EMSC turns 25 and goes social! The EMSC NRC establishes social media, including [YouTube](#) accounts, to expand its outreach by educating and informing the online community about EMSC. Want to help spread the word? Join or “friend” each of our sites at “/emscnrc.” Look for the Facebook and Twitter accounts for NEDARC too ([/emscnedarc](#)).

PECARN Traumatic Brain Injury Prediction Rule Study Released

PECARN study of 42,000 children with blunt head trauma led to a clinical prediction rule for emergency neuroimaging, thus reducing unnecessary scans and radiation exposure for children.

EMSC Performance Measures Refined

The first set of EMSC performance measures were refined to further demonstrate the results of program funding given to states/territories. The additional measures focused on the availability of: 1) online and offline pediatric medical direction, 2) pediatric equipment on patient care units, 3) pediatric training for prehospital providers, 4) pediatric trauma and medical facility recognition programs, 5) interfacility transfer guidelines and agreements, and 6) program permanence and institutionalization of program priorities.

2011



Pediatric Emergency Medicine (PEM) Programs Receives NIH Institutional Research Career Development (K12) Award

PEM investigators at CHOP and UC Davis receive an NIH Institutional Research Career Development (K12) award to promote multidisciplinary clinical research training programs in Emergency Medicine (EM) that prepares clinician-scientists for independent research careers and academic leadership roles in EM and Pediatric EM. In addition to these awards, the EMSC expands PECARN's reach by awarding six new cooperative agreements. The entire PECARN network now serves approximately 1.2 million acutely ill and injured children every year.

2012



State Partnership Regionalization of Care (SPROC) Funded

EMSC funds six EMSC [State Partnership Regionalization of Care \(SPROC\)](#) demonstration grants, a 4-year initiative to: 1) support the development of regionalized care that improves access to pediatric health care services for children and families in tribal, territorial, insular, and rural areas of the United States and 2) develop "Models of Inclusive Care" that may be replicated by other regions where access to specialized pediatric medical treatment is limited due to geographical distances or jurisdictional borders.

National Pediatric Readiness (Peds Ready) Project Implemented

In partnership with AAP, ACEP, and ENA, the EMSC Program implements the [National Pediatric Readiness \(Peds Ready\) Project](#), a national continuous quality improvement initiative. Phase one of the National Pediatric Readiness (Peds Ready) Project launches—a national quality improvement joint collaborative with the AAP, ACEP, and the EMSC Program to assess the readiness of EDs to care for children. The assessment helps identify gaps based on the Joint Guidelines on the Care of Children in the ED. Efforts have since focused on quality improvement to address the gaps.

2013



Peds Ready Phase 1 Completed

Phase one of Peds Ready is complete. More than 4,000 EDs participated, yielding a response rate of more than 82% (visit <http://www.PediatricReadiness.org> for in-depth information about Peds Ready national results). Not only does the successful response rate demonstrate the engagement of almost all of the nation's EDs to be peds ready, it provides a more accurate snapshot of the needs of these EDs. In late 2013, EMSC, AAP, ACEP, and ENA initiate phase two, the development of strategies and resources to engage ED quality improvement activities.

Six New Prehospital Care Targeted Issue Grants Funded

EMSC funds six new [Targeted Issue grants](#) that focus solely on pediatric prehospital care. This represents one of the largest investments, \$5.4 million over three years, in pediatric prehospital research. These newly-funded projects will either demonstrate the ability of EMS systems to conduct pediatric research or seek to improve the quality of care by increasing the base of pediatric prehospital research. In addition, EMSC State Partnership grants are awarded to the Federated States of Micronesia and the Republics of Palau and Marshall Islands.

2014



EMSC Turns 30

EMSC celebrates [30 years](#) with the slogan: Then, Now, Imagine... Honoring the Past, Experiencing the Present, Visualizing the Future. To commemorate the occasion the ["Emergency Medical Services for Children: Thirty Years of Advancing High-Quality Emergency Care for Children"](#) article is published in Pediatric Emergency Care.

Pediatric Readiness Results Published

Pediatric Readiness Results published in JAMA Pediatrics, indicating an average pediatric readiness score of 69 for participating hospitals.

Essential Pediatric Domains and Considerations for Every Hospital's Disaster Preparedness Policies Published

EMSC National Resource Center publishes Essential Pediatric Domains and Considerations for Every Hospital's Disaster Preparedness Policies.

2015



PECARN Network Expanded to Prehospital Research

The PECARN network adds six EMS Affiliates, which, together with Targeted Issues grant [CHaMP node](#), form a prehospital research node whose agencies have 63,000 pediatric runs annually.

PECARN Therapeutic Hypothermia (THAPCA) Trial Published

PECARN teams up with the [NICHD Collaborative Pediatric Critical Care Research Network \(CPCCRN\)](#) and completes two major hypothermia trials to evaluate whether regulating body temperature will improve outcomes for children after cardiac arrest, both out of hospital (THAPCA-OH) and in hospital (THAPCA-IH). The studies are published in 2015 and 2017, respectively, in the New England Journal of Medicine.

2016



Program Focuses Efforts on Quality Improvement

EMSC takes a new direction with the [Emergency Medical Services for Children \(EMSC\) Innovation and Improvement Center \(EIIIC\)](#). The EIIIC is focused on improving outcomes for children in emergency situations by using improvement science as the basis for collaborative efforts to address known gaps in the U.S. health care system. The EIIIC continues to assist with transforming Infrastructures that maintain the nation's assets for supporting emergency medical services for children from coordination and dissemination centers to active cores for quality improvement (QI) across silos.

Facility Recognition Collaborative (FRC) Transitioned

The [Facility Recognition Collaborative](#), previously formed by the EMSC NRC, is transitioned to the EIIIC to assist state programs in accelerating their progress in improving the pediatric readiness of EDs and develop a program to recognize EDs in the states that are ready to care for children with medical emergencies. The collaborative commenced in Spring 2016 and completed in December 2017 with five states (Colorado, Connecticut, Kentucky, South Carolina, and Texas) preparing to launch a Pediatric Medical Recognition Program and eight states making significant progress toward implementing a program in their state.

PECARN's 22nd Study Completed

PECARN has completed 22 studies involving more than 100,000 pediatric patients and 130 researchers, including 77 young investigators mentored by the senior researchers. They have successfully obtained funding for 30/43 studies, a 70% funding rate. PECARN has published more than 120 peer-reviewed articles and conducted 127 conference presentations.

New 2016 – 2019 Targeted Issues Grants Funded

Five [Targeted Issues \(TI\)](#) grants awarded to support strategies to improve the quality of pediatric care delivered in emergency care settings across the continuum of emergency care. Targeted Issues awardees will implement pediatric emergency care research or innovative cross-cutting projects that translate research into practice and improve pediatric health outcomes related to emergency care.

2017



EMSC 5-Year Roadmap Released

Through strategic planning meetings, conference calls, ongoing check-ins and conversations, and ongoing requests for input, EMSC develops and releases the [Emergency Medical Services for Children Program Five Year Roadmap](#) to encompass the priorities, concerns, and solutions of its stakeholders and ensure continuous program advancement.

Development of New EMSC Performance Measures

EMSC develops new EMSC performance measures to demonstrate the results of program funding given to states/territories. The measures focus on: 1) The degree to which EMS agencies submit The National Emergency Medical Services Information System (NEMSIS) compliant version 3.x data to the State EMS Office, 2) The percentage of EMS agencies in the state or territory that have a designated individual who coordinates pediatric emergency care, and 3) The percentage of EMS agencies in the state or territory that have a process that requires EMS providers to physically demonstrate the correct use of pediatric-specific equipment.

National Pediatric Readiness Project (NPRP) White Paper Released

[National Pediatric Readiness Project \(NPRP\) White Paper](#) is developed and released. This report describes the progress and impact of one of the EMSC Program's efforts to improve the readiness of all EDs to care for children.