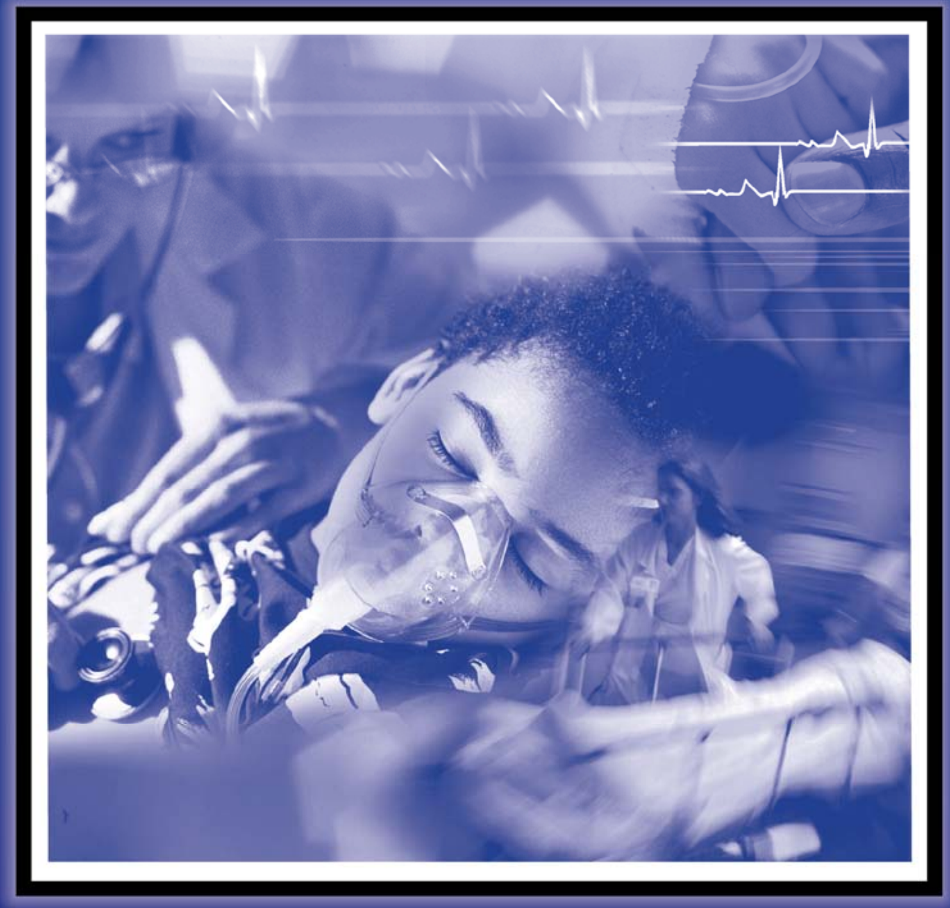
EMSC PERFORMANCE MEASURES

2009-2010 "FINAL" EDITION



EFFECTIVE OCTOBER 1, 2009

Implementation Manual for State Partnership Grantees

Table of Contents

Introduction 2

Performance Measures Background 2

Process for Developing the Performance Measures 2

List of Performance Measures 3

Grantee Requirements 7

Description of Implementation Manual 7

EMSC Program Contacts 9

General Considerations 10

Definitions 10

Implementation Considerations 11

Performance Measures 14

Performance Measure 71 & 72 (Formerly 66ai & 66aii) . 14

Performance Measure 73 (Formerly 66b) 26

Performance Measure 74 & 75 (Formerly 66c) 36

Performance Measure 76 (Formerly 66d) 45

Performance Measure 77 (Formerly 66e) 54

Performance Measure 78 (Formerly 67) 63

Performance Measure 79 (Formerly 68a) 70

Performance Measure 79 (Formerly 68b) 80

Performance Measure 79 (Formerly 68c) 84

Performance Measure 80 (Formerly 68D) 87

Writing Points for Drafting Legislation 93

Appendix A: Annotated Bibliography 108

Appendix B: Case Studies 136

Appendix C: Crosswalk of IOM Report 134

Implementation Manual Writing Team 151

Performance Measure Advisory Committee 152

Introduction

Performance Measures Background

With the implementation of the Government Performance and Results Act (GPRA), public sector agencies are increasingly being held accountable for achieving outcomes. GPRA focuses on a results-oriented approach, requiring Federal agencies to develop performance measures that inform and guide organizational decisions and communicate to a broad constituency about their success. As a result of GPRA, all Federal agencies are obligated to provide information to Congress on the effectiveness of their programs.

In an effort to continue its focus on accountability and performance, the Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau's (MCHB) Emergency Medical Services for Children (EMSC) Program tasked the National Resource Center (NRC) to develop a set of performance measures for the EMSC Program. The development of the performance measures complement the Program's current performance management activities and can be integrated into existing reporting structures.

The purpose of the EMSC Program performance measures is to document activities and accomplishments of the Program in improving the delivery of emergency services to children. Additionally, information from the measures will provide guidance to the Program on future areas for improvement.

Specifically, the set of measures will:

- Provide an ongoing, systematic process for tracking progress towards meeting the goals of the EMSC Program;
- Allow for continuous monitoring of the effectiveness of key EMSC Program activities;
- Identify potential areas of performance improvement among the EMSC State Partnership grantees;
- Determine the extent to which the grantees are meeting established targets and standards; and
- Allow the EMSC Program to demonstrate its effectiveness and "tell its story" to the Office of Management and Budget (OMB), Congress, and other stakeholders.

Process for Developing the Performance Measures

The process for developing the performance measures (PM) was an interactive one informed by various activities, including a comprehensive document review of EMSC Program materials to identify the "universe" of measures; the selection of a subset of measures using a set of five criteria; the convening of a consensus group meeting and follow-up conference calls to identify three core performance measures; and technical visits to three beta-test grantee sites to further refine the three performance measures.

List of Performance Measures

Please note that the numbers for the performance measures have changed to make EHB entries easier for grantees. The new and old performance measure numbers are noted in the table below. The ten performance measures are as follows:

Performance Measure 71 ***(Former PM 66a, part i)***	The percent of pre-hospital provider agencies in the State/Territory that have on-line pediatric medical direction available from dispatch through patient transport to a definitive care facility. By 2011: • 90% of basic life support (BLS) pre-hospital provider agencies in the State/Territory have on-line pediatric medical direction available from dispatch through patient transport to a definitive care facility. • 90% of advanced life support (ALS) pre-hospital provider agencies in the State/Territory have on-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.
Performance Measure 72 ***(Former PM 66a, part ii)***	The percent of pre-hospital provider agencies in the State/Territory that have pediatric off-line medical direction available from dispatch through patient transport to a definitive care facility. By 2011: • 90% of basic life support (BLS) pre-hospital provider agencies in the State/Territory have off-line pediatric medical direction available from dispatch through patient transport to a definitive care facility. • 90% of advanced life support (ALS) pre-hospital provider agencies in the State/Territory have off-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.
Performance Measure 73 ***(Former PM 66b)***	The percent of patient care units in the State/Territory that have the essential pediatric equipment and supplies as outlined in national guidelines. By 2011: • 90% of basic life support (BLS) patient care units in the State/Territory have the essential pediatric

	equipment and supplies, as outlined in national guidelines for pediatric equipment and supplies for basic life support ambulances. • 90% of advanced life support (ALS) patient care units in the State/Territory have the essential pediatric equipment and supplies, as outlined in national guidelines for pediatric equipment and supplies for advanced life support ambulances.
Performance Measure 74 ***(Former PM 66c medical)***	The percent of hospitals recognized through a statewide, territorial or regional standardized system that are able to stabilize and/or manage pediatric medical emergencies. By 2017: • 25% of hospitals are recognized as part of a statewide, territorial, or regional standardized system that are able to stabilize and/or manage pediatric medical emergencies.
Performance Measure 75 ***(Former PM 66c trauma)***	The percent of hospitals recognized through a statewide, territorial or regional standardized system that are able to stabilize and/or manage pediatric traumatic emergencies. By 2017: • 50% of hospitals are recognized as part of a statewide, territorial, or regional standardized system that recognizes hospitals that are able to stabilize and/or manage pediatric trauma.
Performance Measure 76 ***(Former PM 66d)***	The percentage of hospitals in the State/Territory that have written inter-facility transfer guidelines that cover pediatric patients and that include the following components of transfer: • Defined process for initiation of transfer, including the roles and responsibilities of the referring facility and referral center (including responsibilities for requesting transfer and communication). • Process for selecting the appropriate care facility. • Process for selecting the appropriately staffed transport service to match the patient's acuity level (level of care required by patient, equipment needed in transport, etc.). • Process for patient transfer (including obtaining informed consent). • Plan for transfer of patient medical record. • Plan for transfer of copy of signed transport consent. • Plan for transfer of personal belongings of the patient.

	• Plan for provision of directions and referral institution information to family. By 2011: • 90% of hospitals in the State/Territory have written inter-facility transfer guidelines that cover pediatric patients and that include specific components of transfer.
Performance Measure 77 ***(Former PM 66e)***	The percentage of hospitals in the State/Territory that have written inter-facility transfer agreements that cover pediatric patients. By 2011: • 90% of hospitals in the State/Territory have written inter-facility transfer agreements that cover pediatric patients.
Performance Measure 78 ***(Former PM 67)***	The adoption of requirements by the State/Territory for pediatric emergency education for the license/certification renewal of basic life support (BLS) and advanced life support (ALS) providers. By 2011: • The State/Territory has adopted requirements for pediatric emergency education for the recertification of BLS and ALS providers.
Performance Measure 79 ***(Former PM 68a, b, c)***	The degree to which States/Territories have established permanence of EMSC in the State/Territorial EMS system. Goal: To increase the number of States/Territories that have established permanence of EMSC in the State/Territory EMS system as follows: Details: Each year: • The State/Territory EMSC Advisory Committee is comprised of the required members as per the Implementation Manual; and • The EMSC Advisory Committee met at least four times. By 2011: ▪ Pediatric representation is incorporated on the State/Territorial EMS Board; ▪ The State/Territory mandates pediatric representation on the EMS Board; and

	▪ One full time EMSC Manager is dedicated solely to the EMSC Program.
Performance Measure 80 ***(Former PM 68d)***	The degree to which the State/Territory has established permanence of EMSC in the State/Territorial EMS system by integrating EMSC priorities into statutes/regulations. By 2011: • EMSC priorities will have been integrated into existing EMS or hospital/healthcare facility statutes/regulations.

Grantee Requirements

The EMSC Program is allowing flexibility for grantees in performance measure implementation by dividing the performance measures into those that all grantees are required to work on and those that are optional. Note: all grantees are required to report data in the EHB for all performance measures listed below (see EHB note under optional measures).

All grantees are required to continue meeting targets for the following measures:

- PM 71—on-line pediatric medical direction
- PM 72—off-line pediatric medical direction
- PM 73—pediatric equipment on patient care units
- PM 75—hospital recognition for pediatric trauma
- PM 78—pediatric education requirements during recertification
- PM 79—permanence of EMSC as denoted by an EMSC advisory committee, pediatric representation on the EMS board and a dedicated full-time EMSC program manager
- PM 80—integration of EMSC priorities into statute, rule, or regulation

The following measures are optional for grantees to meet targets as State/Territory resources allow:

- PM 74—hospital recognition for pediatric medical emergencies
- PM 76—inter-facility transfer guidelines inclusive of pediatrics
- PM 77—inter-facility transfer agreements inclusive of pediatrics

If you do not work on the optional measures above, you will still need to enter data into the EHB each year. The EHB data entry can reflect data from previous years (all States/Territories are required to have previously gathered baseline data for all measures including optional measures). Note: data collected in previous grant cycles for inter-facility transfer guidelines will have to be re-analyzed to meet the updated requirements in this Manual. Consult with your NEDARC representative.

Description of Implementation Manual

The purpose of this revised Implementation Manual (herein referred to as Manual) is to provide the EMSC Program State Partnership Grantees with a more streamlined Manual and to improve the ease, accuracy, and consistency of data collection and reporting for the performance measures across all grantees. This Manual takes into account the feedback that the EMSC Program and the EMSC resource centers have received from the State Partnership Grantees, as well as an analysis and assessment of data entered into the HRSA Electronic Handbook (EHB) by grantees.

The remainder of this revised Manual includes the following information for each performance measure:

- **Performance Measure:** Lists the performance measure.

- **Significance of Measure:** Explains the importance of the measure and the rationale for implementing the measure. In addition, a list of resources, publications, and other scientific references including articles, reports, and expert testimonies is included.

- **Definition(s):** Provides definitions of key terms in the measure.

- **Data Collection Methods:** Provides: 1) a description of the appropriate data collection methods for each measure and 2) a description of supporting documentation that should be made available to support EHB entries and may be requested by HRSA.

- **Exemption for Data Collection:** States may request an exemption from data collection from the EMSC Program. Where applicable, this section provides decision trees to help State/Territories determine whether to seek an exemption from data collection.

- **EHB Data Worksheet:** a worksheet that outlines the components that grantees may be asked to enter in the EHB.

- **Data Assessment:** Statement that additional information may need to be gathered from grantees regarding their data collection and analysis methods.

- **Strategic Planning**: Includes: 1) advice to grantees on tools available and specific strategies they should undertake after reviewing their data to effect system changes in their State/Territory to work toward achieving the performance measures; and 2) guidance for achieving annual targets for the measure based on the data collected.

- **Guidelines for targets:** This section includes annual targets for each performance measure.

The Appendices include the following:

- **Appendix A:** An annotated bibliography that includes an annotation for each reference listed in the “Significance of Measure” section for each performance measure.

- **Appendix B:** Case studies that highlight best practices, including lessons learned, for implementing some of the performance measures.

- **Appendix C:** A crosswalk that maps each performance measure to the relevant 2006 Institute of Medicine (IOM) Report *Emergency Care for Children: Growing Pains* recommendation(s).

EMSC Program Contacts

For all States/Territories:

Tina Turgel, BSN, RN, BC
Project Officer for State Partnership Grants
Nurse Consultant—EMSC Program
(301) 443-5599
CTurgel@hrsa.gov

Resource Center Contacts

EMSC National Resource Center (NRC)
Tasmeen Singh, DrPH, NREMTP
Executive Director
202-476-6866
tsingh@cnmc.org

Please see individual State/Territory contacts at: www.childrensnational.org/emsc and click on “NRC Help Desk”

National EMSC Data Analysis Resource Center (NEDARC)
Michael Ely, MHRM
Director
801-585-9761
Michael.Ely@hsc.utah.edu

Please see individual State/Territory contacts at: www.nedarc.org and click on “NEDARC Can Help” → “Who is Your State or Territory Contact?”

The "General Considerations" section addresses a broad spectrum of issues that are applicable to all performance measures. This section includes definitions for terms used throughout the Manual, as well as implementation considerations for the various data collection methods described in the Manual for the performance measures.

Definitions

ALS Providers (also see Pre-hospital Provider): Among other procedures, Advanced Life Support (ALS) providers administer higher life and limb saving assessment and interventions including the administration of medications, advanced airway procedures, and cardiac rhythm analysis as well as interpretation and electrical interventions.

BLS Providers (also see Pre-hospital Provider): BLS providers administer basic life saving assessment and interventions before and during transportation of a patient to a definitive care facility.

EHB: The Health Resources and Services Administrations (HRSA) Electronic Handbook (EHB). Grantees are required to submit data into the EHB during each grant cycle.

EMSC: The component of emergency medical care that addresses infant, child, and adolescent needs, and the Program that strives to ensure the establishment and permanence of that component. EMSC includes emergent at the scene medical treatment as well as medical treatment received in the emergency department, surgical care, intensive care, long-term care, and rehabilitative care. EMSC extends far beyond these areas yet for the purposes of this Manual this will be the extent currently being sought and reviewed.

Hospitals: Facilities that provide definitive medical and/or surgical assessment, diagnoses, and life- and/or limb-saving interventions for the ill and injured AND have an Emergency Department (ED). This excludes military-based hospitals, Veterans Affairs (VA) medical centers, psychiatric institutions and Indian Health Service hospitals. For purposes of data collection, free-standing emergency departments are not included; the emergency department must have an EMTALA obligation and be physically located within a hospital.

Mandate: A mandate is defined as a State/Territory statute, rule, regulation, or State/Territory policy developed and issued by a legally authorized entity with enforcement rights to ensure compliance.

Patient Care Unit: A patient care unit is defined as a vehicle staffed with pre-hospital providers (BLS and/or ALS) dispatched in response to a 911 or similar emergency call AND responsible for transporting a patient to the hospital. Examples include an ambulance, or other type of transporting unit. This definition excludes non-transport

vehicles (such as chase cars) to provide additional personnel resources, air ambulances, exclusively defined specialty care units, and water ambulances/units.

Pediatric: Any person 0 to 18 years of age.

Pre-hospital: This term is generally used to define any setting (e.g., a private residence or public location), apart from and prior to the access of any definitive care facility, where 911 services are requested for assessment, intervention, and transportation of a patient to a definitive care facility.

Pre-hospital Providers: Pre-hospital providers are defined as people/persons who are **certified or licensed** to provide emergency medical services during a 911 or similar emergency call.

Implementation Considerations

General Data Collection Considerations

- The changes to the performance measures will begin with the 2009 State Partnership cycle (March 1, 2009 to February 29, 2010). Prior to beginning data collection all States/Territories must contact NEDARC. Performance measure data will be entered into the HRSA Electronic Handbook (EHB) each year.

- Performance measures 71, 72, 73, 76, and 77 require data collection through surveys and/or inspection reports.

- For States/Territories that have completed baseline data collection during the 2008-2009 grant year, the next data collection cycle will occur from March 1, 2010 through February 28, 2011. States/Territories that are newly funded or have not completed data collection will need to continue collecting data in consultation with the EMSC Program.

- Data must be collected as specified by this Manual for each performance measure; the EMSC Program is interested in measuring change for these performance measures over time. It is essential that all States/Territories collect data in a standardized fashion. Thus any deviation from the methods described in this Manual needs approval from the Federal Project Officer.

- If a grantee feels they have met a performance measure, contact the Federal EMSC Program Project Officer to discuss whether data collection should continue. Note: To be exempted from data collection, a letter from the EMSC Program is required.

Survey Considerations

- Grantees must use surveys approved by the EMSC Program. Grantees should consult with NEDARC to ensure adequate representation of respondents for the survey.

- A minimum survey response rate of 80% is required.
- Grantees must have their surveys reviewed by the EMSC Program each year; surveys are updated each year based on past experience.
- If grantees have a large number of EMS agencies or hospitals with EDs, they can contact NEDARC to discuss the feasibility of conducting a random sample.

Inspection Report Considerations

Grantees that plan to use inspection reports as their data collection method:

- May aggregate electronic data or collect and review data from available paper reports.
- Should contact NEDARC to ensure there is a 1:1 match between the equipment listed in their inspections and the EMSC Program list of essential pediatric equipment.
- Should contact NEDARC to discuss the feasibility of conducting a random sample if they have a large number of reports.
- Must report data every year for each performance measure. However, because State/Territory inspections may be conducted every other year and don't include all agencies annually, inspection data may need to be aggregated across multiple years to achieve the minimum 80% response rate.

Demonstrating Performance Measure Achievement

Grantees can demonstrate meeting a performance measure by:

- Providing supporting documentation to the EMSC Program (supporting documentation requirements are described under each specific measure) and requesting a letter from the EMSC Program stating that they have achieved the measure(s).
- Obtaining an exemption from data collection from the EMSC Program (exemption criteria are listed in the "Exemption from Data Collection" section of each measure).

State/Territory Mandate Considerations

- If a State/Territory mandate exists, the grantee may not need to collect data for certain performance measures. To be exempt from data collection, the State/Territory must have a mandate that contains clear and specific requirements, and the State/Territory must have a strong enforcement policy. If a grantee thinks

that his or her State/Territory might be eligible for an exemption, contact the EMSC Program Project Officer (Tina Turgel) as soon as possible. Provide the Project Officer with a copy of the State/Territory mandate and an explanation of how the mandate is being used to obtain written approval for an exemption from data collection. The EMSC Program will send a written response to the exemption request within three weeks of receiving the State's supporting documentation. Grantees will need to continue working on the measure as specified unless a letter has been received from the EMSC Program stating that a FULL exemption from data collection has been granted.

- If a data exemption has been approved, the grantee will not need to resubmit additional requests in subsequent years unless directed by the EMSC Program or unless the State/Territory mandate has an expiration date.

- Grantees are advised to submit supporting documentation for an exemption from data collection as soon as possible. In so doing, the grantee will ensure that ample time is still available during the grant year to collect data should the exemption be denied.

Supporting Documentation Considerations

- HRSA may request supporting documentation at any time. Supporting documentation must be available to support EHB data entries. Guidance as to where to submit the supporting documentation (if requested by HRSA) will be provided in the grant guidance or in a separate memo distributed by the EMSC Program.

Performance Measure 71 and 72 (Formerly 66ai, 66aii)

PM 71
The percent of pre-hospital provider agencies in the State/Territory that have on-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.

PM 72
The percent of pre-hospital provider agencies in the State/Territory that have off-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.

Goals for these measures are by 2011:

PM 71:

- 90% of basic life support (BLS) pre-hospital provider agencies in the State/Territory have on-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.
- 90% of advanced life support (ALS) pre-hospital provider agencies in the State/Territory have on-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.

PM 72:

- 90% of basic life support (BLS) pre-hospital provider agencies in the State/Territory have off-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.
- 90% of advanced life support (ALS) pre-hospital provider agencies in the State/Territory have off-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.

Significance of Measure

These performance measures focus on the importance of the EMS system in the State/Territory having on-line and off-line pediatric medical direction available from dispatch through patient transport to a definitive care facility for both BLS and ALS providers. Medical direction provides EMS personnel with guidance and assistance during an emergency event to ensure optimal care.

On-line and off-line pediatric medical direction are needed to assist and direct pre-hospital providers in the assessment, emergent intervention(s), and both timely and appropriate transportation of the pediatric patient during an emergency event. At the scene of an emergency, EMS providers that may not have the expertise to deal with

pediatric patients need 24/7 access (on-line medical direction) from a higher level medical provider who can provide real time patient care advice. Off-line medical direction helps to standardize pediatric patient care for pre-hospital care providers to assist in providing appropriate quality assessment and care based on current pediatric clinical recommendations and evidence-based guidelines. The intent of this measure is to ensure that pre-hospital providers have a resource available to them from dispatch through patient transport to a definitive care facility should they need to refer to it given that pre-hospital providers do not treat pediatric patients often.

These measures will help ensure pre-hospital providers have access to medical direction thereby facilitating the provision of quality assessment and care in an emergency event.

For additional information on the importance of these measures, refer to the web resources, web casts, and journal articles listed below. Appendix A includes an annotated bibliography for each reference.

Web Resources

- Direction of Pre-hospital Care at the Scene of Medical Emergencies. Visit http://www.acep.org/, click on "ACEP Policy Statements" under "Practice Resources" and select document from the list.
- Example of Children with Special Healthcare Needs Protocols. Visit http://health.state.ga.us/programs/ems/emsc/, and then click on "Children with Special Health Care Needs" on the left menu.
- NRC ToolBox – Medical Direction. Visit http://www.childrensnational.org/emsc, click on "Publications and Resources," then click on "EMSC Toolbox" and then click on the "Medical Direction" toolbox.
- Pre-hospital Systems and Medical Oversight, 3rd Edition by Alexander Kuehl. Visit http://www.naemsp.org, click on "Publications" to find the book, and then order the form.

Web Casts

- Kavanaugh, Dan, *Improving EMS Medical Direction for Pediatric Patients. An Internet Archive*. Visit http://www.mchcom.com/, click on "Archived Webcasts", click on "Trauma EMS Webcasts", and then select the document from the list.

Journal Articles

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine and American College of Emergency Physicians, Pediatric Committee, Care of Children in Emergency Departments, Guidelines for Preparedness. *Pediatrics,* 2001, 107: 777-781.
- Committee on Pediatric Emergency Medicine, The Role of the Pediatrician in Rural EMS, Policy Statement. *Pediatrics,* 2005, 116:1553-1556.

- Scribano, Philip, Baker, D., Holms, J., and Shaw, K., Use of Out-of-hospital Interventions for the Pediatric Patient in an Urban Emergency Medical Services System. *Academic Emergency Medicine,* 2000; 7: 745-750.
- Shelton, Steve, Sewor, R., Domeier, R., and Lucas, R. Position Paper, National Association of EMS Physicians, Medical Direction of Interfacility Transports. *Prehospital Emergency Care,* 2000; 4: 361-364.
- Thomas, Stephen, Williams, K., Claypool, D., Position Paper National Association of Emergency Medical Services Physicians – Medical Direction for Air Transport Program. *Prehospital Emergency Care,* 2002; 6:455-457.

Definitions

Pre-hospital Provider Agency: A provider of emergency medical services staffed with EMS personnel who render medical care in response to a 911 or similar emergency call. For data collection purposes, ILS agencies must be grouped with either BLS or ALS based on their highest level of licensure (BLS or ALS) from the State/Territory or local licensing/recognizing authority. **Data will need to be gathered from both transporting and non-transporting agencies.**

On-line Pediatric Medical Direction: An individual is available to pre-hospital providers 24/7 who may need medical advice when providing care to a pediatric patient. This person must be a medical professional (e.g., nurse, physician, physician assistant [PA], nurse practitioner or EMT-P) and must have a higher level of pediatric training/expertise than the EMS provider to whom he/she is providing medical advice.

Off-line Pediatric Medical Direction: Treatment guidelines and protocols used by pre-hospital providers to ensure the provision of appropriate pediatric patient care, available in written or electronic (e.g., laptop/tablet computer) form that is kept in the EMS vehicle or carried by the EMS provider. Treatment guidelines and protocols located at the EMS station or agency are not considered to be in the unit or with a provider.

Data Collection Methods

The acceptable data collection methods for Performance Measure 71 and 72, (formerly PM 66ai and 66aii), are surveys and, if applicable, inspection reports for PM 72 inspection reports. If a grantee has an alternate source to gather data from, he/she must gain approval from the EMSC Program for this method.

> **Note:** the proposed data collection method must be as rigorous as the two methods listed above.

Surveys: Grantees must use surveys either developed or approved by the EMSC Program. Note that this performance measure does not look at access to pediatric medical direction as being specific to communication issues (e.g., non-working radios), but more broadly to the availability of pediatric expertise.

States/Territories may add up to 10 additional questions to the EMSC Program survey if they are in need of additional information. Please note the following:

- Grantees should discuss additional questions with their NEDARC representative.
- The additional questions, variable names, and response options must be written by the grantee.
- Questions will only be added to the end of the EMSC Program survey.
- Keep in mind that additional survey questions may affect the deployment timeframe of the survey.

If grantees have a large number of EMS agencies, they can contact NEDARC to discuss the feasibility of conducting a random sample.

If a grantee is unclear about whom to survey, he/she should contact NEDARC for help in determining the best person to survey. Acceptable individuals to survey include:

- A representative of the EMS agency (e.g., EMS administrator, EMS manager) that has oversight of the day-to-day operations and/or management of the individual EMS agency. This excludes agency EMS directors, medical directors, regional directors, or other representatives who are not involved in the day-to-day operations of the EMS agency.

> **Note:** in some small States or Territories, the State/Territory-wide EMS director has day-to-day oversight due to the small size of the jurisdiction. This is acceptable, but the State/Territory should confirm with NEDARC that their director is the appropriate individual to complete the survey.

Inspection reports: If an ambulance/agency inspection process exists in the State/Territory, grantees may be able to use such for gathering data for this measure. It might be that an inspection process could be used to determine whether pediatric protocols are physically carried on EMS vehicles. It is less likely, however, that the inspection process could be used to determine the requirement for measuring on-line medical direction. Grantees should contact NEDARC if planning to use an inspection process.

The following supporting documentation should be available to support the EHB entries and may be requested by HRSA:

- Survey data and analysis from the NEDARC online survey tool, or
- Raw data and survey analysis if utilizing paper surveys or another (non-NEDARC) EMSC approved method.

Exemption from Data Collection

Grantees may be exempt from data collection due to either a State/Territory mandate for on-line pediatric medical direction or the existence of State/Territory-wide pediatric protocols/guidelines for off-line pediatric medical direction.

For On-line Pediatric Medical Direction: A State/Territory may qualify for an exemption from data collection if **both** of the following criteria are met:

- A State/Territory mandate exists that clearly states that on-line pediatric medical direction must be available to all pre-hospital provider agencies during an emergency event.

- The State/Territory has an enforcement process that ensures that on-line pediatric medical direction is available. An enforcement process for the purposes of this measure is a mechanism by which pediatric on-line medical direction is ensured in the State/Territory. Examples include:

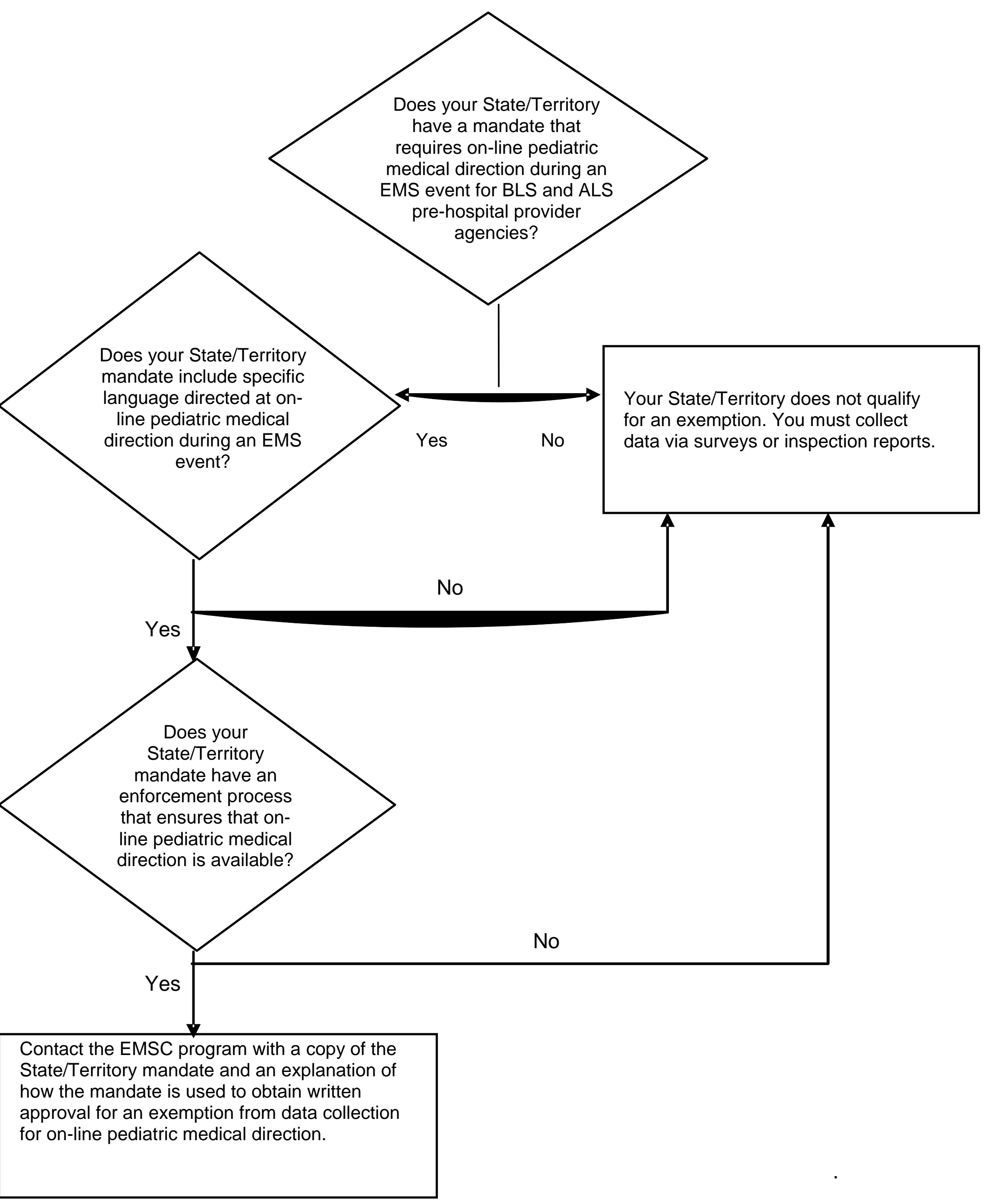
  - Base stations are available to 100% of the pre-hospital provider agencies in the State/Territory.
  - EMS licensing requirements stipulate that the provision of on-line pediatric medical direction must be available to 100% of the pre-hospital provider agencies in the State/Territory.

To obtain written approval for an exemption from data collection, grantees should consult with the Federal EMSC Program Project Officer (Tina Turgel) as soon as possible. Grantees should provide the Project Officer with a copy of the State/Territory mandate and an explanation of how the mandate is being used. The EMSC Program will send a written response within three weeks of receiving the grantee's request for exemption. If approved, the written response received from the Program will serve as supporting documentation.

In subsequent years grantee will not need to resubmit additional requests unless directed to do so by the EMSC Program or unless the State/Territory mandate has an expiration date. This exemption applies only to *on-line* pediatric medical direction. Grantees must still collect data for *off-line* pediatric medical direction.

The following decision tree has been included to help grantees determine whether they are eligible for an exemption from data collection for this performance measure.

Decision Tree for Exemption from Data Collection Due to State/Territory Mandate for On-line Pediatric Medical Direction



*An enforcement process for the purposes of this measure is a mechanism by which pediatric on-line medical direction is ensured in the State/Territory.

For Off-line Pediatric Medical Direction*:* A State/Territory may qualify for an exemption from data collection if State/Territory-wide pediatric protocols/guidelines exist and the State/Territory has all of the following in place:

- All EMS agencies in the State/Territory are required to use the State/Territory approved pediatric protocols/guidelines.

  Note: protocols/guidelines do not need to be consistent across the State/Territory. Individual agencies can have agency or regional specific protocols/guidelines as long as 100% of the agencies are required to have pediatric protocols/guidelines.

- A training and/or testing program is in place to ensure that the content of State/Territory approved and required pediatric protocols/guidelines is known by all pre-hospital providers required to utilize them.

  Note: a training/testing program is only needed if a grantee is seeking an exemption from data collection as such an exemption assumes assurance that pre-hospital providers know that protocols/guidelines exist and utilize them.

- Copies of the State/Territory approved and required pediatric protocols/guidelines are available in all EMS vehicles (in paper or electronic form, **for both transporting and non-transporting vehicles**).

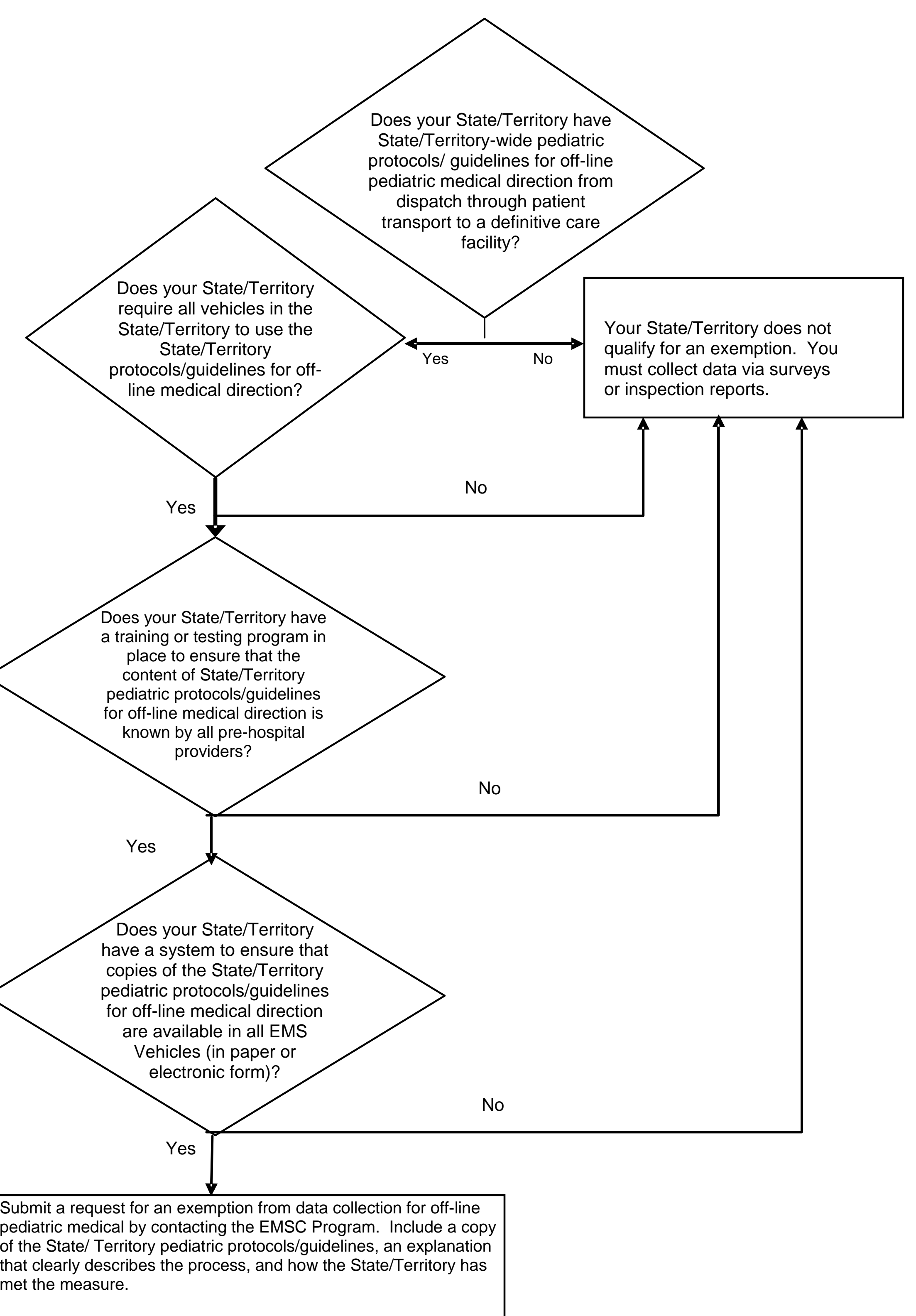
Note: if pediatric protocols/guidelines are available in the entire State/Territory (even if they are inconsistent between regions) and the other requirements for an exemption from data collection are met, a grantee can contact the Federal EMSC Program Project Officer (Tina Turgel) describing their State/Territory-wide pediatric protocols/guidelines to determine if the State/Territory qualifies for an exemption from data collection. Provide a copy of the State/Territory approved and required pediatric protocols/guidelines and a description of the process that allows the State/Territory to meet the measure. The EMSC Program will send a written response within three weeks of receiving the grantee's request for exemption.

If approved, the grantee will not need to resubmit additional requests in subsequent years unless directed to do so by the EMSC Program or unless the State/Territory approved and required pediatric protocols/guidelines have an expiration date. This exemption applies only to *off-line* pediatric medical direction; grantees must still collect data for *on-line* pediatric medical direction.

Supporting documentation for this measure will be a letter from the EMSC Program granting an exemption from data collection.

The following decision tree has been provided to help grantees determine whether they are eligible for an exemption from data collection for this performance measure.

Decision Tree for Exemption from Data Collection Due to State/Territory-wide Pediatric Protocols/ Guidelines for Off-line Pediatric Medical Direction



EHB Data Worksheet for Performance Measure 71:

The following is a worksheet to help you prepare the numbers you will need when entering data into the Electronic Handbook. *An actual screen shot of the form grantees will be required to complete in the HRSA Electronic Handbook will be provided at a later date.* NEDARC will also host a workshop to help grantees analyze their data to obtain the numbers needed below.

Performance Measure 71: The percent of pre-hospital provider agencies in the State/Territory that have on-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.

You will be asked for the following:

BLS On-line Medical Direction:

You will be asked to enter a numerator and a denominator, not a percentage. ***NOTE:*** For data collection purposes only, EMT-Intermediate or ILS pre-hospital provider agencies should be grouped in the same way that it is grouped for PM #73 (see instructions under PM #73).

NUMERATOR (BLS provider agencies): _________________

Number of BLS pre-hospital provider agencies that have on-line pediatric medical direction according to the data collected.

DENOMINATOR (BLS provider agencies): _________________

Total number of BLS pre-hospital provider agencies that provided data.

ALS On-line Medical Direction:

You will be asked to enter a numerator and a denominator, not a percentage. ***NOTE:*** For data collection purposes only, EMT-Intermediate or ILS pre-hospital provider agencies should be grouped in the same way that it is grouped for PM #73 (see instructions under PM #73).

NUMERATOR (ALS provider agencies): _________________

Number of ALS pre-hospital provider agencies that have on-line pediatric medical direction according to the data collected.

DENOMINATOR (ALS provider agencies): _________________

Total number of ALS pre-hospital provider agencies that provided data.

Data Assessment

In addition to EHB reporting, grantees may be asked to provide additional information regarding data collection and analysis.

Strategic Planning

Using previously collected data, the State/Territory should assess their compliance with having on-line pediatric medical direction. Data should be presented to the EMSC Advisory Committee to develop a strategy for meeting the performance measure.

Some specific strategic planning activities grantees can undertake to effect system changes in their States/Territories, which are needed to meet this measure, include:

On-line Pediatric Medical Direction

- Review baseline data for the measure, and discuss system gaps with the EMS director and medical director.
- Dialogue with agencies lacking pediatric medical direction to discuss barriers that exist (e.g., communication issues in the field versus availability of pediatric staff at local hospitals).
- Engage hospitals in the State/Territory that have pediatric medical expertise available to elicit assistance in establishing such for other agencies.
- Discuss the feasibility or appropriateness of a centralized pediatric medical direction system.
- Consider offering pediatric emergency care courses such as PALS, PEPP, PPC, APLS, or others to all ED staff that are providing pediatric medical direction.

Annual targets for this measure:

Year	Target
2006	30%
2007	40%
2008	50%
2009	65%
2010	80%
2011	90%

EHB Data Worksheet for Performance Measure 72:

The following is a worksheet to help you prepare the numbers you will need when entering data into the Electronic Handbook. *An actual screen shot of the form grantees will be required to complete in the HRSA Electronic Handbook will be provided at a later date.* NEDARC will also host a workshop to help grantees analyze their data to obtain the numbers needed below.

Performance Measure 72: The percent of pre-hospital provider agencies in the State/Territory that have pediatric off-line medical direction available from dispatch through patient transport to a definitive care facility.

You will be asked for the following:

BLS Off-line Medical Direction:

You will be asked to enter a numerator and a denominator, not a percentage. ***NOTE:*** For data collection purposes only, EMT-Intermediate or ILS pre-hospital provider agencies should be grouped in the same way that it is grouped for PM #73 (see instructions under PM #73).

NUMERATOR (BLS provider agencies): __________________

Number of BLS pre-hospital provider agencies that have off-line pediatric medical direction according to the data collected.

DENOMINATOR (BLS provider agencies): __________________

Total number of BLS pre-hospital provider agencies that provided data.

ALS Off-line Medical Direction:

You will be asked to enter a numerator and a denominator, not a percentage. ***NOTE:*** For data collection purposes only, EMT-Intermediate or ILS pre-hospital provider agencies should be grouped in the same way that it is grouped for PM #73 (see instructions under PM #73).

NUMERATOR (ALS provider agencies): __________________

Number of ALS pre-hospital provider agencies that have off-line pediatric medical direction according to the data collected.

DENOMINATOR (ALS provider agencies): __________________

Total number of ALS pre-hospital provider agencies that provided data.

Data Assessment

In addition to EHB reporting, grantees may be asked to provide additional information regarding data collection and analysis.

Strategic Planning

Using previously collected data, the State/Territory should assess their compliance with having off-line pediatric medical direction. Data should be presented to the EMSC Advisory Committee to develop a strategy for meeting the performance measure.

Some specific strategic planning activities grantees can undertake to effect system changes in their States/Territories, which are needed to meet this measure, include:

Off-line Pediatric Medical Direction

- Review baseline data for the measure, and discuss system gaps with the EMS director and/or medical director.
- Assess the reasons why EMS agencies do not have access to pediatric protocols/ guidelines (e.g., protocols/guidelines do not exist in the agency; paper copies are not available in the EMS vehicle; etc.).
- Engage regional/agency medical directors to discuss barriers/challenges to implementing off-line pediatric medical direction. Brainstorm with these medical directors and the EMSC Advisory Committee to determine possible solutions.
- Determine the feasibility of State/Territory-wide pediatric protocols/guidelines.
- Provide model protocol/guideline templates to facilitate the development process.
- Contact the NRC for examples of protocols developed and adopted by many States/Territories.

Annual targets for this measure:

Year	Target
2006	30%
2007	40%
2008	50%
2009	65%
2010	80%
2011	90%

Performance Measure 73 (Formerly 66b)

The percent of patient care units* in the State/Territory that have the essential pediatric equipment and supplies as outlined in national guidelines^.

Goals for this measure are that by 2011:

- 90% of basic life support (BLS) patient care units in the State/Territory have the essential pediatric equipment and supplies, as outlined in national guidelines for pediatric equipment and supplies for basic life support ambulances; and

- 90% of advanced life support (ALS) patient care units in the State/Territory have the essential pediatric equipment and supplies, as outlined in national guidelines for pediatric equipment and supplies for advanced life support ambulances.

***Only applies to units that transport patients**
^National guidelines will be specified by the EMSC Program*

Significance of Measure

This performance measure targets the availability of essential pediatric equipment and supplies for BLS and ALS patient care units. Pre-hospital providers must have the appropriate pediatric equipment and supplies to care for ill and injured children in order to achieve optimal pediatric outcomes. Consequently, in 1996 ACEP Guidelines were developed for an essential pediatric equipment and supply list for pre-hospital providers based on current evidence and expert opinion[1]. These guidelines were subsequently updated in 2009 and form the basis of this performance measure[2]. This measure is an important indicator of pre-hospital provider preparedness to care for children. In 2008, the NRC began working with several national organizations to update the pediatric equipment list used for these performance measures. An updated list has been released and the required list in this Manual is reflective of the new equipment list.

For additional information on the importance of this measure, refer to the web resources, publications, and guidelines/protocols listed below. Appendix A includes an annotated bibliography for each reference.

Web Resources

- NRC ToolBox – Pre-hospital Education. Visit http://www.childrensnational.org/emsc, click on "Publications and Resources," then click on "EMSC Toolbox" and then click on the "Pre-hospital Education" toolbox.

[1] Siedel et al. Committee on Ambulance, Equipment, and Supplies. National Emergency Medical Services for Children Resource Alliance. (1996). Guidelines for pediatric equipment and supplies for Basic and Advanced Life Support Ambulances. *Annals of Emergency Medicine*, 28(6), 699-701.
[2] Pediatric Equipment Guidelines Committee-Emergency Medical Services for Children (EMSC) Partnership for Children Stakeholder Group. (2009). Equipment for ambulances.

Publications

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine, Pediatric Care Recommendations for Free Standing Urgent Care Facilities, 2007.
- Institute of Medicine Committee, Future of Emergency Care in the United States Health System, Report Brief. National Academy of Sciences, 2006.
- Krug, Steve, Emergency Care Crisis: A Nation Unprepared for Public Health Disasters. *Testimony for Homeland Security Subcommittee on Emergency Preparedness, Science, and Technology,* 2006.
- Seidel, J.S., et al. EMS and the Pediatric Patient: Are the Needs Being Met? *Pediatrics*, Volume 73, June, 1984.
- Seidel, J.S., et al. EMS and the Pediatric Patient: Are the Needs Being Met II? Training and Equipping EMS Providers for Pediatric Emergency Care. *Pediatrics*, Volume 78, December 1986.

Guidelines/Protocols

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine and American College of Emergency Physicians, Pediatric Committee, Care of Children in Emergency Departments, Guidelines for Preparedness. *Pediatrics*, 2001; 107: 777-781.
- Pediatric Equipment Guidelines Committee-Emergency Medical Services for Children (EMSC) Partnership for Children Stakeholder Group. (2009). Equipment for Ambulances. See NRC website: www.childrensnational.org/emsc.
- Peckinpaugh, Karen, Izsak, E., Lindstrom, D., Orlow, G., Contour, T., and Rice, M., The Advanced Pedi- Bag Program: A Hospital-EMS Partnership to Implement Pre-hospital Training, Equipment and Protocols. *Pediatric Emergency Care*, 2000, 16: 409-412.

Definitions

Patient Care Unit: A patient care unit is defined as a vehicle staffed with pre-hospital providers (BLS and/or ALS) dispatched in response to a 911 or similar emergency call **AND** responsible for transporting a patient to the hospital. Examples include an ambulance, or other type of transporting unit. This definition excludes non-transport vehicles (such as chase cars) to provide additional personnel resources, air ambulances, exclusively defined specialty care units, and water ambulances/units.

> **Note:**
> **If a State/Territory has ILS or other intermediate services, they should review the equipment checklist for this performance measure (provided on the next page) and choose the list that most closely matches the scope of practice for their agency.**
>
> **The EMSC Program recommends utilizing the BLS list for ILS services.**

Essential: The item is necessary and should be carried by a patient care unit. The EMSC Program supports the recommendation of ACS, NAEMSP, ACEP and AAP that ALL of the items as outlined in the national guidelines should be carried on patient care units.

However, given the scope of the State Partnership grants, only the items highlighting smaller pediatric sizes in the following list will be included for data collection for performance measure reporting.

EMSC Performance Measures Required Pediatric Emergency Medical Equipment for Patient Care Units

Number of unique equipment items indicated in parenthesis.

BLS List (35 total unique items)
Suction catheters - Rigid tonsil tip (1) - Flexible between 6-10 fr. (1) - Flexible between 12-16 fr. (1)
Oxygen delivery - Nasal cannula 1. adult (1) 2. child (1) - Non-rebreather masks 1. adult (1) 2. child (1)
Bag valve mask - Hand operated self-expanding bags 1. child (450-750 ml) (1) 2. adult (>1000ml) (1) Masks for BVM- (1ea) (4) - Adult - Child - Infant - Neonate
Airways Nasal Airways (2) - 1 size between 16-24 fr - 1 size between 26-34 fr Oral airways- one in each size (3) - 0-1 - 2-3 - 4-5
Pulse oximeter with pediatric and adult probes (2) (Note: Pulse oximeter may be independent or integrated with a monitor/defibrillator or other device)
Bulb suction for infants (if not included in OB kit) (1)
AED or defibrillator that includes pediatric capability (1)
Immobilization devices - Rigid cervical for children 2 years through adult 1. small (1) 2. medium (1)

3. large (1) • Lower extremity (femur) traction device 1. adult size (1) 2. child size (1) • Extremity immobilization devices to fit children and adults 1. small (1) 2. medium (1) 3. large(1)
OB Kit (commercially packaged or locally prepared) (1)
Receiving or thermal absorbent blanket and head cover or appropriate heat-reflective material (if not included in OB Kit) (1)
Sphygmomanometer • adult cuff (1) • pediatric cuff (1)
Length-weight based tape or appropriate reference material for pediatric equipment sizing and drug dosing based on estimated or known weight (1)
ALS List **(Includes items on BLS list plus 34 or 35 additional unique items depending on end tidal CO_2 capability and with 2 ET tubes of same size counted as 1 item)**
Endotracheal tubes Uncuffed and/or Cuffed endotracheal tubes (2 each) (10) • 2.5 • 3.0 • 3.5 • 4.0 • 4.5 • 5.0 • 5.5 • 6.0 • 7.0 • 8.0
Laryngoscope blades Miller in sizes (4) • 0 • 1 • 2 • 3 or 4 Curved sizes (2) • 2 • 3 or 4
Stylettes for Endotracheal Tubes • Adult size (1)

Pediatric size (1)
Meconium aspirator adaptor (1)
Magill forceps Adult size (1) Pediatric size (1)
End-tidal CO2 detection capability: <u>either</u> quantitative capnometry (1) <u>or</u> colorimetric in sizes adult and pediatric (2)
Vascular access Intravenous catheters sized 24-14 ga Range of 4 sizes with at least one smaller than 20 ga. (4) Intraosseous needles (2) Adult size Child size
Assorted syringes; at least 2 sizes including 1 cc (2)
Defibrillator with the appropriate paddles and/or pads to defibrillate children and adults (2)
Transcutaneous cardiac pacemaker with adult and pediatric pads/cables (may be integrated with monitor/defibrillator) (2)

Data Collection Methods

Grantees will be required to collect data on each piece of equipment carried on the BLS/ALS patient care units in their State/Territory.

The two acceptable data collection methods for acquiring information for EHB data entry are inspection reports and surveys. If a grantee has an alternate source for gathering data, the grantee must contact the EMSC Program for approval of the data collection method.

> **Note:** the proposed data collection method must be as rigorous as the two methods listed above.

Inspection Reports: Grantees that plan to use inspection reports as their data collection method can either review electronic data (individual reports or aggregated inspection results as long as aggregate data contains the detail necessary to determine whether each piece of pediatric equipment specified in this Manual was present or missing) or collect and review data from paper reports as based on the inspection cycle of the State/Territory. Experience has shown that the use of inspection reports present some unique challenges. Therefore, if the grantee plans to use data from an inspection process, <u>they must</u> consult with NEDARC on the optimal method for collecting and analyzing data.

> **Note:** if grantees have a large number of inspection reports, they can contact NEDARC to discuss the feasibility of conducting a random sample.

Supporting documentation should be available to support the EHB entries and may be requested by HRSA:

- If using aggregate data:
  - List of the data elements available in the dataset and a data dictionary;

  - Query parameters used to generate final results; and
  - Copy of final results.

- If reviewing inspection reports:
  - Copy of the inspection report indicating a 1:1 match with the national guidelines; and
  - Copy of tabulations from data collected.

Surveys: Grantees must use surveys either developed or approved by the EMSC Program. If a grantee is unclear about whom to survey, he/she should contact NEDARC for help in determining the best person to survey. Acceptable individuals to survey include:

- A representative of the EMS agency (e.g., EMS administrator, EMS manager, training officer) that has oversight of the day-to-day operations and/or management of the individual EMS agency. This excludes State/Territory EMS directors, medical directors, regional directors, or other representatives who are not involved in the day-to-day operations of the EMS agency.

> **Note:** in some States or Territories, the State/Territory wide EMS director may have day-to-day direct oversight of the jurisdiction. This is acceptable but the State/Territory should confirm with NEDARC that their director is the appropriate individual to complete the survey.

States/Territories may add up to 10 additional questions to the EMSC Program survey if they are in need of additional information. Please note the following:

- Grantees should discuss additional questions with their NEDARC representative.
- The additional questions, variable names, and response options must be written by the grantee.
- Questions will only be added to the end of the EMSC Program survey.
- Keep in mind that additional survey questions may affect the deployment timeframe of the survey.

If grantees have a large number of EMS agencies, they can contact NEDARC to discuss the feasibility of conducting a random sample.

Supporting documentation also should be available to support EHB entries and be requested by HRSA. Supporting documentation for this measure includes:

- Survey data and analysis from the NEDARC online survey tool.
- Raw data and survey analysis if utilizing paper surveys or another (non-NEDARC) EMSC approved method.

Exemption from Data Collection

Exemption from data collection for Performance Measure 73 will require that the State/Territory mandate meets all of the following criteria:

- The State/Territory must have an inspection process that verifies a 1:1 match with the national guidelines (list of equipment items) specified in this Manual for all equipment and supply sizes;

- The inspection process must be regular (as defined by the State/Territory; this typically occurs every year or every two years) and must cover all patient care units in the State/Territory in the given inspection cycle; and

- A documented enforcement process (as defined by the State/Territory) to ensure that missing equipment will be replaced.

If requesting an exemption from data collection, grantees should contact the Federal EMSC Project Officer (Tina Turgel) as soon as possible. Provide a copy of the State/Territory mandate and an explanation of how the mandate is being used to obtain written approval for an exemption from data collection. The EMSC Program will send a written response within three weeks of receiving the grantee's request for exemption from data collection.

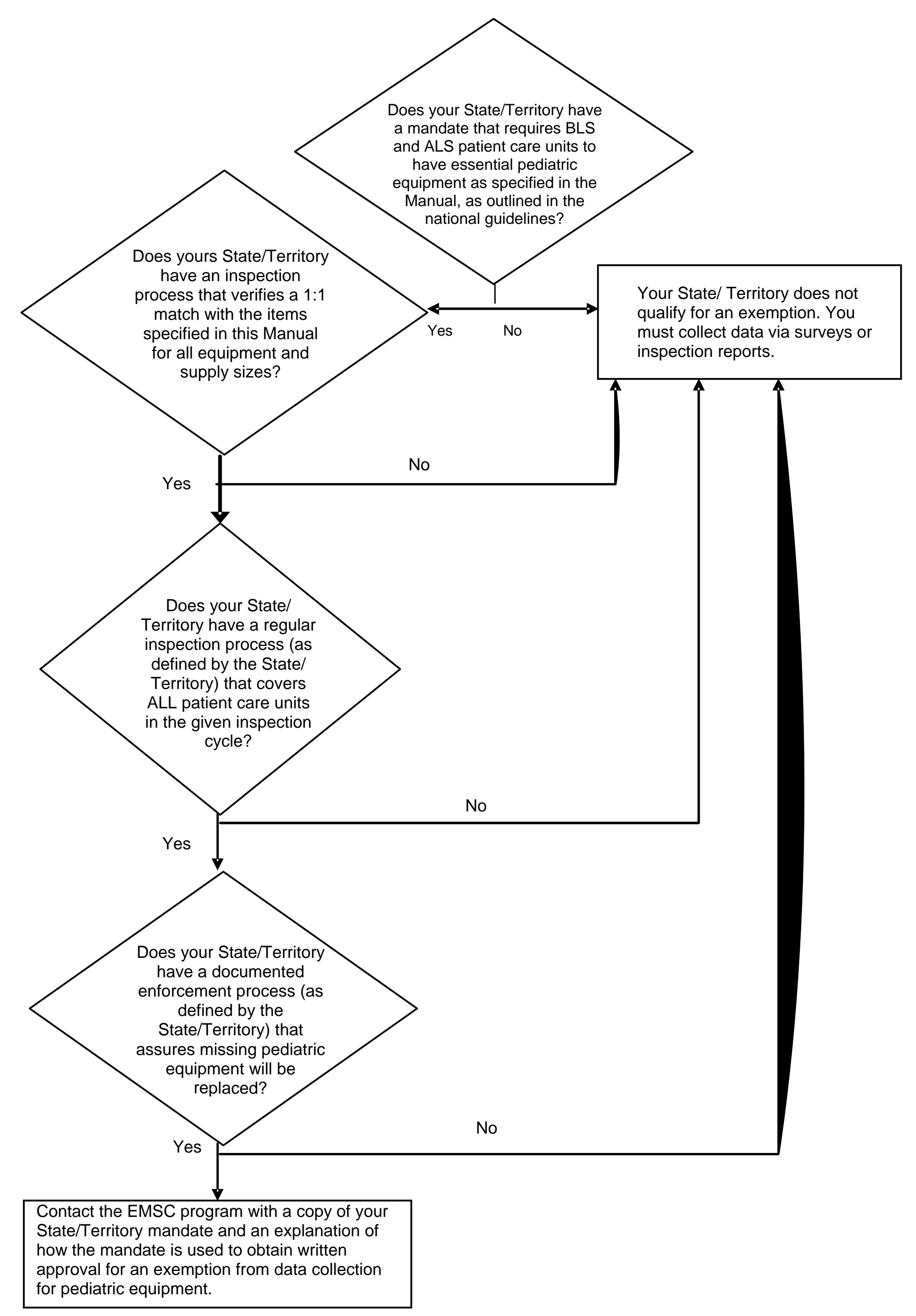
If approved, the grantee will not need to resubmit additional requests in subsequent years unless directed so by the EMSC Program or unless the State/Territory-wide pediatric protocols/guidelines have an expiration date.

> **Note:** past experience has shown that many inspection reports will likely not meet all of the aforementioned criteria, and thus, it is important to consult with the EMSC Program immediately to discuss your inspection process.

Supporting documentation for this measure will be a letter of approval from the EMSC Program granting an exemption from data collection.

The following decision tree should help grantees determine if they are eligible for an exemption from data collection due to a State/Territory mandate.

Decision Tree for Exemption from Pediatric Equipment Data Collection Due to State/Territory Mandate



EHB Data Worksheet for Performance Measure 73:

The following is a worksheet to help you prepare the numbers you will need when entering data into the Electronic Handbook. *An actual screen shot of the form grantees will be required to complete in the HRSA Electronic Handbook will be provided at a later date.* NEDARC will also host a workshop to help grantees analyze their data to obtain the numbers needed below.

Performance Measure 73: The percent of patient care units in the State/Territory that have the essential pediatric equipment and supplies as outlined in national guidelines.

You will be asked for the following:

BLS Patient Care Units:

You will be asked to enter a numerator and a denominator, not a percentage. ***Note***: If a State/Territory has ILS or other intermediate services, they should review the equipment checklist for this performance measure (provided on the next page) and choose the list that most closely matches the scope of practice for their agency.

The EMSC Program recommends utilizing the BLS list for ILS services.

NUMERATOR (BLS patient care units): ___________________

Number of BLS patient care units that have the essential pediatric equipment and supplies according to the data collected.

DENOMINATOR (BLS patient care units): ___________________

Total number of BLS patient care units for which data was collected.

ALS Patient Care Units:

You will be asked to enter a numerator and a denominator, not a percentage. ***Note***: If a State/Territory has ILS or other intermediate services, they should review the equipment checklist for this performance measure (provided on the next page) and choose the list that most closely matches the scope of practice for their agency.

The EMSC Program recommends utilizing the BLS list for ILS services.

NUMERATOR (ALS patient care units): ___________________

Number of ALS patient care units that have the essential pediatric equipment and supplies according to the data collected.

DENOMINATOR (ALS patient care units): ___________________

Total number of ALS patient care units for which data was collected.

Data Assessment

In addition to EHB reporting, grantees may be asked to provide additional information regarding data collection and analysis.

Strategic Planning

Using the previously collected data, grantees should assess compliance with having pediatric equipment and supplies on BLS and ALS patient care units. Data should be presented to the EMSC Advisory Committee to develop a strategy for meeting the performance measure.

Some specific strategic planning activities grantees can undertake to effect system changes in their States/Territories to meet this measure include:

- Review baseline data for the measure and discuss system gaps with your EMS director and medical director. Specifically, discuss agencies that are missing equipment and the items that are frequently missing.
- Assess reasons why EMS agencies are missing equipment (e.g., cost of equipment, replacement errors due to low use, etc.).
- Engage regional/agency medical directors to better understand the barriers to ensuring the availability of pediatric equipment.
- Engage the EMSC family representative and EMSC Advisory Committee to brainstorm mechanisms for obtaining funding for equipment (if cost is a barrier) and replacement pieces when used (e.g., replacement agreements with receiving hospitals).
- Contact the NRC to identify models employed by other States/Territories to achieve this measure.

Annual targets for this measure:

Year	Target
2006	40%
2007	50%
2008	60%
2009	70%
2010	80%
2011	90%

Performance Measures 74 and 75 (formerly PM 66c)

PM 74: The percent of hospitals recognized through a statewide, territorial or regional standardized system that are able to stabilize and/or manage pediatric **medical** emergencies.

PM 75: The percent of hospitals recognized through a statewide, territorial or regional standardized system that are able to stabilize and/or manage pediatric **traumatic** emergencies.

Goals for these measures are that by 2017:

- PM 74: 25% of hospitals are recognized as part of a statewide, territorial, or regional standardized system that are able to stabilize and/or manage pediatric **medical** emergencies.
- PM 75: 50% of hospitals are recognized as part of a statewide, territorial, or regional standardized system that recognizes hospitals that are able to stabilize and/or manage pediatric **trauma**.

Significance of Measure

These performance measures emphasize the importance of the existence of a standardized statewide, territorial, or regional system that recognizes hospitals capable of stabilizing and/or managing pediatric medical emergencies and trauma. A standardized categorization and/or designation process assists hospitals in determining their capacity and readiness to effectively deliver pediatric emergency and specialty care.

These measures help to ensure that essential resources and protocols are available in facilities where children receive care for medical and trauma emergencies. A recognition process also facilitates EMS transfer of children to appropriate levels of resources. A statewide recognition system has also been shown to increase the number of ED's that are capable of providing pediatric emergency care.

These measures address the development of both a pediatric medical and trauma recognition system. Recognition programs are based upon State defined criteria that address the qualifications of staff and providers of pediatric care, the availability of pediatric equipment, and a formal pediatric quality improvement or monitoring program.

In addition, Performance Measures 74 and 75 do not require that the recognition process be mandated. Voluntary facility recognition is accepted. However, the preferred status is to have a system monitored by the State/Territory. Examples of guidelines/standardized systems for pediatric medical and trauma recognition/ categorization are provided in the following page.

For additional information on the importance of these measures, refer to the web resources, guidelines and policy/position statements, and publications listed below. Appendix A includes an annotated bibliography for each reference.

Web Resources

- Availability of Pediatric Services and Equipment in Emergency Departments: United States, 2002-03. Visit http://www.cdc.gov/nchs, click on "More Publications" on the left, click on "Advance Date" under "Reports" on the right, and then select report #367.
- NRC ToolBox: Facility Categorization. Visit http://www.childrensnational.org/emsc, click on "Publications and Resources," then click on "EMSC Toolbox" and then click on the "Facility Categorization" Toolbox.
- NRC ToolBox: Interfacility Transfer. Visit http://www.childrensnational.org/emsc, click on "Publications and Resources," then click on "EMSC Toolbox" and then click on the "Interfacility Transfer" toolbox.
- U.S. Department of Health and Human Services, Model Trauma System Planning and Evaluation, 2006. Visit http://www.hrsa.gov/trauma/model.htm.

Guidelines and Policy/Position Statements

- Emergency Department Approved for Pediatrics (EDAP) Guidelines. Visit http://www.luhs.org/depts/emsc/, click on "Archives" at the bottom of the page, the scroll down to 2001, and then select the EDAP link under "June."
- AAP/ACEP Policy Statement Care of Children in the Emergency Department: Guidelines for Preparedness. Visit http://aappolicy.aappublications.org/, click on "AAP Policy Statements", and then select policy statement under "C."
- Emergency Nurse Association, Position Statement on Care of Critically Ill or Injured Patients during Inter facility Transfer, 2005.

Publications

- Athey, Jean, Dean, M., Ball, J., Weibe, R., d'Hospital, I. Ability of Hospitals to Care for Pediatric Emergency Patients. *Pediatric Emergency Care*, 2001; 17: 170-174.
- Haller, J. Toward a Comprehensive Emergency Medicine System for Children. *Pediatrics,* 1990; 86: 120-172.
- Institute of Medicine Committee, Future of Emergency Care in the United States Health System, Report Brief. National Academy of Sciences, 2006.
- Junkins, Edqard, O'Connell K., and Mann, C., Pediatric Trauma Systems in the United States: Do They Make a Difference? *Clinical Pediatric Emergency Medicine,* 2006; 7: 76-81.

- Krug, Steve, Emergency Care Crisis: A Nation Unprepared for Public Health Disasters. Testimony for Homeland Security Subcommittee on Emergency Preparedness, Science, and Technology, 2006.
- Morrison, Wayne, Wright, J., and Paldas C. Pediatric Trauma Systems. *Critical Care Medicine,* 2002; 30, #1 supplement.
- Perno, J., Schunk J., Hansen, K., & Furnival, R. (2005). Significant Reduction in Delayed Diagnosis of Injury with Implementation of a Pediatric Trauma Service. *Pediatric Emergency Care, 21:6,* 367-371.
- Resources for Optimal Care of the Injured Patient 2006,Committee on Trauma, American College of Surgeons, Chicago, Illinois, 2006.
- Sigrest, Todd, and AAP Committee on Hospital Care, Facilities and Equipment for Care of Pediatric Patients in Community Hospitals. *Pediatrics,* 2003; 3: 1120-1123
- Woodward, George, et. al., The State of Pediatric Interfacility Transport: Consensus of the Second National Pediatric and Neonatal Interfacility Transport Medicine Conference. *Pediatric Emergency Care* 2002; 18: 38-43.

Definitions

Emergency: A serious situation or occurrence that happens unexpectedly and demands immediate action, including injury or illness. Examples of medical emergencies include seizures, severe asthma attacks, allergies, and other acute illnesses. Examples of trauma include injuries, motor vehicle crashes, and falls.

Standardized system: A system that recognizes the readiness and capability of a hospital and its staff to triage and provide care appropriately, based upon the severity of illness/injury of the child.[3] The system designates/verifies hospitals as providers of a certain level of emergency care within a specified geographic area (e.g., region). A facility recognition process usually involves a formal assessment of a hospital's capacity to provide pediatric emergency and/or trauma care via site visits and/or a formal application process implemented by a State/Territory or local government body, such as the State EMSC Program, State EMS Office, and/or local hospital/health care provider association.[4]

---

[3] Committee on Pediatric Emergency Pediatric Medicine Pediatric Section and Task Force on Regionalization of Pediatric Critical Care. (2000). Consensus report for Regionalization of Services for Critically Ill or Injured Children. *Pediatrics*, 105(1): 152-155.

[4] Ibid

Pediatric Medical Emergency Facility Recognition: Examples of pediatric medical emergency recognition systems/classifications include:

- *Emergency department approved for pediatrics (EDAP) designation*: Classification of a hospital emergency department where staff are specially trained to care for children, using appropriate pediatric equipment and following guidelines for age-appropriate medications.

- *Stand-by emergency department approved for pediatrics (SEDP) designation*: Classification of a hospital emergency department where at least one of the registered nurses on duty in the hospital is available for pediatric emergency services at all times, and a licensed physician is "on-call" to the emergency department at all times to handle/manage pediatric emergencies. Examples of EDAP/SEDP criteria can be found at: http://www.luhs.org/depts/emsc/edap_sedp_criteria.htm.

- *Pediatric Critical Care Centers (PCCC):* Classification of a facility that has pediatric intensive care units as well as an emergency department and can provide specialty inpatient services for pediatric patients. The American Academy of Pediatrics (AAP) developed guidelines for levels of care for pediatric intensive care units, which are available at: http://aappolicy.aappublications.org/cgi/content/full/pediatrics;114/4/1114?fulltext=Critical+Care&searchid=QID_NOT_SET.

- *Care of Children in the Emergency Department: Guidelines for Preparedness*: Guidelines developed by AAP/ACEP for pediatric medical emergency facility recognition, which are available at: http://aappolicy.aappublications.org/cgi/content/full/pediatrics%3B107/4/777.

Pediatric Trauma Facility Recognition: An example of trauma facility recognition guidelines are those developed by the American College of Surgeons (ACS). The ACS developed trauma verification criteria that can be used to recognize pediatric trauma centers in your State/Territory. The latest guidelines are available for purchase online at: https://web2.facs.org/timssnet464/acspub/frontpage.cfm?product_class=trauma.

Data Collection Methods

These performance measures **do not require specific data collection** as reporting is based on State/Territory information.

Supporting documentation for these measures should be available to support EHB entries for both performance measures and the following may be requested by HRSA:

- Facility recognition application packet, if part of the recognition process (required for both PM 74 and 75);

- Criteria that facilities must meet in order to receive recognition as a facility able to stabilize and/or manage pediatric medical emergencies (for PM 74); and

- A list of hospitals participating in the pediatric medical/trauma emergency facility recognition program and their corresponding categorization, recognition or designation level (for PM 74 and 75).

EHB Data Worksheet for Performance Measure 74 and 75:

The following is a worksheet to help you prepare the numbers you will need when entering data into the Electronic Handbook. *An actual screen shot of the form grantees will be required to complete in the HRSA Electronic Handbook will be provided at a later date.* ***Note:*** although there is only one worksheet for PM 74 and PM 75 grantees will be required to enter data separately for both PM 74 for medical emergencies, and PM 75 for trauma emergencies.

Performance Measure 74: The percent of hospitals recognized through a statewide, territorial or regional standardized system that are able to stabilize and/or manage pediatric medical emergencies.

Performance Measure 75: The percent of hospitals recognized through a statewide, territorial or regional standardized system that are able to stabilize and/or manage pediatric traumatic emergencies.

You will be asked for the following:

Hospitals recognized for Pediatric Medical Emergencies:

You will be asked to enter a numerator and a denominator, not a percentage. ***NOTE:*** This measure only applies to hospitals with an Emergency Department (ED).

NUMERATOR: __________________

Number of hospitals with an ED that are recognized through a statewide, territorial or regional standardized system that are able to stabilize and/or manage pediatric medical emergencies.

DENOMINATOR: __________________

Total number of hospitals with an ED in the State/Territory.

Hospitals recognized for Pediatric Traumatic Emergencies:

You will be asked to enter a numerator and a denominator, not a percentage. ***NOTE:*** This measure only applies to hospitals with an Emergency Department (ED).

NUMERATOR: __________________

Number of hospitals with an ED that are recognized through a statewide, territorial or regional standardized system that are able to stabilize and/or manage pediatric traumatic emergencies.

DENOMINATOR: __________________

Total number of hospitals with an ED in the State/Territory.

Scoring Scale:

Data entry will require scoring of the progress made towards meeting both of these performance measures. You will be asked to enter a number (from 0-5) based on the scale located in the table below. ***Note:*** included in the table below are examples of supporting documentation that your State/Territory may be asked to submit to HRSA.

Indicate the degree to which a standardized system for pediatric medical emergencies exists: __________________ (0-5)

Indicate the degree to which a standardized system for pediatric traumatic emergencies exists: __________________ (0-5)

Scoring Scale

Point on Scale	Example of Supporting Documentation
0 = No progress has been made towards developing a statewide, territorial, or regional system that recognizes hospitals that are able to stabilize and/or manage pediatric medical emergencies and/or trauma.	No supporting documentation is necessary
1 = Research has been conducted on the effectiveness of a pediatric medical and/or trauma facility recognition program (i.e., improved pediatric outcomes) And/or Developing a pediatric medical and/or trauma facility recognition program has been discussed by the EMSC Advisory Committee and members are working on the issue.	Reports or presentations that include research findings (e.g., white paper on recognition programs including an assessment of the State/Territory's status on components and gaps) Copy of the EMSC Advisory Committee agenda and meeting minutes reflecting discussion of pediatric facility recognition program
2 = Criteria that facilities must meet in order to receive recognition as a pediatric medical and/or trauma facility have been developed.	Copy of criteria that facilities must meet in order to receive recognition as a pediatric medical and/or trauma facility

3 = An implementation process/plan for the pediatric medical and/or trauma facility recognition program has been developed.	Copy of implementation process or plan
4 = The implementation process/plan for the pediatric medical and/or trauma facility recognition program has been piloted.	Any piloting materials, such as: 1) instructions for facilities participating in the pilot process; 2) marketing materials developed to motivate facilities to participate in the pilot; 3) list of facilities participating in the pilot; 4) results of pilot process
5 = At least one facility has been formally recognized through the pediatric medical and trauma facility recognition program	Facility recognition application packet; formal evaluation/assessment results; the name of the facility(s) formally participating in the program(s) and corresponding recognition level

Strategic Planning

Using the previously collected data, the State/Territory should assess their compliance with Performance Measure 74 and 75. Data should be presented to the EMSC Advisory Committee to develop a strategy for meeting both performance measures.

Some specific strategic planning activities grantees can undertake to effect system changes to meet these measures in their States/Territories could include:

- Review baseline data for the measures and discuss pediatric medical emergency and trauma facility recognition system gaps with your EMS director and medical director.

- Work with hospitals to perform a needs assessment to determine the potential for success and challenges faced by each in becoming pediatric capable (i.e., able to stabilize and/or manage pediatric medical emergencies or trauma). Utilize assessment results; determine the overall feasibility of a State/Territory-wide facility recognition program for pediatric medical emergency and trauma patients.

- Contact the State/Territory hospital association to discuss challenges and potential strategies for implementing a proposed plan for a hospital facility recognition process in your State/Territory.

- Work with hospitals to develop a cost analysis defining any additional costs for hospitals to participate in a pediatric medical emergency or trauma facility recognition program.

- Offer recommendations for partnerships and collaborative agreements to provide assistance to hospitals that may be purchasing pediatric equipment in order to

become pediatric-capable and participate in a pediatric medical emergency and/or trauma facility recognition program.

- Offer additional mechanisms of financial incentives available to participate in the pediatric medical emergency and/or trauma facility recognition system (e.g., money for a newly recognized hospital, scholarship money to attend a workshop).

- If a state division of hospital licensure/certification exists in your State/Territory, consider meeting with them to discuss Performance Measures 74 and 75. Determine their monitoring and oversight responsibilities and enlist them as partners for the project. Include them as Advisory Committee Members as you discuss strategies for achievement of these measures.

Guidelines for annual targets for these measures are provided below:

Year	Target
2006-2008	The State/Territory is considering a statewide, territorial, or regional standardized system that recognizes hospitals that are able to stabilize and/or manage pediatric medical emergencies *and* trauma by researching the effectiveness of such a system.
2008-2010	The State/Territory is considering a statewide, territorial, or regional standardized system that recognizes hospitals that are able to stabilize and/or manage pediatric medical emergencies *and* trauma. This topic should be included on the EMSC Advisory Committee's agenda and/or a committee/task force has been charged with the development of this system.
2010-2012	The State/Territory is working towards a statewide, territorial, or regional standardized system that recognizes hospitals that are able to stabilize and/or manage pediatric medical emergencies *and* trauma by establishing criteria and developing a plan for implementation that facilities must meet to be part of the system.
2013-2014	The State/Territory is beginning to implement/pilot a statewide, territorial, or regional standardized system that recognizes hospitals that are able to stabilize and/or manage pediatric medical emergencies *and* trauma.
2014-2015	The State/Territory has at least 10% of facilities recognized to manage medical emergencies and at least 30% for trauma emergencies.
2015-2017	The State/Territory has a statewide, territorial, or regional standardized system that recognizes 25% of hospitals that are able to stabilize and/or manage pediatric medical emergencies and 50% of hospitals that are able to stabilize and/or manage pediatric traumatic emergencies.

Performance Measure 76 (Formerly 66d)

The percentage of hospitals in the State/Territory that have written inter-facility transfer guidelines that cover pediatric patients and that include the following components of transfer:

- Defined process for initiation of transfer, including the roles and responsibilities of the referring facility and referral center (including responsibilities for requesting transfer and communication).
- Process for selecting the appropriate care facility.
- Process for selecting the appropriately staffed transport service to match the patient's acuity level (level of care required by patient, equipment needed in transport, etc.).
- Process for patient transfer (including obtaining informed consent).
- Plan for transfer of patient medical record.
- Plan for transfer of copy of signed transport consent.
- Plan for transfer of personal belongings of the patient.
- Plan for provision of directions and referral institution information to family.

Goal for this measure is that by 2011:

- 90% of hospitals in the State/Territory have written inter-facility transfer guidelines that cover pediatric patients and that include specific components of transfer.

Significance of Measure

In order to assure that children receive optimal care, timely transfer to a specialty care center is essential. Such transfers are better coordinated through the presence of inter-facility transfer guidelines. All hospitals in the State/Territory should have guidelines to transfer to a facility capable of providing pediatric services not available at the referring facility. If a facility cannot provide a particular type of care (e.g., burn care), then it also should have transfer guidelines in place. Consult the NRC to ensure that the facility (facilities) providing the highest level of care in the State/Territory is capable of definitive care for all pediatric needs.

Information Regarding EMTALA:

Compliance with EMTALA does not constitute having inter-facility transfer guidelines. According to EMTALA regulations 42 CFR 489.24(d)(2), once the patient is admitted and stabilized, the EMTALA obligations end so a new emergency medical condition while an inpatient does not invoke EMTALA. Thus, once the patient is admitted and stabilized, the EMTALA obligations end (under the 2003 regulations). Therefore, compliance with EMTALA does not cover the issues of this performance measure.

The Emergency Medical Treatment and Active Labor Act (EMTALA) is a Federal statute that dictates when and how a patient may be (1) refused treatment or (2) transferred from one hospital to another when he or she is in an unstable medical condition. EMTALA applies only to "participating hospitals" (i.e., hospitals which have entered into "provider agreements" under which they will accept payment from the Department of Health and Human Services, Centers for Medicare and Medicaid Services under the Medicare program for services provided to beneficiaries of that program). EMTALA was meant as an "anti-dumping" statute to avoid having patients transferred due to the inability to pay.

For additional information on the importance of this measure, refer to the web resources, guidelines/policy statements, and publications listed below. Appendix A includes an annotated bibliography for each reference.

Web Resources

- MCHB, EMSC Webcast, February 2008, *When Minutes Count – Making Transfers Work for Critically Ill and Injured Children – A Look at Performance Measures 66D and 66 E*-http://www.mchcom.com/.
- NRC Fact Sheet *EMSC Performance Measures 66 D and 66E: Making Transfers Work for Critically Ill and Injured Children,* 2008 – http://www.childrensnational.org/emsc/
- Understanding EMTALA (The Emergency Medical and Active Labor Act). An American Medical Association PowerPoint Presentation on Requirements of EMTALA. Visit http://www.ama-assn.org/ama1/pub/upload/mm/384/emtalafinal.ppt
- Availability of Pediatric Services and Equipment in Emergency Departments: United States, 2002-03. Visit http://www.cdc.gov/nchs, click on "More Publications" on the left, click on "Advance Date" under "Reports" on the right, and then select report #367
- Emergency Department Approved for Pediatrics (EDAP) Guidelines – Visit http://www.luhs.org/depts/emsc/, click on "Archives" at the bottom of the page, the scroll down to 2001 and select the EDAP link under June
- EMTALA An Overview. Visit http://www.acutecare.com/emtala.htm
- EMTALA Frequently Asked Questions - Visit http://www.emtala.com/faq.htm
- NRC ToolBox: Interfacility Transfer – Visit http://www.childrensnational.org/emsc, click on "Publications and Resources,"

then click on “EMSC Toolbox” and then click on the “Interfacility Transfer” toolbox.

- 20 Commandments of EMTALA – Visit http://www.medlaw.com/healthlaw/EMTALA/education/the-20-commandments-of-em.shtml
- U.S. Department of Health and Human Services, Model Trauma System Planning and Evaluation, 2006. Visit http://www.hrsa.gov/trauma/model.htm

Guidelines/Policy Statements

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine and American College of Emergency Physicians, Pediatric Committee, Care of Children in Emergency Departments, Guidelines for Preparedness. *Pediatrics,* 2001; 107: 777-781.
- AAP/ACEP Policy Statement Care of Children in the Emergency Department: Guidelines for Preparedness. Visit http://aappolicy.aappublications.org/, click on “AAP Policy Statements”, and then select policy statement under “C.”
- Emergency Nurse Association, Position Statement on Care of Critically Ill or Injured Patients during Inter facility Transfer, 2005- http://www.ena.org/about/position/.

Publications

- American Academy of Pediatrics, Committee on Pediatric Emergency Care, Access to Pediatric Emergency Care. *Pediatrics*, 2000; 105:647-649.
- Odetola, F., Davis, M., Cohn, L., & Clark, S. Interhospital transfer of critically ill and injured children: an evaluation of transfer patterns, resource utilization, and clinical outcomes. *Journal of Hospital Medicine*. March 2009. 4(3):164-170.
- Resources for Optimal Care of the Injured Patient 2006,Committee on Trauma, American College of Surgeons, Chicago, Illinois, 2006.
- Should Parents Accompany Pediatric Interfacility Ground Ambulance Transports? Results of a National Survey of Pediatric Transport Team Manager by George Woodward, in *Pediatric Emergency Care* (2002)
- Woodward, George, et. al., The State of Pediatric Interfacility Transport: Consensus of the Second National Pediatric and Neonatal Interfacility Transport Medicine Conference. *Pediatric Emergency Care*. 2002; 18: 38-43.

Definitions

Inter-facility transfer guidelines: Hospital-to-hospital, including out of State/Territory, guidelines that outline procedural and administrative policies for transferring critically ill patients to facilities that provide specialized pediatric care, or pediatric services not available at the referring facility. Inter-facility guidelines do not have to specify transfers of pediatric patients only. A guideline that applies to **all patients or patients of all ages** would suffice, as long as it is not written for adults only. Grantees should consult their NRC representative if they have questions regarding guideline inclusion of pediatric

patients. In addition, hospitals may have one document that comprises both the inter-facility transfer guidelines and agreement. This is acceptable as long as the document meets the definitions for pediatric inter-facility transfer guidelines and agreements (i.e., the document contains all components of transfer).

Referring facility: The hospital or center that refers a pediatric patient to another more specialized center that is better able to handle pediatric patients.

Referral center: A center with specialized pediatric critical care or pediatric trauma services which receives patients from referring facilities.

Data Collection Methods

The two acceptable data collection methods for acquiring information for EHB data entry include surveys and/or other State/Territory legal documentation of the measure. If a grantee has an alternate source for gathering data, he/she must contact the EMSC Program for approval of the data collection method.

> **Note:** the proposed data collection method must be as rigorous as the methods listed above.

Surveys: Grantees must use surveys either developed or approved by the EMSC Program. Grantees will be required to survey all hospitals with an ED in the State/Territory. Appropriate staff to be surveyed may vary by hospital and/or State/Territory. Contact NEDARC to discuss the target population for your survey. Potential hospital staff to survey include**:**

- Emergency department administrator or manager
- Emergency department nursing director or nursing supervisor
- Hospital nursing director
- Hospital administrator
- Hospital transport team manager
- Hospital referral center, admitting office, or transfer office
- Hospital legal department

> **Note:** State/Territory hospital associations may be able to provide guidance and assistance with identifying individual hospital contacts.

- Specialty hospitals such as military-based, VAs, psychiatric institutions and Indian Health Service hospitals are **excluded** for survey purposes.

States/Territories may add up to 10 additional questions to the EMSC Program survey if they are in need of additional information. Please note the following:

- Grantees should discuss additional questions with their NEDARC representative.

- The additional questions, variable names and response options must be written by the grantee.
- Questions will only be added to the end of the EMSC Program survey.
- Keep in mind that additional survey questions may affect the deployment timeframe of the survey.

If grantees have a large number of hospitals, they can contact NEDARC to discuss the feasibility of conducting a random sample.

Supporting documentation should be available to support EHB entries and may be requested by HRSA. Supporting documentation for this measure may include one of the following:

- Copies of the hospitals' pediatric inter-facility transfer guidelines. If a hospital refuses to share guidelines due to the fact that they are legal documents, grantees should survey all of the hospitals with an ED, and use the survey results as supporting documentation.

- Copy of State/Territory transfer guidelines utilized by all hospitals in the State/Territory.

- Survey data and analysis from the NEDARC on-line survey tool.

- Raw data and survey analysis if utilizing paper surveys or another (non-NEDARC) EMSC approved method.

Other State/Territory Data:

Other State/Territory data sources include pediatric medical and/or trauma facility recognition programs and other licensure, accreditation, or certification processes that require written pediatric/all patient inter-facility transfer guidelines. Contact the EMSC Program to discuss and obtain approval for using these or other State/Territory data sources.

If a grantee wishes to collect data using another method, the grantee must contact the EMSC Program to obtain approval for alternative methods.

Exemption from Data Collection

Exemption from data collection for Performance Measure 76 requires that the State/Territory meet the following criteria:

- A State/Territory mandate with requirements for pediatric inter-facility transfer guidelines exists;

- An enforcement or monitoring process is in place which obliges hospitals to adhere to the mandate; and

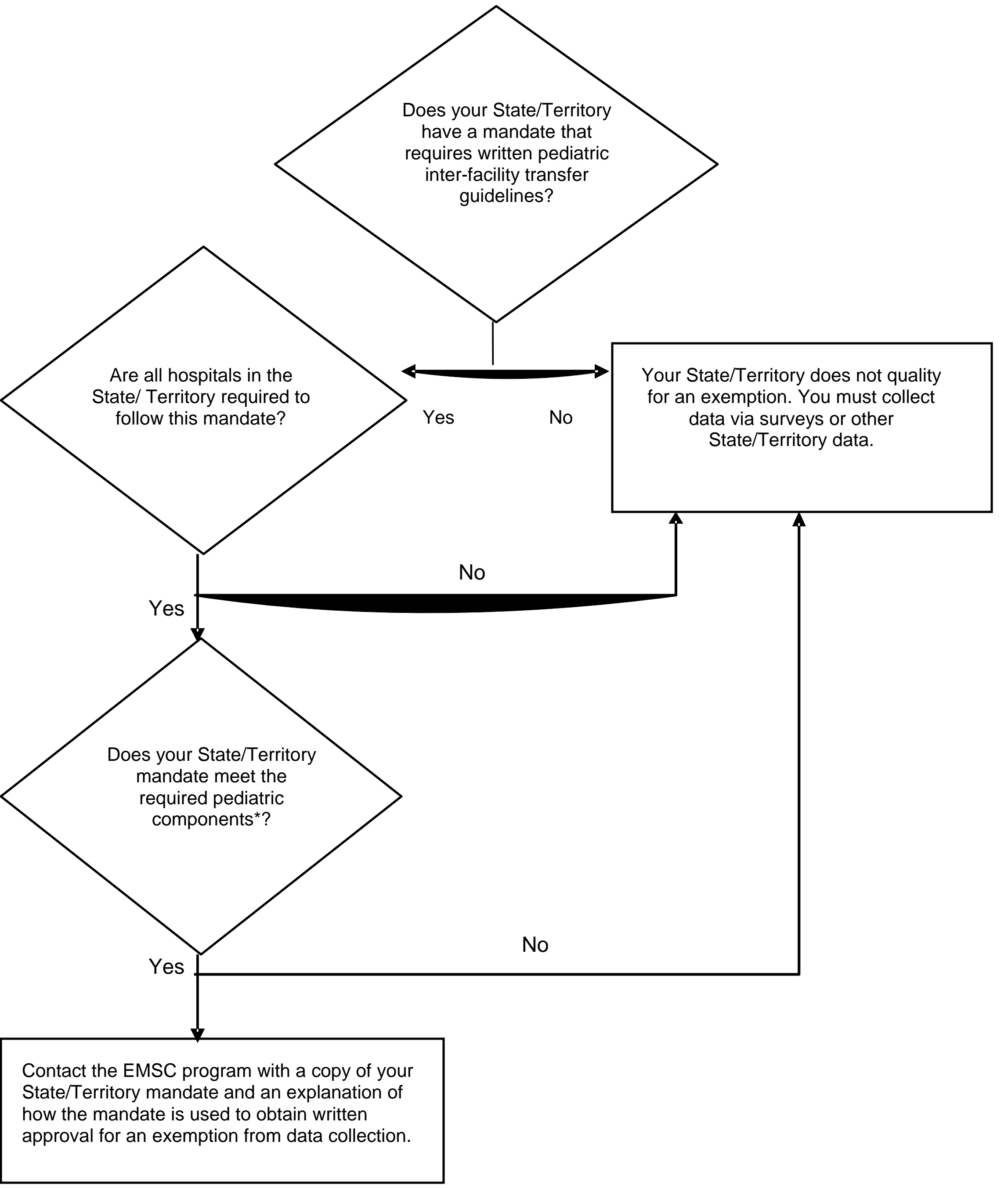
- The State/Territory mandate meets the required pediatric components.

If a grantee has met the criteria, the grantee should contact the Federal EMSC Program Project Officer (Tina Turgel) as soon as possible to discuss the possibility for data collection exemption for this measure. A copy of the State/Territory mandate with an explanation of how the mandate is used should be submitted to your Federal Project Officer to obtain written approval for an exemption from data collection. Written responses will be sent within three weeks of submission. If approved, grantees will not need to gain approval in subsequent years unless directed to do so by the EMSC Program or unless the State/Territory mandate has an expiration date.

Supporting documentation for this measure will be a letter from the EMSC Program granting an exemption from data collection for this measure.

A decision tree has been provided to help grantees determine their eligibility for an exemption from data collection due to a State/Territory mandate.

Decision Tree for Exemption from Data Collection Due to State/Territory Mandate



*Do the written pediatric inter-facility transfer guidelines include the following pediatric components of transfer:

- Defined process for initiation of transfer, including the roles and responsibilities of the referring facility and referral center (including responsibilities for requesting transfer and communication)
- Process for selecting the appropriate care facility
- Process for selecting the appropriately staffed transport service to match the patient's acuity level (level of care required by patient, equipment needed in transport, etc.)
- Process for patient transfer (including obtaining informed consent)
- Plan for transfer of patient information (e.g. medical record, copy of signed transport consent), personal belongings of the patient, and provision of directions, and referral institution information to family

EHB Data Worksheet for Performance Measure 76:

The following is a worksheet to help you prepare the numbers you will need when entering data into the Electronic Handbook. *An actual screen shot of the form grantees will be required to complete in the HRSA Electronic Handbook will be provided at a later date.* NEDARC will also host a workshop to help grantees analyze the data to obtain the numbers needed below.

Performance Measure 76: The percentage of hospitals in the State/Territory that have written inter-facility transfer guidelines that cover pediatric patients and that include the following components of transfer:

- Defined process for initiation of transfer, including the roles and responsibilities of the referring facility and referral center (including responsibilities for requesting transfer and communication).
- Process for selecting the appropriate care facility.
- Process for selecting the appropriately staffed transport service to match the patient's acuity level (level of care required by patient, equipment needed in transport, etc.).
- Process for patient transfer (including obtaining informed consent).
- Plan for transfer of patient medical record
- Plan for transfer of copy of signed transport consent
- Plan for transfer of personal belongings of the patient
- Plan for provision of directions and referral institution information to family

You will be asked for the following:

Hospitals with Inter-facility Transfer Guidelines that Cover Pediatric Patients:

You will be asked to enter a numerator and a denominator, not a percentage. ***NOTE:*** This measure only applies to hospitals with an Emergency Department (ED).

NUMERATOR: ________________

Number of hospitals with an ED that have written inter-facility transfer guidelines that cover pediatric patients and that include specific components of transfer according to the data collected.

DENOMINATOR: ________________

Total number of hospitals with an ED that provided data.

Data Assessment

In addition to EHB reporting, grantees may be asked to provide additional information regarding data collection and analysis.

Strategic Planning

Using the previously collected data, the State/Territory should assess their compliance with having pediatric inter-facility transfer guidelines. Data should be presented to the EMSC Advisory Committee to develop a strategy for meeting the performance measure.

Some specific strategic planning activities grantees can undertake to effect system changes to meet this measure in their States/Territories include:

- Review baseline data and discuss gaps in the existence and use of inter-facility transfer guidelines for pediatric patients with your EMS director and medical director.

- Assess the reasons why hospitals do not have inter-facility transfer guidelines for pediatric patients.

- Brief the family representative on the guidelines and enlist their assistance as you make plans to meet with hospitals and the hospital association.

- Sponsor a meeting of hospitals (in partnership with the State/Territory hospital association) to assess the existence and use of inter-facility transfer guidelines for pediatric patients among hospitals in the State/Territory. Include a discussion of the barriers/challenges to using inter-facility transfer guidelines for pediatric patients and discuss potential solutions.

Annual targets for this measure:

Year	Target
2007	25%
2008	40%
2009	45%
2010	50%
2011	90%

Performance Measure 77 (Formerly 66e)

The percentage of hospitals in the State/Territory that have written inter-facility transfer agreements that cover pediatric patients.

Goal for this measure is that by 2011:

- 90% of hospitals in the State/Territory have written inter-facility transfer agreements that cover pediatric patients.

Significance of Measure

Timely access to pediatric specialty services in the acute stages of illness and/or injury is critical to reducing poor pediatric outcomes (e.g., morbidity and mortality). When the medical needs of a child are beyond the resources available at a receiving facility, inter-facility transfer agreements help to ensure a timely transfer of children to facilities with the appropriate resources and competencies to effectively treat pediatric emergencies and to provide high-level and high-quality pediatric care.

For additional information on the importance of this measure, refer to the web resources, guidelines and policy/position statements, and publications listed below. Appendix A includes an annotated bibliography for each reference.

Note that EMTALA does not cover the issues of this Performance Measure (read the explanation on EMTALA and inter-facility guidelines, Performance Measure 76).

Web Resources

- MCHB, EMSC Webcast, February 2008, *When Minutes Count – Making Transfers Work for Critically Ill and Injured Children – A Look at Performance Measures 66D and 66 E-* http://www.mchcom.com/..
- NRC Fact Sheet *EMSC Performance Measures 66 D and 66E: Making Transfers Work for Critically Ill and Injured Children,* 2008, http://www.childrensnational.org/emsc/
- Understanding EMTALA (The Emergency Medical and Active Labor Act). An American Medical Association PowerPoint Presentation on Requirements of EMTALA. Visit http://www.ama-assn.org/ama1/pub/upload/mm/384/emtalafinal.ppt
- Availability of Pediatric Services and Equipment in Emergency Departments: United States, 2002-03. Visit http://www.cdc.gov/nchs, click on "More Publications" on the left, click on "Advance Date" under "Reports" on the right, and then select report #367.
- EMTALA An Overview. Visit http://www.acutecare.com/emtala.htm.
- EMTALA Frequently Asked Questions. Visit http://www.emtala.com/faq.htm.

- NRC ToolBox: Inter-facility Transfer. Visit http://www.childrensnational.org/emsc, click on "Publications and Resources," then click on "EMSC Toolbox" and then click on the "Inter-facility Transfer" toolbox.
- 20 Commandments of EMTALA – Visit http://www.medlaw.com/healthlaw/EMTALA/education/the-20-commandments-of-em.shtml.
- U.S. Department of Health and Human Services, Model Trauma System Planning and Evaluation, 2006. Visit http://www.hrsa.gov/trauma/model.htm.
- See a model pediatric interfacility transfer agreement developed by the California EMSC Program at: http://www.emsa.ca.gov/aboutemsa/emsa186.pdf.
- The Application of the Emergency Medical Treatment and Labor Act (EMTALA) To Hospital Patients. Visit http://www.childrensnational.org/emsc.

Guidelines and Policy/Position Statements

- American Academy Pediatrics, Committee on Pediatric Emergency Medicine and American College of Emergency Physicians, Pediatric Committee, Care of Children in Emergency Departments, Guidelines for Preparedness. *Pediatrics,* 2001; 107: 777-781.
- AAP/ACEP Policy Statement Care of Children in the Emergency Department: Guidelines for Preparedness. Visit http://aappolicy.aappublications.org/, click on "AAP Policy Statements", and then select policy statement under "C."
- Committee on Pediatric Emergency Medicine, *Access to Optimal Emergency Care for Children***,** Pediatrics, January 1, 2007; 119(1): 161 - 164. http://pediatrics.aappublications.org/cgi/reprint/119/1/161
- Emergency Department Approved for Pediatrics (EDAP) Guidelines – Visit http://www.luhs.org/depts/emsc/, click on "Archives" at the bottom of the page, the scroll down to 2001 and select the EDAP link under "June."
- Emergency Nurse Association, Position Statement on Care of Critically Ill or Injured Patients during Inter facility Transfer, 2005.

Publications

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine, Pediatric Care Recommendations for Free Standing Urgent Care Facilities, 2005 http://aappolicy.aappublications.org/cgi/reprint/pediatrics;116/1/258.pdf
- National Highway Traffic Safety Administration, *Guide for Inter Facility Patient Transfer.* April 2006.
- Odetola, F., Davis, M., Cohn, L., & Clark, S. Interhospital transfer of critically ill and injured children: an evaluation of transfer patterns, resource utilization, and clinical outcomes. *Journal of Hospital Medicine*. March 2009. 4(3):164-170.
- Resources for Optimal Care of the Injured Patient 2006,Committee on Trauma, American College of Surgeons, Chicago, Illinois, 2006.
- Selvan, J.S., Fields W.W., Chin W., Petitti D.B. and Wolde-TsadikG., Critical Care Transport: Outcome Evaluating After Interfacility Transfer and Hospitalization. *Annals of Emergency Medicine*, 33; 1: 33-43.

- Should Parents Accompany Pediatric Interfacility Ground Ambulance Transports? Results of a National Survey of Pediatric Transport Team Manager by George Woodward, in *Pediatric Emergency Care (*2002)
- Sigrest, Todd, and AAP Committee on Hospital Care, Facilities and Equipment for Care of Pediatric Patients in Community Hospitals. *Pediatrics*, 2003; 3: 1120-1123.
- Woodward, George, et. al., The State of Pediatric Interfacility Transport: Consensus of the Second National Pediatric and Neonatal Interfacility Transport Medicine Conference. *Pediatric Emergency Care* 2002; 18: 38-43.

Definitions

Refer to additional definitions under PM 76.

Inter-facility agreements: Written contracts between a referring facility (e.g., community hospital) and a hospital-to-hospital, including out of State/Territory, guidelines that outline procedural and administrative policies for transferring critically ill patients to facilities that provide specialized pediatric care, or pediatric services not available at the referring facility. The agreements formalize arrangements for consultation and transport of a pediatric patient to a higher-level care facility. Inter-facility agreements do not have to specify transfers of pediatric patients only. An agreement that applies to **all** patients or patients of **all** ages would suffice, as long as it is not written ONLY for adults. Grantees should consult the NRC if they have questions regarding inclusion of pediatric patients in established agreements.

Other notes:
In addition, hospitals may have one document that comprises both the inter-facility agreement and guidelines. This is acceptable as long as the document meets the definitions for pediatric inter-facility agreements and guidelines (i.e., the document must contain all components of transfer for the guidelines; see Performance Measure 76).

All hospitals in the State/Territory should have at least one agreement to transfer to a facility capable of treating pediatric patients regardless of whether the facility is outside of the State/Territory. All medical facilities should have transfer agreements in place to facilitate the movement of patients in the event of a mass casualty incident and/or a need to increase surge capacity.

Note that being in compliance with EMTALA does not constitute having inter-facility transfer agreements.

Data Collection Methods

The two acceptable data collection methods for acquiring information for EHB data entry include surveys and/or other State/Territory legal documentation of the measure. If a grantee has an alternate source for gathering data, he/she must contact the EMSC Program and get approval for the data collection method.

> **Note:** the proposed data collection method must be as rigorous as the two methods listed above.

Surveys: Grantees must use surveys either developed or approved by the EMSC Program. Grantees will be required to survey all hospitals with an ED in the State/Territory. Keep in mind that appropriate staff to survey may vary by hospital and/or State/Territory. Contact NEDARC to discuss the target population for the survey. Potential hospital personnel to survey include**:**

- Emergency department administrator or manager
- Emergency department nursing director or nursing supervisor
- Hospital nursing director
- Hospital administrator
- Hospital inter-facility transport team manager
- Hospital referral center, admitting office, or transfer office
- Hospital legal department

> **Note:** State/Territory hospital associations may be able to provide guidance and assistance with identifying individual hospital contacts.

> **Excluded** for survey purposes are specialty hospitals such as VA, military base hospitals, psychiatric institutions, and those located in tribal lands.

States/Territories may add up to 10 additional questions to the EMSC Program survey if they are in need of additional information. Please note the following:

- Grantees should discuss additional questions with their NEDARC representative.
- The additional questions, variable names, and response options must be written by the grantee.
- Questions will only be added to the end of the EMSC Program survey.
- The additional survey questions may affect the deployment timeframe of the survey.

If grantees have a large number of hospitals, they may contact NEDARC to discuss the feasibility of conducting a random sample.

Supporting documentation should be available to support EHB entries and may be requested by HRSA. Supporting documentation for this measure may include one of the following:

- Copies of the hospital inter-facility transfer agreements that cover pediatric patients. Grantees do not need to have the agreements for supporting documentation if a hospital is unable to share them due to legal restrictions. Instead, grantees can survey all of the hospitals with an ED and use the survey results as supporting documentation.

- Copy of State/Territory transfer agreements utilized by all hospitals in the State/Territory.

- Survey results and analysis from the NEDARC online survey tool.

- Raw data and survey analysis if utilizing paper surveys or another (non-NEDARC) EMSC approved method.

Other State/Territory Data: Other State/Territory data sources include pediatric medical and/or trauma facility recognition programs and other licensure, accreditation or certification processes requiring written pediatric inter-facility transfer agreements. Contact the EMSC Program to discuss and obtain approval for using these or other State/Territory data sources.

Exemption from Data Collection

Exemption from data collection for Performance Measure 77 will require that the State/Territory **meet at least one** of the following criteria:

- A State/Territory mandate with requirements for pediatric inter-facility transfer agreements exists, and all hospitals in the State/Territory are required to follow the mandate with an enforcement or monitoring process in place to assure compliance.

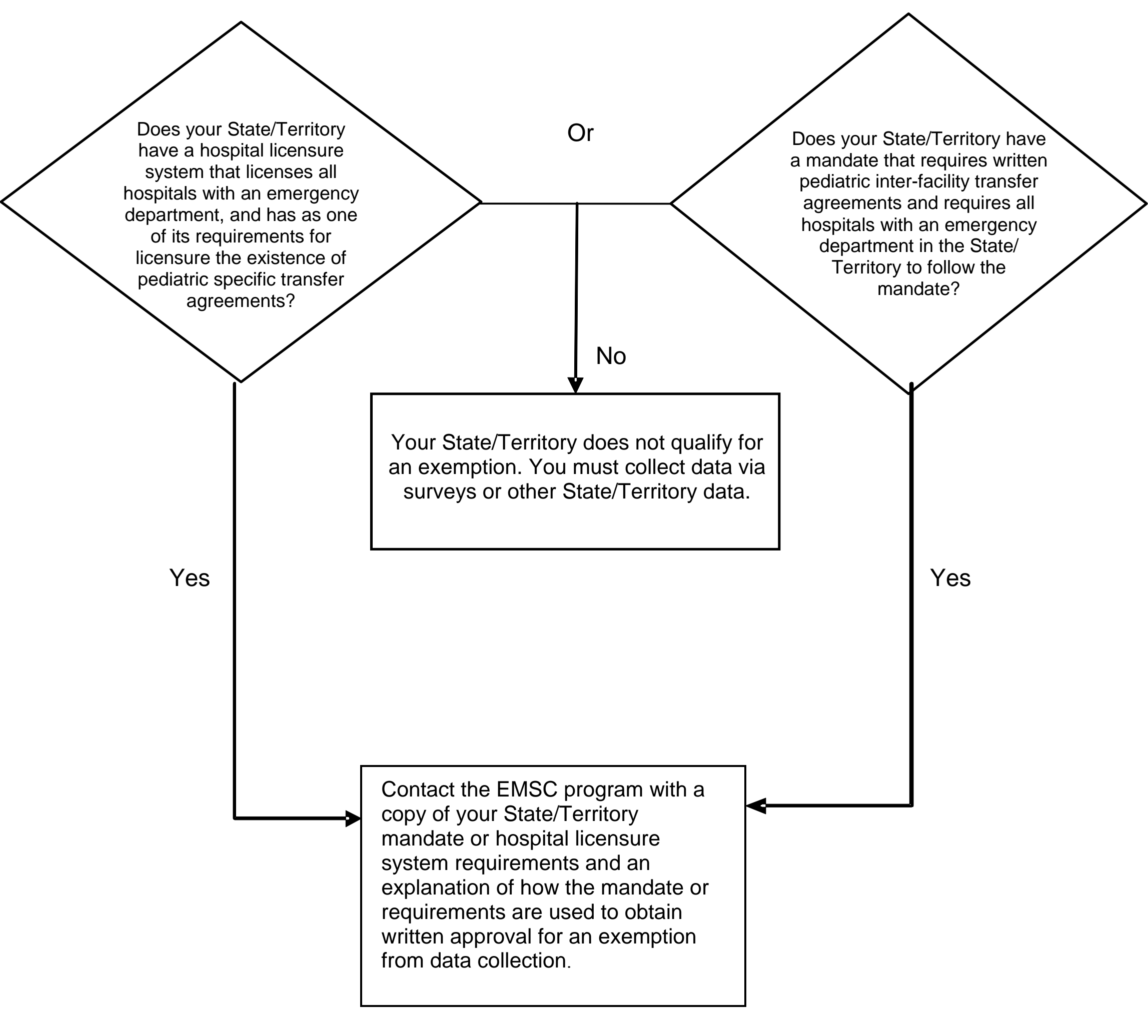
- A hospital licensure/certification process and defined enforcement or monitoring system exists for licensure/certification of all hospitals with one of the requirements for licensure including the existence of transfer agreements for all patients/ pediatric patients for which services or resources for care are not available. **Note:** pediatric specific can be referred to as "all ages", "children" or "pediatric".

To request an exemption from data collection, grantees should contact the Federal EMSC Project Officer (Tina Turgel) as soon as possible. Grantees should provide: a copy of the State/Territory mandate or hospital licensure system requirements; an explanation of how the mandate or requirements are being used; and a descriptor of the enforcement or monitoring process in place. Written responses will be sent within three weeks of submission. If approved, grantees will not need to gain approval in subsequent years unless directed to do so by the EMSC Program; or unless the State/Territory mandate or hospital licensure system requirements have an expiration date.

Supporting documentation for this measure will be a letter of approval from the EMSC Program granting an exemption from data collection.

A decision tree has been provided to help grantees determine whether they are eligible for an exemption from data collection.

Decision Tree for Exemption from Data Collection



EHB Data Worksheet for Performance Measure 77:

The following is a worksheet to help you prepare the numbers you will need when entering data into the Electronic Handbook. *An actual screen shot of the form grantees will be required to complete in the HRSA Electronic Handbook will be provided at a later date.* NEDARC will also host a workshop to help grantees analyze the data to obtain the numbers needed below.

Performance Measure 77: The percentage of hospitals in the State/Territory that have written inter-facility transfer agreements that cover pediatric patients.

You will be asked for the following:

Hospitals with Inter-facility Transfer Agreements that Cover Pediatric Patients:
You will be asked to enter a numerator and a denominator, not a percentage. ***NOTE:*** This measure only applies to hospitals with an Emergency Department (ED).

NUMERATOR: ________________

Number of hospitals with an ED that have written inter-facility transfer agreements that cover pediatric patients according to the data collected.

DENOMINATOR: ________________

Total number of hospitals with an ED that provided data.

Data Assessment

In addition to EHB reporting, grantees may be asked to provide additional information regarding data collection and analysis.

Strategic Planning

Using the previously collected data, the State/Territory should assess their compliance with having pediatric inter-facility transfer agreements. Data should be presented to the EMSC Advisory Committee to develop a strategy for meeting the performance measure.

Some specific strategic planning activities grantees can undertake to effect system changes to meet this measure in their States/Territories include:

- Review baseline data, and discuss gaps in the existence and use of inter-facility transfer agreements for pediatric patients with the EMS director and medical director.
- Assess the reasons why hospitals do not have inter-facility transfer agreements for pediatric patients (can include such wording as patients of all ages).
- Brief your family representative on Performance Measure 77 and encourage them to participate in a meeting of hospitals to discuss the need of inter-facility transfer agreements.
- Facilitate a meeting of hospitals, in partnership with the State/Territory hospital association to assess the existence and use of inter-facility transfer agreements for pediatric patients among hospitals in the State/Territory. Include a discussion of the barriers/challenges to using inter-facility transfer agreements for pediatric patients and brainstorm potential solutions.

Annual targets for this measure:

Year	Target
2007	**25%**
2008	**40%**
2009	**45%**
2010	**50%**
2011	**90%**

Performance Measure 78 (formerly PM 67)

The adoption of requirements by the State/Territory for pediatric emergency education for the license/certification renewal of basic life support (BLS) and advanced life support (ALS) providers.

Goal for this measure is that by 2011:

- **The State/Territory adopted requirements for pediatric emergency education for the recertification of BLS and ALS providers.**

Significance of Measure

This performance measure highlights the value of developing and adopting minimum requirements for pediatric emergency education for the license/certification renewal of BLS and ALS providers. Most pre-hospital providers rarely treat a sufficient number of pediatric patients to develop and maintain the skills necessary to treat pediatric emergencies in the field. Continuing education helps ensure that pre-hospital providers are ready to take care of a pediatric patient in the field. Continuing education also improves the quality and can improve effectiveness of pediatric emergency care. Note: for the purposes of this measure, providers other than BLS or ALS (example ILS) will not be captured into EHB.

For additional information on the importance of this measure, refer to the websites, journal articles, and guidelines listed below. Appendix A includes an annotated bibliography for each reference.

Websites

- Training and Certification of EMS Personnel (2007). Visit http://www.nasemsd.org/, select "Monographs" under the "Resources" tab at the top of the page.

Journal Articles

- Miller, David, Kalinowski, E., & Wood, D., Pediatric Continuing Education for EMTs. *Pediatric Emergency Care,* 2004; 20:269-272.
- Morehead, J., Donaldson, A., Marmen, M., Schnyder, M., Mann, C., Stuemky, J. (2006). Pediatric Continuing Education of EMS Professionals in Oklahoma, *Pediatric Emergency Care,* National Association of EMS Physicians Medical Journal. Oct/Dec. Pgs 530-531.
- National Association of EMS Educators, NAEMSE Standards and Practice Committee, Position Statement: Value of Continuing Medical Education in the Prehospital Arena. *Journal of Prehospital,* 2003: 12:232.
- Peckinpaugh, Karen, Izsak, E., Lindstrom, D., Orlow, G., Contour, T., and Rice, M., The Advanced Pedi-Bag Program: A Hospital-EMS Partnership to Implement Prehospital Training, Equipment and Protocols. *Pediatric Emergency Care*, 2000; 16: 409-412.

- Stevens, Sandra and Alexander, J., The Impact of Training and Experience on EMS Emergencies in a Rural State. *Pediatric Emergency Care,* 2005; 21: 12-17.
- Su, Eustacia, Schmidt, Terri A., Mann, N. Clay, and Zechnich, Andrew D., A Randomized Controlled Trial to Assess Decay in Acquired Knowledge among Paramedics Completing a Pediatric Resuscitation Course. *Academic Emergency Medicine,* 2000 7: 779-786.
- Wood D., Kalinowski E., and Miller D., Pediatric Continuing Education for Emergency Medicine Technicians. *Pediatric Emergency Care,* 2004: 20: 261-268.

Guidelines

- Stoy, Walt, National Guidelines for EMT Continuing Education. U.S. Department of Transportation/NHTSA, 1999.

Definitions

Adoption: The requirements sanctioned in a mandate at either the State/Territory or County/Regional level (i.e., at every county/region in the State/Territory) and apply to all BLS and ALS providers in the State/Territory.

License/Certification Renewal: Refers to the process of re-registering and fulfilling requirements for certification or licensure to continue practicing as a BLS or ALS provider.

Requirements*:* Formal written recommendations and guidelines exist for pediatric emergency care education as part of the recertification of BLS and ALS providers. Recommended training curricula and/or courses for BLS and ALS providers may include, but are not limited to, Pediatric Education for Pre-hospital Professionals (PEPP), Advanced Pediatric Life Support (APLS), and Pediatric Advanced Life Support (PALS) courses. Recommended training courses exclude cardiopulmonary resuscitation (CPR) courses. **Requirements that offer a choice of topics, including pediatrics, do not meet the measure.** The requirements must be specific to pediatric education.

Recertification: Refers to the process of re-registering and fulfilling requirements for certification or licensure to continue practicing as a BLS or ALS provider.

Data Collection Methods

For Performance Measure 78, grantees are not required to collect data. The measure requires the existence of either a State/Territory or county/regional mandate for pediatric emergency medical education for the recertification of BLS and ALS providers in the State/Territory.

States who require that 100% of their pre-hospital providers re-certify through the National Registry of Emergency Medical Technicians (NREMT) may report those hours required through NREMT and answer "Yes" in EHB. NREMT requires the completion of two hours for EMT-Basics and eight hours for EMT-Paramedics.

For more information on the total number of continuing education hours needing to be dedicated to pediatrics for each type of EMT provider, refer to the NREMT website: http://www.nremt.org/EMTServices/rereg_brochures.asp.

Note that if a State/Territory has some providers registered through NREMT, but also has a State/Territorial system for re-certifying EMTs and paramedics, the State/Territory should report the minimum level of education required. For example, if the State/Territory accepts NREMT certification or pediatric education through a State/Territorial training program, and NREMT has eight hours of pediatric education and the State/Territory only requires two, the grantee would indicate two hours in EHB.

Supporting documentation should be available to support EHB entries and may be requested by HRSA. Supporting documentation for this measure includes a copy of the State/Territory or county/regional mandate describing the requirements for pediatric emergency medical education for the recertification of BLS and ALS providers in the State/Territory.

EHB Data Worksheet for Performance Measure 78:

The following is a worksheet to help you prepare the numbers you will need when entering data into the Electronic Handbook. *An actual screen shot of the form grantees will be required to complete in the HRSA Electronic Handbook will be provided at a later date.*

Performance Measure 78: The adoption of requirements by the State/Territory for pediatric emergency education for the license/certification renewal of basic life support (BLS) and advanced life support (ALS) providers.

You will be asked for the following:

Pediatric Education for BLS Providers:

Has your State/Territory adopted requirements for pediatric education for the license/certification renewal of BLS providers?

☐YES ☐NO ☐NOT APPLICABLE

If "Yes," please provide the following information:

Total number of hours required for BLS license/certification renewal: _________

Of the total number of hours required for BLS license/certification renewal, indicate the number of hours that need to be dedicated to pediatrics: __________

Comments:

____

____

____

____
____

If "No," please indicate the reasons why your State/Territory has not adopted requirements for pediatric education for the license/certification of BLS providers. Please also indicate what steps you have taken towards adopting requirements, highlighting any major barriers towards adoption.

____
____
____
____
____

If "Not Applicable," please provide reasons why the measure is not applicable to your State/Territory (e.g., State/Territory does not have BLS providers).

____
____
____
____
____

Pediatric Education for ALS Providers:

Has your State/Territory adopted requirements for pediatric education for the license/certification renewal of ALS providers?

☐YES ☐NO ☐NOT APPLICABLE

If "Yes," please provide the following information:

Total number of hours required for ALS license/certification renewal: _________

Of the total number of hours required for ALS license/certification renewal, indicate the number of hours that need to be dedicated to pediatrics: __________

Comments:

____
____
____
____
____

If "No," please indicate the reasons why your State/Territory has not adopted requirements for pediatric education for the license/certification of ALS providers.

Please also indicate what steps you have taken towards adopting requirements, highlighting any major barriers towards adoption.

____
____
____
____
____

If "Not Applicable," please provide reasons why the measure is not applicable to your State/Territory (e.g., State/Territory does not have ALS providers).

____
____
____
____
____

Data Assessment

In addition to EHB reporting, grantees may be asked to provide additional information regarding data reported for this measure.

Strategic Planning

Although this performance measure does not require a minimum number of hours for pediatric education, the following standards are recommended for license/certification renewal:

- **BLS Providers:** provide pediatric education with a focus on pediatric assessment and airway management.

- **ALS Providers:** provide pediatric education with a focus on pediatric assessment, airway management, and medication dosing.

Another option to ensure quality pediatric education would be the adoption for certification in national courses, such as PALS and PEPP. A State/Territory should assess their compliance with Performance Measure 78. Current recertification criteria should be presented to the EMSC Advisory Committee to develop a strategy for meeting the performance measure.

Some specific strategic planning activities grantees can undertake to effect system changes to meet this measure in their State/Territory include:

- Review baseline data and discuss gaps in the pediatric continuing educational offerings for BLS and ALS providers with the EMS director and medical director.

- Assess reasons why the State/Territory has not adopted requirements for pediatric emergency education for the recertification of BLS and ALS providers.

- Engage EMS and medical directors, as well as training coordinators and EMS educators, to discuss barriers/challenges to adopting requirements for pediatric emergency education for the recertification of BLS and ALS providers.

- Determine the feasibility of the State/Territory adopting requirements for pediatric emergency education for the recertification of BLS and ALS providers.

- Consider systematically evaluating pediatric patient outcomes, comparing such to the number of pediatric education hours received.

- Consult with the NRC to identify pediatric education models employed in other States and Territories that could possibly be adapted for use by others.

Guidelines for annual targets for this measure are as follows:

Year	Target
2006 and 2007	Determine the requirements for recertification and engage the EMSC Advisory Committee and EMS medical directors in discussions.
2008	Identify methods for providing pediatric continuing education to all EMS agencies.
2009 and 2010	Begin process for changing re-certification requirements and begin providing education to EMS agencies.
2011	The State/Territory has adopted requirements for pediatric emergency education for the recertification of BLS and ALS providers

Performance Measure 79 (Formerly 68a) – EMSC Advisory Committee

The degree to which States/Territories have established permanence of EMSC in the State/Territorial EMS system.

Goal for this measure is:

- To increase the number of States/Territories that have established permanence of EMSC in the State/Territory EMS system.

Significance of Measure

An EMSC Advisory Committee is important to assist EMSC grantees in meeting each of their performance measures. Throughout this Implementation Manual, the role of the Advisory Committee has been discussed. Members of the EMSC Advisory Committee can assist the grantee in strategic planning, obtaining buy-in from the State/Territorial leadership to effect system change, and ensuring that family issues are not overlooked.

For additional information on the importance of this measure, refer to the presentations, policy resources, and websites listed below. Appendix A includes an annotated bibliography for each reference.

Presentation

- Advisory Committees – How to develop and utilize the best team for EMSC Initiatives (a 2006 PowerPoint presentation). Visit http://www.cademedia.com/archives/mchb/emsc2006/Grantee2006/ppt/E%201-3.ppt.

Policy Resources

- American Academy of Pediatrics, Committee on State Government Affairs, Government Affairs Handbook, 1992.
- Amidei, Nancy, *So You Want to Make a Difference*, 1997.
- State Legislative Leaders Foundation, State Legislative Leaders: Keys to Effective Legislation for Children and Families, 1995.

Websites (of professional organizations from which EMSC Advisory Committee core and/or recommended members could be recruited)

- American Academy of Pediatrics - http://www.aap.org/
- American Hospital Association - http://www.aha.org/
- Emergency Nurse Association - http://www.ena.org/
- Family Voices –http://www.familyvoices.org/
- National Association of EMS Directors - http://www.nasemsd.org/
- National Association of EMT's - http://www.naemt.org/
- National Association of School Nurses – http://www.nasn.org/
- National Highway Traffic Safety Administration - http://www.nhtsa.dot.gov/

Definitions

Establishment: "Establishment" is defined by two elements: The EMSC Advisory Committee is composed of the eight core members; and the EMSC Advisory Committee has met at least four times during the grant year. Note that both of the elements must be met in order to meet this measure.

1. **The EMSC Advisory Committee is composed of the following eight core (required) members:**
   - Nurse with emergency pediatric experience
   - Physician with pediatric training (e.g., pediatrician or pediatric surgeon)
   - Emergency physician (a physician who primarily practices in the emergency department; does not have to be a board-certified emergency physician)
   - Emergency medical technician (EMT)/Paramedic who is currently a practicing, ground level pre-hospital provider (i.e., must be currently licensed and riding in a patient care unit such as an ambulance or fire truck)
   - EMS State agency representative (e.g., EMS medical director, EMS administrator)
   - EMSC principal investigator
   - EMSC grant manager
   - Family representative

Note that no single individual listed above may serve as the EMT/Paramedic, nurse, both physician, and family representative. In other words, there must be at least one pre-hospital provider, one nurse, one physician, and one family representative on the EMSC Advisory Committee. Each of these roles must be served by a distinct individual. However, for the other core member roles, a single individual can play dual or multiple roles as long as all eight roles are represented. For example, the EMSC principal investigator can be the same person as the EMSC grant manager.

Based on the unique needs of each individual State/Territory, the EMSC Program has also identified a list of recommended committee members. The following 16 members are strongly encouraged (but not required) to play a role on the Advisory Committee:

- Hospital association representative
- State trauma manager
- EMS training manager
- Tribal EMS representative
- Data manager
- School nurse
- Ambulance association representative
- Child death review representative
- Fire-based EMS representative
- Police representative
- Bioterrorism representative
- Disaster preparedness representative
- Parent teacher association representative
- Recipient of MCH block grant for CSHCN
- Highway representative
- Legislator

2. **The EMSC Advisory Committee must meet either face-to-face or by conference call at least four times during each grant year (March – February grant cycle).** If one of the core EMSC Advisory Committee members is unable to attend a meeting, an alternate substitute can be designated to attend on his/her behalf.

EMSC Advisory Committee: A group of either appointed or elected individuals who are responsible for guiding the EMSC Program, prioritizing EMSC issues, working on special projects, ensuring that pediatric emergency issues are addressed within the EMS system, and providing policy recommendations pertaining to the improvement of emergency medical services for children.

The EMSC Advisory Committee may be outside State/Territorial government control (i.e., the Committee does not have to be mandated by the State/Territory). However, to ensure program sustainability it is strongly recommended that the committee be State/Territory mandated. The EMSC Advisory Committee can be part of the State/Territorial EMS Committee or Subcommittee (e.g., Pediatric Subcommittee of the EMS Board) provided that the eight core members are on the EMS Committee or Subcommittee as voting members (i.e., members exercising full membership rights). If the State/Territory government controls or limits the number of EMSC Advisory Committee members, the grantee is still required to have the eight core members on the committee in order to meet the measure.

Data Collection Methods

This measure does not require data collection. To meet this measure, the eight required members must meet four times during each grant year. This information will be used to calculate whether the measure has been met.

Supporting documentation should be available to support EHB entries and they may be requested by HRSA. Supporting documentation for this measure must include the sign-in sheet, agenda, and meeting notes/minutes from each meeting held.

EHB Data Worksheet for Performance Measure 79:

The following is a worksheet to help you prepare the numbers you will need when entering data into the Electronic Handbook. *An actual screen shot of the form grantees will be required to complete in the HRSA Electronic Handbook will be provided at a later date.* The data for Performance Measure 79 (formerly 68a, 68b, and 68c) will all be entered into one inclusive data table. Progress scores will be based on the questions below; the "yes" answers will be summed together to calculate a total number of elements your grant program has established (possible 0-5 score).

Performance Measure 79: The degree to which the State/Territory has established permanence of EMSC in the State/Territorial EMS system.

You will be asked for the following:

Components to Promote Permanence of EMSC (EMSC Advisory Committee):
You will be asked to answer Yes or No to the questions below:

The EMSC Advisory Committee has the required members as per the Implementation Manual: ______________ (Yes/No)

The EMSC Advisory Committee has met four or more times during the grant year: ______________ (Yes/No)

Data Assessment

In addition to EHB reporting, grantees may be asked to provide additional information regarding data reported for this measure.

Strategic Planning

The EMSC Advisory Committee plays a pivotal role in ensuring that the State/Territory meets all the required performance measures.

EMSC managers can maximize the support they receive from their Advisory Committee members by:

- Educating committee members about how their contributions impact the EMSC grant initiatives (see section below on committee membership).

- Clarifying how each committee member contributes to improving EMS systems for pediatric patients.

- Reinforcing that achieving the EMSC performance measures is in the best interest of all participating organizations and agencies.

- Effectively utilizing and engaging members during meetings (see Member Engagement and Utilization)

Purpose of the Advisory Committee Membership

Role	Purpose
1. Nurse with emergency pediatric experience	A nurse with pediatric emergency experience can provide critical input on pediatric emergency care in the ED and pre-hospital environment, including inter-facility transfer agreements and guidelines. He/she can also help establish education standards. This person can help ensure successful data reporting for performance measures 74 and 75.
2. Physician with pediatric training (e.g., pediatrician or pediatric surgeon)	This person ensures pediatric input to the committee is evidence-based and follows national consensus guidelines. This representative can also encourage support for EMS system changes from pediatricians and the surgical community across the State/Territory. They can be especially helpful in the development of inter-facility guidelines and agreements, as well as with pediatric education standards.
3. Emergency physician (a physician who primarily practices in the ED; does not have to be a board-certified emergency physician)	This person will ensure that pediatric emergency care recommendations meet national guidelines. This member will be very helpful in providing guidance for implementing all the performance measures and ensuring buy-in from State EMS medical directors for education standards, medical direction, equipment, and inter-facility transfer.
4. EMT/Paramedic who is currently a practicing, ground level pre-hospital provider (i.e., must be currently licensed and riding in a patient care unit, such as an ambulance or fire truck)	The person can provide important insights on pre-hospital issues, including medical direction, equipment guidelines, and pediatric training requirements. This person also can assure that data collection efforts from the pre-hospital agencies are successful.
5. EMS State agency representative (e.g., EMS medical director, EMS administrator)	This individual oversees key operations of the EMS agency or department assigned to ensure quality pre-hospital patient care. This person should be responsible for developing and implementing the EMS system throughout the State, which includes setting standards for training and the scope of practice of various levels of pre-hospital providers. He or she will be helpful as grantees plan their work on pediatric continuing education requirements for license/certification renewal of pre-hospital providers, requirements for pediatric equipment on ambulances, as well as off-line and on-line pediatric medical control for EMS.
6. EMSC principal investigator	In some cases, the principal investigator (PI) is also the EMS administrator or EMS director of the Office of EMS in the State/Territory or district. This individual provides oversight of the grant program and primary communication regarding Federal program requirements. Therefore, having this individual meet with the committee assures membership is up-to-date on Federal EMSC initiatives and national updates. He or she will provide the advisory committee with much of the leadership and support needed to achieve all of the performance measures.
7. EMSC grant manager	This person manages the program initiatives and financial aspects of the grant. They are often described as the program's driving force, holding State/Territory programs together. The EMSC manager assumes responsibility for achieving performance measure outcomes as outlined in the approved grant initiatives.
8. Family representative	A family representative is a parent and community leader who promotes family and children needs, and assures that they are considered in all aspects of the emergency healthcare system. This individual participates in advisory committee meetings and reviews state EMS rules, regulations, and medical protocols related to patient and family-centered care. The family

	representative also can help identify other potential community partners and participate in public education campaigns and other community outreach activities. This member can be a major EMSC supporter to help change State/Territory statutes/rules/regulations to help achieve many of the performance measures.

Member Engagement and Utilization
How to assure a successful EMSC Advisory Committee

To effectively utilize, engage, and lead an EMSC Advisory Committee, it is important to:

- Understand the value that each member brings to the committee.
- Educate yourself about each member's scope of work in his/her organization.
- Meet regularly and address program planning and implementation.

By considering each members' interests and priorities, it is possible to create a cohesive committee that is beneficial to the program and each committee member. By helping committee members address the mission of their organizations, grantees will secure continued committee member involvement in EMSC activities. Additional hints to improve EMSC Advisory Committee meetings are listed below.

Before the meeting:

- Committee members are busy individuals. To get on their calendars, plan the meetings several months in advance.
- Set a schedule for quarterly meetings three to six months in advance.
- Meet with the advisory committee chair and/or the principal investigator and prepare an agenda six weeks prior to the meeting. Contact the NRC for a sample agenda.
- When developing the agenda, think of ways to engage each committee member. For example, schedule dedicated time for "organizational reports" that allows each member two to three minutes to highlight their organization's major activities.
- Identify a time frame for each agenda item and make sure priority topics are covered first. Build in time for breaks and discussion.
- Arrange for meeting space and, if necessary, hotel rooms.
- Distribute the agenda electronically to members and other interested partners three to four weeks before the meeting.
- Include information on the EMSC Performance Measures and any other topics that will be discussed at the meeting.
- Provide instructions for making travel arrangements.
- Ask for additional agenda items. It is important that committee members have input on the agenda.
- Request an RSVP from each Advisory Committee member.
- Invite NRC and NEDARC representatives to periodically join the meetings by phone. Including the NRC and NEDARC representatives will demonstrate connection to the National EMSC Program.

During the meeting:

- Start the meeting on-time. If there is a history of starting meetings late, individuals will tend to show up late.
- Distribute an EMSC calendar that includes future advisory committee meetings and other Federal EMSC meetings and events.
- As new members or attendees join the group, ask them to share their organization's mission. It may be advisable to have organizational updates provided in writing before the meeting.
- Have copies of the grant application and the EMSC Performance Measures Implementation Guide readily available as resources at all meetings.
- Assign tasks to members and ask them to provide monthly written progress reports and an update at the next meeting. This will keep the committee members engaged in-between meetings.
- Create sub-committees on specific initiatives, such as medical protocols, inter-facility transport, EMT education, pediatric equipment, etc.
- Report on EMSC-related activities and progress made toward completing action items from the previous meeting.
- Schedule and allow ample time to hear sub-committee reports.

After the meeting:

- Meet with the principal investigator and/or the advisory committee chair to discuss action items from the meeting.
- Send an email to all committee members within three days of the meeting thanking them for attending. Provide a list of action items and identify members responsible for follow-up on each item.
- Create a listserv (an email discussion group/distribution list) for all advisory committee members and a separate listserv for each subcommittee created.
- Draft meeting minutes quickly after each meeting. Meeting notes should be detailed enough to capture the discussions but not verbatim. (If needed, the NRC can review the minutes before they are distributed.)
- Bulleted points generally work well to remind people what was discussed. Key content for notes include:
  - Date and time of meeting
  - Participants
  - Agenda
  - What was discussed for each agenda item
  - Next meeting date
  - Action items and assignments (action items should be emailed separately to draw attention to them)
- Communicate via mail, email, telephone, and/or in-person between quarterly meetings to maintain relationships with members and to continue work on action items.
- Forward EMSC *QuickNews* and other State/Federal EMSC updates to keep committee members involved.

- Distribute drafts or template protocols, agreements, and/or guidelines for review and approval at least 30 days prior to the quarterly meeting.
- Conduct quarterly meetings by conference call or in-person. It is strongly recommended that grantees conduct at least two face-to-face meetings and two conference call meetings each year to fulfill the advisory board meeting requirement.
- Have members evaluate all meetings to gain feedback for possible improvements. Contact the NRC for a sample meeting evaluation form.

Common Challenges of Advisory Committees

Non-participatory Committee Members. Sometimes committee members are not able to participate in meetings consistently due to other work-related priorities or because they serve on multiple advisory committees/councils. For this reason, some members may demonstrate less interest in the EMSC Advisory Committee and attend meetings less frequently. Other members may view sporadic attendance as a distraction from the tasks at hand. It is difficult to weigh the benefits of their position as a committee member and the need to seek a replacement representative. This may not be an easy task for the EMSC manager. If non-attendance is negatively influencing the engagement of other committee members and/or delaying progress on grant initiatives, changes in representatives may be needed.

Hints to maintain active attendance:

- Ensure meetings start and end on time. Should there be a need to continue discussions with individual members on specific tasks, continue these discussions outside of the meeting.
- Allow those unable to attend meetings in person to join by telephone.
- Communicate frequently.
- Report on progress being made by sending monthly updates to members on the status of program initiatives.
- Regularly seek reports from each member who accepted a task assignment.
- If a member is not able to attend, ask them to send a replacement from their office.
- Publicly acknowledge membership participation through State newsletters or in other venues to thank those who participate.

Disruptive Committee Members. Disruptive committee members are a challenge; they can interject their personal agendas into meetings and do not focus on the task at hand. Disruptive members are those who focus on a problem, vent frustrations about the system, or do not want to discuss solutions.

Hints to manage such members:

- Stay focused and ask that off-the-topic discussions be taken off-line after the meeting.

- Make progress toward meeting the Performance Measures and improving pediatric emergency care the focus of each EMSC Advisory Committee meeting.

- Always steer conversations towards solutions. Progress will stall once a grantee has entertained a members' constant focus on the negative instead of the positive. Ask any particularly negative person for a recommendation on how to solve the problem.

- One recommendation to inspire an unproductive/disruptive member is to offer your help to overcome obstacles. Occasionally, other advisory members will volunteer to help as well. As a result, you will gain control of the situation and set a standard and expectation of all members. This may create a competitive environment and entice the challenged member to overcome any barriers encountered.

Building Member Consensus

During EMSC Advisory Committee meetings, seek feedback from all members. Giving a voice to all members validates how valuable their membership is and will ensure open communication and collaboration among the members. Provide ample time for members to discuss issues and recommendations. Before moving on to the next item on the agenda, summarize the discussion so that all members are clear on conclusions, action steps, and assignments.

Performance Measure 79 (Formerly 68b) – Pediatric Representation on the EMS Board

The degree to which States/Territories have established permanence of EMSC in the State/Territorial EMS system.

Goal for this measure is:

- **To increase the number of States/Territories that have established permanence of EMSC in the State/Territorial EMS system.**

Significance of Measure

The EMS Board in a State/Territory is the decision-making body for EMS rules, regulations, and procedures. By incorporating pediatric representation on the State/Territorial EMS Board, there is an assurance that pediatric issues will be addressed in EMS agendas, goals, practices, and policies.

For additional information on the importance of this measure, refer to the policy resources and websites listed below. Appendix A includes an annotated bibliography for each reference.

Policy Resources

- American Academy of Pediatrics, Committee on State Government Affairs, Government Affairs Handbook, 1992.
- Amidei, Nancy, *So You Want to Make a Difference,* 1997.
- State Legislative Leaders Foundation, State Legislative Leaders: Keys to Effective Legislation for Children and Families, 1995.

Websites *(of professional organizations from which pediatric representatives could be recruited)*

- American Academy of Pediatrics - http://www.aap.org/.
- American Hospital Association - http://www.aha.org/.
- Emergency Nurse Association - http://www.ena.org/.
- Family Voices – http://www.familyvoices.org/.
- National Association of EMS Directors - http://www.nasemsd.org/.
- National Association of EMT's - http://www.naemt.org/.
- National Association of School Nurses – http://www.nasn.org/.
- National Highway Traffic Safety Administration - http://www.nhtsa.dot.gov/.

Definitions

EMS Board: The EMS Board within the State/Territory refers to the State/Territory governing entity or body that provides oversight for and has the primary responsibility and authority of advising on EMS issues. The EMS Boards' oversight and authority ultimately affects the

decision-making process. The EMS Board may have a variety of names in different States/Territories. The structure of EMS oversight could be referred to as an EMS advisory committee or similar reference. If the State/Territory does not have an EMS Board, please consult with the NRC.

Incorporation: "Incorporation" of pediatric representation means the existence of a formal, designated voting position for a pediatric representative on the EMS Board. In addition, a State/Territory mandate must exist to have a pediatric representative on the EMS Board. Without an official Board member, there is no guarantee that pediatric considerations will be taken into account or considered for inclusion in EMS rule or regulation, even if presented by the EMSC Advisory Committee.

Pediatric representation*:* Pediatric representation will be defined by each State/Territory. Examples of pediatric representatives include, but are not limited to:

- Practicing pediatricians
- Pediatric critical care physicians
- Board-certified pediatric emergency physicians
- Neonatologists
- Pediatric rehabilitation physicians
- Registered nurses with pediatric interests (e.g. PICU, Peds ED, CSHCN, APLS/PALS/PCEP instructors, or other pediatric experience not named)
- EMTs/Paramedics with pediatric interests (e.g. PICU, Peds ED, CSHCN, APLS/PALS/PEPP/PPC instructors, or other pediatric experience not named)
- Pediatric surgeons
- Parent/family representative

Data Collection Methods

This measure does not require data collection from the grantee. To meet this measure, there must be a pediatric representative on the EMS Board and a State/Territory mandate which requires pediatric representation on the EMS board. This information will be used to calculate whether the measure has been met.

Note: the requirement for this performance measure is a State/Territory mandate for the pediatric representative on the EMS board. State/Territories that currently have a pediatric representative on the Board, but do not have the position mandated, will not meet the measure.

Supporting documentation should be available to support EHB entries and may be requested by HRSA. Supporting documentation for this measure will be a copy of the State/Territory mandate describing requirements for a formal, designated voting pediatric representative on the State/Territory EMS Board.

EHB Data Worksheet for Performance Measure 79:

This worksheet is provided to help you prepare the numbers you will need when entering data into the Electronic Handbook. *An actual screen shot of the form grantees will be required to complete in the HRSA Electronic Handbook will be provided at a later date.* The data for Performance Measure 79 (formerly 68a, 68b, and 68c) will all be entered into one inclusive data table. Progress scores will be based on the questions below; the "yes" answers will be summed together to calculate a total number of elements your grant program has established (possible 0-5 score).

Performance Measure 79: The degree to which the State/Territory has established permanence of EMSC in the State/Territorial EMS system.

You will be asked for the following:

Components to Promote Permanence of EMSC (Pediatric Representation on the EMS Board):
You will be asked to answer Yes or No to the following questions:

There is pediatric representation on the EMS Board: ______________ (Yes/No)

There is a State/Territory mandate requiring pediatric representation on the EMS Board: ______________ (Yes/No)

Strategic Planning

Some specific strategic planning activities grantees may undertake to effect system change and work toward achieving this measure include:

- Assess the reasons why the State/Territory has not incorporated pediatric representation on the State/Territory EMS Board.
- Engage the EMSC Advisory Committee and other stakeholders to discuss barriers/challenges to incorporating pediatric representation on the State/Territory EMS Board. Brainstorm solutions with these individuals.
- Engage the EMS Board in a discussion regarding the addition of a pediatric position.
- Engage pediatric champions in the State/Territory (such as State/Territory level pediatric leaders or pediatric friendly individuals) and the EMSC parent representative to assist in making a case for the pediatric representative.
- Determine the feasibility of the State/Territory to incorporate pediatric representation on the State/Territory EMS Board.

Performance Measure 79 (Formerly 68c) – Full-time EMSC Manager

The degree to which States/Territories have established permanence of EMSC in the State/Territorial EMS system.

Goal for this measure is:

- To increase the number of States/Territories that have established permanence of EMSC in the State/Territorial EMS system.

Significance of Measure

This performance measure emphasizes the establishment of one full-time EMSC manager that is dedicated solely to the EMSC Program. The State EMSC manager is an integral staff member of the EMSC Program tasked to manage and coordinate the activities of the program. Having at least one full-time manager dedicated solely to the EMSC Program is an indication that the program is achieving permanence in the State/Territorial EMS system.

For additional information on the importance of this measure, refer to the policy resources listed below. Appendix A includes an annotated bibliography for each reference.

Policy Resources

- American Academy of Pediatrics, Committee on State Government Affairs, Government Affairs Handbook, 1992.
- Amidei, Nancy, *So You Want to Make a Difference,* 1997.
- State Legislative Leaders Foundation, State Legislative Leaders: Keys to Effective Legislation for Children and Families, 1995.

Definitions

State/Territory, Federal, and/or other-funded*:* State/Territory-funded refers to any funds provided by State/Territorial government organizations or the State/Territorial legislature (e.g., line item in the State/Territorial budget) to support the EMSC manager position. Federal funding refers to any funding received from a Federal government agency. Other funding refers to any funding received from other sources, such as professional, private, and/or philanthropic groups (e.g., foundations, non-profits).

Solely: The EMSC manager's effort is dedicated 100% to the EMSC Program, EMSC activities, or other EMSC-related projects. The EMSC manager may have other responsibilities from the performance measures, but they must be EMSC-related

priorities. Grantees need one individual that is designated as the full-time equivalent (FTE) for EMSC and responsible for the program. If the position is split among multiple individuals, EMSC Program goals may become a lower priority than other activities.

Data Collection Methods

This measure does not require data collection. To meet this measure, there has to be a State/Territory, Federal, and/or other-funded FTE for an EMSC manager that is dedicated solely to the EMSC Program. Grantees will need to complete the EHB form for this measure.

Supporting documentation should be available to support EHB entries and may be requested by HRSA. Supporting documentation for this measure will be the name and job description for the full-time EMSC manager.

EHB Data Worksheet for Performance Measure 79:

A worksheet has been provided to help you prepare the numbers you will need when entering data into the Electronic Handbook. *An actual screen shot of the form grantees will be required to complete in the HRSA Electronic Handbook will be provided at a later date.* The data for Performance Measure 79 (formerly 68a, 68b, and 68c) will be entered into one inclusive data table. Progress scores will be based on the questions below; the "yes" answers will be summed together to calculate a total number of elements your grant program has established (possible 0-5 score).

Performance Measure 79: The degree to which the State/Territory has established permanence of EMSC in the State/Territorial EMS system.

You will be asked for the following:

Components to Promote Permanence of EMSC (Full-time EMSC Manager):
You will be asked to answer Yes or No to the question below:

There is one full-time EMSC Manager that is dedicated solely to the EMSC Program: ______________ (Yes/No)

Strategic Planning

Some specific strategic planning activities grantees can undertake to effect system changes in their States/Territories, which are needed to meet this measure, include:

- Assess the reasons why the State/Territory has not established a State/Territory, Federal, and/or other-funded FTE for an EMSC manager.
- Engage the EMSC Advisory Committee, EMS director, EMS medical director, and other stakeholders to discuss the barriers/challenges to establishing a State/Territory, Federal, and/or other-funded FTE for an EMSC manager that is dedicated solely to the EMSC Program. Brainstorm solutions with these individuals.
- Determine the feasibility of the State/Territory to establish a State/Territory, Federal, and/or other-funded FTE for an EMSC manager.

Performance Measure 80 (Formerly 68d)

The degree to which the State/Territory has established permanence of EMSC in the State/Territorial EMS system by integrating EMSC priorities into statutes/regulations.

Goal for this measure is that by 2011:

- **The State/Territory integrated the six EMSC priorities into existing EMS or hospital/healthcare facility statutes/regulations.**

Significance of Measure

For the EMSC Program to be sustained in the long-term and reach permanence, it is important for the Program's priorities to be integrated into existing State/Territory mandates. Integration of the EMSC priorities into mandates will help ensure pediatric emergency care issues and/or deficiencies are being addressed State/Territory-wide for the long-term.

For additional information on the importance of this measure, refer to the policy resources listed below. Appendix A includes an annotated bibliography for each reference.

Policy Resources

- American Academy of Pediatrics, Committee on State Government Affairs, Government Affairs Handbook, 1992.
- Amidei, Nancy, *So You Want to Make a Difference,* 1997.
- State Legislative Leaders Foundation, State Legislative Leaders: Keys to Effective Legislation for Children and Families, 1995.

Definitions

Priorities: The priorities of the EMSC Program include the following six areas:

1. BLS and ALS pre-hospital provider agencies in the State/Territory have **on-line** and **off-line** pediatric medical direction available from dispatch through patient transport to a definitive care facility.

2. BLS and ALS patient care units in the State/Territory have the essential pediatric equipment and supplies, as outlined in the nationally recognized and endorsed guidelines.

3. The existence of a statewide, territorial, or regional standardized system that recognizes hospitals that are able to stabilize and/or manage
    - **pediatric medical emergencies**
    - **trauma**

4. Hospitals in the State/Territory have written inter-facility transfer guidelines that cover pediatric patients and include the following components of transfer:
    - Defined process for initiation of transfer, including the roles and responsibilities of the referring facility and referral center (including responsibilities for requesting transfer and communication).
    - Process for selecting the appropriate care facility.
    - Process for selecting the appropriately staffed transport service to match the patient's acuity level (level of care required by patient, equipment needed in transport, etc.).
    - Process for patient transfer (including obtaining informed consent).
    - Plan for transfer of patient medical record.
    - Plan for transfer of copy of signed transport consent.
    - Plan for transfer of personal belongings of the patient.
    - Plan for provision of directions and referral institution information to family.

5. Hospitals in the State/Territory have written inter-facility transfer agreements that cover pediatric patients.

6. The adoption of requirements by the State/Territory for pediatric emergency education for the license/certification renewal of BLS and ALS providers.

Data Collection Methods

This measure does not require data collection from the grantee.

Supporting documentation for this measure should be available to support EHB entries and may be requested by HRSA. Supporting documentation for this measure includes a copy of the mandates which state the requirements that are related to each of the six EMSC priorities.

If grantees have not integrated the six EMSC priorities into existing mandates, supporting documentation will be required to demonstrate progress made towards integrating the EMSC priorities into mandates. The type of supporting documentation to submit to the EMSC Program will depend on where the State/Territory falls on the scale in Exhibit A.

EHB Data Worksheet for Performance Measure 80:

The following is a worksheet to help you prepare the numbers you will need when entering data into the Electronic Handbook. *An actual screen shot of the form grantees will be required to complete in the HRSA Electronic Handbook will be provided at a later date.* The data for Performance Measure 80 will all be entered into one inclusive data table. Progress scores will be based on the questions below; the "yes" answers will be summed together to calculate a total number of elements your grant program has established into statutes/regulations (possible 0-8 score).

Performance Measure 80: The degree to which the State/Territory has established permanence of EMSC in the State/Territorial EMS system by integrating EMSC priorities into statutes/regulations.

You will be asked for the following:

EMSC Priorities Integrated into Statutes/Regulations:
You will be asked to answer Yes or No to the eight questions below:

There is a statute/regulation for pediatric on-line medical direction for ALS and BLS pre-hospital provider agencies: ______________ (Yes/No)

There is a statute/regulation for pediatric off-line medical direction for ALS and BLS pre-hospital provider agencies: ______________ (Yes/No)

There is a statute/regulation for pediatric equipment for BLS and ALS patient care units: ______________ (Yes/No)

There is a statute/regulation for a hospital recognition system for identifying hospitals capable of dealing with pediatric medical emergencies: ______________ (Yes/No)

There is a statute/regulation for a hospital recognition system for identifying hospitals capable of dealing with pediatric traumatic emergencies: ______________ (Yes/No)

There is a statute/regulation for written inter-facility transfer guidelines that cover pediatric patients and that include specific components of transfer: ______________ (Yes/No)

There is a statute/regulation for written inter-facility transfer agreements that cover pediatric patients: ______________ (Yes/No)

There is a statute/regulation for the adoption of requirements for continuing pediatric education during recertification of BLS and ALS providers: ______________ (Yes/No)

Strategic Planning

Some specific strategic planning activities grantees can undertake to effect system changes in their States/Territories, which are needed to meet this measure, include:

- Review existing State/Territory mandates and discuss gaps in the integration of EMSC priorities with the EMSC Advisory Committee.
- Assess the reasons why the State/Territory has not integrated EMSC priorities into existing mandates.
- Engage the family representative to brainstorm ideas for effecting policy change.
- Engage State legislators/officials and hospital representatives to discuss the barriers/challenges to integrating EMSC priorities into existing mandates. Brainstorm solutions with these individuals.
- Determine the feasibility of the State/Territory to integrate the EMSC priorities into existing mandates.

Guidelines for annual targets for this measure:

Year	Target Note: Refer to scoring chart in the EHB worksheet section
2006 and 2007	Achieve a score of 1 for integration of priorities
2008	Achieve a score of 2 for integration of priorities
2009	Achieve a score of 5 for integration of priorities
2010	Achieve a score of 7 for integration of priorities
2011	The integration of ALL EMSC priorities into existing EMS or hospital/healthcare facility mandates

Writing Points for Drafting Legislation and Examples of Statutes Mandating EMSC Priorities

One way to achieve Performance Measure 80 is by working with your advisory committee members towards the enactment of state or territorial legislation related to each EMSC priority, which are Performance Measures 71-78. When legislation is enacted, or signed into law, it is integrated into a state's statutory code, an official compilation of all of the laws passed by the legislature and currently in effect in a state or territory. Codified legislation is referred to as a statute.

For those inexperienced with drafting a legislative proposal, writing points as well as examples of state statutes mandating each EMSC priority are provided. The following examples are meant to be a starting point for drafting a proposal and not model legislation itself.

IMPORTANT: Please remember that federal law prohibits federal grantees, including EMSC grantees, from using grant dollars to lobby legislators. Using your grant dollars means you cannot lobby during work hours. Remember to identify yourself as acting, writing or speaking on behalf of your EMSC grant when lobbying on your personal or non-EMSC funded work time. Also, resources (e.g., a computer or telephone) paid for solely with grant dollars may not be used for lobbying activities.

To lobby is to seek to influence the introduction, passage, amending, or defeat of legislation.

For more information, please consult the EMSC National Resource Center's *EMSC Project Management and Leadership Guide* or contact the EMSC NRC at 202-476-4927.

State governments function similarly to the federal government, operating with judicial, legislative, and executive branches; the latter two are most important in supporting a state EMSC program. The activities of these branches, however, are regulated by a state constitution and, therefore, differ from state to state. While the suggestions and statutory examples that follow are intended to guide your efforts, please keep in mind that state rules and procedures will affect the final content of your legislative proposal. You may want to speak with your department head or legal counsel regarding these specific rules and processes.

Also keep in mind that a legislative proposal is just that – a proposal. The purpose is to put a concept on paper. Do not concern yourself with the technicalities of the draft; most likely, a state legislator will submit the proposal to the state's legislative counsel or the like, whose job it is to edit the proposal to ensure it complies with state rules and procedures.

In addition, many states or territories may already have laws in place related to, but not specifically corresponding to, the EMSC priorities. For example, there may be a state law mandating on-line and off-line medical direction, but not specifically pediatric medical direction. In this case, you may be able to amend existing law to add pediatric considerations as opposed to enacting a new law on medical direction. If you are not familiar with the state's existing laws, consult with your department head or legal counsel. You may also contact the EMSC NRC. The NRC has researched state and territorial laws related to each of the EMSC priorities and can provide this information to grantees upon request. You will find research results below; this research is updated quarterly, so please contact the NRC for the most recent information as warranted.

Writing Points

1. Give Authority

Within state or territorial government, a certain department or departments likely have authority over EMS and EMSC issues, perhaps a department of health, a department of public safety, Office of EMS, or some like entity. Since this department(s) has legal obligations to carry out EMS and EMSC activities, it would be responsible for ensuring implementation of the EMSC priorities as well. Assign the department(s) this responsibility in the legislative language. You may want to work with your department head or legal counsel to identify all sources of authority over emergency medical services, ambulance, hospital, and other performance measure-related activities. You may also want to consider the conditions of participation in public and private insurance programs in your state which operate like mandates for participating providers.

2. Use Mandatory Language and Enforce the Law

Ensure that the department is required to implement the EMSC priorities. Use words such as "shall" and "required" (mandatory) instead of words such as "may" or "permit" (permissive). Permissive language gives the state the option to implement, or not implement, the priorities. In addition, include an enforcement clause and establish penalties for not following the law. A mandate without an enforcement mechanism can be meaningless.

3. Start with Performance Measure Language

Use the definition of each Performance Measure (71-78) as the basis for drafting the substance of the legislative proposal, which outlines specifically what the department is to do (*e.g.,* requiring on-line and off-line pediatric medical direction during an EMS event). You will, however, need to adjust the content according to the state's EMS and EMSC system and terminology. For example, if the state does not use the terms pre-hospital provider agency, medical direction, or Basic Life Support (BLS) or Advanced Life Support (ALS), among other terms defined within the Implementation Manual, you will need to substitute the appropriate, corresponding language.

4. Consider Future Changes

When drafting this content, be specific but not too specific; the legislative proposal should mandate each EMSC priority but leave room for future changes to the performance measures. It is easier to draft a flexible proposal now than it is to amend a very specific legislative mandate in the future.

For example, the 1996 *Guidelines for pediatric equipment and supplies for basic and advanced life support ambulances*, oftentimes referred to as the 1996 ACEP Guidelines, are the basis of Performance Measure 73. Starting in 2009, however, the

new performance measure standard will be based upon the "Equipment for Ambulances" list previously adopted by the American College of Surgeons' Committee on Trauma, the American College of Emergency Physicians, and the National Association of EMS Physicians. Several national organizations have been working to update the pediatric equipment included on this list to create a national standard for such equipment.

Therefore, a legislative proposal on this EMSC priority should not specifically refer to the "1996 ACEP Guidelines or 2009 ACS guidelines." Once the equipment list change takes effect, a mandate using this wording would no longer address the priority. Instead, a legislative proposal could refer to "a national ambulance equipment list that includes pediatric equipment." If the State/Territory itemizes the equipment it requires for ambulances, rather than referring to a national list, it should ensure that the State/Territory list is continually updated. The statute or regulation could designate a state official or department to conduct an annual review to ensure that the required pediatric equipment included on the state's ambulance equipment list(s) are consistent with the required pediatric equipment included on the US Department of Health and Human Service, EMSC Program's recognized national ambulance equipment list. This language is general enough to allow for changes to the equipment list but specific enough to refer to whatever list is being used as the basis for the performance measure

Examples of Statutes Related to EMSC Priorities

Following are the most recent results of the NRC's research on state and territorial laws related to the EMSC priorities. Please contact the NRC for an updated version of this information as warranted.

A majority of these laws were enacted prior to the establishment of the performance measures and may not be an exact match to each EMSC priority. For example, the statute may only apply to the state's trauma system as opposed to the entire EMS system. Within the research results, however, please note several sections of New York Consolidated Laws, Public Health, Article 30C. This law is an example of a statute specifically enacted in response to the performance measures.

Remember, these examples are meant to be a starting point for drafting a proposal and not a one-size-fits-all model. The laws cited are not necessarily sufficient to achieve the EMSC priorities but may be helpful as examples of how other states regulate EMSC activities.

State and Territorial Statutes Authorizing Pediatric Medical Direction

STATE/ TERRITORY	CITATION	DESCRIPTION AS IT RELATES TO PERFORMANCE MEASURE	URL
Guam	Guam Code: Title 10, Div 4, Chap 84, § 84220	Encourages the involvement within the Division of EMS of an "Off-line EMS Medical Control Physician-Pediatrics" to provide off-line medical control for pre-hospital medical care provided specifically to children	http://www.guamcourts.org/CompilerofLaws/GCA/10gca/10gc084.PDF
New York	New York State Consolidated Laws: Public Health, Art 30-C, § 3075	Requires that the Department of Health develop and maintain a system for the provision of prehospital medical oversight, including direct and indirect medical control, for pediatric emergencies	http://public.leginfo.state.ny.us/menugetf.cgi?COMMONQUERY=LAWS

State and Territorial Statutes Authorizing Pediatric Equipment and Supplies for Ambulances

STATE/ TERRITORY	CITATION	DESCRIPTION AS IT RELATES TO PERFORMANCE MEASURE	URL
Louisiana	Louisiana Revised Statutes: Title 40, § 40:1300.104	Requires that the EMSC program establish pediatric equipment guidelines for pre-hospital care	http://www.legis.state.la.us/lss/lss.asp?doc=97298
New Jersey	New Jersey Permanent Statutes: Title 26, § 26:2K-51	Requires that the EMSC program establish pediatric equipment guidelines for pre-hospital care	http://lis.njleg.state.nj.us/cgi-bin/om_isapi.dll?clientID=142735&Depth=2&depth=2&expandheadings=on&headingswithhits=on&hitsperheading=on&infobase=statutes.nfo&record={A48E}&softpage=Doc_Frame_PG42
New York	New York State Consolidated Laws: Public Health, Art 30-C, § 3075	Requires that the Department of Health establish statewide equipment guidelines for basic and advanced life support of pediatric emergencies, consistent with those of national professional organizations concerned with child health and emergency care	http://public.leginfo.state.ny.us/menugetf.cgi?COMMONQUERY=LAWS
Ohio	Ohio Revised Code: Title XLVII, Chap 4765, § 4765.09	Requires that the state board of emergency medical services prepare recommendations on equipment and supplies for ambulances and medical aircraft, including special equipment and supplies required to assist pediatric emergency victims	http://onlinedocs.andersonpublishing.com/oh/lpExt.dll?f=templates&fn=main-h.htm&cp=PORC
Oklahoma	Oklahoma Statutes: Title 63, Chap 1, Art 7, § 63-1-706.12	Requires that the Emergency Medical Services for Children Resource Center develop guidelines for equipment and its use for prehospital pediatric emergency care	http://www.lsb.state.ok.us/OKStatutes/CompleteTitles/os63.rtf
Oregon	Oregon Revised Statutes: Title 36, Chap 431, § 431.671	Requires that the Department of Human Services establish guidelines for necessary prehospital and other pediatric emergency and critical care medical service equipment	http://www.leg.state.or.us/ors/431.html

State and Territorial Statutes Authorizing Pediatric Equipment and Supplies for Ambulances, cont'd

Puerto Rico	Puerto Rico Code: Title 24, Part VII, Chap 146, § 3333	Requires that the Children's Medical Emergencies Prevention and Vigilance Program develop and promote the adoption of regulations related to the medical equipment needed in ambulances to handle pediatric medical emergencies	http://198.187.128.12/puertorico/lpext.dll?f=templates&fn=fs-main.htm&2.0
South Carolina	South Carolina Code of Laws: Title 44, Chap 61, Art 3, § 44-61-330	Requires that the EMSC Program establish pediatric equipment guidelines for pre-hospital care	http://www.scstatehouse.net/CODE/t44c061.htm
Tennessee	Tennessee Code: Title 68, Chap 140, Part 5, § 68-140-521	Requires that the emergency medical services board promulgate regulatory standards on equipment for ambulances to ensure the adequacy of emergency medical services for children	http://198.187.128.12/tennessee/lpext.dll?f=templates&fn=fs-main.htm&2.0
Texas	Texas Statutes: Health and Safety Code, Title 9, Chap 773, § 773.173	Requires that the Texas Board of Health establish guidelines for prehospital and equipment that is necessary and appropriate for the care of a pediatric patient	http://tlo2.tlc.state.tx.us/statutes/docs/HS/content/pdf/hs.009.00.000773.00.pdf
Washington	Revised Code of Washington: Title 70, Chap 70.168, § 70.168.060	Requires that the Department of Health establish minimum standards required for verified prehospital trauma care services, including equipment	http://apps.leg.wa.gov/RCW/default.aspx?cite=70.168.060

State and Territorial Statutes Authorizing the Designation of Hospitals able to Treat Pediatric Emergencies

STATE/ TERRITORY	CITATION	DESCRIPTION AS IT RELATES TO PERFORMANCE MEASURE	URL
Colorado	Colorado Revised Statutes: Title 25, Art 3.5, Part 7, § 25-3.5-703	Requires that the Department of Public Health and Environment designate regional pediatric trauma centers	http://198.187.128.12/colorado/lpext.dll?f=templates&fn=fs-main.htm&2.0
Florida	Florida Statutes: Title 29, Chap 395, Part II, § 395.4001	Defines pediatric trauma center as a hospital that is verified by the Department of Health to be in substantial compliance with pediatric trauma center standards as established by rule of the department and has been approved by the department to operate as a pediatric trauma center	http://www.leg.state.fl.us/STATUTES/index.cfm?App_mode=Display_Statute&Search_String=&URL=Ch0395/SEC4001.HTM&Title=->2008->Ch0395->Section%204001#0395.4001
Missouri	Missouri Revised Statutes: Title 12, Chap 190, § 190.241	Requires that the Department of Health and Senior Services designate hospitals as pediatric or adult/pediatric trauma centers upon application	http://www.moga.mo.gov/statutes/C100-199/1900000241.HTM
Nebraska	Nebraska Revised Statutes: (1) Chap 71, § 71-8240; (2) Chap 71, § 71-8244; (3) Chap 71, § 71-8245	Requires that the Department of Health and Human Services establish (1) minimum standards for pediatric trauma centers and (2) a process for designating pediatric trauma centers, and (3) allows the department to contract for onsite reviews of pediatric trauma centers to determine compliance with required standards	(1) <http://uniweb.legislature.ne.gov/legaldocs/view.php?page=s7182040000>; (2) <http://uniweb.legislature.ne.gov/legaldocs/view.php?page=s7182044000>; (3) <http://uniweb.legislature.ne.gov/legaldocs/view.php?page=s7182045000>
New York	New York State Consolidated Laws: Public Health, Art 30-C, § 3075	Requires that the Department of Health develop and maintain a statewide system for recognition of facilities able to provide pediatric emergency medical and trauma care	http://public.leginfo.state.ny.us/menugetf.cgi?COMMONQUERY=LAWS
Ohio	Ohio Revised Code: Title XXXVII, Chap 3727, § 3727.081	Requires that the Director of Health establish standards and procedures for designating hospitals as level II pediatric trauma centers	http://codes.ohio.gov/orc/3727.081

State and Territorial Statutes Authorizing the Designation of Hospitals able to Treat Pediatric Emergencies, cont'd

Oklahoma	Oklahoma Statutes: Title 63, Chap 1, Art 7, § 63-1-706.12	Requires that the Emergency Medical Services for Children Resource Center develop guidelines for approval of emergency medical service facilities as Emergency Departments Approved for Pediatrics (EDA-P) and for rating the ability of a facility to provide pediatric emergency medical services	http://www.lsb.state.ok.us/OKStatutes/CompleteTitles/os63.rtf
Oregon	Oregon Revised Statutes: Title 36, Chap 431, § 431.671	Requires that the Department of Human Services establish guidelines for the approval of emergency and critical care medical service facilities for pediatric care and for the designation of specialized regional pediatric critical care centers and pediatric trauma care centers	http://www.leg.state.or.us/ors/431.html
Texas	Texas Statutes: Health and Safety Code, Title 9, Chap 773, § 773.173	Requires that the Texas Board of Health adopt rules to provide guidelines for categorization of a facility's pediatric capability	http://tlo2.tlc.state.tx.us/statutes/docs/HS/content/pdf/hs.009.00.000773.00.pdf
Washington	Revised Code of Washington: Title 70, Chap 70.168, § 70.168.070	Requires that the Department of Health establish a process for designating hospitals authorized to provide level I, II, and III pediatric trauma care services	http://apps.leg.wa.gov/RCW/default.aspx?cite=70.168.070

State and Territorial Statues Authorizing Pediatric Inter-facility Transfer Guidelines or Agreements

STATE/ TERRITORY	CITATION	DESCRIPTION AS IT RELATES TO PERFORMANCE MEASURE	URL
California	California Law: Health and Safety Code, Div 2.5, Chap 12, § 1799.205	Requires that a local EMS agency that develops an EMSC Program incorporate an EMSC component, including interfacility consultation, transfer, and transport, into its EMS plan	http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=01001-02000&file=1799.202-1799.207
Louisiana	Louisiana Revised Statutes: Title 40, § 40:1300.104	Requires that the Emergency Medical Services for Children Program establish guidelines for referring children to the appropriate emergency treatment facility and for an interhospital transfer system for critically ill or injured children	http://www.legis.state.la.us/lss/lss.asp?doc=97298
Massachusetts	General Laws of Massachusetts: Chap 111C, § 11	Requires that the Department of Public Health develop a trauma care system, including transfer policies for children	http://www.mass.gov/legis/laws/mgl/111c-11.htm
New Jersey	New Jersey Permanent Statutes: Title 26, § 26:2K-51	Requires that the EMSC Program establish guidelines for referring children to the appropriate emergency treatment facility and for an interhospital transfer system for critically ill or injured children	http://lis.njleg.state.nj.us/cgi-bin/om_isapi.dll?clientID=25274980&Depth=2&depth=2&expandheadings=on&headingswithhits=on&hitsperheading=on&infobase=statutes.nfo&record={A48E}&softpage=Doc_Frame_PG42
New York	New York State Consolidated Laws: Public Health, Art 30-C, § 3075	Requires that the Department of Health promote the use of facilities able to provide pediatric emergency medical and trauma care with written protocols or transfer agreements	http://public.leginfo.state.ny.us/menugetf.cgi?COMMONQUERY=LAWS
Ohio	Ohio Revised Code: (1) Title XXXVII, Chap 3727, § 3727.09; (2) Title XXXVII, Chap 3727, § 3727.10	Requires that (1) trauma care protocols include policies and procedures regarding the transfer of pediatric patients to appropriate pediatric trauma centers, hospitals enter into written pediatric trauma transfer agreements, and (2) no hospital transfer a pediatric trauma patient in a manner that is inconsistent with patient transfer agreements	(1) <http://codes.ohio.gov/orc/3727.09>; (2) <http://codes.ohio.gov/orc/3727.10>

State and Territorial Statues Authorizing Pediatric Inter-facility Transfer Guidelines or Agreements, cont'd

Oklahoma	Oklahoma Statutes: Title 63, Chap 1, Art 7, § 63-1-706.12	Requires that the Emergency Medical Services for Children Resource Center develop guidelines and protocols for prehospital and hospital facilities which encompass all levels of pediatric emergency medical services, including, but not limited to transfers and referrals	http://www.lsb.state.ok.us/OKStatutes/CompleteTitles/os63.rtf
Oregon	Oregon Revised Statutes: Title 36, Chap 431, § 431.671	Requires that the Department of Human Services establish guidelines for referring children to appropriate emergency or critical care medical facilities and for an interfacility transfer system for critically ill or injured children	http://www.leg.state.or.us/ors/431.html
South Carolina	South Carolina Code of Laws: Title 44, Chap 61, Art 3, § 44-61-330	Requires that the EMSC Program establish guidelines for referring children to the appropriate emergency treatment facility and for an interhospital transfer system for critically ill or injured children	http://www.scstatehouse.net/CODE/t44c061.htm
Tennessee	Tennessee Code: (1) Title 68, Chap 11, Part 2, § 68-11-251; (2) Title 68, Chap 140, Part 5, § 68-140-521	Requires that the emergency medical services board promulgate regulatory standards to ensure the adequacy of emergency medical services for children, including ensuring appropriate triage, stabilization, and referral of patients	http://michie.lexisnexis.com/tennessee/lpext.dll?f=templates&fn=main-h.htm&cp=
Texas	Texas Statutes: Health and Safety Code, Title 9, Chap 773, § 773.173	Requires that the Texas Board of Health provide for triage, transfer, and transportation policies for pediatric care and establish guidelines for an interhospital transfer system for a critically ill or injured pediatric patient	http://tlo2.tlc.state.tx.us/statutes/docs/HS/content/pdf/hs.009.00.000773.00.pdf
Virginia	Code of Virginia: Title 32.1, Chap 4, § 32.1-111.3	Requires that the Board of Health develop a statewide prehospital and interhospital Trauma Triage Plan to promote access to care for pediatric trauma patients, including through criteria for interhospital triage and transport of patients	http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+32.1-111.3

State and Territorial Statutes Authorizing Pediatric Emergency Education for Recertification of Pre-hospital providers

STATE/ TERRITORY	CITATION	DESCRIPTION AS IT RELATES TO PERFORMANCE MEASURE	URL
Florida	Florida Statutes: Title XXIX, Chap 401, Part III, § 401.2715	Requires that the Department of Health establish criteria for emergency medical technician and paramedic recertification training and that such criteria include the performance parameters for pediatric emergency medical clinical care	http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=Ch0401/SEC2715.HTM&Title=->2005->Ch0401->Section%202715#0401.2715
Louisiana	Louisiana Revised Statutes: Title 40, § 40:1300.104	Requires that the EMSC program establish continuing education programs for emergency medical services personnel that include training in the emergency care of infants and children	http://www.legis.state.la.us/lss/lss.asp?doc=97298
Minnesota	Minnesota Statutes: Chap 144E, § 144E.28	Requires that an applicant for renewal of certification as an EMT, EMT-I, or EMT-P complete continuing education consistent with the United States Department of Transportation National Standard Curriculum or its equivalent	http://ros.leg.mn/bin/getpub.php?pubtype=STAT_CHAP_SEC&year=current§ion=144E.28&image.x=28&image.y=11
New Jersey	New Jersey Permanent Statutes: Title 26, § 26:2K-51	Requires that the EMSC program establish continuing education programs for emergency medical services personnel that include training in the emergency care of infants and children	http://lis.njleg.state.nj.us/cgi-bin/om_isapi.dll?clientID=141837&Depth=2&depth=2&expandheadings=on&headingswithhits=on&hitsperheading=on&infobase=statutes.nfo&record={A48E}&softpage=Doc_Frame_PG42
New York	New York State Consolidated Laws: Public Health, Art 30-C, § 3075	Requires that the Department of Health develop, maintain, and offer statewide educational programs for continuing education in pediatric prehospital basic and advanced life support	http://public.leginfo.state.ny.us/menugetf.cgi?COMMONQUERY=LAWS
Ohio	Ohio Revised Code: Title XLVII, Chap 4765, § 4765.11 and § 4765.16	Requires that the state board of emergency medical services adopt curricula for pediatric emergency medical services continuing education programs for EMTs-basic, EMTs-I, and paramedics	http://onlinedocs.andersonpublishing.com/oh/lpExt.dll?f=templates&fn=main-h.htm&cp=PORC

State and Territorial Statutes Authorizing Pediatric Emergency Education for Recertification of Pre-hospital providers, cont'd

Oklahoma	Oklahoma Statutes: Title 63, Chap 1, Art 7, § 63-1-706.12	Requires that the Emergency Medical Services for Children Resource Center provide continuing professional education programs and guidelines on pediatric emergency medical care for emergency medical services personnel	http://www.lsb.state.ok.us/OKStatutes/CompleteTitles/os63.rtf
Oregon	Oregon Revised Statutes: Title 36, Chap 431, § 431.671	Requires that the Department of Human Services establish guidelines for continuing professional education programs for emergency medical services personnel, including training in the emergency care of infants and children	http://www.leg.state.or.us/ors/431.html
South Carolina	South Carolina Code of Laws: Title 44, Chap 61, Art 3, § 44-61-330	Requires that the EMSC Program establish continuing education programs for emergency medical services personnel that include training in the emergency care of infants and children	http://www.scstatehouse.net/CODE/t44c061.htm

State and Territorial Statutes Authorizing EMSC Advisory Committees

STATE/ TERRITORY	CITATION	DESCRIPTION AS IT RELATES TO PERFORMANCE MEASURE	URL
California	California Law: Health and Safety Code, Div 2.5, Chap 12, § 1799.204	Establishes an EMSC technical advisory committee	http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=01001-02000&file=1799.202-1799.207
Florida	Florida Statutes: Title XXIX, Chap 401, Part III, § 401.245	Establishes a committee to advise the Department of Health on matters concerning preventative, prehospital, hospital, rehabilitative, and other posthospital medical care for children	http://www.leg.state.fl.us/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=Ch0401/SEC245.HTM&Title=->2006->Ch0401->Section%20245#0401.245
Louisiana	Louisiana Revised Statutes: Title 40, § 40:1300.105	Creates an EMSC Advisory Council	http://www.legis.state.la.us/lss/lss.asp?doc=97299
New Jersey	New Jersey Permanent Statutes: Title 26, § 26:2K-52	Creates an EMSC Advisory Council	http://lis.njleg.state.nj.us/cgi-bin/om_isapi.dll?clientID=19682809&Depth=2&depth=2&expandheadings=on&headingswithhits=on&hitsperheading=on&infobase=statutes.nfo&record={A48E}&softpage=Doc_Frame_PG42
New York	New York State Consolidated Laws: Public Health, Art 30-C, § 3074	Continues establishment of the state emergency medical services for children advisory committee	http://public.leginfo.state.ny.us/menugetf.cgi?COMMONQUERY=LAWS
Oregon	Oregon Revised Statutes: Title 36, Chap 431, § 431.671	Establishes an EMSC Advisory Committee	http://www.leg.state.or.us/ors/431.html
Puerto Rico	Puerto Rico Code: Title 24, Part VII, Chap 146	Creates an Interagency Commission for Children's Medical Emergencies	http://198.187.128.12/puertorico/lpext.dll?f=templates&fn=fs-main.htm&2.0
Tennessee	Tennessee Code: Title 68, Chap 11, Part 2, § 68-11-251	Establishes the committee on pediatric emergency care	http://www.michie.com/tennessee/lpext.dll?f=templates&fn=main-h.htm&cp=tncode
Texas	Texas Statutes: Health and Safety Code, Title 9, Chap 773, § 773.173	Creates an advisory council tasked with advising the Texas Board of Health on all matters related to emergency medical services, including advising the board on adopting minimum standards and objectives to implement a pediatric emergency services system	http://tlo2.tlc.state.tx.us/statutes/docs/HS/content/pdf/hs.009.00.000773.00.pdf

State and Territorial Statutes Authorizing Pediatric Representation on EMS-related board

STATE/ TERRITORY	CITATION	DESCRIPTION AS IT RELATES TO PERFORMANCE MEASURE	URL
Alabama	Code of Alabama: (1) Title 22, Chap 18, Art 1, § 22-18-5; (2) Title 22, Chap 18, Art 3, § 22-18-40	Requires pediatric representation on (1) an advisory board related to ambulances and (2) the State Emergency Medical Control Committee	http://www.legislature.state.al.us/CodeofAlabama/1975/coatoc.htm
Arizona	Arizona Revised Statutes: (1) Title 36, Chap 21.1, Art 1, § 36-2203.01; (2) Title 36, Chap 21.1, Art 1, § 36-2222	Requires consideration of (1) members of the state chapter of the "American college of pediatrics" for appointment to the medical direction commission and (2) physicians with experience in pediatrics for appointment to the trauma advisory board	(1) <http://www.azleg.state.az.us/FormatDocument.asp?inDoc=/ars/36/02203-01.htm&Title=36&DocType=ARS> ;(2) <http://www.azleg.state.az.us/FormatDocument.asp?inDoc=/ars/36/02222.htm&Title=36&DocType=ARS>
Arkansas	Arkansas Code: Title 20, Chap 13, Subchap 8, § 20-13-807	Requires EMSC program representation on the Trauma Advisory Council	http://www.arkleg.state.ar.us/NXT/gateway.dll?f=templates&fn=default.htm&vid=blr:code
Colorado	Colorado Revised Statutes: Title 25, Art 3.5, Part 1, § 25-3.5-104	Requires pediatric representation on the emergency medical and trauma services advisory council	http://198.187.128.12/colorado/lpext.dll?f=templates&fn=fs-main.htm&2.0
Delaware	Delaware Code: Title 16, Part X, Chap 97, § 9704	Requires pediatric representation on the Trauma System Committee	http://www.delcode.state.de.us/title16/c097/index.htm#TopOfPage
District of Columbia	District of Columbia Code: Title 7, Subtitle J, Chap 23B, § 7-2341.22	Requires pediatric trauma care representation on the Emergency Medical Services Advisory Council	http://weblinks.westlaw.com/result/default.aspx?cite=UUID%28NA4060F102F%2D3B11DEB84AD%2DFBCD71C96E9%29&db=1000869&findtype=VQ&fn=%5Ftop&ifm=NotSet&pbc=4BF3FCBE&rlt=CLID%5FFQRLT925032419295&rp=%2FSearch%2Fdefault%2Ewl&rs=WEBL9%2E05&service=Find&spa=DCC%2D1000&sr=TC&vr=2%2E0
Hawaii	Hawaii Revised Statutes: Vol 106, Chap 321, § 321-225	Requires pediatric representation on the emergency medical services advisory committee	http://www.capitol.hawaii.gov/hrscurrent/Vol06_Ch0321-0344/HRS0321/HRS_0321-0225.HTM
Idaho	Idaho Statutes: Title 56, Chap 10, § 56-1013A	Requires pediatric representation on the Idaho emergency medical services physician commission	http://www3.state.id.us/cgi-bin/newidst?sctid=560100013A.K

State and Territorial Statutes Authorizing Pediatric Representation on EMS-related board, cont'd

Iowa	Iowa Code: Title IV, Subtitle 3, Chap 147A, Subchap II, § 147A.24	Permits recommendations from the American Academy of Pediatrics for representatives to the trauma system advisory council	http://coolice.legis.state.ia.us/Cool-ICE/default.asp?category=billinfo&service=IowaCode
Kentucky	Kentucky Revised Statutes: Title XXVI, Chap 311A, § 311A.015	Requires pediatric representation on the Board of EMS	http://www.lrc.ky.gov/KRS/311A00/015.PDF
Louisiana	Louisiana Revised Statutes: (1) Title 40, § 1232.2; (2) Title 40, § 40:1235; (3) Title 40, § 40:1236.2; (4) Title 40, § 40:2844	Requires pediatric representation on (1) the Louisiana Emergency Medical Services Certification Commission and (2) the Ambulance Standards Committee of the EMS Task Force; (3) requires a representative of the EMSC Advisory Council to serve on an advisory committee on medical and safety equipment required on air ambulances; (4) requires pediatric representation on the Louisiana Emergency Response Network Board	(1) <http://www.legis.state.la.us/lss/lss.asp?doc=97092>; (2) <http://www.legis.state.la.us/lss/lss.asp?doc=97103>; (3) <http://www.legis.state.la.us/lss/lss.asp?doc=97114>; (4) <http://www.legis.state.la.us/lss/lss.asp?doc=285262>
Maryland	Maryland Code: Education, Title 13, Subtitle 5, § 13-511	Requires pediatric representation on the EMS Advisory Council	http://198.187.128.12/maryland/lpext.dll?f=templates&fn=fs-main.htm&2.0
Massachusetts	General Laws of Massachusetts: Chap 111C, § 13	Requires representation by an expert in EMS for children on the EMS system advisory board	http://www.mass.gov/legis/laws/mgl/111c-13.htm
Minnesota	Minnesota Statutes: (1) Chap 144, § 144.608; (2) Chap 144E, §144E.01	Requires pediatric representation on (1) the Trauma Advisory Council and (2) the EMS Regulatory Board	(1) <http://www.revisor.leg.state.mn.us/data/revisor/statutes/2005/144/608.html>; (2) <http://www.revisor.leg.state.mn.us/data/revisor/statutes/2005/144E/01.html>
Nevada	Nevada Revised Statutes: Title 40, Chap 450B, § 450B.151	Requires that the Committee on Emergency Medical Services include an ex officio member who is a representative of a committee or group which focuses on the provision of emergency medical services to children and who is nominated by that committee or group	http://leg.state.nv.us/nrs/NRS-450B.html#NRS450BSec151

State and Territorial Statutes Authorizing Pediatric Representation on EMS-related board, cont'd

New Hampshire	New Hampshire Revised Statutes: (1) Title XII, Chap 153-A, § 153-A:3; (2) Title XII, Chap 153-A, § 153-A:8	Requires pediatric representation on (1) the Emergency Medical and Trauma Services Coordinating Board and (2) the Trauma Medical Review Committee	(1) <http://www.gencourt.state.nh.us/rsa/html/XII/153-A/153-A-3.htm>; (2) <http://www.gencourt.state.nh.us/rsa/html/XII/153-A/153-A-8.htm>
New Mexico	New Mexico Statutes: Chap 24, Art 10B, § 24-10B-7	Requires pediatric representation on the medical direction committee	http://www.conwaygreene.com/nmsu/lpext.dll?f=templates&fn=main-h.htm&2.0
Ohio	Ohio Revised Code: (1) Title XLVII, Chap 4765, § 4765.02; (2) Title XLVII, Chap 4765, § 4765.04	Requires pediatric representation on (1) the state board of EMS and (2) its trauma committee	http://onlinedocs.andersonpublishing.com/oh/lpExt.dll?f=templates&fn=main-h.htm&cp=PORC
Rhode Island	State of Rhode Island General Laws: Title 23, Chap 23-4.1, § 23-4.1-2	Requires representation from the Rhode Island chapter of the American Academy of Pediatrics on the ambulance service coordinating advisory board	http://www.rilin.state.ri.us/Statutes/TITLE23/23-4.1/23-4.1-2.HTM
South Carolina	South Carolina Code of Laws: Title 44, Chap 61, § 44-61-530	Requires pediatric physician representation, as recommended by the South Carolina Chapter of the American Academy of Pediatrics, on the Trauma Advisory Council	http://www.scstatehouse.gov/code/t44c061.htm
Utah	Utah Code: (1) Title 26, Chap 8a, § 26-8a-103; (2) Title 26, Chap 8a, § 26-8a-251	(1) Requires pediatric representation on the State EMS Committee and (2) permits pediatric representation on the trauma system advisory committee	(1) <http://www.le.state.ut.us/~code/TITLE26/htm/26_09004.htm>; (2) <http://www.le.state.ut.us/~code/TITLE26/htm/26_09018.htm>
Virginia	Code of Virginia: Title 32.1, Chap 4, § 32.1-111.10	Requires pediatric representation on the State Emergency Medical Services Advisory Board	http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+32.1-111.10

Appendix A includes an annotation for each reference listed in the "Significance of Measure" section for each performance measure.

Under Performance Measures 71 and 72 (Formerly PM66a)

Web Resources

- Direction of Pre-hospital Care at the Scene of Medical Emergencies.
  Visit http://www.acep.org, click on "ACEP Policy Statements" under "Practice Resources," and then select the document from the list.

  ACEP has collected a series of board-approved statements describing its policies on the pre-hospital care and management of certain pediatric symptoms, illnesses, and injuries at the scene of medical emergencies.

- EMSC Performance Measure Fact Sheet.
  Visit www.childrensnational.org/emsc, click on "For Grantees," click on "Performance Measures," and then select the document titled "EMSC Performance Measures: A Brief Background."

  The EMSC National Resource Center created a fact sheet in response to the Government Performance and Results Act (GPRA), the Health Resources and Services Administration (HRSA) requirement of grantees to report on specific performance measures related to their grant-funded activities. This fact sheet provides an evolutionary outline highlighting how the performance measures came to be as well as what each one specifically measures and the requirements of the State Partnership grantees.

- Example of Children with Special Healthcare Needs Protocols.
  Visit http://health.state.ga.us/programs/ems/emsc/, and then click on "Children with Special Health Care Needs" on the left menu.

  The Georgia Division of Public Health has created various on-line educational resources designed to educate providers on the essential information needed when presented with a child with special needs. The resources include an Instructor Manual, a Provider Manual, and a standardized Emergency Information Form.

- NRC ToolBox – Medical Direction.
  Visit http://www.childrensnational.org/emsc, click on "Publications and Resources," then click on "EMSC Toolbox" and then click on the "Medical Direction" toolbox.

  The NRC has compiled information and resources pertaining to pediatric medical direction. This ToolBox includes website links to resources, example practices, database searches, as well as family and caregiver resources.

- Pre-hospital Systems and Medical Oversight, 3rd Edition by Alexander Kuehl.
  Visit http://www.naemsp.org, click on "Publications" to find the book, and then order the form.

  The National Association of Emergency Medical Services Physicians (NAEMSP) has created a guide that addresses the medical aspects of designing, implementing, and operating EMS systems. The guide contains recommendations for administering pre-hospital and medical oversight systems.

Web Casts

- Kavanaugh, Dan, Improving EMS Medical Direction for Pediatric Patients. An Internet Archive. Visit http://www.mchcom.com/, click on "Archived Webcasts", click on "Trauma EMS Webcasts", and then select the document from the list.

  This webcast reviews the State Partnership Grantees' performance measures and focuses in detail on Performance Measure 66a (having on-line and off-line pediatric medical direction). Definitions for on-line and off-line pediatric medical direction are provided, as well as model pediatric protocols, other resources, ways to assist State/Territory EMSC grant programs, and the benefits and challenges of having on-line and off-line pediatric medical direction.

Journal Articles

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine and American College of Emergency Physicians, Pediatric Committee, Care of Children in Emergency Departments, Guidelines for Preparedness. *Pediatrics,* 2001, 107: 777-781.

  The American Academy of Pediatrics' Committee on Pediatric Emergency Medicine and the American College of Emergency Physicians' Pediatric Committee have developed guidelines outlining the resources necessary to ensure that facilities (e.g., hospital emergency departments) and systems (e.g., local Emergency Medical Services system) provide quality emergency care to children. The statement also discusses the resources necessary for the timely transfer of pediatric patients to facilities with specialized pediatric services when appropriate.

- Committee on Pediatric Emergency Medicine, The Role of the Pediatrician in Rural EMSC, Policy Statement. *Pediatrics*, 2005, 116:1553-1556.

  The American Academy of Pediatrics' Committee on Pediatric Emergency Medicine examined the role of the pediatrician in rural communities in the development, implementation, and ongoing supervision of EMSC. The article states that rural access pediatricians are a vital resource for improving system-wide EMSC by providing education about clinical issues; technical assistance in protocol writing, hospital care, and data accumulation; and as advocates for community and state legislation to support the goals of EMSC.

- Scribano, Philip, Baker, D., Holms, J., and Shaw, K., Use of Out-of-hospital Interventions for the Pediatric Patient in an Urban Emergency Medical Services System. *Academic Emergency Medicine*, 2000; 7: 745-750.

  This study examined the appropriateness of out-of-hospital interventions by EMS personnel to treat children with respiratory illnesses in an urban setting. Overall, 56% of the patients received appropriate interventions, 39% received one or two inappropriate interventions, and 5% received three or more inappropriate interventions. Increasing patient age, transport times, and illness severity tend to increase the use of certain interventions, while contact with on-line medical direction seems to improve appropriate use of interventions.

- Shelton, Steve, Sewor, R., Domeier, R., and Lucas, R. Position Paper, National Association of EMS Physicians, Medical Direction of Interfacility Transports. *Prehospital Emergency Care*, 2000; 4: 361-364.

  This position paper by the National Association of EMS Physicians (NAEMSP) states that the medical direction of an inter-facility transport is a shared responsibility. The paper includes statements that should serve as a guide to promote safe and effective transports of patients, including pediatric patients, between facilities.

- Thomas, Stephen, Williams, K., Claypool, D. Position Paper, National Association of EMS Physicians, Medical Director for Air Medical Transport Programs. *Prehospital Emergency Care*, 2002; 6:455-457.

  This position paper by the National Association of EMS Physicians (NAEMSP) provides guidelines for the education, experience, and licensure and administrative and operational duties of medical directors of air medical transport programs, which help to ensure safe, proficient, and cost-effective programs.

Under Performance Measure 73 (formerly 66b)

Web Resource

- EMSC Performance Measure Fact Sheet.
  Visit http://www.childrensnational.org/emsc, click on "For Grantees," click on "Performance Measures," and then select the document titled "EMSC Performance Measures: A Brief Background."

  The EMSC National Resource Center created a fact sheet in response to the Government Performance and Results Act (GPRA), the Health Resources and Services Administration (HRSA) requirement of grantees to report on specific performance measures related to their grant-funded activities. This fact sheet provides an evolutionary outline highlighting how the performance measures came to be as well as what each one specifically measures and the requirements of the State Partnership grantees.

- NRC ToolBox – Pre-hospital Education.
  Visit http://www.childrensnational.org/emsc, click on "Publications and Resources," then click on "EMSC Toolbox" and then click on the "Pre-hospital Education" toolbox.

  The EMSC National Resource Center (NRC) has compiled information and resources pertaining to pre-hospital education. This ToolBox includes website links to resources, database searches, as well as family and caregiver resources.

Publications

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine, Pediatric Care Recommendations for Free Standing Urgent Care Facilities, 2007.

  The American Academy of Pediatrics' Committee on Pediatric Emergency Medicine has updated and expanded its recommendations to freestanding urgent care facilities on stabilization procedures in pediatric emergency situations and on transfer protocols for pediatric patients. The policy statement notes that although an urgent care center is not an emergency department, it should have the capabilities to identify, stabilize, and coordinate care for pediatric patients.

- Institute of Medicine Committee, Future of Emergency Care in the United States Health System, Report Brief. National Academy of Sciences, 2006.

  The Institute of Medicine's Committee on the Future of Emergency Care in the U.S. Health System issued three reports that identified key issues concerning the emergency medical system for both adults and children and made

recommendations to improve the current system. The Committee reported that the majority of hospitals have insufficient specialty staff and medical equipment to address the specialized needs of children.

- Krug, Steven, Emergency Care Crisis: A Nation Unprepared for Public Health Disasters. Testimony for Homeland Security Subcommittee on Emergency Preparedness, Science, and Technology, 2006.

  On behalf of the American Academy of Pediatrics, Dr. Steven Krug testified before the Homeland Security Subcommittee on Emergency Preparedness, Science, and Technology at the following hearing: "Emergency Care Crisis: A Nation Unprepared for Public Health Disasters." Dr. Krug discussed the limited emergency preparedness for pediatric patients, addressed the specific concerns related to pediatric emergency medical services, and provided policy recommendations for policymakers regarding children and emergency and disaster preparedness.

- Seidel J.S, et al. EMS and the Pediatric Patient: Are the Needs Being Met? *Pediatrics*, Volume 73, June, 1984.

  This study investigated the preparedness of emergency medical systems to treat the pediatric population. The study revealed that most U.S. hospitals are primarily prepared for myocardial infarction and trauma in adult patients, but fail to provide necessary care for critically ill children, who account for about 10% of all paramedic calls and emergency department visits. The study concluded that children's needs in the pre-hospital and emergency department settings are not being met.

- Seidel, J.S., et al. EMS and the Pediatric Patient. Are the Needs Being Met II? Training and Equipping EMSC Providers for Pediatric Emergency Care. *Pediatrics*, Volume 78, December 1986.

  This study examined the training in pediatrics offered to paramedics and emergency medical technicians throughout the U.S. and the equipment carried by pre-hospital care provider agencies. The study revealed that half of pediatric emergency care training takes place at colleges and universities and the remainder at hospitals and emergency medical services agencies. Many programs have less than ten hours of didactic training in pediatrics and offer ten hours or less of clinical experience. Some programs offer no training in pediatric emergency medicine. The most common deficiencies in pediatric equipment included backboards, pediatric drugs, resuscitation masks, and small intravenous catheters. The study concluded that more attention to training and equipping pre-hospital personnel for pediatric emergencies may help to improve outcomes of out-of-hospital resuscitations of infants and children.

Guidelines/Protocols

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine and American College of Emergency Physicians, Pediatric Committee, Care of Children in Emergency Departments, Guidelines for Preparedness. *Pediatrics*, 2001; 107: 777-781.

  Refer to the annotation under "Journal Articles" for Performance Measure 66a.

- AAP/ACEP Joint Equipment Guidelines. Contact the NRC Library at 202-884-6847 for more information.

  The American Academy of Pediatrics and the American College of Emergency Physicians have developed guidelines for necessary equipment to address pediatric pre-hospital and emergency medical needs.

- Peckinpaugh, Karen, Izsak, E., Lindstrom, D., Orlow, G., Contour, T., and Rice, M., The Advanced Pedi- Bag Program: A Hospital-EMS Partnership to Implement Prehospital Training, Equipment and Protocols. *Pediatric Emergency Care*, 2000, 16: 409-412.

  The Advanced Pedi-Bag Program, a partnership between a trauma center and county-wide EMS agency, developed a system to train all paramedics in the American Heart Association's Pediatric Advanced Life Support (PALS), to stock each patient care unit with a specific bag containing the equipment necessary to treat both basic and advanced pediatric emergencies, and to develop pediatric treatment protocols. A study of the Program found improved training of paramedics, patient care units that had an Advanced Pedi-Bag with specific equipment and supplies to manage pediatric emergencies, and pediatric protocols that support the use of this equipment.

Under Performance Measure 74 and 75 (Formerly 66c)

Web Resources

- Availability of Pediatric Services and Equipment in Emergency Departments: United States, 2002-03. Visit http://www.cdc.gov/nchs, click on "More Publications" on the left, click on "Advance Date" under "Reports" on the right, and then select report #367.

  The Centers for Disease Control and Prevention (CDC) reported on the availability and capacity of U.S. hospitals that admit pediatric patients. The CDC found that a significant number of children are treated at facilities lacking the recommended pediatric medical equipment and staff. Hospitals with a separate

pediatric emergency unit were more likely to have board-certified pediatric emergency physicians and other properly trained staff.

- EMSC Performance Measure Fact Sheet. Visit http://www.childrensnational.org/emsc, click on "For Grantees," click on "Performance Measures," and then select the document titled "EMSC Performance Measures: A Brief Background."

  The EMSC National Resource Center created a fact sheet in response to the Government Performance and Results Act (GPRA), the Health Resources and Services Administration (HRSA) requirement of grantees to report on specific performance measures related to their grant-funded activities. This fact sheet provides an evolutionary outline highlighting how the performance measures came to be as well as what each one specifically measures and the requirements of the State Partnership grantees.

- NRC ToolBox: Facility Categorization. Visit http://www.childrensnational.org/emsc, click on "Publications and Resources," then click on "EMSC Toolbox" and then click on the "Facility Categorization" toolbox.
  The EMSC National Resource Center (NRC) has compiled information and resources pertaining to facility categorization. This ToolBox includes website links to resources, example practices, database searches, as well as family and caregiver resources.

- NRC ToolBox: Interfacility Transfer. Visit http://www.childrensnational.org/emsc, click on "Publications and Resources," then click on "EMSC Toolbox" and then click on the "Interfacility Transfer" toolbox.

  The EMSC National Resource Center (NRC) has compiled information and resources pertaining to inter-facility transfer for pediatric patients. This ToolBox includes website links to resources, information on why inter-facility transfer agreements are important, database searches, as well as family and caregiver resources.

- U.S. Department of Health and Human Services, Model Trauma System Planning and Evaluation, 2006. Visit http://www.hrsa.gov/trauma/model.htm.

  The Health Resources and Services Administration has created a guide for trauma system development, targeting trauma care professionals, public health officials, and policy experts. The guide attempts to evaluate trauma systems using a "public health approach" and ultimately aims to reduce mortality rates.

Guidelines and Policy/Position Statements

- Emergency Department Facility Recognition Criteria for EDAP and SEDP Levels. Visit http://www.luhs.org/depts/emsc/, click on "Archives" at the bottom of the page, scroll down to 2001, and then select the second link under "June."

  The Illinois Emergency Medical Services for Children program has developed facility recognition criteria for both the Emergency Department Approved for Pediatrics (EDAP) and the Standby Emergency Department Approved for Pediatrics (SEDP).

- AAP/ACEP Policy Statement Care of Children in the Emergency Department: Guidelines for Preparedness. Visit http://aappolicy.aappublications.org/, click on "AAP Policy Statements", and then select policy statement under "C."

  The American Academy of Pediatrics' Committee on Pediatric Emergency Medicine and the American College of Emergency Physicians' Pediatric Committee have developed guidelines for emergency medical systems and hospital administrators to ensure that children receive quality emergency care, and to facilitate, after stabilization, timely transfer to a facility with specialized pediatric services when appropriate. These guidelines are supported by 17 medical associations and organizations.

- Emergency Nurses Association, Position Statement on Care of Critically Ill or Injured Patients during Interfacility Transfer, 2005.

  The Emergency Nurses Association has developed a position statement on the challenges of the patient transport process from one medical facility to another. The statement reports that transport services require specific skills and protocols, which are currently lacking in many emergency medical service systems.

Publications

- Athey, Jean, Dean, M., Ball, J., Weibe, R., Melease d'Hospital, I. Ability of Hospitals to Care for Pediatric Emergency Patients. *Pediatric Emergency Care*, 2001; 17: 170-174.

  A study was conducted to analyze pediatric services in U.S. hospitals with emergency departments. The investigation showed that the majority of hospitals admitting pediatric patients did not have separate pediatric facilities. The study also found that appropriate medical equipment for children, especially for newborns, was missing at many hospitals.

- Haller, J. Toward a Comprehensive Emergency Medicine System for Children. *Pediatrics,* 1990; 86: 120-172.

  This study evaluated the effectiveness and impact of Maryland's designated pediatric trauma center located in The Johns Hopkins Children's Center. The level of compliance within Maryland's regionalized pediatric trauma system was examined using hospital discharge abstract data from 58 acute care hospitals in the state. The proportion of patients with injuries and the proportion of in-hospital deaths occurring at each level of care (i.e., statewide pediatric trauma care, regional trauma care, and community hospital) were analyzed.

- Institute of Medicine Committee, Future of Emergency Care in the United States Health System, Report Brief. National Academy of Sciences, 2006.

  Refer to the annotation under "Publications" for Performance Measure 66c.

- Junkins, Edqard, O'Connell K., and Mann C., Pediatric Trauma Systems in the United States: Do They Make a Difference? Clinical Pediatric Emergency Medicine, 2006; 7: 76-81.

  This study investigated the effect of pediatric-specific emergency care within trauma systems on patient outcomes and mortality. The effects of acute management of children in a non-pediatric trauma center were investigated and compared to outcomes for children treated in the American College of Surgeons Committee on Trauma pediatric-verified trauma centers.

- Krug, Steve, Emergency Care Crisis: A Nation Unprepared for Public Health Disasters. Testimony for Homeland Security Subcommittee on Emergency Preparedness, Science, and Technology, 2006.

  Refer to the annotation under "Publications" for Performance Measure 66c.

- Morrison, Wayne, Wright J., and Paidas C. Pediatric Trauma Systems. Critical Care Medicine, 2002; 30, #1 supplement.

  This article examines the development of trauma centers and systems, for both adults and children. Studies of trauma system effectiveness suggest that the establishment of trauma systems may lead to improvements in mortality. The article states that continued system development, assessment, and educational efforts about how childhood injuries are different are essential to combat this leading killer of children.

- Perno, Joseph, Schunk J., Hanse K., and Furnival R., Significant Reduction in Delayed Diagnosis of Injury with Implementation of a Pediatric Trauma Service. *Pediatric Emergency Care*, 2005; 21: 367-371.

    This study examined the occurrence of delayed diagnosis of injury (DDI) in pediatric trauma patients. Results showed that the implementation of an effective pediatric trauma team and trauma service was associated with a significant reduction in DDI in children.

- Resources for Optimal Care of the Injured Patient 2006,Committee on Trauma, American College of Surgeons, Chicago, Illinois, 2006.

    As an aid to the process of American College of Surgeons' Committee on Trauma verification and consultation for trauma centers, this book outlines the essential and desirable requirements for trauma centers pursuing consultation or seeking to gain or maintain verification. These guidelines are used by the ACS Verification/Consultation Program to evaluate trauma centers.

- Sigrest, Todd, and AAP Committee on Hospital Care, Facilities and Equipment for Care of Pediatric Patients in Community Hospitals. *Pediatrics,* 2003; 3: 1120-1123.

    This clinical report provides basic guidelines for furnishing and equipping a pediatric area in a community hospital. Guidelines for facility needs, essential medical equipment for pediatric care, support services, continuing education for all health care professionals, referral networks, and admission and transfer criteria are provided.

- Woodward, George, et. al., The State of Pediatric Interfacility Transport: Consensus of the Second National Pediatric and Neonatal Interfacility Transport Medicine Leadership Conference. *Pediatric Emergency Care* 2002; 18(1): 38-43.

    The American Academy of Pediatrics (AAP) and the AAP Section on Transport Medicine held the second National Pediatric and Neonatal Transport Leadership Conference in June 2000. Participants discussed and debated issues regarding pediatric transport medicine. This consensus statement reflects the insights and conclusions from this meeting.

Under Performance Measure 76 (formerly 66d)

Web Resources

- American Medical Association PowerPoint Presentation on Requirements of EMTALA. Visit http://www.ama-assn.org/ama1/pub/upload/mm/384/emtalafinal.ppt#358,7

The Ethics Resource Center of the American Medical Association has developed a presentation to increase the understanding and application of the Emergency Medical Treatment and Active Labor Act (EMTALA) for emergency medical service systems, hospitals, and transfer centers. The presentation outlines the need, purpose, requirements, liabilities and fines, and implications of the Act.

- Availability of Pediatric Services and Equipment in Emergency Departments: United States, 2002-03. Visit http://www.cdc.gov/nchs, click on "More Publications" on the left, click on "Advance Date" under "Reports" on the right, and then select report #367.

  Refer to the annotation under "Web Resources" for Performance Measure 66c.

- Emergency Department Approved for Pediatrics (EDAP) Guidelines. Visit http://www.luhs.org/depts/emsc/, click on "Archives" at the bottom of the page, scroll down to 2001, and then select the EDAP link under June.

  Refer to the annotation under "Guidelines and Policy/Position Statements" for Performance Measure 66c.

- EMSC Performance Measure 76 and 77. Visit http://www.childrensnational.org/emsc, click on "For Grantees," click on "Performance Measures," and then select the document titled EMSC Performance Measures 76 and 77: Making Transfers Work for Critically Ill and Injured Children."

  The EMSC National Resource Center created a fact sheet dedicated to the two sub-measures under Performance Measure 66 in order to better understand the establishment of inter-facility transfer agreements and guidelines

- EMSC Performance Measure Fact Sheet. Visit http://www.childrensnational.org/emsc, click on "For Grantees," click on "Performance Measures," and then select the document titled "EMSC Performance Measures: A Brief Background."

  The EMSC National Resource Center created a fact sheet in response to the Government Performance and Results Act (GPRA), the Health Resources and Services Administration (HRSA) requirement of grantees to report on specific performance measures related to their grant-funded activities. This fact sheet provides an evolutionary outline highlighting how the performance measures came to be as well as what each one specifically measures and the requirements of the State Partnership grantees.

- EMTALA - An Overview. Visit http://www.acutecare.com/emtala.htm.

This website provides an overview of the Emergency Medical Treatment and Active Labor Act (EMTALA), including EMTALA requirements for a medical screening examination, necessary stabilizing treatment, restricting transfers until stabilization, and appropriate transfers. The program available on the website is accredited for continuing medical education (CME) and continuing education hours (CEH).

- EMTALA Frequently Asked Questions. Visit http://www.emtala.com/faq.htm.

  This website provides a set of 24 frequently asked questions and 5 special situations for the Emergency Medical Treatment and Active Labor Act (EMTALA). Questions pertain to issues involving pre-hospital care, patient transport, patient rights, insurance issues, and legal obligations for transporting and receiving facilities.

- NRC ToolBox: Inter-facility Transfer. Visit http://www.childrensnational.org/emsc, click on "Publications and Resources," then click on "EMSC Toolbox" and then click on the "Inter-facility Transfer" toolbox.

  Refer to the annotation under "Web Resources" for Performance Measure 66c.

- 20 Commandments of EMTALA. Visit http://www.medlaw.com/healthlaw/EMTALA/education/the-20-commandments-of-em.shtml.

  This website provides legal advice for healthcare professionals, hospitals, and their attorneys regarding EMTALA.

- U.S. Department of Health and Human Services, Model Trauma System Planning and Evaluation, 2006. Visit http://www.hrsa.gov/trauma/model.htm.

  Refer to the annotation under "Web Resources" for Performance Measure 66c.

Guidelines/Policy Statements

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine and American College of Emergency Physicians, Pediatric Committee, Care of Children in Emergency Departments, Guidelines for Preparedness. Pediatrics, 2001; 107: 777-781.

  Refer to the annotation under "Journal Articles" for Performance Measure 66a.

- AAP/ACEP Policy Statement Care of Children in the Emergency Department: Guidelines for Preparedness – Visit http://aappolicy.aappublications.org/, click on "AAP Policy Statements", and then select policy statement under "C."

    Refer to the annotation under "Guidelines and Policy/Position Statements" for Performance Measure 66c.

- Emergency Nurses Association, Position Statement on Care of Critically Ill or Injured Patients during Inter-facility Transfer, 2005.

    Refer to the annotation under "Guidelines and Policy/Position Statements" for Performance Measure 66c.

Publications

- American Academy of Pediatrics, Committee on Pediatric Emergency Care, Access to Pediatric Emergency Care. *Pediatrics,* 2000; 105:647-649.

    The American Academy of Pediatrics' Committee on Pediatric Emergency Care has identified barriers limiting access to appropriate emergency care services for children. The Committee suggests increasing the education of emergency care providers on how to properly teat children, particularly those with special health care needs, and also recommends involving and incorporating the child's medical home into emergency care.

- Odetola, F., Davis, M., Cohn, L., & Clark, S. Interhospital transfer of critically ill and injured children: an evaluation of transfer patterns, resource utilization, and clinical outcomes. *Journal of Hospital Medicine*. March 2009. 4(3):164-170.

    This study examines the patterns of transfer, resource utilization, and clinical outcomes associated with interhospital transfer of critically ill and injured children. This multiyear, statewide sample study concluded that mortality and resource utilization were higher among children who underwent interhospital transfer to ICU after initial hospitalization, compared to those directly transferred from emergency to intensive care.

- Resources for Optimal Care of the Injured Patient 2006,Committee on Trauma, American College of Surgeons, Chicago, Illinois, 2006.

    Refer to the annotation under "Publications" for Performance Measure .66c.

- Should Parents Accompany Pediatric Interfacility Ground Ambulance Transports? Results of a National Survey of Pediatric Transport Team Manager by George Woodward, *Pediatric Emergency Care* (2002).

This study examined the effects of parents accompanying their children during emergency medical transport services. The study concluded that parents should interact with their children as much as possible during the transport and recommended parental involvement with the transport process.

- Woodward, George, et. al., The State of Pediatric Interfacility Transport: Consensus of the Second National Pediatric and Neonatal Interfacility Transport Medicine Conference. *Pediatric Emergency Care* 2002; 18: 38-43.

  Refer to the annotation under "Publications" for Performance Measure 66c.

Under Performance Measure 77 (Formerly 66e)

Web Resources

- American Medical Association PowerPoint Presentation on Requirements of EMTALA. Visit http://www.ama-assn.org/ama1/pub/upload/mm/384/emtalafinal.ppt#358,7

  Refer to the annotation under "Web Resources" for Performance Measure 66d.

- Availability of Pediatric Services and Equipment in Emergency Departments: United States, 2002-03 – Visit http://www.cdc.gov/nchs, click on "More Publications" on the left, click on "Advance Date" under "Reports" on the right, and then select report #367.

  Refer to the annotation under "Web Resources" for Performance Measure 66c.

- EMSC Performance Measure 77 Visit http://www.childrensnational.org/emsc, click on "For Grantees," click on "Performance Measures," and then select the document titled EMSC Performance Measures 76 and 77: Making Transfers Work for Critically Ill and Injured Children."

  The EMSC National Resource Center created a fact sheet dedicated to the two sub-measures under Performance Measure 66 in order to better understand the establishment of inter-facility transfer agreements and guidelines

- EMSC Performance Measure Fact Sheet. Visit http://www.childrensnational.org/emsc, click on "For Grantees," click on "Performance Measures," and then select the document titled "EMSC Performance Measures: A Brief Background."

  The EMSC National Resource Center created a fact sheet in response to the Government Performance and Results Act (GPRA), the Health Resources and Services Administration (HRSA) requirement of grantees to report on specific performance measures related to their grant-funded activities. This fact sheet provides an evolutionary outline highlighting how the performance measures came to be as well as what each one specifically measures and the requirements of the State Partnership grantees.

- EMTALA - An Overview. Visit http://www.acutecare.com/emtala.htm.

  Refer to the annotation under "Web Resources" for Performance Measure 66d.

- EMTALA Frequently Asked Questions. Visit http://www.emtala.com/faq.htm.

Refer to the annotation under “Web Resources” for Performance Measure 66d.

- NRC Toolbox: Interfacility Transfer. Visit http://www.childrensnational.org/emsc, click on “Publications and Resources,” then click on “EMSC Toolbox” and then click on the “Interfacility Transfer” toolbox.

  Refer to the annotation under “Web Resources” for Performance Measure 66c.

- 20 Commandments of EMTALA. Visit http://www.medlaw.com/healthlaw/EMTALA/education/the-20-commandments-of-em.shtml.

  Refer to the annotation under “Web Resources” for Performance Measure 66d.

- U.S. Department of Health and Human Services, Model Trauma System Planning and Evaluation, 2006. Visit http://www.hrsa.gov/trauma/model.htm.

  Refer to the annotation under “Web Resources” for Performance Measure 66c.

Guidelines and Policy/Position Statements

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine and American College of Emergency Physicians, Pediatric Committee, Care of Children in Emergency Departments, Guidelines for Preparedness. *Pediatrics,* 2001; 107: 777-781.

  Refer to the annotation under “Journal Articles” for Performance Measure 66a.

- AAP/ACEP Policy Statement Care of Children in the Emergency Department: Guidelines for Preparedness. Visit http://aappolicy.aappublications.org/, click on “AAP Policy Statements”, and then select policy statement under “C.”

  Refer to the annotation under “Guidelines and Policy/Position Statements” for Performance Measure 66c.

- Emergency Department Approved for Pediatrics (EDAP) Guidelines. Visit http://www.luhs.org/depts/emsc/, click on “Archives” at the bottom of the page, scroll down to 2001, and then select the EDAP link under “June.”

  Refer to the annotation under “Guidelines and Policy/Position Statements” for Performance Measure 66c.

- Emergency Nurses Association, Position Statement on Care of Critically Ill or Injured Patients during Inter facility Transfer, 2005.

Refer to the annotation under “Guidelines and Policy/Position Statements” for Performance Measure 66c.

Publications

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine, Pediatric Care Recommendations for Free Standing Urgent Care Facilities, 2007.

  Refer to the annotation under “Publications” for Performance Measure 66b.

- National Highway Traffic Safety Administration, Guide for Interfacility Patient Transfer. April 2006.

  The National Highway Traffic Safety Administration organized an Emergency Medical Services Interfacility Transfer Planning Group to analyze the current issues with interfacility patient transfer. The Group reported that due to an increase in specialty care centers, there is a higher volume of patient transport. The Group used a consensus process to develop interfacility patient transfer guidelines that emergency service systems can use to promote high-quality care for critically ill patients.

- Odetola, F., Davis, M., Cohn, L., & Clark, S. Interhospital transfer of critically ill and injured children: an evaluation of transfer patterns, resource utilization, and clinical outcomes. *Journal of Hospital Medicine*. March 2009. 4(3):164-170.

  This study examines the patterns of transfer, resource utilization, and clinical outcomes associated with interhospital transfer of critically ill and injured children. This multiyear, statewide sample study concluded that mortality and resource utilization were higher among children who underwent interhospital transfer to ICU after initial hospitalization, compared to those directly transferred from emergency to intensive care.

- Resources for Optimal Care of the Injured Patient 2006,Committee on Trauma, American College of Surgeons, Chicago, Illinois, 2006.

  Refer to the annotation under “Publications” for Performance Measure 66c.

- Selvan, J.S., Fields W.W., Chin W., Petitti D.B. and Wolde-TsadikG., Critical Care Transport: Outcome Evaluation After Interfacility Transfer and Hospitalization. *Annals of Emergency Medicine,* 33; 1: 33-43.

  This study investigated the effects of interfacility transport on mortality rates. The investigators concluded that if there is appropriate pre-transfer patient

stabilization, interfacility transfer of critically ill patients has no adverse effects on clinical outcomes or increases in medical resource use.

- Should Parents Accompany Pediatric Interfacility Ground Ambulance Transports? Results of a National Survey of Pediatric Transport Team Manager by George Woodward, *Pediatric Emergency Care* (2002).

  Refer to the annotation under "Publications" for Performance Measure 66d.

- Sigrest, Todd, and AAP Committee on Hospital Care, Facilities and Equipment for Care of Pediatric Patients in Community Hospitals. *Pediatrics*, 2003; 3: 1120-1123.

  Refer to the annotation under "Publications" for Performance Measure 66c.

- Woodward, George, et. al., The State of Pediatric Interfacility Transport: Consensus of the Second National Pediatric and Neonatal Interfacility Transport Medicine Conference. *Pediatric Emergency Care* 2002; 18: 38-43.

  Refer to the annotation under "Publications" for Performance Measure 66c.

Under Performance Measure 78 (Formerly 67):

Websites

- EMSC Performance Measure Fact Sheet. Visit http://www.childrensnational.org/emsc, click on "For Grantees," click on "Performance Measures," and then select the document titled "EMSC Performance Measures: A Brief Background."

  The EMSC National Resource Center created a fact sheet in response to the Government Performance and Results Act (GPRA), the Health Resources and Services Administration (HRSA) requirement of grantees to report on specific performance measures related to their grant-funded activities. This fact sheet provides an evolutionary outline highlighting how the performance measures came to be as well as what each one specifically measures and the requirements of the State Partnership grantees.

- Training and Certification of EMS Personnel (2007). Visit http://www.nasemsd.org/, select "Monographs" under the "Resources" tab at the top of the page.

  The National Association of State EMS Officials has developed a monograph that outlines the training and certification requirements of emergency medical services personnel for all 56 states and territories in the U.S. The monograph addresses the variation in state and territory resources, jurisdiction, case law and governing

experiences for training and certification of pre-hospital providers.

Journal Articles

- Miller, David, Kalinowski E., and Wood D., Pediatric Continuing Education for EMTs. *Pediatric Emergency Care*, 2004; 20:269-272.

  The National Council of State Emergency Medical Services Training Coordinators has developed recommendations for pediatric emergency care training, including educational content, method, and frequency of training.

- National Association of EMS Educators (NAEMSE), NAEMSE Standards and Practice Committee, Position Statement: Value of Continuing Medical Education in the Pre-hospital. *Journal of Pre-hospital*, 2003: 12:232.

  The National Association of EMS Educators (NAEMSE) has developed a position paper outlining the importance of continuing medical education (CME). The NAEMSE reported a strong correlation between CME and the quality of care delivered by pre-hospital providers.

- Peckinpaugh, Karen, Izsak, E., Lindstrom, D., Orlow, G., Contour, T., and Rice, M., The Advanced Pedi- Bag Program: A Hospital-EMS Partnership to Implement Pre-hospital Training, Equipment and Protocols. *Pediatric Emergency Care*, 2000; 16: 409-412.

  Refer to the annotation under "Guidelines/Protocols" for Performance Measure 66b.

- Stevens, Sandra and Alexander, J., The Impact of Training and Experience on EMS Emergencies in a Rural State. *Pediatric Emergency Care,* 2005; 21: 12-17.

  This study involved a survey of rural pediatric emergency medical services personnel in Maine. The report analyzed the effects of staff members' comfort to treat critically ill children based on the amount of continuing medical education and pediatric calls per month. The investigators found that increased levels of continuing medical education and experience had positive impacts on the ability of staff to treat a pediatric emergency patient.

- Su, Eustacia, Schmidt, Terri A., Mann, N. Clay, and Zechnich, Andrew D., A Randomized Controlled Trial to Assess Decay in Acquired Knowledge among Paramedics Completing a Pediatric Resuscitation Course Academic Emergency Medicine, 2000 7: 779-786.

This study analyzed the effectiveness of annual out-of-hospital pediatric education and the retention time of knowledge after the educational intervention. The study found that although there is significant knowledge enhancement at 6 months, trainees do not retain knowledge one year after receiving education. It concluded that additional education would be necessary to improve long-term knowledge retention for pediatric education.

- Wood, Don, Kalinowski E., and Miller D., Pediatric Continuing Education for Emergency Medicine Technicians. *Pediatric Emergency Care*, 2004: 20: 261-268.

  The National Council of State Emergency Medical Services Training Coordinators has developed recommendations for pediatric emergency medical education for EMTs, including content, method, and frequency of educational sessions.

Guidelines

- Stoy, Walt, National Guidelines for EMT Continuing Education. U.S. Department of Transportation/NHTSA, 1999.

  NHTSA has developed national guidelines for continuing medical education (CME) for emergency medical technicians. This document updates guidelines from 1985.

Under Performance Measure 79 (Formerly 68a)

Presentation

- Advisory Committees – How to develop and utilize the best team for EMSC Initiatives (a 2006 PowerPoint presentation). Visit http://www.cademedia.com/archives/mchb/emsc2006/Grantee2006/ppt/E%201-3.ppt.

  This PowerPoint presentation includes strategies and action steps for developing and implementing EMSC Advisory Committee teams. The presentation also includes case studies of how some States have been successful in developing and utilizing their EMSC Advisory Committees.

Policy Resources

- American Academy of Pediatrics, Committee on State Government Affairs, Government Affairs Handbook, 1992.

  The American Academy of Pediatrics (AAP) has developed a handbook for AAP members and organizations interested in becoming involved with legislative and regulatory affairs. The handbook provides resources for pediatric advocacy at both the state and federal levels.

- Amidei, Nancy, So You Want to Make a Difference, 1997.

  This guide is for those who want to become more involved in policy-making, advocacy, and civic engagement. The guide outlines tools and resources for all citizens who want to become advocates.

- State Legislative Leaders Foundation, State Legislative Leaders: Keys to Effective Legislation for Children and Families, 1995.

  The State Legislative Leaders Foundation conducted a research project on the keys to effective legislation for children and families, which involved

interviewing 177 of the most influential Republican and Democratic state legislature leaders from all 50 states and surveying 167 child and family organizations. The report outlines the key findings of the investigation, including the importance of child and family issues to legislative leaders; their knowledge of child and family issues; and the perception of child/family advocates.

Websites (of professional organizations from which EMSC Advisory Committee core and/or recommended members could be recruited)

- American Academy of Pediatrics - http://www.aap.org/.

  The American Academy of Pediatrics (AAP) is a group of over 60,000 pediatricians interested in improving the quality of care for children. The website includes information on the organization's programs and activities, as well as publications and resources for AAP members.

- American Hospital Association - http://www.aha.org/.

  The American Hospital Association is an organization of about 5,000 hospitals, healthcare systems, and health communities, as well as over 37,000 individual members, whose aim is to increase advocacy efforts to increase quality of care for all institutions. The website provides news, publications, and resources for members and the general public.

- Emergency Nurses Association - http://www.ena.org/.

  The Emergency Nurses Association is an organization that aims to advance the practice of emergency medicine for the nursing profession. The website provides news, publications, links, and resources for emergency care nurses and administrators.

- Family Voices – http://www.familyvoices.org/.

  Family Voices is an organization that advocates for children with special needs and supports a partnership between healthcare professionals and families in the community. The website provides information, news, publications, links to other organizations, and state resources to increase the quality of care for children with special needs.

- National Association of State EMS Officials - http://www.nasemsd.org/.

  The National Association of State EMS Officials is a professional organization for state emergency medical services officials. The website provides publications and resources for EMS professionals regarding current initiatives and events to

educate and increase the quality of emergency medical services and patient care.

- National Association of EMTs - http://www.naemt.org/.

  The National Association of Emergency Medical Technicians (EMTs) is a network that aims to represent paid and volunteer emergency medical technicians and paramedics. The website provides resources on EMS policy, as well as a list of educational and regional organizations that serve EMTs and paramedics.

- National Association of School Nurses – http://www.nasn.org/.

  The National Association of School Nurses is an organization that provides leadership to school nurses in order to advance the medical care and treatment of children. The website provides resources and publications for members regarding education, advocacy, and policy for school nursing.

- National Highway Traffic Safety Administration - http://www.nhtsa.dot.gov/.

  The National Highway Traffic Safety Administration is a government organization aimed at improving public safety. The website offers resources for citizens regarding traffic and automobile policies, publications, and news regarding traffic safety issues.

- EMSC Performance Measure Fact Sheet. Visit http://www.childrensnational.org/emsc, click on "For Grantees," click on "Performance Measures," and then select the document titled "EMSC Performance Measures: A Brief Background."

  The EMSC National Resource Center created a fact sheet in response to the Government Performance and Results Act (GPRA), the Health Resources and Services Administration (HRSA) requirement of grantees to report on specific performance measures related to their grant-funded activities. This fact sheet provides an evolutionary outline highlighting how the performance measures came to be as well as what each one specifically measures and the requirements of the State Partnership grantees.

Under Performance Measure 79 (Formerly 68b):

Policy Resources

- American Academy of Pediatrics, Committee on State Government Affairs, Government Affairs Handbook, 1992.

  Refer to the annotation under "Policy Resources" for Performance Measure 68a.

- Amidei, Nancy, So You Want to Make a Difference, 1997.

  Refer to the annotation under “Policy Resources” for Performance Measure 68a.

- State Legislative Leaders Foundation, State Legislative Leaders: Keys to Effective Legislation for Children and Families, 1995.

  Refer to the annotation under “Policy Resources” for Performance Measure 68a.

Websites (of professional organizations from which EMSC Advisory Committee core and/or recommended members could be recruited)

- All websites listed

  Refer to the annotation under “Websites” for Performance Measure 68a

- EMSC Performance Measure Fact Sheet. Visit http://www.childrensnational.org/emsc, click on “For Grantees,” click on “Performance Measures,” and then select the document titled “EMSC Performance Measures: A Brief Background.”

  The EMSC National Resource Center created a fact sheet in response to the Government Performance and Results Act (GPRA), the Health Resources and Services Administration (HRSA) requirement of grantees to report on specific performance measures related to their grant-funded activities. This fact sheet provides an evolutionary outline highlighting how the performance measures came to be as well as what each one specifically measures and the requirements of the State Partnership grantees.

Under Performance Measure 79 (Formerly 68c):

Policy Resources

- American Academy of Pediatrics, Committee on State Government Affairs, Government Affairs Handbook, 1992.

  Refer to the annotation under “Policy Resources” for Performance Measure 68a.

- Amidei, Nancy, So You Want to Make a Difference, 1997.

  Refer to the annotation under “Policy Resources” for Performance Measure 68a.

- State Legislative Leaders Foundation, State Legislative Leaders: Keys to Effective Legislation for Children and Families, 1995.

    Refer to the annotation under "Policy Resources" for Performance Measure 68a.

Website

- EMSC Performance Measure Fact Sheet. Visit http://www.childrensnational.org/emsc, click on "For Grantees," click on "Performance Measures," and then select the document titled "EMSC Performance Measures: A Brief Background."

    The EMSC National Resource Center created a fact sheet in response to the Government Performance and Results Act (GPRA), the Health Resources and Services Administration (HRSA) requirement of grantees to report on specific performance measures related to their grant-funded activities. This fact sheet provides an evolutionary outline highlighting how the performance measures came to be as well as what each one specifically measures and the requirements of the State Partnership grantees.

Under Performance Measure 80 (Formerly 68d):

Policy Resources

- American Academy of Pediatrics, Committee on State Government Affairs, Government Affairs Handbook, 1992.

    Refer to the annotation under "Policy Resources" for Performance Measure 68a.

- Amidei, Nancy, So You Want to Make a Difference, 1997.

    Refer to the annotation under "Policy Resources" for Performance Measure 68a.

- State Legislative Leaders Foundation, State Legislative Leaders: Keys to Effective Legislation for Children and Families, 1995.

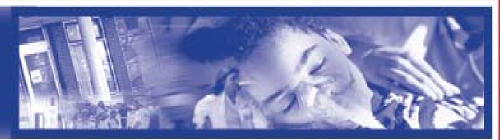
    Refer to the annotation under "Policy Resources" for Performance Measure 68a.

Website

- EMSC Performance Measure Fact Sheet. Visit http://www.childrensnational.org/emsc, click on "For Grantees," click on

“Performance Measures,” and then select the document titled “EMSC Performance Measures: A Brief Background.”

> The EMSC National Resource Center created a fact sheet in response to the Government Performance and Results Act (GPRA), the Health Resources and Services Administration (HRSA) requirement of grantees to report on specific performance measures related to their grant-funded activities. This fact sheet provides an evolutionary outline highlighting how the performance measures came to be as well as what each one specifically measures and the requirements of the State Partnership grantees.



Appendix B includes case studies that highlight best practices, including lessons learned, for implementing Performance Measures 74, 75, and 80.

Performance Measure 74 and 75 (Formerly 66c):

Case Study:
Illinois' Pediatric Medical Emergency and Trauma Facility Recognition Program

Illinois developed a pediatric medical and trauma facility recognition program in response to a needs assessment conducted in 1995. Development of the process progressed along a continuum of defined steps and achievements, with invaluable lessons learned along the way.

Illinois adopted a three-tiered pediatric medical emergency and a two-tiered trauma recognition program. The Illinois EMS Rules define the following pediatric specialty centers:

- Pediatric Trauma Centers (Level I and II)
- Standby Emergency Departments Approved for Pediatrics (SEDP)
- Emergency Departments Approved for Pediatrics (EDAP)
- Pediatric Critical Care Center (PCCC) (rules- pending as of March 2005)

Development of the Facility Recognition Program

The Illinois EMSC Program undertook several steps to develop a state-wide facility recognition process. It took approximately 10 years for the recognition process/system to be rolled-out state-wide. First, the Program worked to establish a Facility Recognition Task Force/Committee with clinical, hospital association, and urban/rural representation. Once formed, this Committee was tasked with developing criteria that facilities must meet in order to receive recognition. Next, the Committee developed an implementation process that involved tiered recognition (SEDP, EDAP, and PCCC). Because a mandatory process would not be supported by hospitals, the process was first piloted and then implemented voluntarily, region by region, with grassroots involvement at every point. To obtain buy-in, the EMSC Program offered certificates, ceremonies, local press, and news releases when a hospital became a part of the pediatric facility recognition program. Buy-in from the State/Territory-level EMS Chief was also critical to the program's success.

Collection of Data on the Facility Recognition Program

The EMSC Office maintains a database that contains information on hospitals that are recognized as:

- Hospitals that have a dedicated PICU
- Standby Emergency Department for Pediatrics (SEDP)
- Hospitals with a burn unit
- Emergency Department Approved for Pediatrics (EDAP)
- Pediatric Critical Care Centers (PCCC)
- Perinatal level
- Critical Access Hospitals
- Pediatric trauma centers
- EMS Resource Hospitals
- Trauma centers

The EMSC Office obtains a listing of trauma centers from the Trauma Administrator annually to update the database. Other information is obtained through the EMS Office, hospital associations, or by contacting hospitals directly. For example, the EMSC Office obtains an EMS Resource Hospital list from the EMS Office on a regular basis to ensure consistency with the database. Data are updated on an annual basis. The EMSC administrative assistant is responsible for maintaining the database and running reports.

Benefits of the Facility Recognition Program

The information/findings gathered from the facility recognition data are utilized in a variety of ways:

- Development of grant applications
- Development of annual EMSC Regional Reports
- Recognition of hospitals on EMSC and IDPH website
- Development of promotional materials (e.g., Illinois EMSC 10-Year Anniversary brochures)
- Development of Illinois EMSC 5-Year Strategic Plan

Performance Measure 80 (Formerly 68d):

Case Study
New Jersey's Experience Integrating EMSC Priorities into State Legislation

In 1990, pediatric and EMS proponents in New Jersey formed an informal group to work to improve the state's pediatric EMS system. One pediatrician took the lead in many of the group efforts and began working with the media to draw attention to the deficiencies in the state's pediatric EMS system. This pediatrician also worked with legislators and the state Office of Legislative Services to draft EMSC legislation.

In February of 1991, a bill was introduced to establish an independent Office of Pediatric EMS, run by a Governor-appointed physician director. Unfortunately, the bill proved too costly and died at the end of the legislative session.

In December of 1991, a more formal EMSC coalition was organized that included emergency physicians, Pre-hospital providers, representatives from the New Jersey chapter of the American Academy of Pediatrics (AAP), the Association for Children of New Jersey, the Junior Leagues of New Jersey, and other concerned individuals. Coalition members identified the following goals to guide their efforts for the upcoming legislative session:

- Provide initial and continuing education programs for EMS personnel;
- Establish triage guidelines;
- Create pediatric equipment guidelines for pre-hospital care;
- Establish guidelines for hospital emergency departments, pediatric intensive care units, pediatric trauma centers, and intermediate care units;
- Implement an inter-hospital transfer system; and
- Assure that there are appropriately staffed pediatric rehabilitation units

Each individual was assigned to a task. For example, the AAP representative rallied fellow pediatricians while members of the Junior Leagues of New Jersey worked with legislators and identified sponsors for the bill.

To ensure they had the support of the state health department, the coalition invited input from the Office of EMS (OEMS). OEMS worked with the coalition for several weeks to assure that all relevant aspects of the EMS system and the state bureaucracy were written into the proposed legislation. OEMS also urged the group to integrate any proposed EMSC programs into EMS rather than fragment care by creating a separate entity.

In February 1992, the new legislation was introduced in the New Jersey Senate. Unlike its predecessor, the bill established the EMS for Children program within OEMS and made provisions for a full-time coordinator and office staff. In addition, the legislation established an EMSC Advisory Council and allowed the program to solicit funds, donations, and grants to supplement state monies and develop new initiatives.

One month later, members from the Department of Health, OEMS, and the EMSC coalition testified in support of the bill, during a hearing of the Senate Women's Issues Children and Family Services Committee. The committee, which was chaired by the primary sponsor of the bill, approved the legislation.

In June 1992, during a hearing in the state Assembly, a sponsor of a similar piece of legislation agreed to change his bill to match the Senate version. The coalition's bill was amended, moved, and passed. On September 10, 1992, the governor of New Jersey signed the bill into law, making New Jersey the first state to pass legislation institutionalizing the activities begun under the EMSC federal grant program.

Source: *Benson, Pamela. (2000). EMSC's Role in Shaping Policy: A Practical Guide to Changing Minds and Saving Lives. Washington, DC: Emergency Services for Children, National Resource Center.*

INSTITUTE OF MEDICINE'S FUTURE OF EMERGENCY CARE
EMERGENCY CARE FOR CHILDREN: GROWING PAINS REPORT
REPORT RECOMMENDATIONS COMPARED TO EMSC PERFORMANCE MEASURES AND OTHER EMSC PROGRAM ACTIVITIES

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
Chapter 3: Building a 21st –Century Emergency Care System											
3.1 The Department of Health and Human Services and National Highway Traffic Safety Administration, in partnership with professional organizations, should convene a panel of individuals with multidisciplinary expertise to develop an evidence-based categorization system for EMS, ED's, and trauma centers based on adult and pediatric service capabilities.			X								

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
3.2 The National Highway Traffic Safety Administration, in partnership with professional organizations, should convene a panel of individuals with multidisciplinary expertise to develop evidence-based model pre-hospital care protocols for the treatment, triage, and transport of patients, including children.	X										
3.3 The Department of Health and Human Services should convene a panel of individuals with emergency and trauma care expertise to develop evidence-based indicators of emergency care system performance, including performance of pediatric emergency care.	X	X	X	X	X	X				X	

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
3.4 Congress should establish a demonstration program, administered by HRSA, to promote regionalized, coordinated, and accountable emergency care systems throughout the country, and appropriate $88 million over five years to this program.	X	X	X	X	X	X	X	X	X	X	
3.5 The Department of Health and Human Services should adopt rule changes to the Emergency Medical Treatment and Active Labor Act and the Health Insurance Portability and Accountability Act so that the original goals of the laws are preserved but integrated systems may further develop.											**Not under control of EMSC Program**

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
3.6 Congress should establish a lead agency for emergency and trauma care within 2 years of the publication of this report. The lead agency should be housed in the Department of Health and Human Services, and should have primary programmatic responsibility for the full continuum of EMS, emergency and trauma care for adults and children, including medical 9-1-1 and emergency medical dispatch, pre-hospital, EMS (both ground and air), hospital-based emergency and trauma care, and medical-related disaster preparedness. Congress should establish a working group to make											**Not under control of EMSC Program**

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
recommendations regarding the structure, funding, and responsibilities of the new agency, and develop and monitor the transition. The working group should have representation from federal and state agencies and professional disciplines involved in emergency and trauma care.											
3.7 Congress should appropriate $37.5 million each year for the next five years to the EMS-C Program.	X	X	X	X	X	X	X	X	X	X	**Pediatric Emergency Care Applied Research Network (PECARN)**
Chapter 4: Arming the Emergency Care Workforce with Knowledge and Skills											
4.1 Every pediatric and emergency care-related health professional credentialing and certification body should						X					

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	**73 (66b)**	**74 & 75 (66c)**	**76 (66d)**	**77 (66e)**	**78 (67)**	**79 (68a)**	**79 (68b)**	**79 (68c)**	**80 (68d)**	**Other aspects of EMSC Program or Not Applicable**
define pediatric emergency care competencies and require practitioners to receive the appropriate level of initial and continuing education necessary to achieve and maintain those competencies.											
4.2 The Department of Health and Human Services should collaborate with professional organizations to convene a panel of individuals with multidisciplinary expertise to develop, evaluate, and update pediatric emergency care clinical practice guidelines and standards of care.	**X**					**X**					**PECARN** **Targeted Issues (TI) Grant**
4.3 EMS agencies should appoint a pediatric emergency coordinator and			**X**								

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
hospitals should appoint two pediatric emergency coordinators – one a physician – to provide pediatric leadership for the organization.											
Chapter 5: Improving the Quality of Pediatric Emergency Care											
5.1 The Department of Health and Human Services should fund studies on the efficacy, safety, and health outcomes of medications used for infants, children, and adolescents in emergency care settings in order to improve patient safety.											**PECARN TI Grant**
5.2 The Department of Health and Human Services and the National Highway Traffic Safety Administration should fund											**PECARN TI Grant**

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
the development of medication dosage guidelines, formulations, labeling, and administration techniques for the emergency care setting to maximize effectiveness and safety for infants, children, and adolescents. EMS agencies and hospitals should implement these guidelines, formulations, and techniques into practice.											
5.3 Hospitals and EMS systems should implement evidence-based approaches to reduce errors in emergency and trauma care for children.			**X**								**TI Grant**
5.4 Federal agencies and private industry should fund research on pediatric-specific technologies and											**PECARN**

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	**73 (66b)**	**74 & 75 (66c)**	**76 (66d)**	**77 (66e)**	**78 (67)**	**79 (68a)**	**79 (68b)**	**79 (68c)**	**80 (68d)**	**Other aspects of EMSC Program or Not Applicable**
equipment used by emergency and trauma care personnel.											
5.5 EMS agencies and hospitals should integrate family-centered care into emergency care practice.			**Maybe**	**Maybe**	**Maybe**			**X**			
Chapter 6: Improving Emergency Preparedness for Children Involved in Disasters.											
6.1 Federal agencies (the Department of Health and Human Services, the National Highway Traffic Safety Administration, and the Department of Homeland Security) in partnership with state and regional planning bodies and emergency care provider											**Not directly related to EMSC Performance Measures**

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
organizations should convene a panel with multidisciplinary expertise to develop strategies for addressing pediatric needs in the event of a disaster. This effort should encompass the following:											
1) Development of strategies to minimize parent-child separation and improved methods for reuniting separated children with their families.											
2) Development of strategies to improve the level of pediatric expertise on Disaster Medical Assistance Teams and other organized disaster	**X**	**X**									**TI Grant NRC**

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
response teams.											
3) Development of disaster plans that address pediatric surge capacity for both injured and non-injured children.	**X**										**TI Grant**
4) Development of an improved access to specific medical and mental health therapies, as well as social services, for children in the event of a disaster.											
5) Development of policies that ensure that disaster drills include a pediatric mass casualty incident at once											

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
every 2 years.											
Chapter 7: Building the Evidence Base for Pediatric Emergency Care											
7.1 The Secretary of DHSS should conduct a study to examine the gaps and opportunities in emergency care research, including pediatric emergency care, and recommend a strategy for the optimal organization and funding of the research effort. This study should include consideration of training of new investigators, development of multi-center research networks, involvement of emergency and trauma care researchers in the grant review and research											**National EMS Information System (NEMSIS)** **NRC** **PECARN**

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
advisory processes, and improved research coordination through a dedicated center or institute. Congress and federal agencies involved in emergency and trauma care research (including the Department of Transportation, Department of Health and Human Services, Department of Homeland Security, and Department of Defense) should implement the study's recommendations.											
7.2 Administrators of statewide and national trauma registries should include standard pediatric-specific data elements and provide the data to the NTDB. Additionally, the											**NTRC / National Trauma Database (NTDB)** **NEMSIS**

Appendix C: Crosswalks of IOM Report Recommendations to EMSC Performance Measures

IOM Report Recommendations from 2006 Emergency Care for Children: Growing Pains Report	EMSC Performance Measures for State Partnership Grantees										
	71 & 72 (66a)	73 (66b)	74 & 75 (66c)	76 (66d)	77 (66e)	78 (67)	79 (68a)	79 (68b)	79 (68c)	80 (68d)	Other aspects of EMSC Program or Not Applicable
American College of Surgeons should establish a multidisciplinary pediatric specialty committee to continuously evaluate pediatric-specific data elements for the NTDB and identify areas for pediatric research.											

Writing Team

This Manual was produced by the EMSC National Resource Center. The EMSC National Resource Center is funded by the Emergency Medical Services for Children Program of Health Resources Services Administration (HRSA), Maternal and Child Health Bureau (MCHB) through contract number 240-03-011.

The Manual was written by the following members with input from several grantees and national organization stakeholder members. Oversight was provided by the federal EMSC Program staff.

Tasmeen Singh Weik, DrPH, NREMTP
Theresa Morrison-Quinata, NREMTB
Jocelyn Hulbert
Diana Fendya, RN, MSN

EMSC National Resource Center
Child Health Advocacy Institute, Children's National Medical Center
111 Michigan Ave NW, Washington DC, 20010

****

Tina Turgel, BSN, RN-C

Health Resources Services Administration
Maternal and Child Health Bureau

****

Patty Schmuhl, BA
Michael Ely, MHRM
Andrea Genovesi, MA
Craig Hemmingway, EMTI

National EMSC Data Analysis Resource Center
295 Chipeta Way, PO Box 581289, Salt Lake City, UT 84158-0289

Perfomance Measure Advisory Committee

Rachael Alter
Program Specialist EMSC
Idaho EMS Bureau
590 W. Washington Street
Boise, Idaho 83702
(208) 334-2124
(208) 863-5280 mobile
(208) 334-4015 FAX
AlterR@dhw.idaho.gov
www.idahoems.org

David A. Boer, MBA, NREMT-P
Program Director
South Dakota EMS for Children
Sanford School of Medicine
1400 West 22nd Street
Sioux Falls, South Dakota 57105-1570
(605) 328-6676
(605) 328-6761
Dave.Boer@usd.edu

Dennis Blair
State EMS Director
Alabama Department of Public Health
RSA Tower, Suite 750
P.O. Box 303017 (Zip) 36130-3017
201 Monroe Street (Zip) 36104
Montgomery, Alabama
(334) 206-5383 office
(334) 206-5260 fax
dblair@adph.state.al.us

Kristin Lauria Gurley MS, MPH
Emergency Medical Services Children
Program Manager & PI
Bureau of EMS
288 N. 1460 W
P.O. Box 142004
Salt Lake City, Utah 84114-2004
(801) 538-6011
(801) 718-2839
801) 538-6808 FAX
kgurley@utah.gov

Bob Heath
EMSC Program Manager and Principal Investigator
Nevada Dept. of Health and Human Services
Health Division/EMS
1020 Ruby Vista Dr. Suite 103
Elko, Nevada 89801
(775) 753-1154
(775) 753-4112 FAX
bheath@health.nv.gov

Janet Houston, MHA
EMSC Program Manager
Project Director
New Hampshire EMSC
Dartmouth Hitchcock Medical Center
1 Medical Center Drive
Lebanon, New Hampshire 03756
(603) 653-1131
(603) 653-1139 FAX
jhouston@dartmouth.edu

Melia Jenkins
EMSC Principal Investigator
Bureau of EMS
4052 Bald Cypress Way, Bin C18
Tallahassee, Florida 32399-1738
(850) 245-4440 ext. 2773
(850) 488-2512 FAX
melia_jenkins@doh.state.fl.us
www.doh.state.fl.us/emsc

Mark S. Johnson
10726 Horizon Drive
Juneau, Alaska 99801
907-463-5807 (office)
marksjohnson@attalascom.net

Ann E. Klasner, MD, MPH
EMSC Principal Investigator
Associate Professor
Pediatric Emergency Medicine
University of Alabama at Birmingham
1600 6th Ave South
Midtown Building, Suite #205
Birmingham, AL 35209
(205)-939-9587 office
(205)-975-4623 fax
aklasner@peds.uab.edu

MaryLou Loualhati
EMSC Program Manager
Territorial EMS Administrator
Guam DPHSS, EMSC Program
P.O. Box 2816
Agana, Guam 96932
(761) 735-7304
mmloualhati@yahoo.com

Dan Manz
EMS Director
Office of EMS & Injury Prevention
Vermont Department of Health
108 Cherry Street, Box 70
Burlington, Vermont 05402
(802) 863-7310 or x7313 (Bill)
(802) 863-7577 FAX
dmanz@vdh.state.vt.us

Greg Mears, MD
Associate Professor
North Carolina EMS Medical Director
The EMS Performance Improvement Center
Department of Emergency Medicine
University of North Carolina-Chapel Hill
100 Market Street
Chapel Hill, North Carolina 27516
(919) 843-0201
gdm@med.unc.edu

Rhonda G. Phillippi, RN, BA
Executive Director
TN Emergency Medical Services for Children
2200 Children's Way
Doctor's Office Tower, Suite 5121
Nashville, Tennessee 37232-9075
(615) 343-EMSC (3762)
(615) 936-3476

Tim Price, MD
Kentucky Board of Emergency Medical Services
Kentucky Community and Technical College System
300 North Main Street
Versailles, Kentucky 40383
(859) 256-3565 office
tprice0033@kctcs.edu

Marie Renzi, MSN, RN
EMSC Program Manager
Delaware Office of EMS/duPont Hospital for Children
Blue Hen Corporate Center, Suite 4H
655 Bay Road
Dover, Delaware 19901
(302) 744-5400/5416
(302) 744-5429 FAX
marie.renzi@state.de.us

Bonnie Sinz
EMSC Principal Investigator
EMS Division Chief
EMS Authority
1930 9th Street
Sacramento, California 95814
(916) 322-4336 ext. 460
bonnie.sinz@emsa.ca.gov

Tomi St. Mars RN, MSN, CEN, FAEN
Arizona Department of Health Services
Injury Prevention Program Manager
EMS-C & Safe Kids Arizona
150 N. 18th Ave, Suite 320
Phoenix, Arizona 85007
(602) 542-7340
stmarst@azdhs.gov

Carolynn Zonia, DO, FACEP
Emergency Medicine
St. Francis Hospital
330 Ravine Drive
Hinsdale, Illinois 60521
mark6x@aol.com