STATE LEVEL PEDIATRIC EMERGENCY PREPAREDNESS

Clinician Outreach and Communication Activity (COCA) Conference Call

April 20, 2011

Office of Public Health Preparedness and Response
Division of Emergency Operations

Objectives

At the conclusion of this session, the participant will be able to accomplish the following:

- Identify gaps in pediatric emergency preparedness
- Describe the national recommendations to improve pediatric preparedness
- Discuss the importance of developing public health partnerships specific to improving pediatric emergency preparedness
- Identify pediatric emergency preparedness strategies that can be implemented at the state level

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National Commission on Children and Disasters

Meeting the Unique Needs of Children in Disasters:

A State Perspective

David Schonfeld, MD, FAAP

Member, National Commission on Children and Disasters

The findings and conclusions in this presentation are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention

National Commission on Children and Disasters

Children are 25% of the general population, but…

- Disaster training, exercising, medicines and equipment are generally intended for able-bodied adults
- Children placed into broad categories: “at-risk” “vulnerable” or “special needs” populations
- Shortfalls in meeting children’s needs apparent in recent disasters: H1N1, American Samoa, Haiti

National Commission on Children and Disasters

Commission Purpose

- Assess needs of children related to preparedness, response and recovery from all-hazards and emergencies
- Report gaps and recommendations to the President and Congress

National Commission on Children and Disasters

Important Milestones

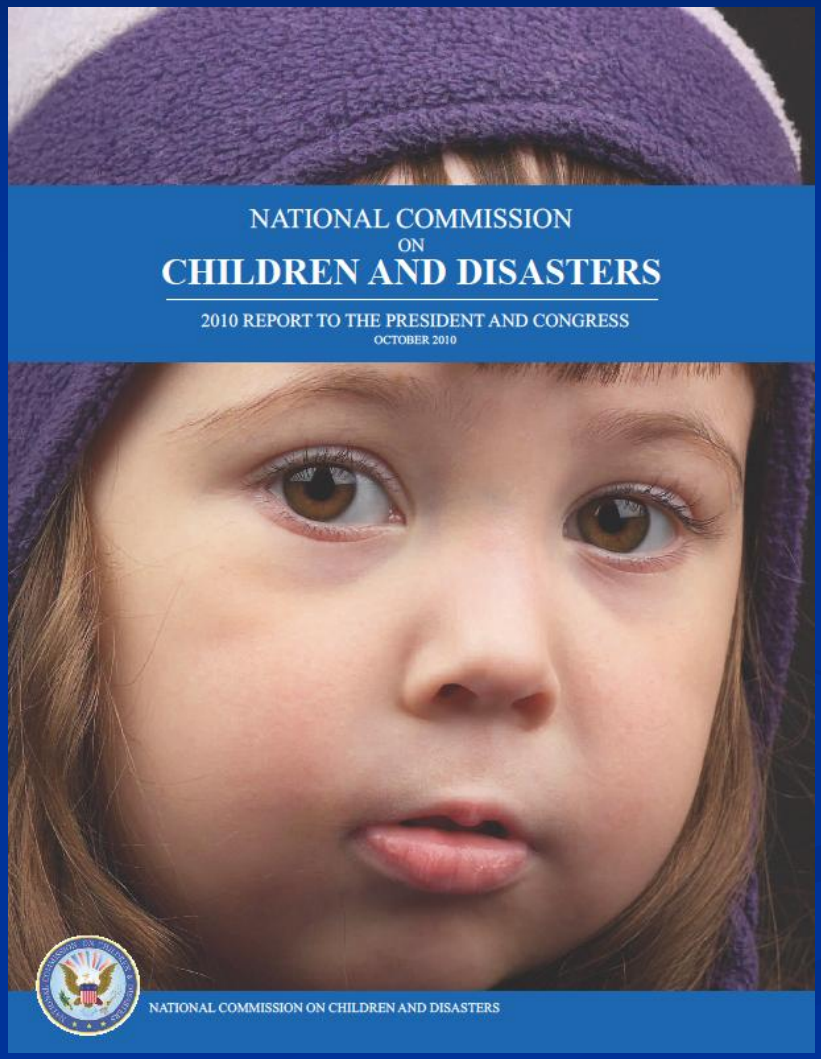
- October 14, 2008: First Public Meeting
  - Public meetings held on a quarterly basis
- October 14, 2009: Interim Report delivered to President Obama and Congress
- October 14, 2010: 2010 Report delivered to the President and Congress
- April 4, 2011: Authorization expires

National Commission on Children and Disasters

Commission Background

- **Independent:** Authorized by Congress under Federal law; not tied to any agency
- **Bipartisan:** 10 members appointed by President, Senate and House leaders
- **Diverse:** Expertise drawn from several disciplines: pediatrics, state and local emergency management, non-governmental organizations, and state elected office

National Commission on Children and Disasters



National Commission on Children and Disasters

National Strategy for Children and Disasters

- All levels of government should:
  - Integrate children across all phases of disasters
  - Designate a permanent focal point for coordinating children's needs
  - Encourage relationship building and cooperation *prior* to disasters
  - Build on existing capabilities and requirements
  - Require Accountability: institute goals and progress monitoring measures
  - Stress everyone has a role: Feds, states, locals, non-profits, private sector, parents and even children

National Commission on Children and Disasters

Child Physical Health and Trauma

- Ensure availability and access to pediatric MCM at the federal, state and local level
  - Provide funding and guidance for the development, acquisition and stockpiling of MCM for children in the SNS
  - Amend the EUA to allow authorization of pediatric indications of MCM before an emergency
  - Create an advisory body to advise HHS Secretary on pediatric MCM
  - Increase pediatric representation within BARDA and establish a pediatric and obstetric working group to conduct gap analyses and make research recommendations

National Commission on Children and Disasters

Child Physical Health and Trauma (cont.)

- Expand the medical capabilities of all federally funded response teams through the comprehensive integration of pediatric-specific training, guidance, exercises, supplies and personnel
- Ensure all health care professionals who may treat children during an emergency have adequate pediatric disaster clinical training
- Fund a formal regionalized pediatric system of care for disasters

National Commission on Children and Disasters

Child Physical Health and Trauma (cont.)

- Prioritize the recovery of pediatric health and mental health care delivery systems in disaster-affected areas
  - Congress should establish sufficient funding mechanisms to support restoration/continuity
  - Create Medicaid and Children's Health Insurance Program incentive payments for providers in disaster areas
  - AMA should adopt a new code or modifier to the CPT for disaster medical care to enhance reimbursement

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EMS and Pediatric Transport

- Improve the capability of EMS to transport pediatric patients and provide comprehensive pre-hospital pediatric care
  - States meet performance targets of EMSC program
  - BLS and ALS vehicles equipped with recommended pediatric equipment and supplies

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Mental and Behavioral Health

- Integrate mental and behavioral health for children into public health and medical emergency plans and activities
- Enhance pediatric disaster mental and behavioral health training for professionals and paraprofessionals
- Enhance the research agenda for children's disaster mental and behavioral health
- Establish a funding mechanism to support disaster-related mental health treatment for children

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Education

- Improve the preparedness of schools and school districts by providing additional support to States.
- Enhance the ability of school personnel to support children recovering from a disaster.
- Ensure that recovering school systems are provided immediate resources to reopen and restore the learning environment in a timely manner

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Shelter Operations

- Provide a safe and secure mass care shelter environment for children, including access to essential services and supplies.
- National Standards and Indicators for Mass Care Emergency Shelters
  - Adopted by FEMA, American Red Cross
  - Incorporated into shelter assessment tools
  - Examples include:
    - Children sheltered together with their families or caregivers
    - Designated area for families away from general population
    - Temporary respite care for children

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Shelter Supplies

- Shelter Supply List for Infants and Toddlers
  - Identifies basic supplies necessary to sustain and support 10 infants and children <4 years of age for a 24 hour period.
  - Examples: Formula, baby food, diapers, feeding bottles, cribs, portable playpens

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Evacuation and Tracking

- Contracts with private entities should ensure evacuation and transportation needs of children
- Evacuee and patient tracking systems include data relevant to identifying children
- Health and human service agencies must have legal and technological capabilities to share information

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Child Care Disaster Preparedness

- Require disaster planning capabilities for child care providers
- Improve capacity to provide child care services in the immediate aftermath of and recovery from a disaster
  - FEMA will reimburse state and local governments and private nonprofit organizations for child care provided in shelters or stand-alone facilities during the emergency sheltering period.
  - HHS collaborating with FEMA to provide guidance for developing comprehensive statewide child care disaster plans.
  - Save the Children and NACCRA developing guidance for child care providers.

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Disaster Case Management

- States should develop a DCM program that is appropriately resourced to provide consistent holistic services that achieve tangible, positive outcomes for children and families.

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Suggested Child-Focused Checklist for States

- Include needs of children in disaster training, exercises and after action reports
- Establish an advisory body such as a Governor's Cabinet on Children and Disasters
- Designate staff in Governor's office and State agencies to focus on children's needs
- Direct Federal preparedness grants to support the needs of children
- Include child-serving systems (schools, child care, child welfare, juvenile justice, mental health) in state disaster planning
- Establish disaster planning standards for child-serving systems, including evacuation, family reunification, accommodation of children with special needs and collaboration with emergency management

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Suggested Child-Focused Checklist for States (cont.)

- Capability of emergency personnel to transport children and provide effective pre-hospital pediatric care
- Capability of hospital Emergency Departments to provide effective care for children
- Basic psychological first aid training for emergency personnel to assist children
- Access to medical countermeasures for children and an effective plan to distribute countermeasures

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Suggested Child-Focused Checklist for States (cont.)

- Disaster preparedness plans for state child care administrators including plans for standing up emergency child care
- Include child tracking and family reunification procedures in emergency plan
- Provide safe shelter environment for children and families, including access to essential age-appropriate supplies
- Identify resources within and outside the state to address surge in needs for children…especially health and mental health needs

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Suggested Child-Focused Checklist for States (cont.)

- **Long-term disaster recovery plan for children and families**
  - Includes family-appropriate housing, schools, child care, mental health, medical care, child welfare, juvenile justice and court facilities

National Commission on Children and Disasters

2010 Report: Reference Materials for States

- Appendix C: Model Executive Order or Resolution Creating a Cabinet on Children and Disasters and a Children and Disasters Advisory Council
- Appendix D: Children and Disasters: the Role of States and Local Governments in Protecting This Vulnerable Population
- Appendix E: Standards and Indicators for Disaster Shelter Care for Children
- Appendix F: Supplies for Infants and Toddlers in Mass Care Shelters

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Commission Overarching Messages

- Children are not simply "small adults"
- Children are the center of family and community
- Disasters are especially disruptive to children
- Children as assets, not liabilities, in disasters
- Recovery more than rebuilding infrastructure
- Disaster planning is a shared responsibility

National Commission on Children and Disasters

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www.childrenanddisasters.acf.hhs.gov

Thank You
For Your Commitment to Children !

State Level Pediatric Emergency Preparedness

The Emergency Medical Services for Children (EMSC) Program

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The findings and conclusions in this presentation are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention

Faculty Disclosure Information

- In the past 12 months, I have not had a significant financial interest or other relationship with the manufacturer(s) of the products or provider(s) of the services that will be discussed in this presentation.

- This presentation will not include include discussion of pharmaceuticals or devices that have not been approved by the FDA.

State Level Pediatric Emergency Preparedness: The EMSC Program – Learning Objectives

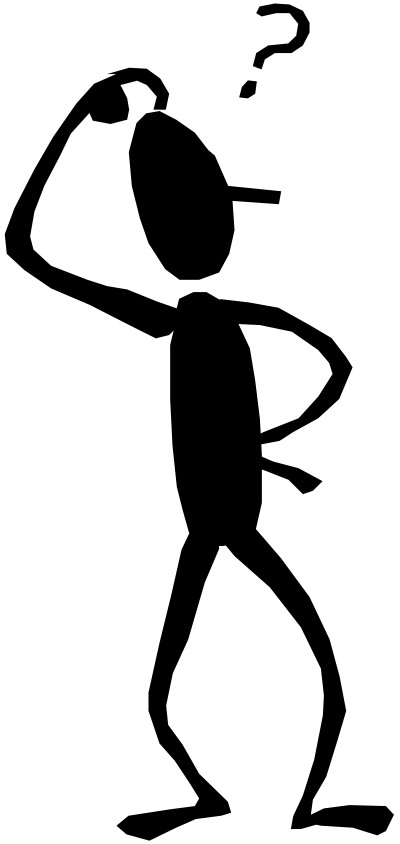
- The Emergency Medical Services for Children (EMSC) program and Pediatric Emergency Medicine (PEM) have been inextricably linked for more than 25 years. Clinicians should be cognizant of the broad influence that EMSC has had on best practice and policy related to the emergency care of children across the United States.

  - Define the major programmatic accomplishments of the federal Emergency Medical Services for Children (EMSC) program.

  - Identify the EMSC performance measures against which states are benchmarked in their readiness to care for children in an emergency.

EMSC: What you really need to know

- Programmatic overview
- State performance measures



EMSC: Programmatic Mission

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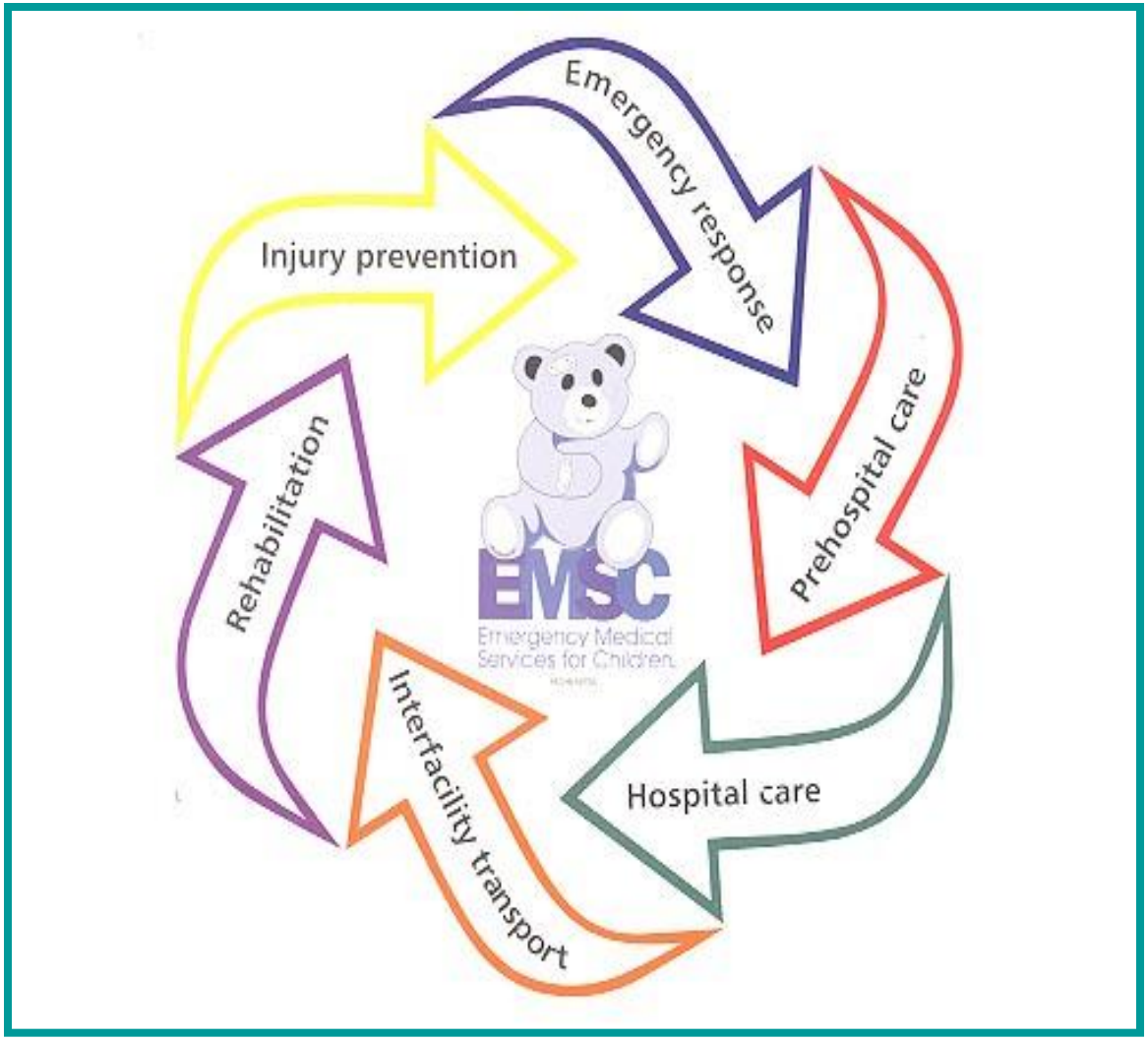
- To ensure:
  - state-of-the-art emergency medical care for the ill or injured child and adolescent
  - that pediatric services are well integrated into an emergency medical services (EMS) system and backed by optimal resources
  - that the entire spectrum of emergency services - including primary prevention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

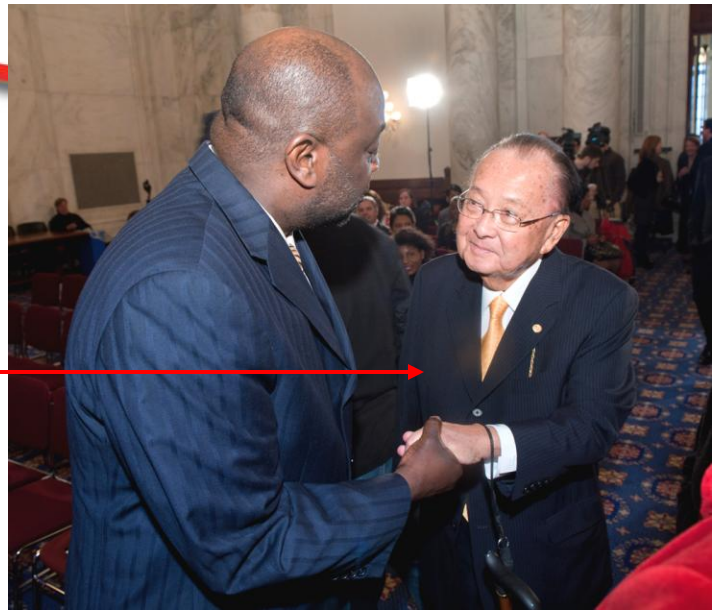
EMSC in a Nutshell:
Continuum of Care

- *Prevention*
- Bystander
- Prehospital
- Transport
- Definitive Care
- Rehabilitation
- *Postvention*



EMSC – Vital Signs

- Bipartisan Senate bill sponsorship [**Inouye** (D-HI), Hatch (R-UT), Weicker (R-CT)] 1983



- Authorizing legislation enacted 1984; reauthorized x 6, most recently in the Patient Protection and Affordable Care Act

Calvin C.J. Sia, MD, FAAP

Reauthorization of the Wakefield Emergency Medical Services For Children Program

- The Patient Protection and Affordable Care Act (PL 111-148):
  - Section 1910 of the Public Health Service Act is amended…
    - 4 years authorization with optional 5th
    - $25M to $30.4M incrementally FY10 thru FY14
    - "...strive to enhance the pediatric capability of emergency medical service systems originally designed primarily for adults"

EMSC – Vital Signs, cont.

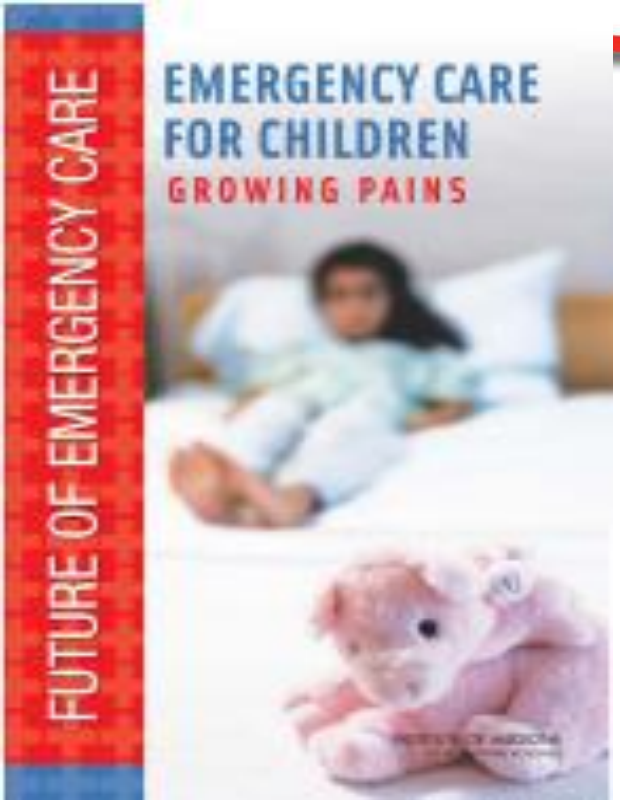
- Funding (DHHS/HRSA/MCHB):
  - First federal appropriation 1985 ($2 million)
  - FY 11 President's budget ($21.5 million)

- 80 grantees across 4 funding categories:
  - Technical Assistance Centers, n=2
  - NDDP/PECARN, n=5 (expanding to 7)
  - Targeted Issue Grants, n=18
  - State Partnership Grants, n=55

FY11 EMSC Targeted Issue Grants Focused on Prehospital Care

- Integrating Evidence Based Pediatric Prehospital Protocols into Practice (Manish Shah, MD—Texas Children's Hospital)

- Refining Pediatric Triage Algorithms and Education in the Prehospital Setting (Mark Cicero, MD—Yale University)



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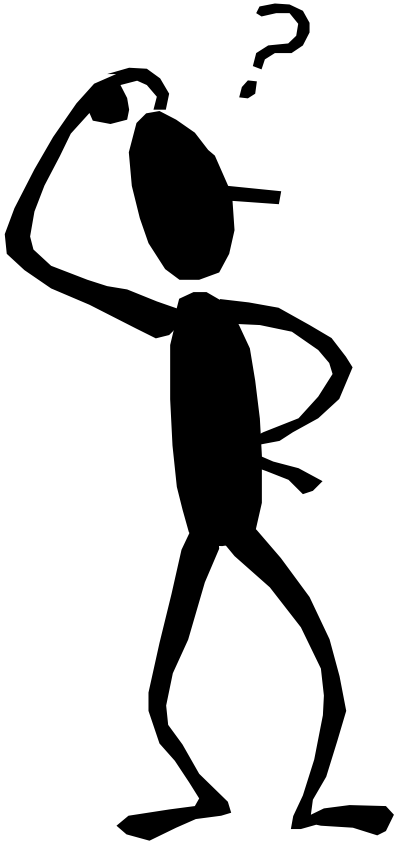
Current State of Pediatric Emergency Care

- "If there is one word to describe pediatric emergency care in 2006 it is Uneven"

Growing Pains, pg. 33

EMSC: What you really need to know

- Programmatic overview
- State performance measures



EMSC Performance Measures (PM)

- Designed to measure effectiveness of federally-supported programmatic and research grants in accordance with the **Government Performance Results Act (GPRA)**

State Partnership Performance Measures, 71-75 (Arkansas)

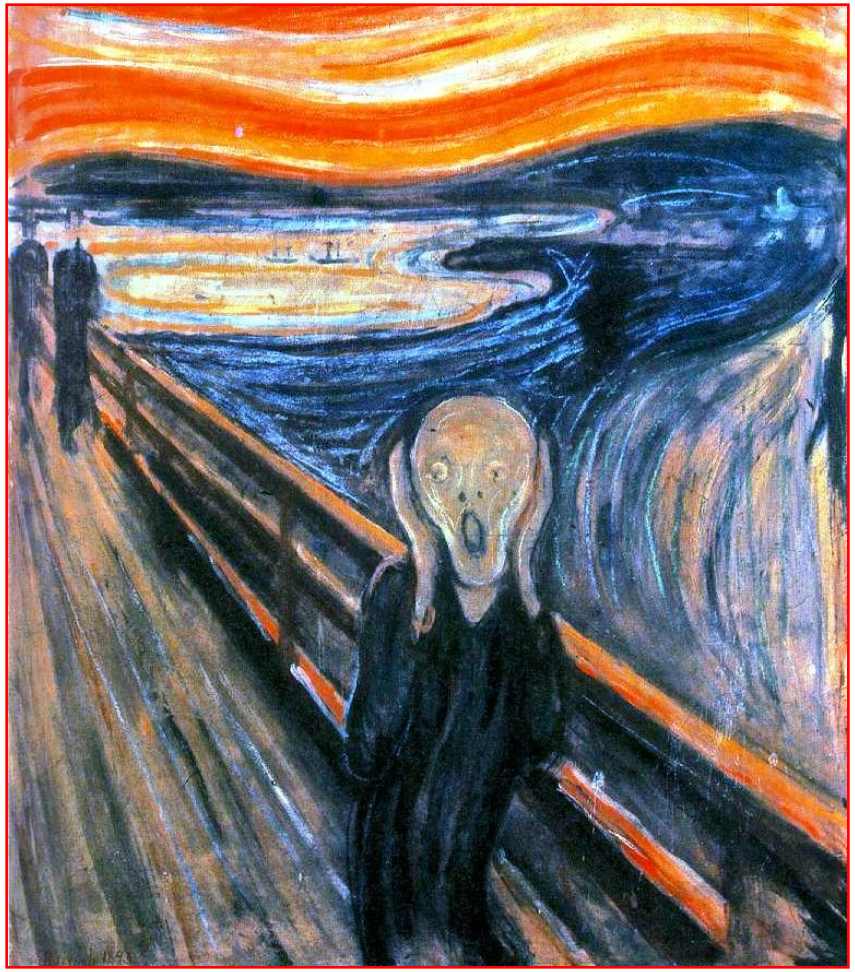
*Partially **Achieved***	The percent of prehospital provider agencies in the state/territory that have on-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.
*Partially **Achieved***	The percent of prehospital provider agencies in the state/territory that have off-line pediatric medical direction available from dispatch through patient transport to a definitive care facility.
In Progress	The percent of patient care units in the state/territory that have essential pediatric equipment and supplies as outlined in national guidelines.
In Progress	The percent of hospitals recognized through a statewide, territorial, or regional standardized system that are able to stabilize and/or manage pediatric medical emergencies.
In Progress	The percent of hospitals recognized through a statewide, territorial, or regional standardized system that are able to stabilize and/or manage pediatric traumatic emergencies.

State Partnership Performance Measures, 76-80 (Arkansas)

In Progress	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.
In Progress	The percent of hospitals in the state/territory that have written interfacility transfer agreements that cover pediatric patients.
In Progress	The adoption of requirements by the state/territory for pediatric emergency education for license/certification renewal of BLS/ALS providers.
*Partially **Achieved***	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.
*Partially **Achieved***	The degree to which state/territories have established permanence of EMSC in the state/territory EMS system by integrating EMSC priorities into statutes/regulations.

EMSC PM #80: Towards EMSC Permanence at the State Level

- The degree to which the State has established permanence of EMSC in the State EMS system through ***statute and/or regulation***.



Access to Care

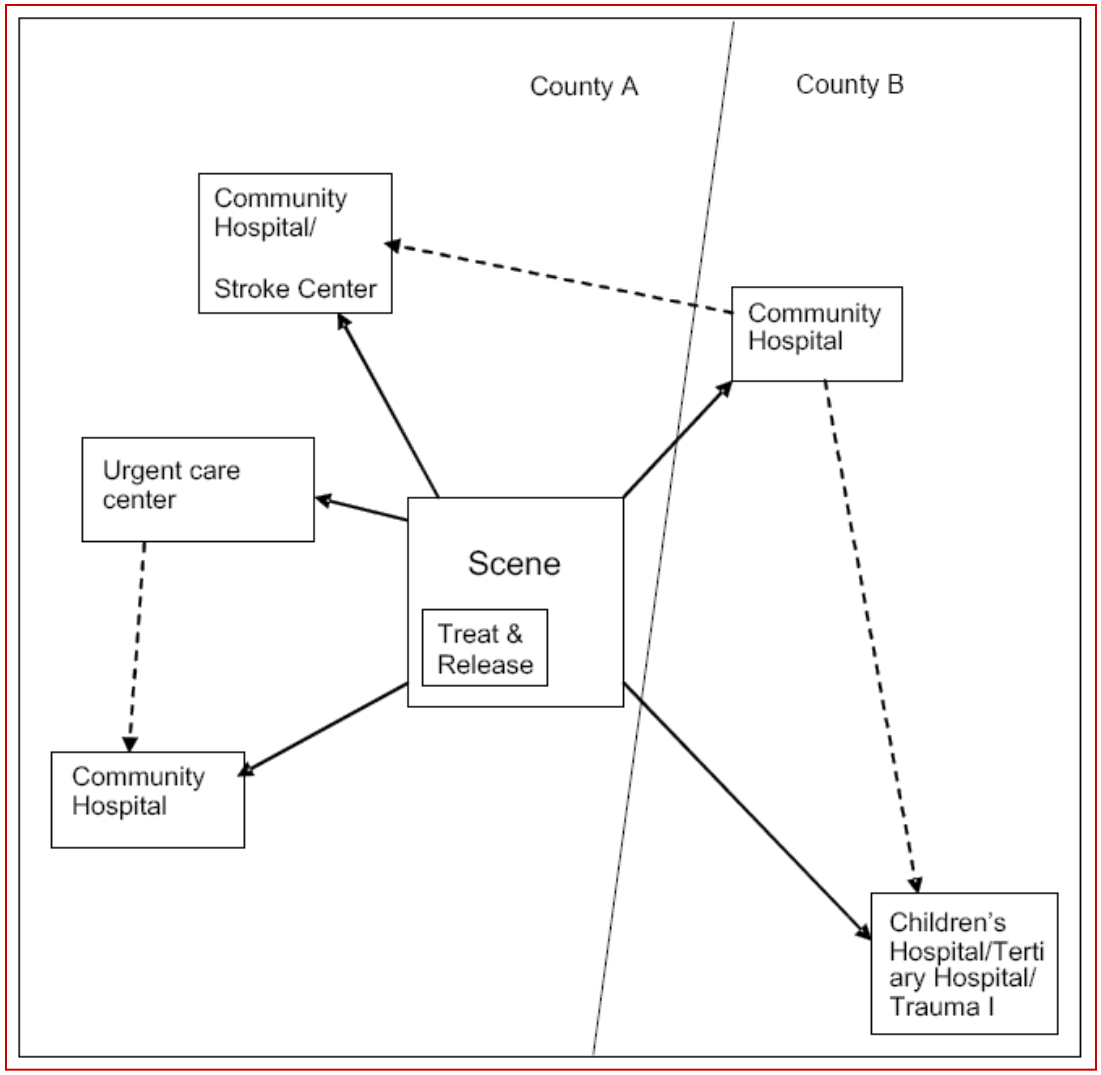
- 92% of children in the emergency care system are seen in non-children's hospitals
- Only 2-3% of seriously injured children are initially treated at a pediatric trauma center
- 75% of emergency departments see < 20 kids/day
- 50% of emergency departments see <10 kids/day

Wright J. *Clin Ped Emerg Med* 2001; 2:3-12

Gausche-Hill M. *Pediatrics* 2007; 120:1229-37

Regionalization

- A geographically organized system of services that ensures access to care at a level appropriate to patient needs, while maintaining efficient use of the available resources.



Annals of Emergency Medicine, August 2009

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PEDIATRICS/CONCEPTS

A Statewide Model Program to Improve Emergency Department Readiness for Pediatric Care

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Evelyn Lyons, MPH
Daniel Leonard, MS, MCP

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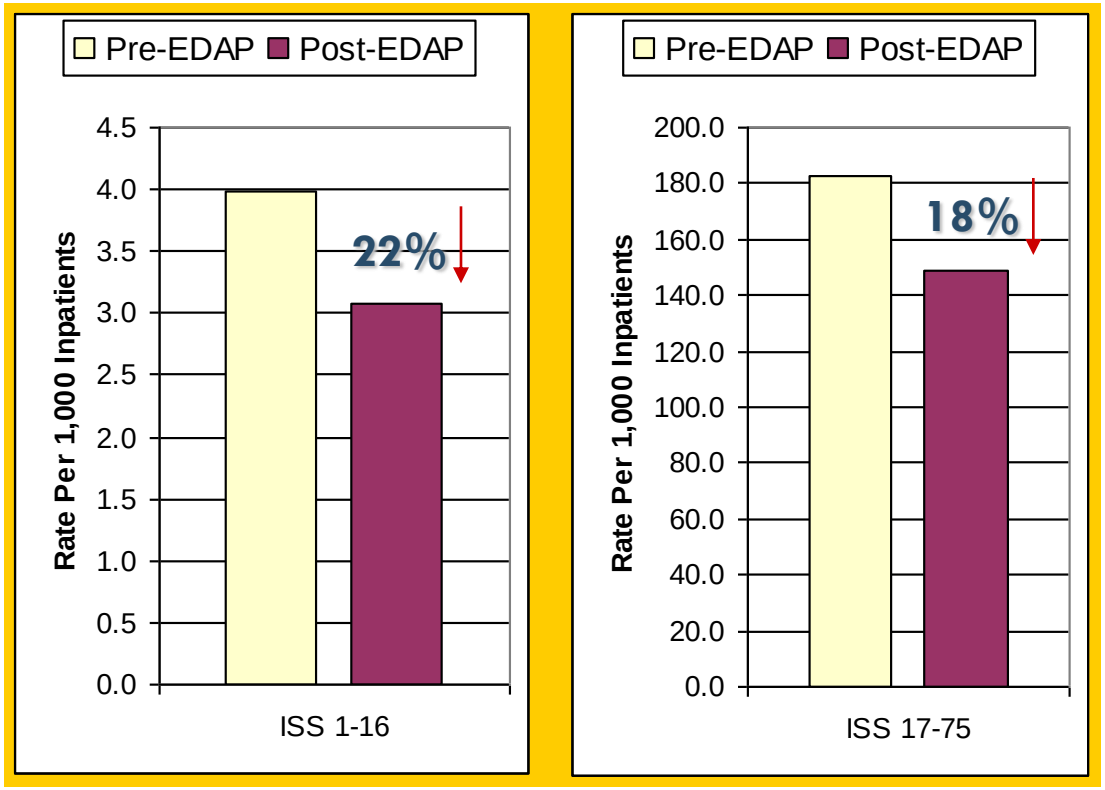
Pediatric emergency patients have unique needs, requiring specialized personnel, training, equipment, supplies, and medications. Deficiencies in these areas have resulted in historically poorer outcomes for pediatric patients versus adults. Since 1985, federally funded Emergency Medical Services for Children (EMSC) programs in each state have been working to improve the quality of pediatric emergency care. The Health Resources and Services Administration now requires that all EMSC grantees report on specific performance measures. This includes implementation of a standardized system recognizing hospitals that are able to stabilize or manage pediatric medical emergencies and trauma cases. We describe the steps involved in implementing Illinois' 3-level facility recognition process to illustrate a model that other states might use to provide appropriate pediatric care and comply with new Health Resources and Services Administration performance measures. [Ann Emerg Med. 2009;54: 198-204.]

Mortality Rates per 1,000 Injury-Related Inpatient Admissions From the ED

Pre- and Post-EDAP Model, 1994-2005

- Age group: 0-15 yrs.
- Data from hospitals participating in IL EDAP program
- Outcomes exceed national injury-related mortality trends

Sources: Illinois EMSC & Illinois Hospital Assoc.



Severity Group	Pre-EDAP Patients	Pre-EDAP Deaths	Pre-EDAP Rate	Post-EDAP Patients	Post-EDAP Deaths	Post-EDAP Rate
ISS 1-16	18,571	74	4.0	17,546	54	3.1
ISS 17-75	1,124	205	182.4	1,142	170	148.9

Emergency Medical Services for Children SM

EMSC PM #74: Regionalization/Categorization for medical emergencies (EDAP model)

- AAP-NCE 2008 'Hot Topic' - Use of PALS/APLS by Community Physicians to Reverse All-Cause Pediatric Shock: A Multicenter Cohort Study

- Funding for this work was provided by Emergency Medical Services for Children, Maternal and Child Health Bureau grant 1-1434-MC-00040-01 (RAO)

Pediatrics, August 2009

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Mortality and Functional Morbidity After Use of PALS/APLS by Community Physicians

WHAT'S KNOWN ON THIS SUBJECT: We previously demonstrated in a single-center study that early PALS/APLS resuscitation practice performed by community physicians saved children from mortality caused by septic shock. However, a criticism of this study was that septic shock is relatively uncommon.

WHAT THIS STUDY ADDS: We demonstrated that shock is common, occurring in 37% of 4856 children transported to 5 children's hospitals. PALS/APLS resuscitation performed by community physicians reduced mortality rates in trauma patients and mortality and neurological morbidity rates in nontrauma patients alike.

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ALS interventions are directly associated with decreased morbidity & mortality in non-traumatic shock

Things You Need To Know:
Hot Topic Issues in EMSC

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- 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*

- 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*

ED Preparedness Checklist Tool

Child Health AdvocacyInstitute

Guidelines for Care of Children in the Emergency Department

This checklist is based on the American Academy of Pediatrics (AAP), American College of Emergency Physicians (ACEP), and Emergency Nurses Association (ENA) 2009 joint policy statement "Guidelines for Care of Children in the Emergency Department," which can be found online at http://aappolicy.aappublications.org/cgi/reprint/pediatrics;124/4/1233.pdf. Use the checklist to determine if your emergency department (ED) is prepared to care for children.

Administration and Coordination of the ED for the Care of Children

- ○ *Physician Coordinator for Pediatric Emergency Care.* The pediatric physician coordinator is a specialist in emergency medicine or pediatric emergency medicine; or if these specialties are not available then pediatrics or family medicine, appointed by the ED medical director, who through training, clinical experience, or focused continuing medical education demonstrates competence in the care of children in emergency settings, including resuscitation.
- ○ *Nursing Coordinator for Pediatric Emergency Care.* The pediatric nurse coordinator is a registered nurse (RN), appointed by the ED nursing director, who possesses special interest, knowledge, and skill in the emergency care of children.

Guidelines for Improving Pediatric Patient Safety

The delivery of pediatric care should reflect an awareness of unique pediatric patient safety concerns and are included in the following policies or practices:

- ○ Children are weighed in kilograms.
- ○ Weights are recorded in a prominent place on the medical record.
- ○ For children who are not weighed, a standard method for estimating weight in kilograms is used (e.g., a length-based system).
- ○ Infants and children have a full set of vital signs recorded (temperature, heart rate, respiratory rate) in medical record.
- ○ Blood pressure and pulse oximetry monitoring are available for

http://www.childrensnational.org/files/PDF/EMSC/PubRes/ED_Preparedness_Checklist.pdf

Child Health AdvocacyInstitute

Thank You – Questions??

http://www.childrensnational.org/EMSC

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Public Health Collaboration with the Pediatric Community: *Virginia's experience*

Karen Remley, MD, MBA, FAAP
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The findings and conclusions in this presentation are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention

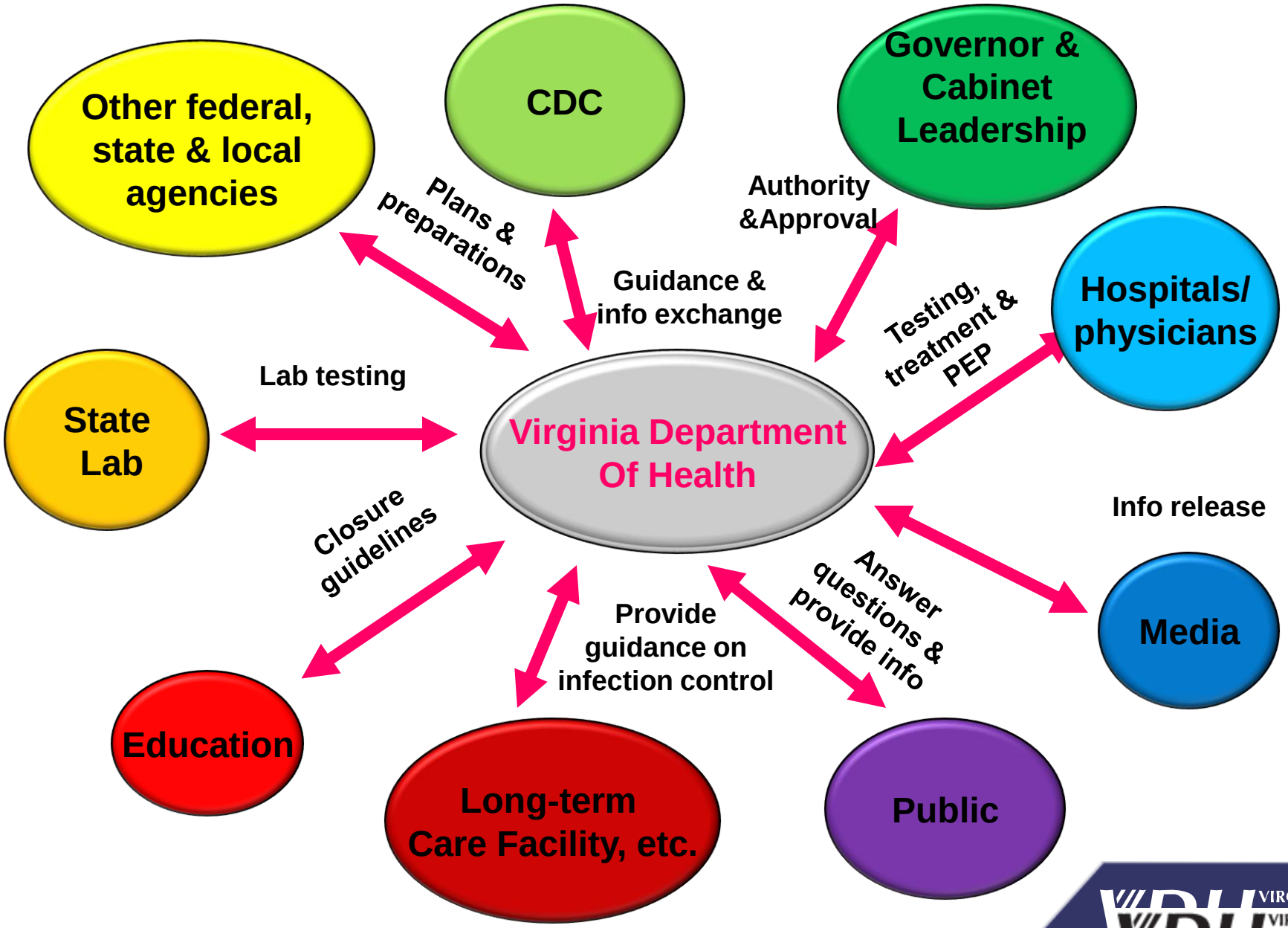
U.S. Department of Health and Human Services H1N1 Response Pillars

- Surveillance
- Communication
- Vaccination
- Mitigation

Virginia addition

- Direct Medical Care / Surge

Information & Communication



Virginia's approach

- Build upon and improve a strong public-private partnership between clinical medicine and public health
- Enhance communication with all clinicians
- Set up Commissioner's clinical advisory groups
- Ensure continuous feedback and plan adjustments as needed

Health Commissioner's Infectious Disease Advisory Committee

Frederick G. Hayden, MD
Professor of Internal Medicine and Pathology,
Division of Infectious Diseases
University of Virginia Health Systems

Thomas M. Kerkering, MD
Chief of Infectious Diseases
Virginia Tech, Carilion School of Medicine

Edward C. Oldfield, III, MD
Chief of Division of Infectious Disease
Eastern Virginia Medical School

Donald Poretz, MD, FACP, IDSA
Clinical Professor of Medicine, MCV School of Medicine
And Georgetown University School of Medicine

Richard P Wenzel, MD, MSc
Chair of Internal Medicine
Virginia Commonwealth University School of Medicine

Michael B. Edmond, MD, MPH, MPA
Chair of the Division of Infectious Disease
Virginia Commonwealth University Health System

James L. Pearson, DPh, BCLD
Director, Division of Consolidated Laboratories
Department of General Services

Ronald B. Turner, MD
Professor of Pediatrics
Associate Dean for Clinical Research
Department of Pediatrics
University of Virginia School of Medicine

Marissa J. Levine, MD, MPH
Deputy Commissioner of Emergency Preparedness & Response Programs
Virginia Department of Health

Diane Helentjaris, MD, MPH
Deputy Director, Office of Epidemiology
Virginia Department of Health

James E. Burns, MD, MBA
Deputy Commissioner of Public Health
Virginia Department of Health

Karen Remley, MD, MPH, FAAP
Commissioner
Virginia Department of Health

Health Commissioner's Primary Care Advisory Group

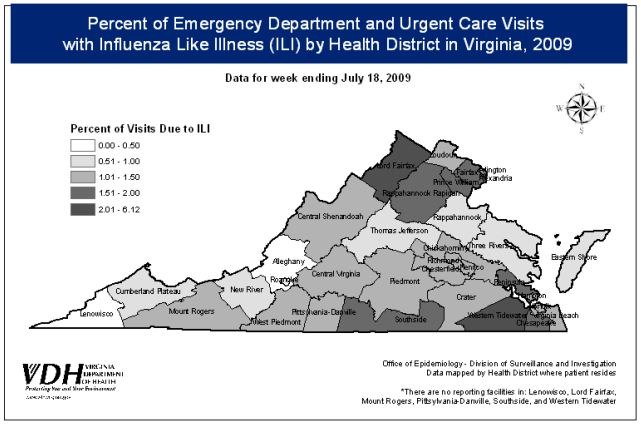
Alfred Abuhamad – EVMS
Alice Ackerman – Carilion
David Ascher – Inova
Mike Ashby – Martha Jefferson Hospital
Bob Chevalier – University of Virginia
Tom Cleary – Emergency Med
David Davidow – Psy Solutions
Phil Dawson – West End Pediatrics
Diane Dubinsky – Fairfax Pediatrics
Tom Eppes – Central VA Family Physicians
Bob Gunther – President, VA Chap. Of AAP; Augusta Pediatrics
Greg Hayden – University of Virginia
Jon Katz – Virginia Hospital Center
Tom Kayrouz – Carilion PICU
William Koch – MCVH-VCU
Donald Lewis – Children's Hospital Kings Daughters
Doug Mitchell – Children's Hospital Kings Daughters
Wade Neiman – OB/GYN
Wayne Reynolds – Sentara Medical Group
Mark Ryan – VCU Medical Group
Sofia Teferi – Bon Secours
Ron Turner – University of Virginia
Arno Zarnitsky – Children's Hospital Kings Daughters

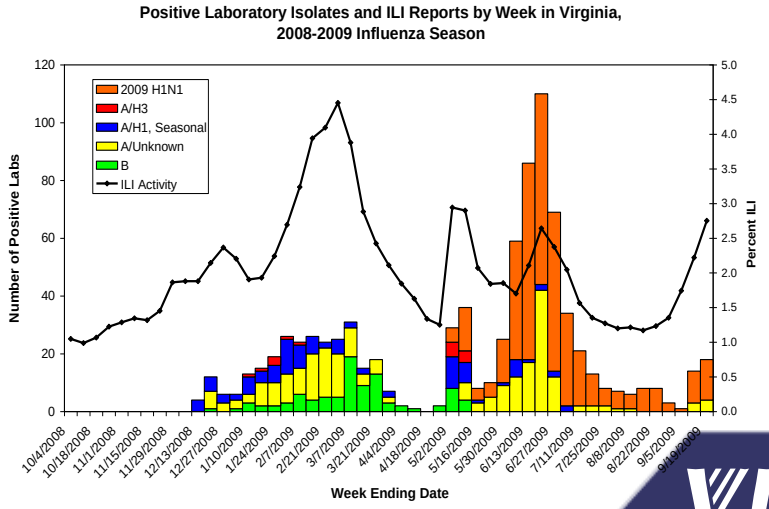
Enhancing Communication Example- “Dear Colleague” Letters

Forum for sharing actionable information using four pillars approach including CDC updates

DHP emergency contact information- over 120,000 providers

MD, other clinical specialty organizations distribute





Guiding principles for vaccine allocation

- Strive to be fair and ethical throughout the campaign.
- Focus on CDC's target groups.
- Partner with public and private vaccinators in communities throughout the Commonwealth.
- Rely on the judgment of the vaccine providers in the healthcare community to help it reach CDC's target groups.
- Focus on priority groups with special attention pregnant women
- Local Health Departments- School age large scale vaccination plans
- Documentation to occur through VIIS with minimal information- Name, DOB, vaccine type and lot number

Vaccine Allocation

Overarching principles

VDH's approach to vaccine distribution will be divided into phases

Each phase will be defined based on CDC's target groups and the anticipated dates and volume of vaccine formulation

Every attempt will be made to reach 60% of target groups (in addition, estimated uptake will be accounted for) in a phase before moving to the next phase (formulation distribution will affect VDH's ability to accomplish this)

- Estimated uptake will be estimated using national data on target group's uptake for 2008-9 season plus 20%, except pregnant women whose uptake will be estimated at 80% (24% in 2008-9)

Provider Sites Which Have Received H1N1 Vaccine as of January 8, 2010

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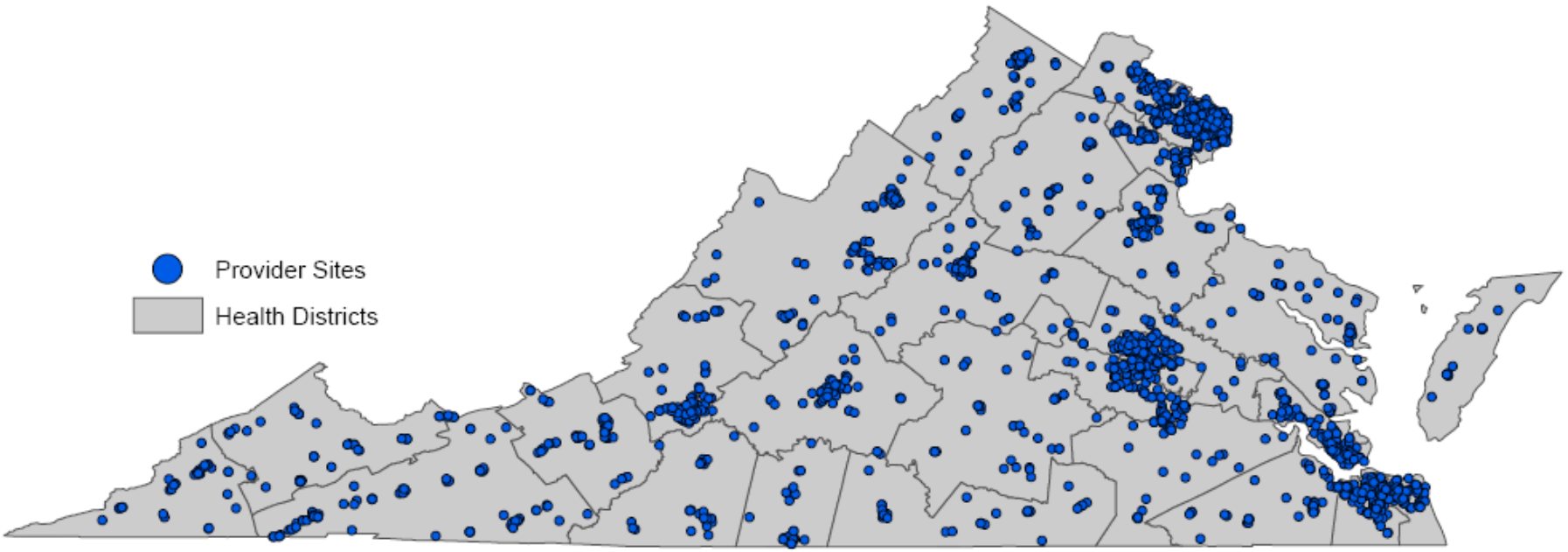
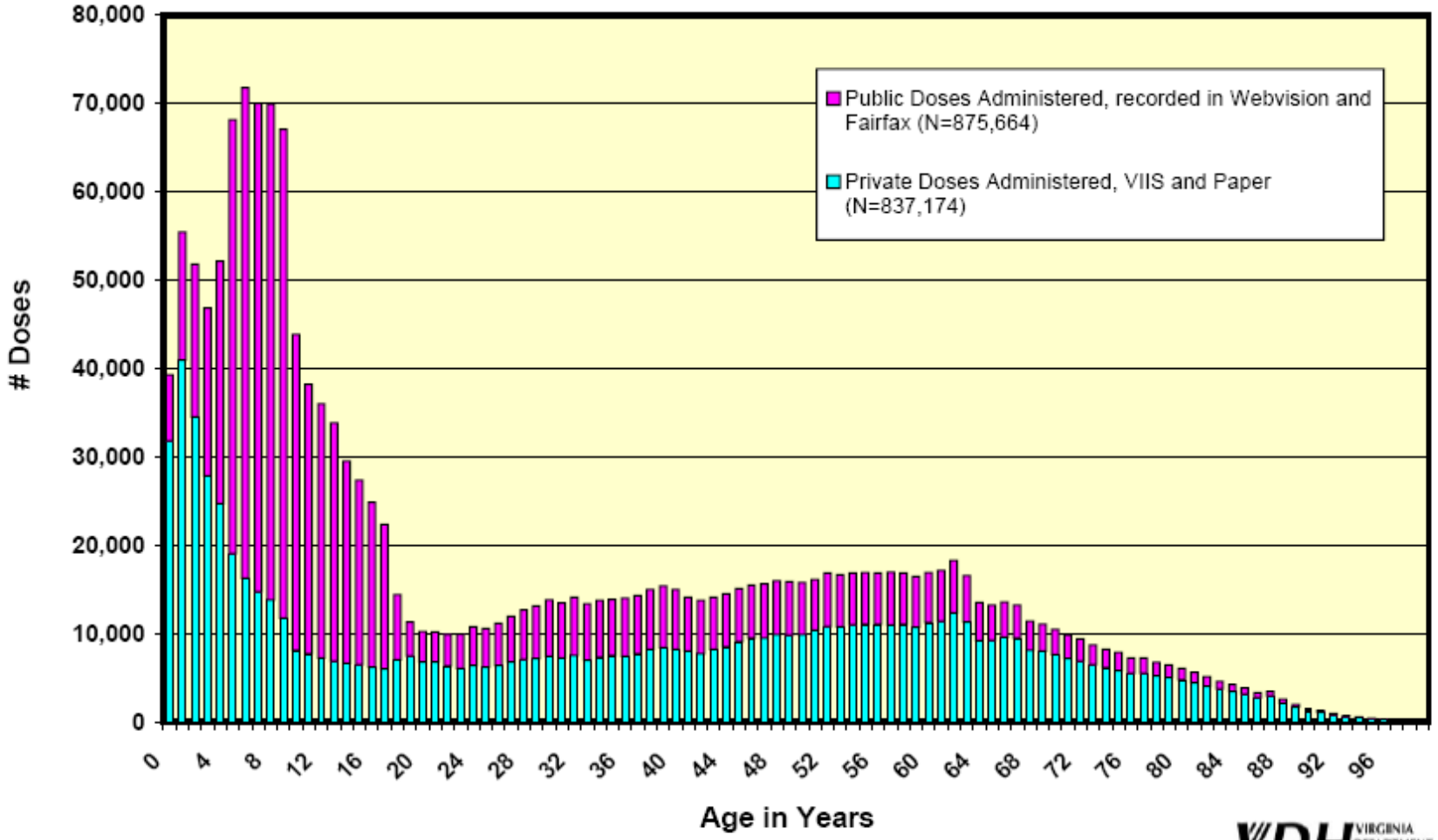


Division of Disease Prevention
Office of Epidemiology
Virginia Department of Health

H1N1 Vaccine Doses Administered in the Public and Private Sectors by Age, Reported as of 4/6/2010 (N=1,712,838), Cumulative



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www.vdh.virginia.gov

Vaccination Media Campaign

Television and Cable	> 10,000 impressions (English & Spanish)
Radio	> 4,750 impressions (English & Spanish)
Internet	> 3.7 million impressions
Bus and Rail Boards	185
Movie Theaters	260 screens
College Arena & Newspaper	15

Mitigation - Protecting Healthcare Workers

Distribution of PPE from State SNS Stockpile
57 Free Clinics & 27 Community Health Centers

- 60,000 surgical masks
- 122,000 N-95 respirators
- 10,000 face shields
- Gloves & Gowns

Results……..!!!

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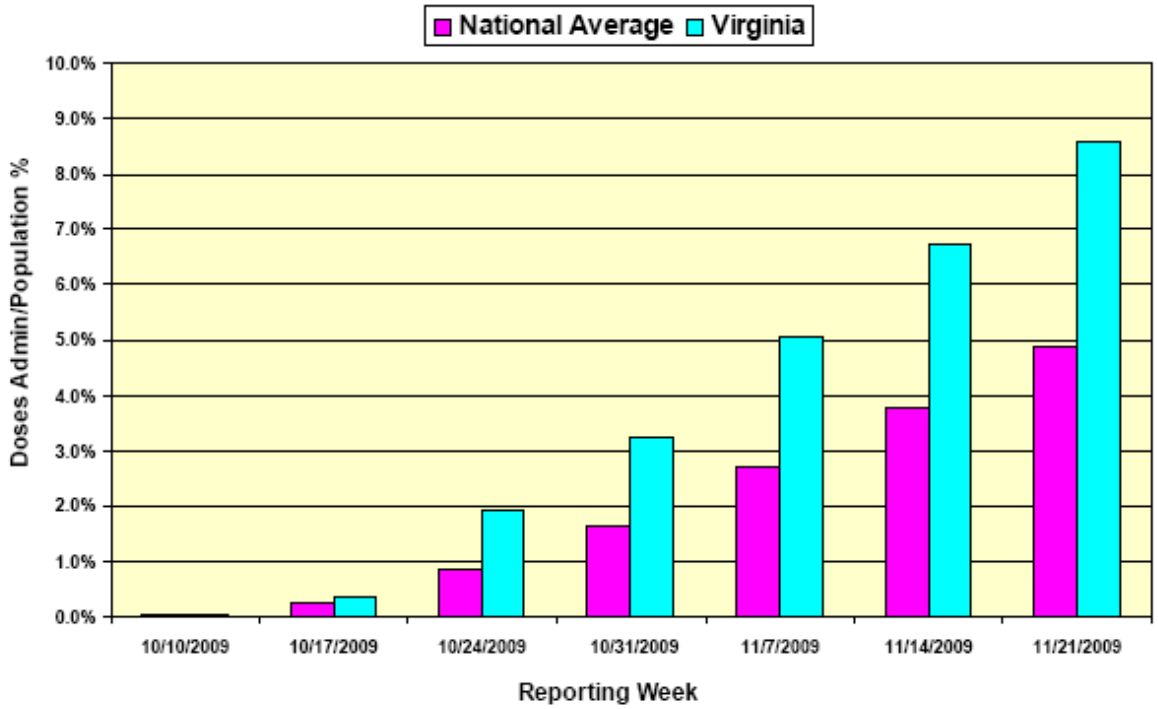
Protecting You and Your Environment

IT'S UP TO YOU H1N1GET1.COM TO FIGHT THE FLU

H1N1 Doses Administered Based on Population
First Seven Weeks of Vaccination Campaign



Notes: The national and state population percentages were calculated using the cumulative doses administered total for the nation or the state divided by the population for the area. Doses administered data were reported to CDC's Countermeasure and Response Administration (CRA) by Virginia, 49 other states, D.C. and seven territories.

Lessons Learned

Communication

- "Dear Colleague" letters, call center (18K Calls) and H1N1 web site were critical components of the response.
- Communication between public health and clinicians at all levels (federal, state and local):
  - must also be effectively communicated, consistent and made relevant to state/local context
- Ensure we can reach providers not using e-mail
- More multi-lingual cross-cultural information is required
  - Coordinate with faith-based and communities
  - Include Free Clinics & Community Health Centers
- Use social media to reach youth
- Coordination with all forms of schools is paramount
  - Public, private, home schooled, higher education
- Cross-border coordination is necessary as clinicians near neighboring states may receive conflicting information

Lessons Learned

Vaccination

- Using systems that already existed resulted in better outcomes
  - A public-private partnership approach allowed for each entity to focus on those with whom they were most connected.
- More work needs to be done to effectively vaccinate vulnerable populations
- Expansion of the vaccination registry allowed for enhanced tracking of the pandemic flu vaccine effort.
- More education and communication on LAIV and overall vaccine safety is required

Mitigation

- Respiratory protection planning in outpatient practice must be improved

Surveillance

- Clinician input and feedback is critical for adapting the surveillance plan to the current situation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VDH

Centers for Disease Control and Prevention
Atlanta, Georgia

Continuing Education Credit/Contact Hours for COCA Conference Calls

Continuing Education guidelines require that the attendance of all who participate in COCA Conference Calls be properly documented. All Continuing Education credits/contact hours (CME, CNE, CEU, CECH, and ACPE) for COCA Conference Calls are issued online through the CDC Training & Continuing Education Online system http://www2a.cdc.gov/TCEOnline/.

Those who participate in the COCA Conference Calls and who wish to receive CE credit/contact hours and will complete the online evaluation by **May 27 2011** will use the course code **EC1648**. Those who wish to receive CE credits/contact hours and will complete the online evaluation between **May 28, 2011** and **Apr 27, 2012** will use course code **WD1648**. CE certificates can be printed immediately upon completion of your online evaluation. A cumulative transcript of all CDC/ATSDR CE's obtained through the CDC Training & Continuing Education Online System will be maintained for each user.

Thank you for joining!
Please email us questions at
coca@cdc.gov