

Emergency Medical Services for Children



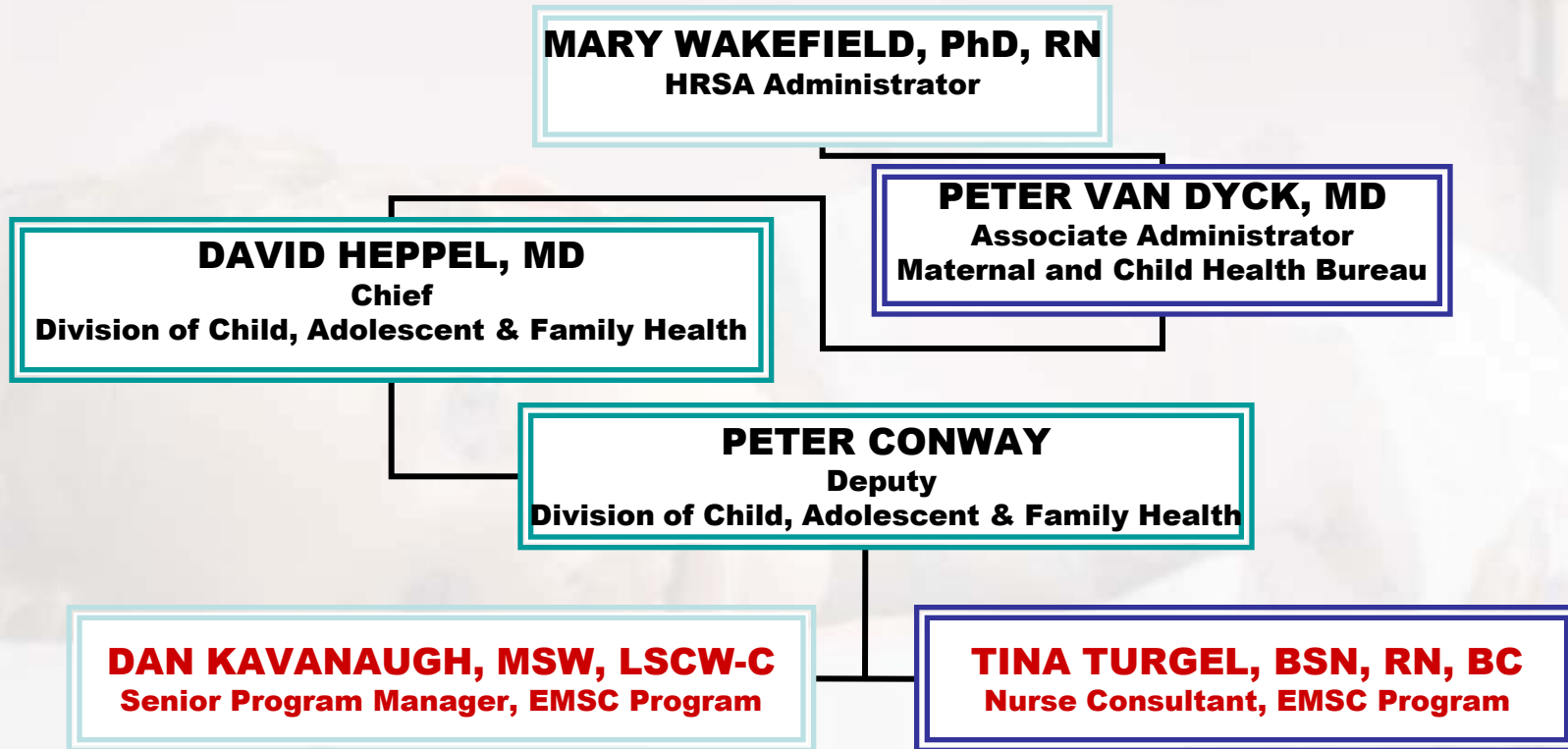
EMSC Program Background

Mission of the Emergency Medical Services for Children Program:

- to ensure state-of-the-art emergency medical care for ill or injured children and adolescents;
- to ensure **pediatric services are well integrated** into state emergency medical services (EMS) system and backed by optimal resources;
- to ensure that the entire spectrum of emergency services - including primary prevention of illness and injury, acute care, and rehabilitation - is provided to children and adolescents as well as adults

Program of HHS/HRSA/MCHB

HRSA / MCHB / EMSC



FY 2010 Appropriations & Authorization

Appropriations:

- **FY 2009:**
 - **President: \$0**
 - **Final appropriations bill: \$20 million**
- **FY 2010**
 - **President's Budget released 5/7/09, recommending \$20 million for the program for fiscal year 2010 (Oct. 09-Sept. 2010.)**

Authorization Proposals

- **HR 2464: Wakefield Act**
 - **Approved by House of Representatives**
- **Senate 408**
 - **No action since introduction.**



EMSC Reauthorization

- The Wakefield Act has been introduced in both the Senate and the House of Representatives to reauthorize the EMSC Program.
 - The bill reauthorizes the Program for five years, from Fiscal Year 2010 through Fiscal year 2014.
 - The bill authorizes a funding level starting at \$25 million in Fiscal Year 2010 and ending at \$30.5 million in Fiscal Year 2014.
 - The bill extends the EMSC grant cycle from three years with an optional fourth year to four years with an optional fifth year.
- HR 479 was introduced in January by Congressman Jim Matheson (D-UT); it was approved by the House in March
- S 408 was introduced in February by Senator Daniel K. Inouye (D-HI); it has not been considered by the Senate.
- One of the three major health care reform bills introduced in Congress (the Senate Health, Education, Labor, and Pension Committee's Affordable Health Choices Act) includes language to reauthorize the EMSC Program.

EMSC Appropriations

- For Fiscal Year 2009, which ends on September 30, the EMSC Program is funded at \$20 million.
- For Fiscal Year 2010, the House of Representatives has approved \$21 million for the Program as part of the Departments of Education, Health and Human Services, and Education (Labor-HHS) appropriations bill.
- The Senate Appropriations Committee has approved \$22 million for the Program as part of its version of the Labor-HHS appropriations bill, but the Senate has yet to consider the measure.
- Within the week, Congress is likely to pass a continuing resolution to provide stopgap funding for federal program, covering the period between the end of the current fiscal year (September 30, 2009, when current funding ends) and when the Fiscal Year 2010 appropriations process is expected to be completed.

EMSC FY 09 Funding

State Partnership Grants

54 continuation

9 in last year at \$115,000

45 in second year at \$130,000

Targeted Issues Grants

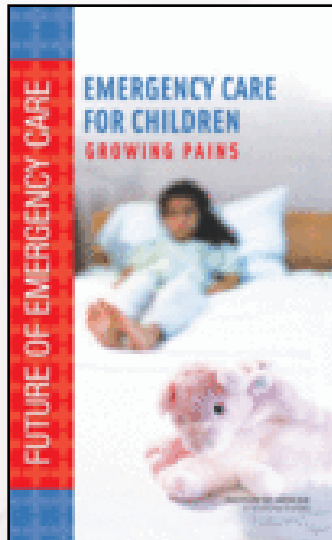
13 continuing projects funded at \$200,000-\$250,000 per year

Network Development Demonstration Project

4 new in 2008 \$890,000 per year

Central Data Management Coordinating Center

1 continuing \$1,110,000 per year



2006 IOM Report on EMSC

“**Children** who are injured or ill have **different medical needs** than adults with the same problems. They have different heart rates, blood pressures, and respiratory rates, and these change as they grow. They often **need equipment that is smaller** than what is used for adults, and they require **medication** in much **more carefully calculated doses**. They have special **emotional needs** as well, often reacting very differently to an injury or illness than adults do. Unfortunately, **although children make up 27 percent of all visits to the ED, many hospitals and EMS agencies are not well equipped** to handle these patients.”

*Emergency Care for Children: Growing Pains
IOM Report 2006*

Future of Emergency Care in the United States Health System

Emergency Care for Children, Growing Pains

Key Recommendations

- **Coordination of Care**
- **Regionalization of Specialty Pediatric**
- **Accountability**
- **Arming the Emergency Care Workforce with Pediatric Knowledge and Skills**
- **Patient Safety and Advancements in Technology and Information Systems**
- **Improve Emergency Preparedness for Children Involved in Disasters**
- **Build the Evidence Base for Pediatric Emergency Care**



EMSC - Improving Care for Children

EMSC Performance Measures

The EMSC Performance Measures were developed in 2005 to demonstrate national outcomes for the EMSC Program and to improve the delivery of emergency care for pediatric patients at the local level.



EMSC Performance Measures

The EMSC Performance Measures represent the best thinking of EMSC experts throughout the country on how to improve the care for children through the EMSC State Partnership grants!

Priorities for 2009-2010:

- Review collected data**
- Strategic planning to affect system change**

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<http://mchb.hrsa.gov/emsc>

EMSC National Resource Center

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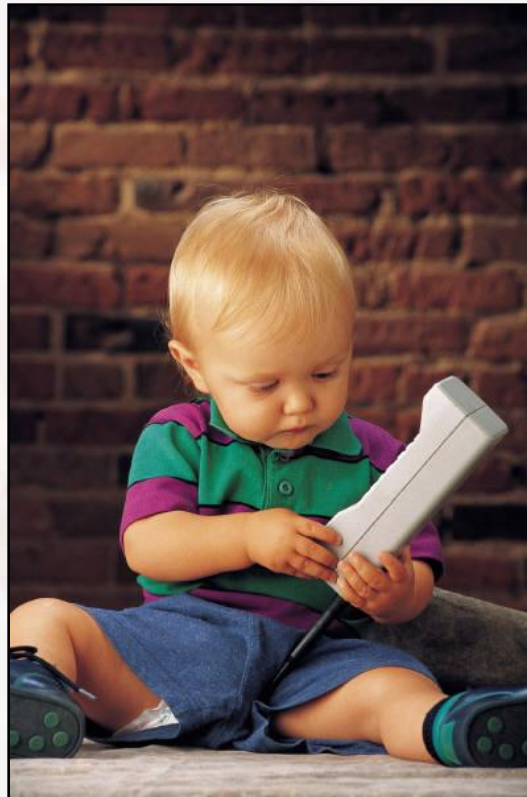
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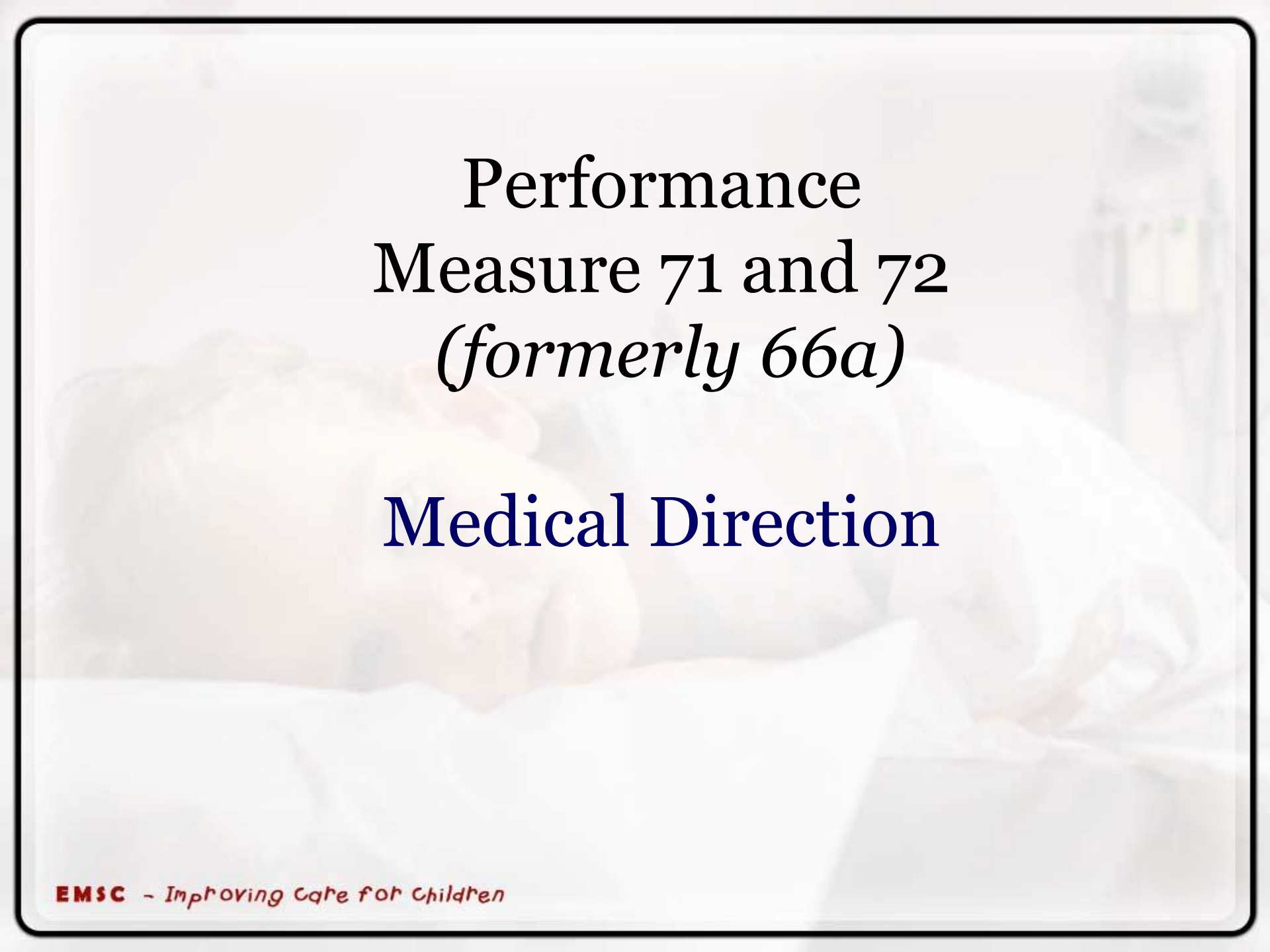
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Website: www.childrensnational.org/emsc



Introducing the EMSC Performance Measures





Performance
Measure 71 and 72
(formerly 66a)

Medical Direction



Why is this important?

Children are not just little adults. Without appropriate pediatric medical direction, whether direct communication or via defined documented protocols, a pre-hospital provider could underestimate a pediatric patient in critical condition, make a medication dosing error, or be unable to effectively triage multiple pediatric patients.

Performance Measure 71

(Formerly 66a (part i))

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.**



Performance Measure 71

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.**



71 On-line Medical Direction

An individual is available 24/7 to EMS providers who 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.

Performance Measure 72 (Formerly 66a (part ii))

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.



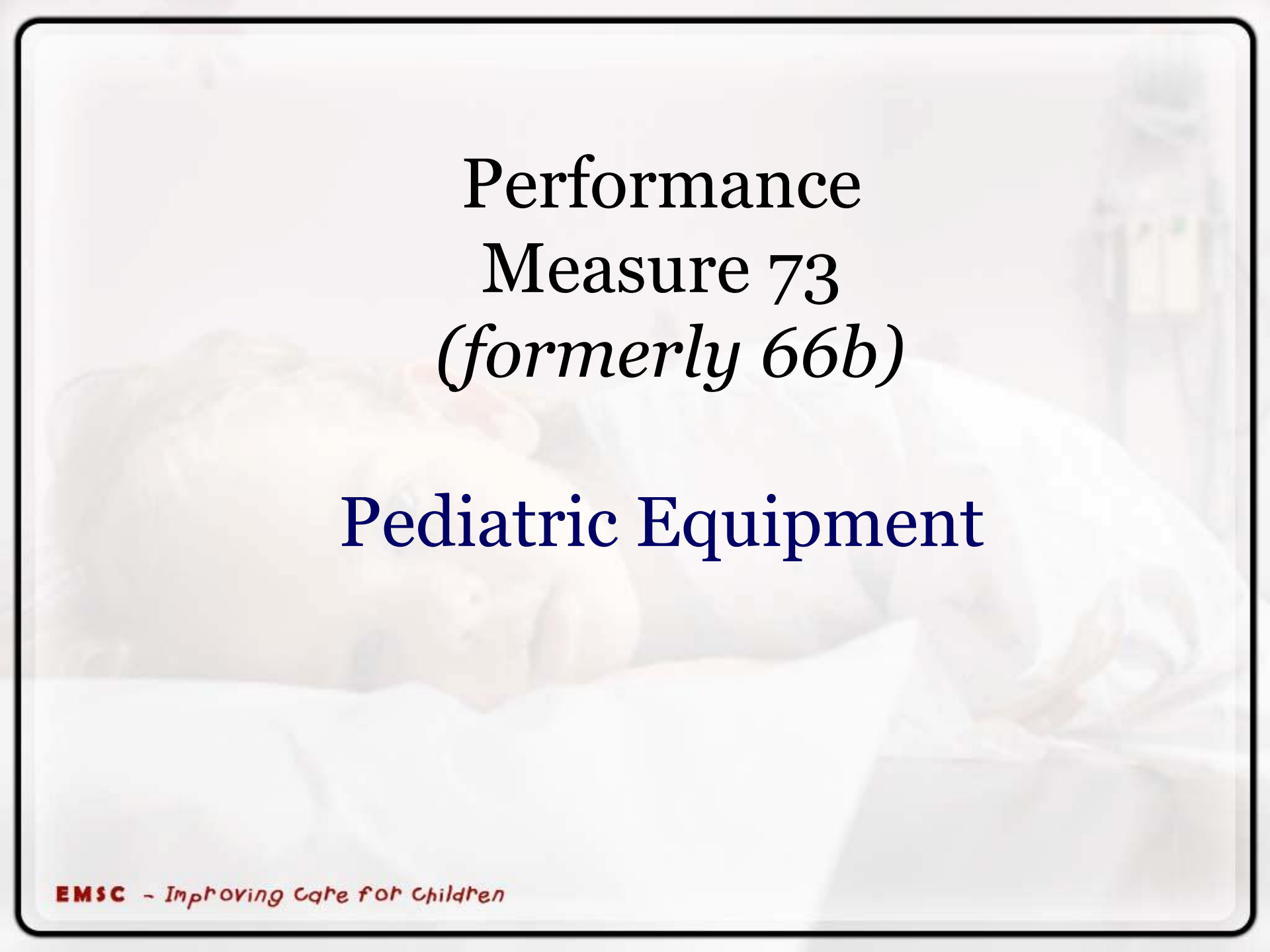
Performance Measure 72

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.**

72 Off-line Medical Direction

Treatment guidelines and protocols used by EMS providers to ensure the provision of appropriate pediatric patient care, available in written or electronic (e.g., laptop/tablet computer) form in the unit or with a provider. Protocols must be available from the time of dispatch through patient transport to a definitive care facility.



Performance
Measure 73
(formerly 66b)

Pediatric Equipment

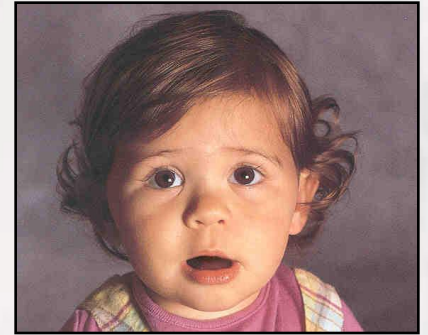
Why is this important?

Without the right sized pediatric equipment, a pediatric airway cannot be managed, an IV cannot be established, a c-spine cannot be immobilized, and appropriate medication doses cannot be delivered.



Performance Measure 73

(Formerly 66b)



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

Performance Measure 73

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.**


Definition: Patient Care Unit?

A patient care unit is defined as a vehicle staffed with EMS 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.



FYI: National Guidelines for Required Pediatric Equipment*

*Equipment for Ambulances, *Pre-hospital Emergency Care*, 2009:13:3,364-369



EQUIPMENT FOR AMBULANCES

Almost four decades ago, the Committee on Trauma (COT) of the American College of Surgeons (ACS) developed a list of standardized equipment for ambulances. Beginning in 1988, the American College of Emergency Physicians (ACEP) published a similar list. The two organizations collaborated on a joint document published in 2000, and the National Association of EMS Physicians (NAEMSP) participated in the 2005 revision. The 2005 revision included resources needed on ambulances for appropriate homeland security. All three organizations adhere to the principle that Emergency Medical Services (EMS) providers at all levels must have the appropriate equipment and supplies to optimize prehospital delivery of care. The document was written to serve as a standard for the equipment needs of emergency ambulance services both in the United States and Canada.

EMS providers care for patients of all ages, who have a wide variety of medical and traumatic conditions. With permission from the ACS COT, ACEP, and NAEMSP, the current revision includes updated pediatric recommendations developed by members of the federal Emergency Medical Services for Children (EMSC) Stakeholder Group. The EMSC Program has developed several performance measures for the Program's State Partnership grantees. One of the performance measures evaluates the availability of essential pediatric equipment and supplies for Basic Life Support and Advanced Life Support patient care units. This document will be used as the standard for this performance measure. The American Academy of Pediatrics (AAP) has also officially endorsed this list.

For purposes of this document, the following definitions have been used: a neonate is 0-28 days old, an infant is 29 days to 1 year old, and a child is >1 year through 11 years old with delineation into the following developmental stages:

- Toddlers (1-3 years old)
- Preschoolers (3-5 years old)
- Middle Childhood (6-11 years old)
- Adolescents (12-18 years old)

These standard definitions are age based. Length-based systems have been developed to more accurately estimate the weight of children and predict appropriate equipment sizes, medication doses, and guidelines for fluid volume administration.

Principles of Prehospital Care

The goal of prehospital care is to minimize further systemic insult or injury and manage life-threatening conditions through a series of well defined and appropriate interventions, and to embrace principles that ensure patient safety. High-quality, consistent emergency care demands continuous quality improvement and is directly dependent on the effective monitoring, integration, and evaluation of all components of the patient's care.

Integral to this process is medical oversight of prehospital care by using preexisting protocols (*indirect* medical oversight), which are evidence-based when possible, or by medical control via voice and/or video communication (*direct* medical oversight). The protocols that guide patient care should be established collaboratively by medical directors

AMERICAN COLLEGE OF SURGEONS
COMMITTEE ON TRAUMA

AMERICAN COLLEGE OF
EMERGENCY PHYSICIANS

NATIONAL ASSOCIATION
OF EMS PHYSICIANS

PEDIATRIC EQUIPMENT GUIDELINES
COMMITTEE—EMERGENCY
MEDICAL SERVICES FOR CHILDREN
(EMSC) PARTNERSHIP FOR CHILDREN
STAKEHOLDER GROUP

AMERICAN ACADEMY
OF PEDIATRICS

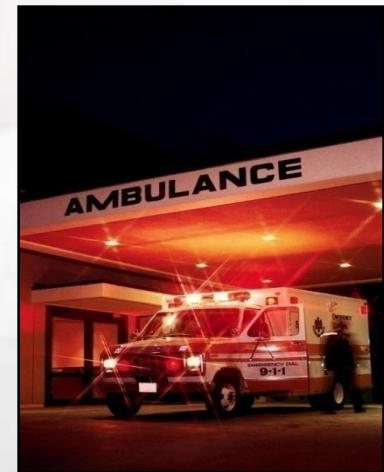
Performance Measures

74
and 75
(formerly 66c)

Hospital Recognition
System

Why is this important?

Without a pediatric emergency facility designation process, access to appropriate critical care, trauma care, or burn care could be delayed. Delays can result in very negative patient outcomes.



Performance Measure 74

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 74

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.

Supporting Documentation

- **Target date for achieving is 2017**
- **Supporting documentation includes:**
 - **Facility recognition application packet;**
 - **Criteria that facilities must meet in order to receive recognition as a facility able to stabilize and/or manage pediatric medical emergencies; and**
 - **List of hospitals participating in the pediatric medical emergency facility recognition program and their corresponding designation/recognition level.**


Performance Measure 75

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.

Performance Measure 75

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 Measures
76 and 77
*(formerly 66d and
66e)*

Inter-facility Transfer

Why is this Important?

- Evidence has shown that the **best outcomes** for critically ill and injured children are achieved **when treated at facilities most prepared** to address their needs.
- Hospitals should have **Inter-facility Transfer Agreements (written formalized arrangements between health care facilities)** that specify alternate care sites capable of meeting the clinical needs of critically ill and injured pediatric patients.
- Hospitals should also have **inter-facility transfer guidelines** that assist hospitals in considering the management of patients needing transport and identify processes needed to expeditiously transfer patients.

Performance Measure 76

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**

Performance Measure 76

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.**

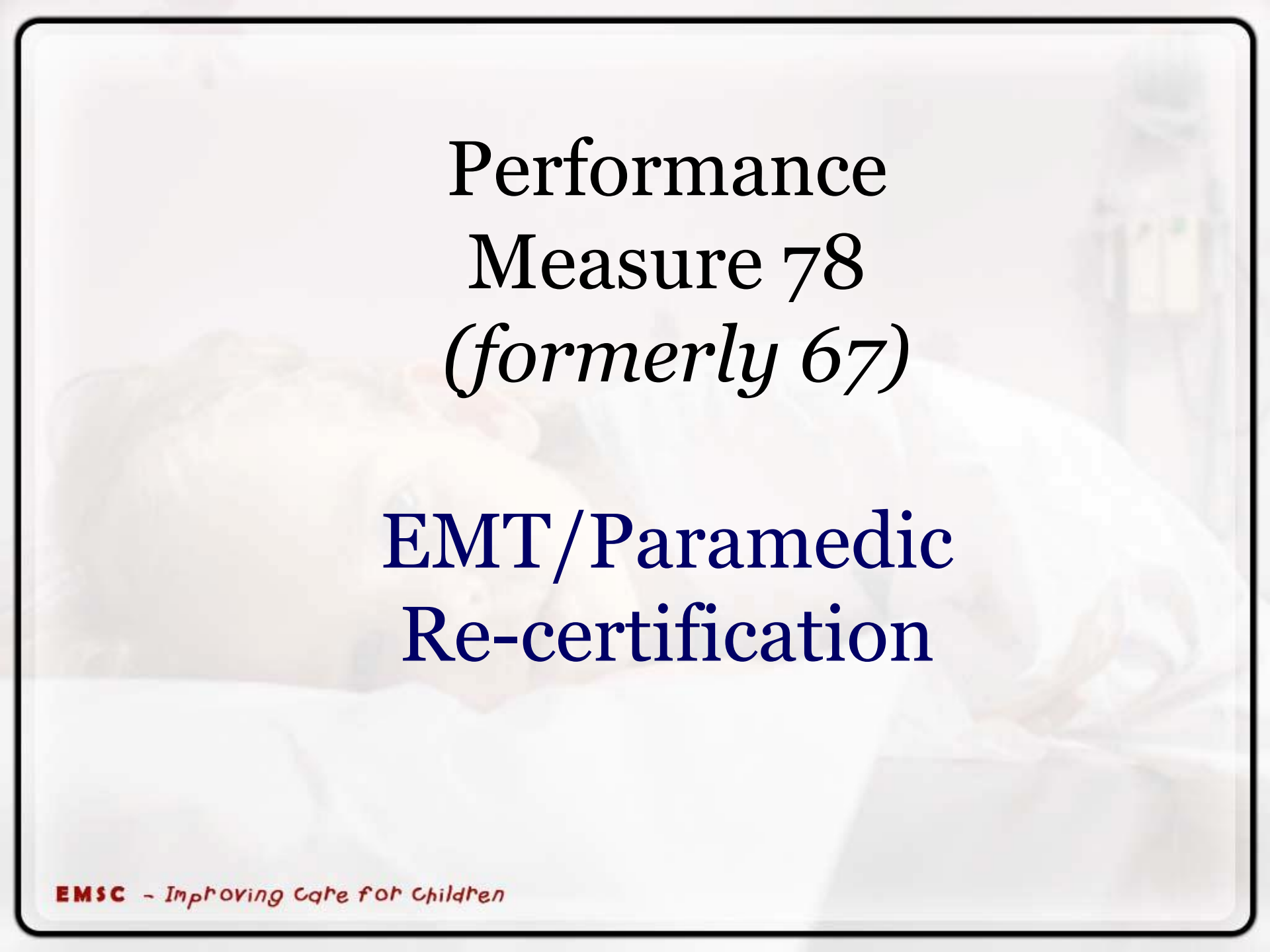
Performance Measure 77

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

Performance Measure 77

By 2011:

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



Performance
Measure 78
(formerly 67)

EMT/Paramedic
Re-certification

Why is this important?

Studies have documented that retention of pediatric emergency skills quickly deteriorate without pediatric continuing education.



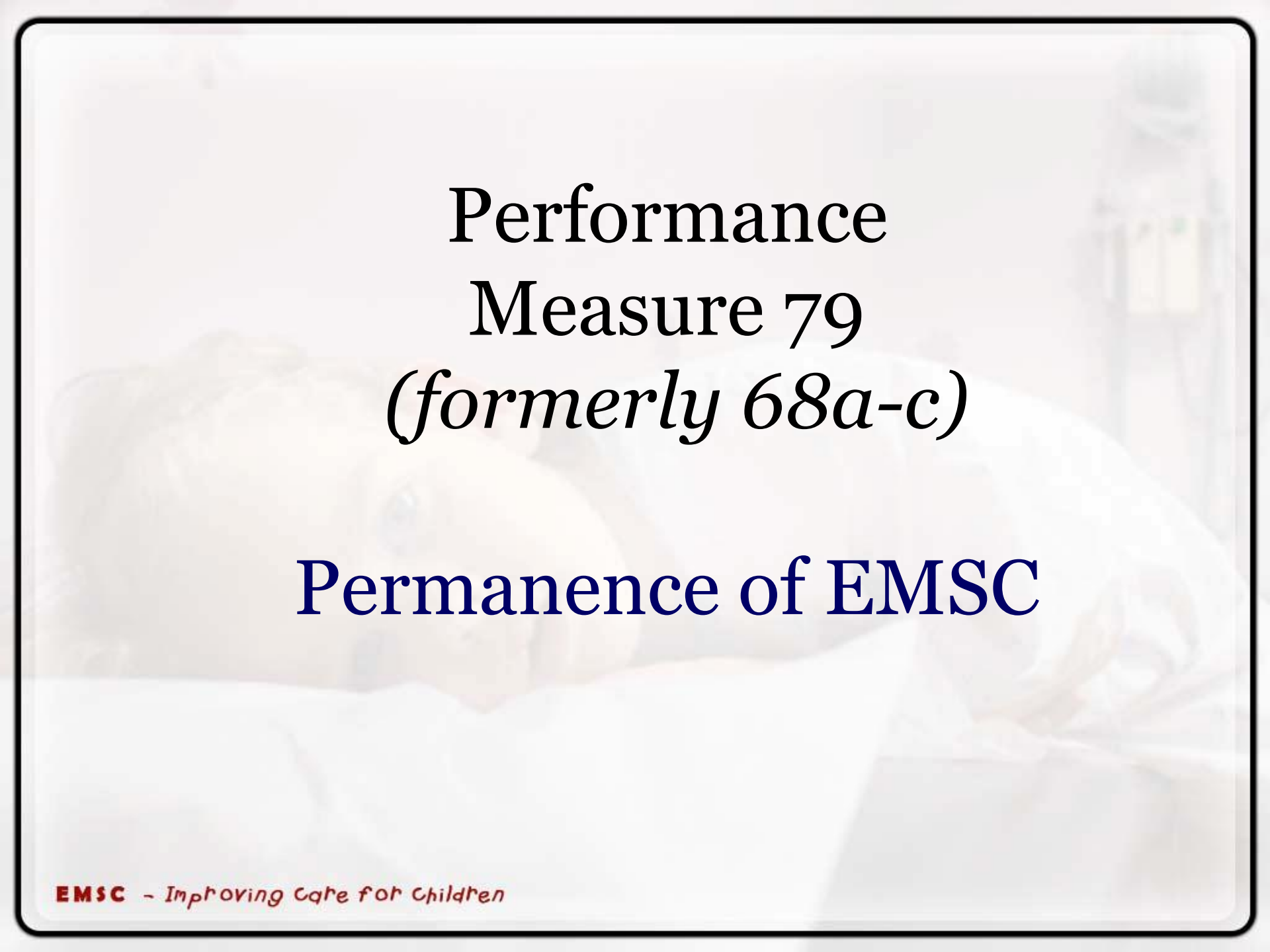
Performance Measure 78

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.

Performance Measure 78

By 2011:

- **The State/Territory will have adopted requirements for pediatric emergency education for the recertification of EMTs and paramedics.**



Performance
Measure 79
(formerly 68a-c)

Permanence of EMSC

Performance Measure 79

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

Why is this important?

A stable EMSC program within your State that includes a dynamic advisory committee, pediatric representation on your state EMS board, and a full-time EMSC program manager, will lead to successful EMS improvements for pediatric patients even if the EMSC grant program ends.

By integrating pediatric priorities into existing EMS rules and regulations, your EMS system changes will become permanent.

Performance Measure 79

Goal:

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

Permanence

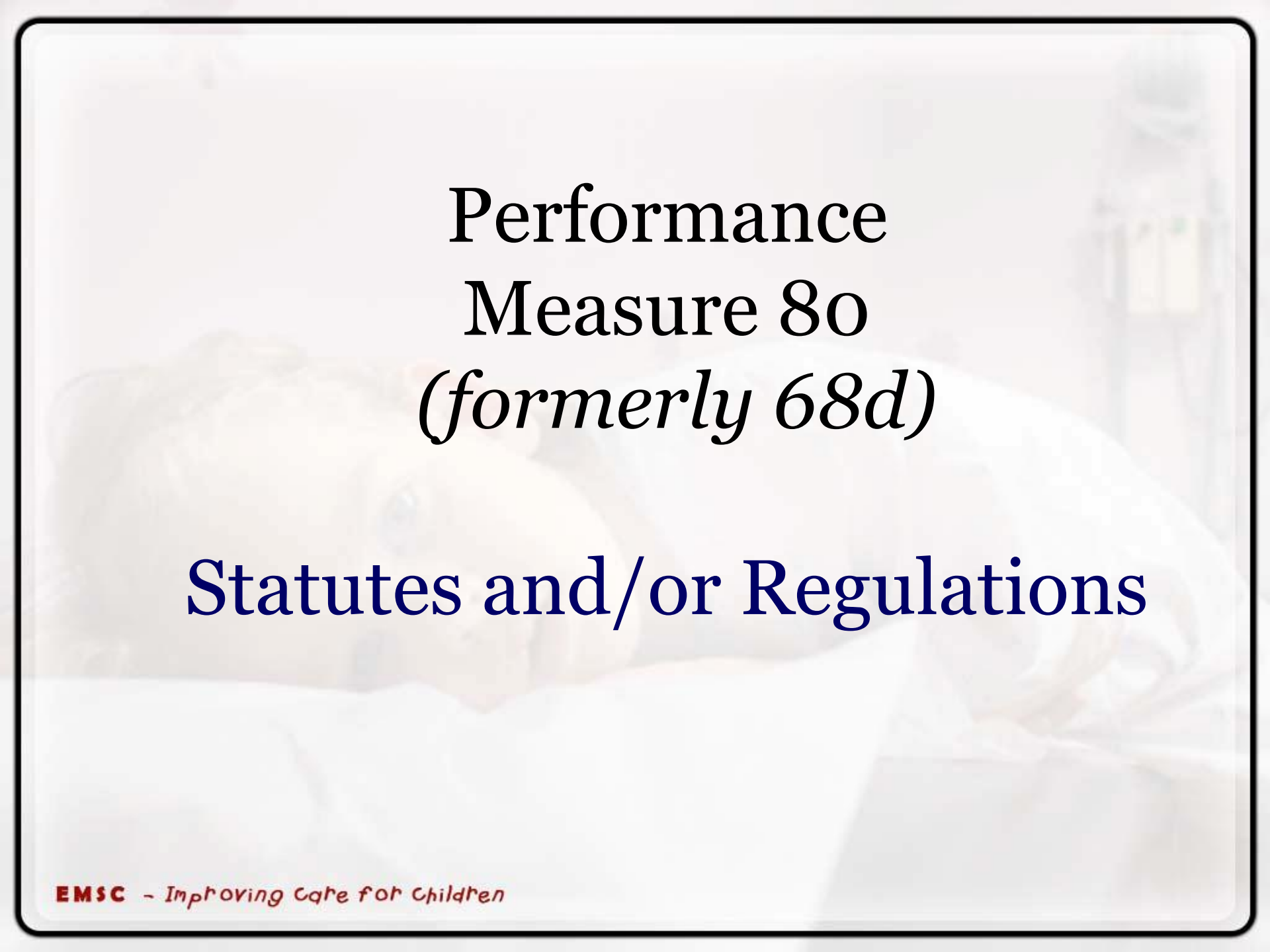
Permanence of EMSC in a State/Territory EMS system is defined as:

- a. The EMSC Advisory Committee has the required members as per the implementation manual.
- b. The EMSC Advisory Committee meets at least four times a year.
- c. By 2011, pediatric representation will have been incorporated on the State/Territory EMS Board.
- d. By 2011, the State/Territory will mandate requiring pediatric representation on the EMS Board.
- e. By 2011, one full time EMSC Manager that is dedicated solely to the EMSC Program will have been established.

Performance Measure 79

EMSC Advisory Committee

1. **Nurse with emergency pediatric experience**
2. **Physician with pediatric training (e.g., pediatrician or pediatric surgeon)**
3. **Emergency physician (a physician who primarily practices in the emergency department; does not have to be a board-certified emergency physician)**
4. **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)**
5. **EMS State agency representative (e.g., EMS medical director, EMS administrator)**
6. **EMSC principal investigator**
7. **EMSC grant manager**
8. **Family representative**



Performance
Measure 80
(formerly 68d)

Statutes and/or Regulations

Performance Measure 80

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

Performance Measure 80

By 2011:

- **EMSC priorities will have been integrated into existing EMS or hospital/healthcare facility statutes/regulations.**

The Priorities

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

- 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.
- 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.
- 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
- Hospitals in the State/Territory 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
- Hospitals in the State/Territory have written inter-facility transfer agreements that cover pediatric patients.
- The adoption of requirements by the State/Territory for pediatric emergency education for the license/certification renewal of BLS and ALS providers.



Helpful Information

EMSC Performance Measures

Helpful Resources:

- EMSC webcasts at www.mchcom.com
- Performance Measures Implementation Manual and FAQs available at www.mchb.hrsa.gov/emsc
- EMSC National Resource Center
- National EMSC Data Analysis Resource Center