Maternal and Child Health Bureau
Emergency Medical Services for Children (EMSC) Program
Webcast

Working Beyond Borders and in Partnership to Create a Pediatric Recognition System

April 8, 2011

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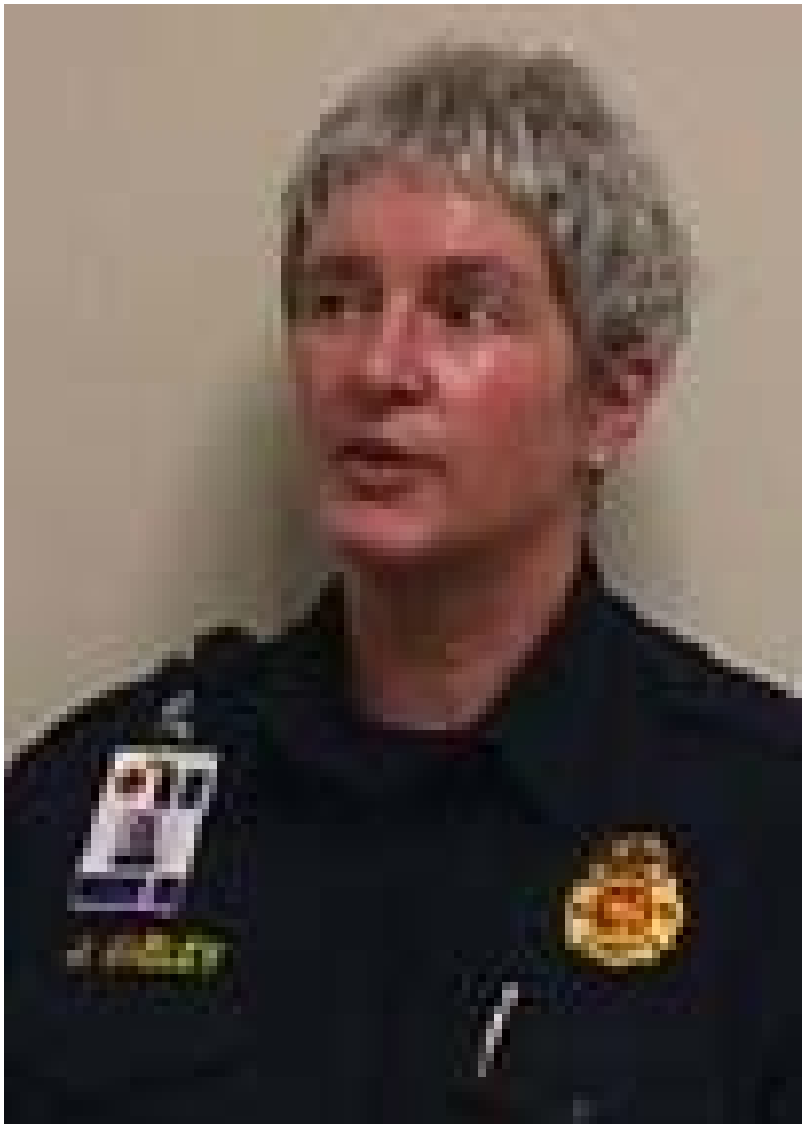

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Department of Emergency Medicine

Working Beyond Borders and in Partnership to Create a Pediatric Recognition System

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Tracie Al'Belar, Georgia EMSC Grantee

Georgia Department of Community Health

DCH Mission

ACCESS

Access
to affordable, quality health care in our communities

RESPONSIBLE

Responsible
health planning and use of health care resources

HEALTHY

Healthy
behaviors and improved health outcomes

DCH Initiatives
FY 2011

FY 2011

Continuity of Operations Preparedness

Customer Service

Emergency Preparedness

Financial & Program Integrity

Health Care Consumerism

Health Improvement

Health Care Transformation

Public Health

Workforce Development

Demographics

- Population: 10 million, 9th largest
- Size: 24th largest; largest state east of Mississippi River
- 159 Counties
- Urban, Rural, Coastal/ Mountain

Organizational Structure of EMS

- Under the Dept of Community Health
- Public Health
- Emergency Preparedness
- State Office of EMS/ Trauma

State Office of EMS/Trauma

- Licensing
- Education
- EMSC Program
- EMSAC/EMSMDAC
- 10 Regional EMS Offices

Trauma

- Trauma Section within OEMST
- Trauma Commission, established 2007
  - EMS Sub-Committee
- Trauma Center Designation
  - 4 level one (3 with pediatric commitment)
  - 8 level two (includes 2 pediatric hospitals)

Revitalizing EMSC

- Created in 1994 with integration into existing EMS state rules and regs
- First Site Visit- May 1,2008
- Presented with the Performance Measures

Hospital Recognition Performance Measure

Researching States for Medical Emergency Model:

- –Started with asking HRSA TA representatives for leads
- –Asking Questions of our own EMSC Committee
- –Asking State EMSC Grantees to send us their models and possibly speak to our group

Researching State Models

States we looked at:

- Arizona
- Utah
- Tennessee
- Illinois

Researching Models: Implementation?

We had questions about Implementation?

- Format and Structure
- Unfunded
- Partnering with GHA/Trauma Commission

Consultation with HRSA

- HRSA recommended we speak with California EMSC
- Conference Call with EMSC Programs and HRSA
- Conference Call with Dr. Gausche-Hill
- Decision to visit Georgia

Initial Data Collection

2007-08 Hospital Data Collection

Inter-facility Transfer Agreements/Guidelines

1. Paper Survey
2. Calling
3. Emailing
4. GHA

Second Data Collection

2010-11 Hospital Data Collection

Inter-facility Transfer Agreements/Guidelines

1. Attended Data Workshop
2. GHA
3. Emailing
4. Calling

Working Beyond Borders and in Partnership to Create a Pediatric Recognition System

EMSC and Pediatric Readiness: Building Regionalized Pediatric Emergency Care within EMS Systems

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Objectives

- Discuss data on preparedness/readiness of EDs and the integration of IOM recommendations and EMSC Performance Measures
- Relate California experience on the development of regionalized pediatric emergency care
- Describe EDAPs and PMCs in Los Angeles County as a model and contrast to other state models

Hot Button Advocacy Issues in EMSC

- Readiness - All elements of the continuum of care must commit to a 'floor' of pediatric readiness upon which capability, training and preparedness can be built.

  - *Pediatrics 2009*

- Regionalization - Injured children in exclusive systems have better outcomes, particularly for isolated head injury and in the youngest age groups. - *J Trauma 2007*

- Categorization – EMSC Performance Measure #74: Percent of hospitals recognized through a standardized system that are able to stabilize and/or manage pediatric medical emergencies. - *Pediatrics 2009 and Annals of Emerg Med 2009*

Critical Questions

- *Does your EMS system have pediatric prehospital treatment protocols?*
- *Does your system have policies for the care and transport destinations of pediatric patients?*
- *Does your EMS system have educational opportunities to improve the knowledge and skills of the EMS workforce?*
- *Does your EMS system transport children to EDs which have met standards for pediatric receiving centers?*
  - *Does your emergency department have staffing, policies and procedure, a quality improvement plan, equipment and medications to care for children of all ages?*
  - *Does your ED have a nursing and physician coordinator for pediatric emergency care?*

Emergency Department Guidelines

PEDIATRICS®
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

New in 2009

Joint Policy Statement Guidelines for Care of Children in the Emergency Department

American Academy of Pediatrics, Committee on Pediatric Emergency Medicine, American College of Emergency Physicians, Pediatric Committee and Emergency Nurses Association Pediatric Committee

Pediatrics 2009;124;1233-1243; originally published online Sep 21, 2009;
DOI: 10.1542/peds.2009-1807

Joint Policy Statement—Guidelines for Care of Children in the Emergency Department

American Academy of Pediatrics Committee on Pediatric Emergency Medicine
American College of Emergency Physicians Pediatric Committee
Emergency Nurses Association Pediatric Committee

0196-0644/$-see front matter

Published simultaneously in the October issues of *Pediatrics* and *Journal of Emergency Nursing*.
doi:10.1016/j.annemergmed.2009.08.010

[Ann Emerg Med. 2009;54:543-552.]

INTRODUCTION

Latest Guidelines Released in 2009

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

American College of Emergency Physicians®

Supported by 22 organizations including American Medical Association, American Heart Association and the Joint Commission

ENA
EMERGENCY NURSES ASSOCIATION
SAFE PRACTICE, SAFE CARE

Physician and Nursing Coordinators for Pediatric Emergency Medicine

- *Why are a physician and nursing coordinator important?*
  - Data suggests that hospitals who assign a physician and/or nursing coordinator:
    - Are significantly more likely to be compliant with national guidelines for preparedness.
    - Staff is more likely to be satisfied and confident of their care of children.
    - The Institute of Medicine Committee on the Future of Emergency Care in the United States Health Care System recommends that emergency departments assign two coordinators for pediatric emergency care; one of whom is a physician

Vital in the implementation of guidelines nationally and in improving pediatric readiness of emergency departments

CDC Data (Middleton K, et al: Advance Data 2006)

- The Emergency Pediatric Services and Equipment Supplement (EPSES) was a self-administered questionnaire added to the 2002-03 National Hospital Ambulatory Medical Care Survey (NHAMCS)
- NHAMCS samples non-federal, short-stay and general hospitals in the United States

CDC Data

- The EPSES content was based on the 2001 AAP and ACEP ED Guidelines
- 53% admitted pediatric patients but did not have a specialized inpatient pediatric ward
- 6% of emergency departments have all the equipment as listed in the 2001 guidelines

Pediatrics, 2007: Conclusions

- >89% of children are seen in non-children's hospitals EDs and about 50% of US EDs see <10 pediatric patients per day
  - 26% of children are seen in rural or remote areas
- Equipment often missing are neonatal or infant sized equipment, pediatric Magill forceps, and LMAs of all sizes
- **Only 59% of respondents were aware of national guidelines**

Pediatrics, 2007: Conclusions

- Overall preparedness of EDs based on 2001 guidelines is low
- Hospitals that tend to be more prepared are urban, higher volume, provide separate care for pediatrics, and have a physician and nursing coordinator for pediatric emergency care
- First study to support IOM recommendation for physician and nursing coordinator for pediatric emergency care

Guidelines Project

- Preparedness as measured by compliance with national guidelines is not reliably correlated with quality measures for common diseases but does indicate “readiness” to provide pediatric emergency care
- There seems to be a time dependent improvement in preparedness that is independent of intervention
  - A “visit effect” occurred – resulting in improved preparedness

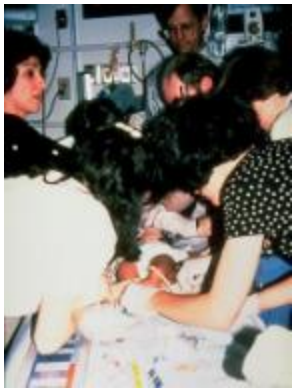
Preparedness/Readiness and Patient Safety

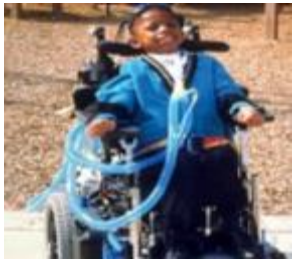
- This study shows that much work is left to be done to improve pediatric readiness/ preparedness of EDs as measured by compliance with national guidelines.
- Readiness to care for children of all ages should be a patient safety directive.
- Strategies to improve readiness/preparedness must go beyond creation of guidelines.
- Strategies may occur at a number of levels – collaboration between systems to share best practices? Local EMS systems mandates? Regulatory? Accreditation?

ED Preparedness Actions

- In the emergency department, readiness has impact daily on the lives of critically ill and injured children presenting to the ED often unannounced.
- Emergency department managers must take action to ensure that staff has appropriate equipment, medications, and competency to care for children
- EMS systems can participate in improving readiness of EDs to care for children

A Model of Regionalized Pediatric Emergency Care





Conceptual Framework

- Parents often transport children to a local emergency department based on geography
- 10% of EMS transports are for children
- EMS systems include hospital receiving centers of varying capabilities

EMS System Construct: Pediatric Emergency Care

- Voluntary concept – hospitals can opt to become pediatric ready based on specific criteria
- Regulatory concept – hospitals are required to comply to pediatric readiness standards
- Option for EMS systems – to verify compliance with criteria through paper survey or on-site verification [later is preferred]
- Outcome – children are transported by EMS to only those hospitals that meet requirements to be pediatric ready

Los Angeles Model

- Voluntary for hospitals to comply
- Department of Health – EMS Agency sets criteria and verifies through on site review
- Hospitals who meet the standards for readiness are the only hospitals who can receive pediatric patients 14 years of age or younger
- Can develop local standards, or use national guidelines

Los Angeles Model – Levels of Pediatric Readiness

- EDAP= Emergency Department Approved for Pediatrics
  - An Emergency Department with specific equipment, staffing, and policies in place to meet the immediate need of child with critical illness or injury
  - SPEDAP - Stand-by EDAP – serves critical access areas
- PMC = Pediatric Medical Center
  - A hospital which has both the emergency department staffed and ready, as well as inpatient capabilities and specialists to care for the ongoing needs of a critically ill or injured child (also called pediatric critical care center (PCCC) or pediatric regional center)
- PTC = Pediatric Trauma Center

Early Years in EDAP Development- Los Angeles County

- Early EMS systems focused on cardiac and trauma care
- Once these systems were in place it became evident that specific needs for children within the system were not being met

Early Years in EDAP Development

- Specific needs identified:
  - Need for uniform pediatric equipment guidelines for paramedics
  - Need for pediatric specific education and treatment guidelines for prehospital personnel
  - Need for a regionalization plan for rapid transport of critically ill/injured children to specialty centers
  - Need for pediatric equipment, staffing, and policy guidelines for emergency departments

The Birth of EDAPs

- James Seidel, MD, PhD at Harbor-UCLA Medical Center
  - Published “Are the Needs Being Met?”
- Working with Eve Black of the LA Pediatric Society, Chapter 2 of American Academy of Pediatrics, and the Los Angeles County EMS Agency developed the first guidelines for prehospital care of children

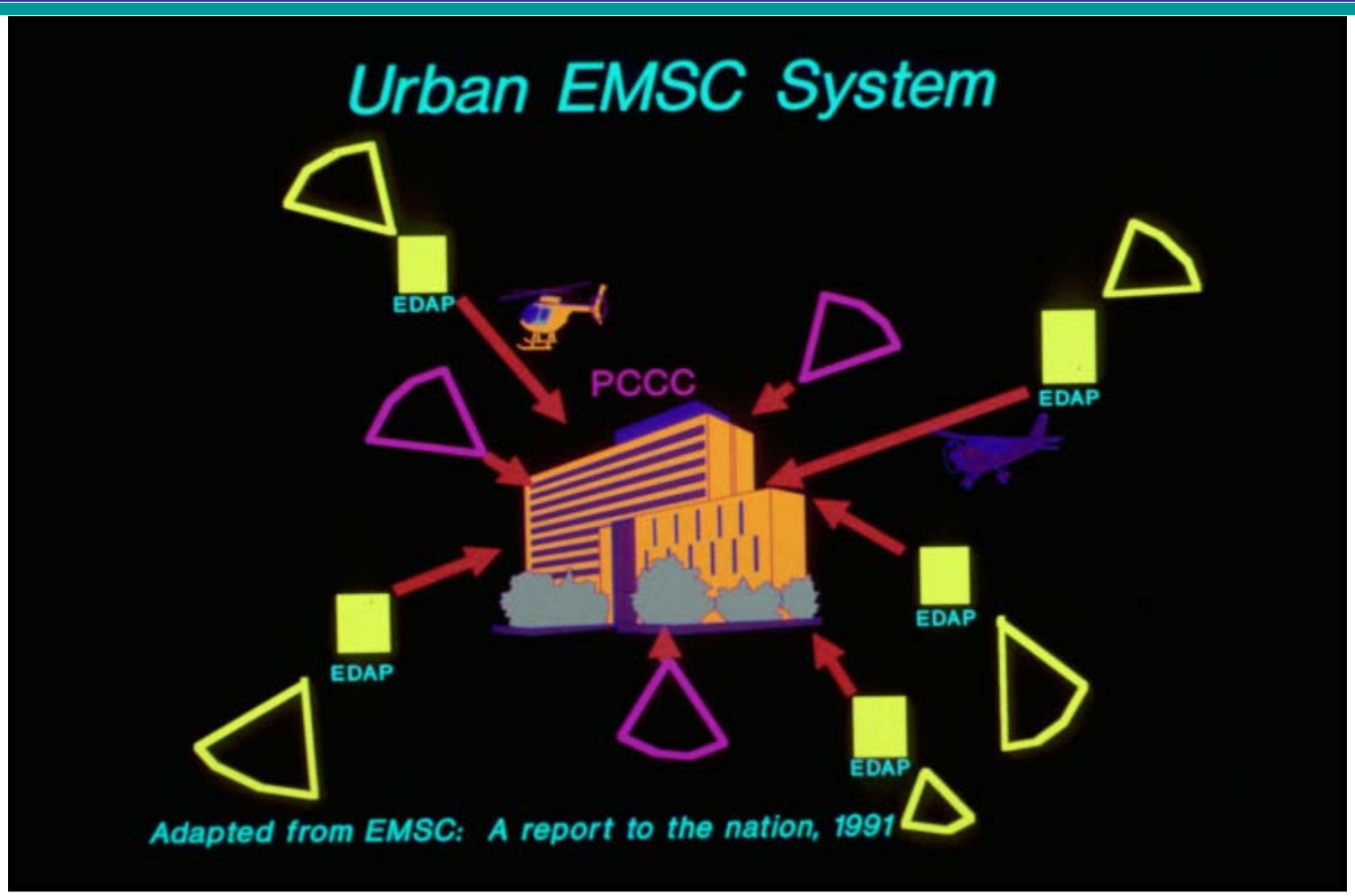
los angeles pediatric society

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

COUNTY OF LOS ANGELES
CALIFORNIA

EDAP concept was the first regionalized system for pediatric emergency care in the U.S.



Physician and Nursing Coordinator for Pediatric Emergency Care

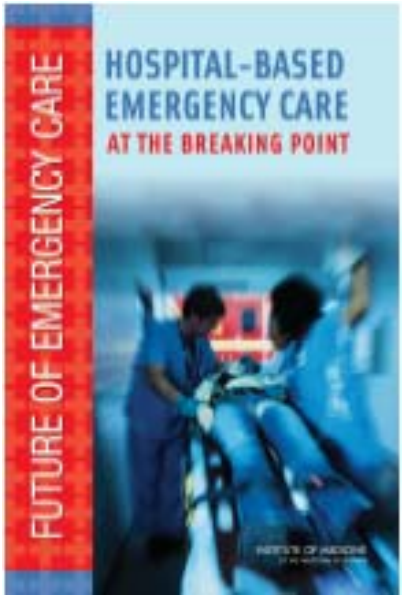
- Each EDAP has a designated Medical Director and Nurse to ensure that guidelines are being met, pediatric emergency equipment is available, a quality improvement process is in place, and that staff receive ongoing continuing education.

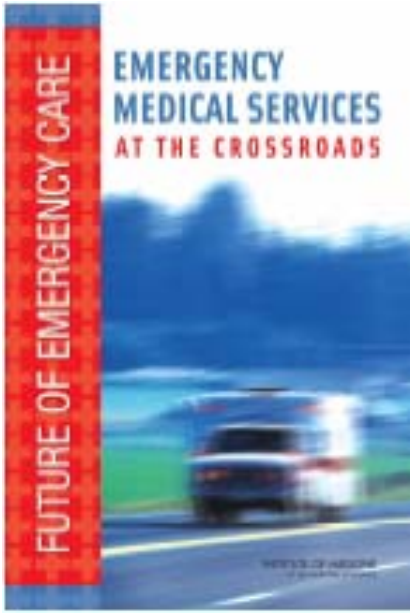
EDAP Concept and National Efforts

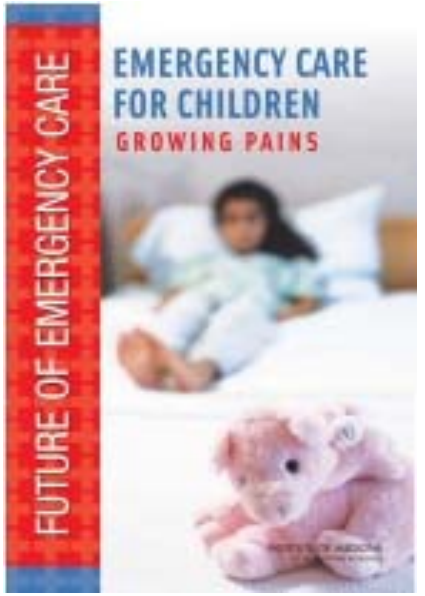
- The EDAP effort in Los Angeles County sparked an interest in evaluating EMS systems nationwide for pediatric capability as well assessing performance improvement activities
- Nationally, there was growing concern that the emergency care system lacked resources for the care of children

Institute of Medicine

- In 2006 – the Institute of Medicine released 3 reports on the Future of Emergency Care in the U.S. Health System







Motivation for IOM Report

- Crowded EDs
- Financial burden of uncompensated care
- Fragmentation
- Inadequate Surge Capacity
- Personnel Shortages
- Limited Data on Quality
- Inadequate Research Funding and Infrastructure
- Limited Preparedness for Pediatric Patients

Vision for the Future of Emergency Care

A Coordinated, Regionalized, and Accountable Emergency Care System

IOM Dissemination Workshop

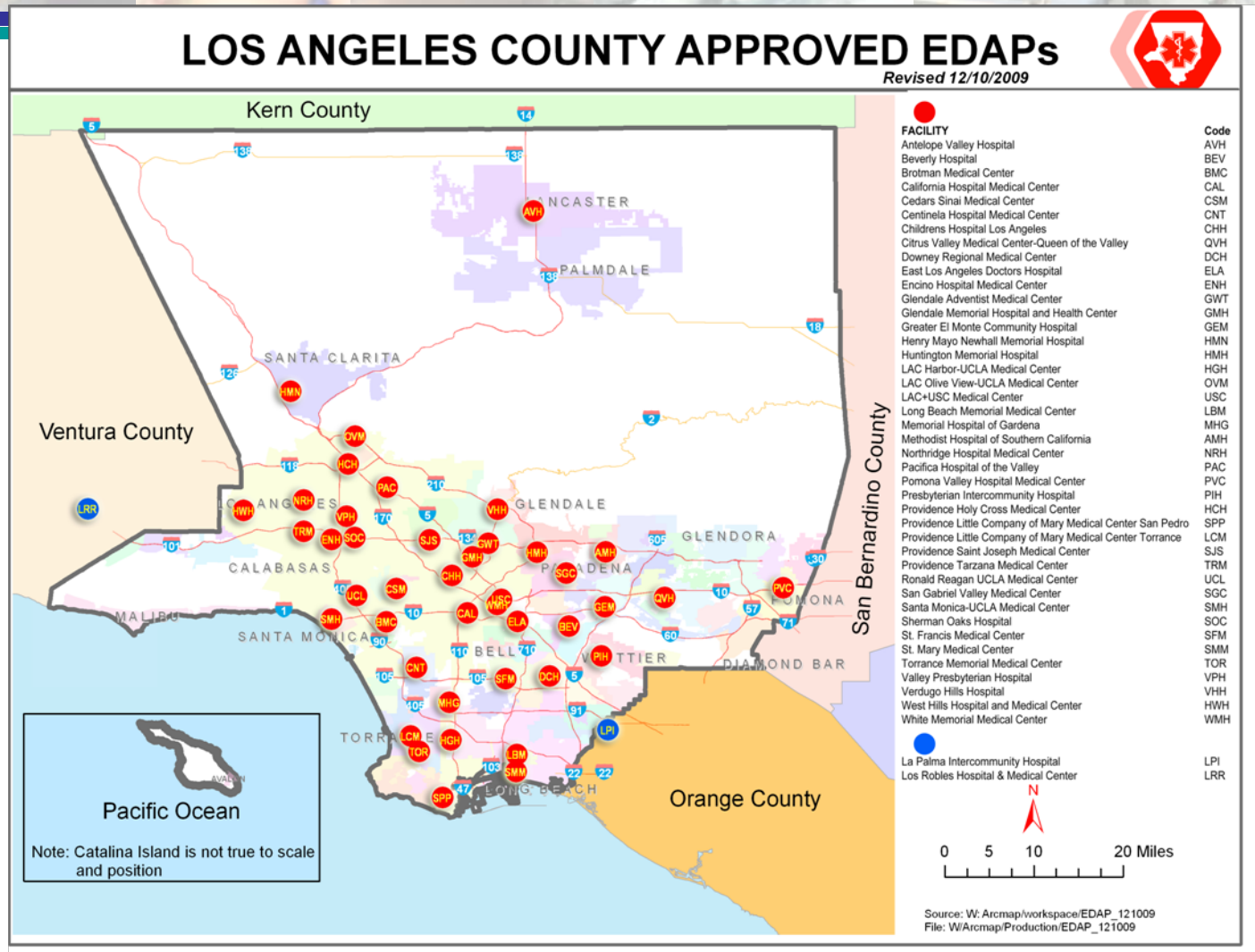
- Ms. Curtis “chief of staff for Rep. Pete Stark (D-CA)…states
  - “it is unconscionable” that the nation’s EDs are not prepared for children and that Congress should be needed to intervene to make sure that the nations’ EDs are prepared for children”.

What next?

IOM Recommendations and the EDAP Program

- EMS agencies and hospitals to appoint pediatric coordinators to provide pediatric leadership.
  - LA County EMS Agency has been a leader here…having established a system and appointing pediatric emergency care experts within its committee structure
  - Pediatric Liaison Nurses and EDAP Medical Directors provide the necessary oversight and quality improvement at EDAP/PMCs

The EDAP Program Today



Progress

- In the past decade, over 200,000 children have been transported to EDAPs,
- In the same period, over 30,000 have been taken to critical care (PCCC/PMC/PTC) centers
- LA County EMS averages 27,000 EDAP transports/year
- There are 44 EDAPs, 7 PMCs of which 6 are PTCs

LA County EMS Agency as Innovators

- LA County EMS Agency established the first program of regionalized care for pediatric emergency and critical care in the United States
- The EDAP program in Los Angeles County has ensured readiness of the system to meet the needs of children

A Number of Other Models

- New Jersey Model – requires through regulation that all EDs meet pediatric readiness standards
- Illinois Model – inclusive and voluntary – 50% of hospitals within the state participate

Federal EMSC - State Partnership Performance Measures, 71-75

Performance Measure 71 (formerly PM 66a (i))	The percent of prehospital 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 72 (formerly PM 66a (ii))	The percent of prehospital provider agencies in the state/territory that have off-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.
Performance Measure 73 (formerly PM 66b)	The percent of patient care units in the state/territory that have essential pediatric equipment and supplies as outlined in national guidelines.
Performance Measure 74 (formerly 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.
Performance Measure 75 (formerly 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.

Federal EMSC - State Partnership Performance Measures, 76-80

Performance Measure 76 (formerly PM 66d)	The percentage of hospitals in the state/territory that have written interfacility transfer guidelines that cover pediatric patients and that include pre-defined components of transfer.
Performance Measure 77 (formerly PM 66e)	The percent of hospitals in the state/territory that have written interfacility transfer agreements that cover pediatric patients.
Performance Measure 78 (formerly PM 67)	The adoption of requirements by the state/territory for pediatric emergency education for license/certification renewal of BLS/ALS providers.
Performance Measure 79 (formerly PM 68a,b,c)	The degree to which state/territories have established permanence of EMSC in the state/territory EMS system by establishing an EMSC Advisory Committee, incorporating pediatric representation on the EMS Board, and hiring a full-time EMSC manager.
Performance Measure 80 (formerly PM 68d)	The degree to which state/territories have established permanence of EMSC in the state/territory EMS system by integrating EMSC priorities into statutes/regulations.

Permanence of EMSC in California

- Statute – Health and Safety Code
  - Chapter 11 Division 2.5 (1989)
  - Chapter 12
  - **1799.202.** This chapter shall be known and may be cited as the California Emergency Medical Services for Children Act of 1996. [Added by AB 3483 (CH 197) 1996.]

EMSC Plan

- **1799.205.** A local EMS agency may develop an EMSC Program in its jurisdiction, contingent upon available funding. If a local EMS agency develops an EMSC Program in its jurisdiction, the local EMS agency shall develop and incorporate in its EMS plan an EMSC component that complies with EMS plan requirements. The EMSC component shall include, but need not be limited to, the following:
  - (a) EMSC system planning, implementation, and management.
  - (b) Injury and illness prevention planning, that includes, among other things, coordination, education, and data collection.
  - (c) Care rendered to patients outside the hospital.
  - (d) Emergency department care.
  - (e) Interfacility consultation, transfer, and transport.
  - (f) Pediatric critical care and pediatric trauma services.
  - (g) General trauma centers with pediatric considerations.
  - (h) Pediatric rehabilitation plans that include, among other things, data collection and evaluation, education on early detection of need for referral, and proper referral of pediatric patients.
  - (i) Children with special EMS needs outside the hospital.
  - (j) Information management and system evaluation. [Added by AB 3483 (CH 197) 1996.]

EMSC Regulation

- The State of California is taking the next step…which is to write EMSC Regulations
- Goal is to establish permanence of conceptual framework within exiting EMS systems
- Allow for growth of EMSC in all communities

California – Established EMSC Technical Advisory Committee

- Members are multidisciplinary
- Include prehospital personnel
- EMS State Authority representatives
- Nurses
- Physicians (critical care, pediatrics, emergency medicine)
- Parents

Partner and Strategize

- Sharing of information between systems is useful – description of the challenges and what works
- Have a basis for request in change
- Partner early and have stakeholders vested – advocates and naysayers can be a powerful team
- Data speaks and actual human interest stories demonstrating need for change makes your demands personal

Conclusions

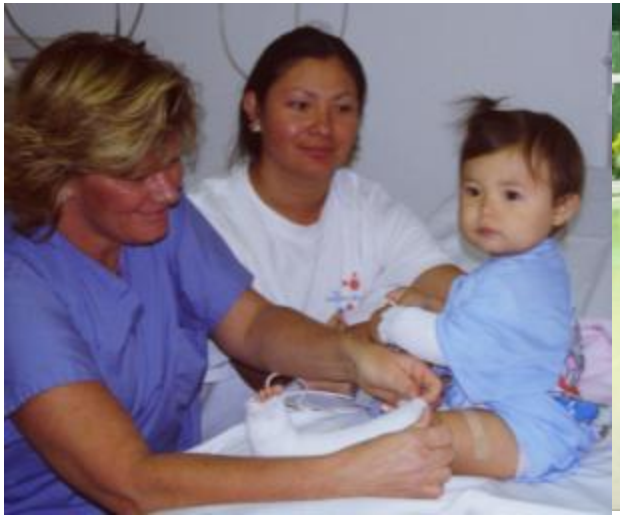
- A number of models are available to establish EMSC within states
- The California model has been successful but there are other models – best to use what works locally
- Georgia to involve stakeholders early and to develop a statewide task force to vest those in the process
- Partnerships which share best practices are powerful means for change

New Opportunity

- EMSC is partnering with ACEP, AAP, and ENA to disseminate of a web-based survey to assess compliance of emergency departments with the 2009 pediatric preparedness guidelines as part of a national effort to build awareness and assist hospitals in pediatric readiness efforts.
- Hospitals will for the first time be able to Benchmark their readiness against hospitals within their state and within the nation
- Let’s get Ready for Kids!!!!!!!!

Questions/ Discussion



Useful Resources and Links

- **Guidelines for Care of Children in the Emergency Department: Joint AAP/ACEP/ENA Policy Statement – October 2009**
  - http://aappolicy.aappublications.org/cgi/reprint/pediatrics;124/4/1233.pdf
  - http://download.journals.elsevierhealth.com/pdfs/journals/0196-0644/PIIS0196064409014358.pdf
  - http://www.ena.org/about/position/jointstatements/Pages/Default.aspx

http://webcast.hrsa.gov/postevents/archivedWebcastDetailNewInterface.asp?aeid=514

California State and Local Standards

- Los Angeles County EMS Agency – Emergency Department Approved for Pediatrics (EDAP) standards: http://ems.dhs.lacounty.gov/SpCentersHospitalPrograms/EDAPs/EDAPStandards.pdf
- Los Angeles County EMS Agency – Pediatric Medical Center standards: http://ems.dhs.lacounty.gov/SpCentersHospitalPrograms/EDAPs/2003mpccc.pdf
- California EMS Authority Emergency Department Guidelines http://ems.dhs.lacounty.gov/SpCentersHospitalPrograms/EDAPs/EMSC182.pdf

Useful Resources and Links

- **The Future of Emergency Care in the US Health System**
  - **Institute of Medicine Report Brief, National Academy of Sciences – June 2006**
  - http://www.aap.org/visit/IOM-EmergencyCare.pdf
- **A Statewide Model Program to Improve Emergency Department Readiness for Pediatric Care & Illinois EMSC Facility Recognition Program – August 2009**
  - http://www.annemergmed.com/article/S0196-0644(08)02190-2/abstract
  - http://www.luhs.org/depts/emsc/facility.htm

Useful Links and Resources

- **Patient- and Family-Centered Care and the Role of the Emergency Physician Providing Care to a Child in the Emergency Department**
  - **Joint AAP/ACEP Policy Statement & AAP Technical Report – November 2006/August 2008**
  - http://download.journals.elsevierhealth.com/pdfs/journals/0196-0644/PIIS0196064406022669.pdf
  - http://aappolicy.aappublications.org/cgi/reprint/pediatrics;122/2/e511.pdf
- **Patient Safety in the Pediatric Emergency Care Setting**
  - **AAP Policy Statement – December 2007**
  - http://aappolicy.aappublications.org/cgi/reprint/pediatrics;120/6/1367.pdf

EMSC Resources

- **Federal EMSC Program**
  - http://bolivia.hrsa.gov/emsc/
- **National EMSC Data Analysis Resource Center**
  - http://www.nedarc.org/nedarc/index.html

EMSC Resources

- **EMSC National Resource Center**
  - http://www.childrensnational.org/EMSC/
- **EMSC Toolbox on Pediatric Equipment Guidelines**
  - http://www.childrensnational.org/EMSC/PubRes/PediatricEquipment.aspx
- **EMSC Toolbox on Facility Categorization**
  - http://www.childrensnational.org/EMSC/PubRes/Facility.aspx
- **EMSC Performance Measures**
  - http://www.childrensnational.org/EMSC/ForGrantees/Performance_Measures.aspx

Useful Links and Resources

- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine, Committee on Medical Liability, and Task Force on Terrorism. The pediatrician and disaster preparedness. *Pediatrics.* 2006;117(2):560-565
- American Academy of Pediatrics, Committee on Pediatric Emergency Medicine. Access to optimal emergency care for children. *Pediatrics.* 2007;119(1):161-164.
- American Academy of Pediatrics, Medical Home Initiatives for Children With Special Health Care Needs. The medical home. *Pediatrics.* 2002;110(1):184-186.
- Gausche-Hill M, Schmitz C, Lewis RJ. Pediatric preparedness of United States emergency departments: a 2003 survey. *Pediatrics.* 2007;120(6):1229-1237.

Georgia Moving Forward

- Accomplishments
- Barriers
- Future Direction

Accomplishments

- Data Collection
- Increasing Education
- Increasing Representation at Regional levels for EMSC
- GA Academy of Pediatricians/GA College of Emergency Physicians
- GHA/Trauma Commission Involvement

Barriers

- Hospital Destination Choice
- Funding
- Difficulty with Hospital Buy-in
- Death of EMSC Chair

Future Direction

- Revision of Rules to allow for State Designation
- Pediatric Pandemic Preparedness
- eBroselow Project
- Ad Hoc Committee of Stakeholders

Lessons Learned

- Creating Relationships
- Identifying Individuals with an interest in EMSC
- Strengthening the Regional EMSC's

Q & A Session

Please complete the evaluation at the conclusion of this webcast.