

*National Pediatric Readiness Project:  
Ensuring Readiness of  
Your ED to Care for Kids*

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# A National Assessment of Pediatric Readiness of Emergency Departments

- ***Importance:***

- First comprehensive web-based assessment of over 4,000 US emergency departments (EDs) to evaluate national compliance with the 2009 “Guidelines for Care of Children in EDs” (*Guidelines*) (also called pediatric readiness).
- Provides a national snapshot of pediatric readiness in EDs in US states and territories.

Original Investigation

# A National Assessment of Pediatric Readiness of Emergency Departments

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**Building the Team:  
National Steering  
Committee**

A National Steering Committee was formed to plan and implement this “Quality Improvement”

American Academy of Pediatrics  
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**EMSC**  
Emergency Medical Services for Children™

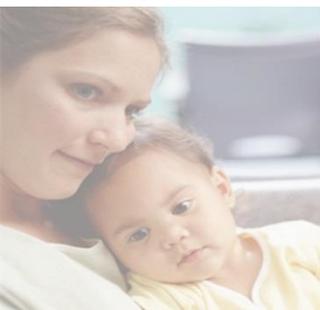


**The Joint Commission**



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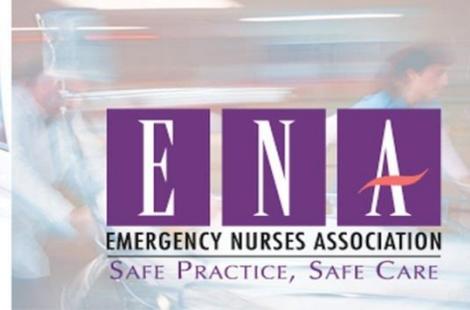


U.S. Department of Health and Human Services



**HRSA**

Health Resources and Services Administration  
Maternal and Child Health Bureau



**ENANA**  
EMERGENCY NURSES ASSOCIATION  
SAFE PRACTICE, SAFE CARE

# A National Assessment of Pediatric Readiness of Emergency Departments

- ***Objectives:***
  - To assess all US states and territories' EDs for pediatric readiness.
  - To evaluate the effect of the presence of a physician and nurse pediatric emergency care coordinator (PECC) on pediatric readiness.
  - To identify gaps/areas of focus, including quality improvement and training, that may be targeted by a national, state and regional coalitions for future quality initiatives.

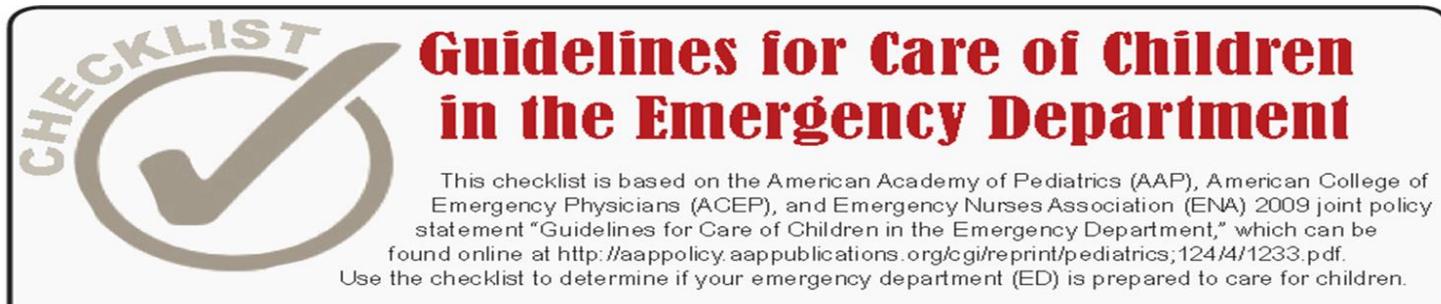
# The Assessment\*

\*Note not a survey. This was the first step in benchmarking readiness to compare to in the future.

# National Assessment of Pediatric Readiness of Emergency Departments

- ***Creation of the Assessment Instrument:***

- The assessment covered six areas (administration, staffing, policies and procedures, quality improvement, patient safety, equipment and supplies) of the 2009 *Guidelines for Care of Children in EDs*.
- Questions were weighted using a modified Delphi method by a national expert panel to generate a weighted pediatric readiness score (WPRS).

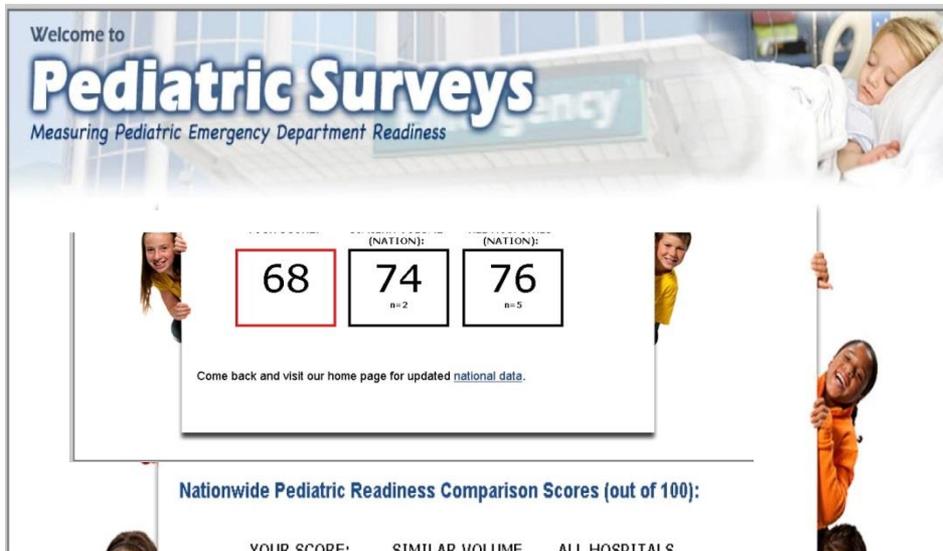


# National Assessment of Pediatric Readiness of Emergency Departments

- ***Design, Setting and Participants:***
  - All 5,017 ED managers, excluding hospitals without an ED 24/7, were sent a 55-question web-based assessment ([www.pedsready.org](http://www.pedsready.org)).
- ***Main Outcomes and Measures:***
  - The weighted pediatric readiness score (WPRS).
    - An adjusted WPRS was calculated excluding the points received for presence of PECCs.

# National Assessment of Pediatric Readiness of Emergency Departments

- ***Participation Incentives***
  - Immediate feedback with comparison to similar hospitals
  - Live statewide/national results
  - Gap analysis to assist with meeting readiness goals
  - One year subscription to PEMSoft



# Benchmarking: “QI Approach”

## Average Pediatric Readiness Scores

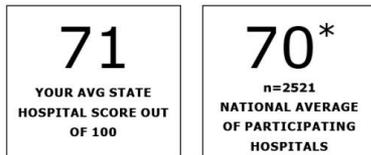
Low Volume (<1800 patients)	Medium Volume (1800-4999 patients)	Medium to High Volume (5000-9999)	High Volume (>=10000)	All Participating Hospitals
<b>62</b>	<b>70</b>	<b>74</b>	<b>84</b>	<b>69</b>
n = 1629	n = 1248	n = 708	n = 561	n = 4146

# Incentives: Gap Analyses



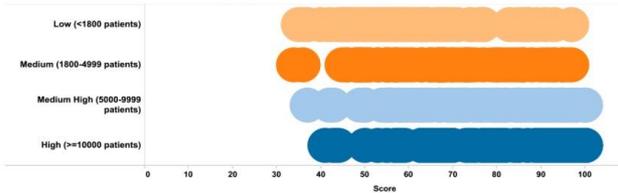
State Name: California  
 Report Date: May 3, 2013\*  
 Number of Hospitals Assessed: 335  
 Response Rate: 89.6% (300/335)

## YOUR SCORE AND COMPARATIVE SCORES:



\*The assessment is still open so the national numbers on this report are subject to change.

## DISTRIBUTION OF STATE SCORES FOR EACH VOLUME TYPE:



## BREAKDOWN OF STATE SCORES FOR EACH VOLUME TYPE:

Annual Pediatric Volume	# of Hospitals	Avg. Score	Median Score	Min. Score	Max. Score
Low (<1800 patients)	67	62.3	61	35	97
Medium (1800-4999 patients)	78	67.4	67	34	97
Medium High (5000-9999 patients)	77	75.1	76	37	100
High (>=10000 patients)	75	79.9	81.0	41	100
Not Recorded	3	N/A*	N/A*	N/A*	N/A*
<b>Grand Total</b>	<b>300</b>	<b>71.3</b>	<b>70.0</b>	<b>34</b>	<b>100</b>

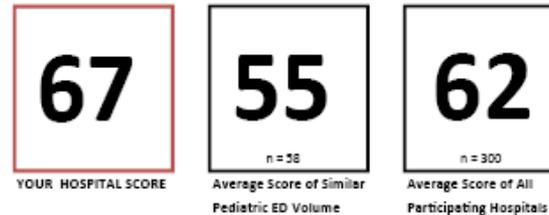
\* Fewer than 5 hospitals

Hospital Name: Some Sample Hospital  
 Hospital Volume: 5,041 Pediatric Patients Last Year  
 Date of Report: 6/21/2012



This score represents the essential components needed to establish a foundation for pediatric readiness. Not all of the questions on the assessment are scored. The score is in no way inclusive of all the components recommended for pediatric readiness; it represents a suggested starting point for hospitals. The scoring criteria was developed by a group of clinical experts thru a modified-delphi process.

Your state participates in a pediatric recognition program for hospitals. We encourage you to contact your State EMSC Program Manager, NAME, at CONTACT INFO to learn more about this program.



## ANALYSIS OF YOUR SCORE:

### Guidelines for Administration and Coordination of the ED for the Care of Children

**YOUR SCORE:**  
**9.5 out of 19**

You indicated that your hospital DOES NOT have a nurse coordinator who has been assigned the responsibility of coordinating the administrative aspects of pediatric emergency care in the emergency department? (This person may have additional administrative roles in the ED.)

**IMPORTANCE:** This individual is important to.....

**IMPROVEMENT:** For information on how to setup a nurse coordinator for your hospital please refer to the "Nurse Administration/Coordination" section on [pediatricreadiness.org](http://pediatricreadiness.org).

### Guidelines for Physician and Other Practitioners Staffing the ED

**YOUR SCORE:**  
**5 out of 10**

You indicated that your hospital DOES NOT require specific competency evaluations of physicians staffing the ED (e.g., sedation and analgesia).

**IMPORTANCE:** Competency evaluations ensure.....

**IMPROVEMENT:** For information on how other hospitals have setup competency evaluations for.....

# **Project Roll Out**

# National Assessment of Pediatric Readiness of Emergency Departments

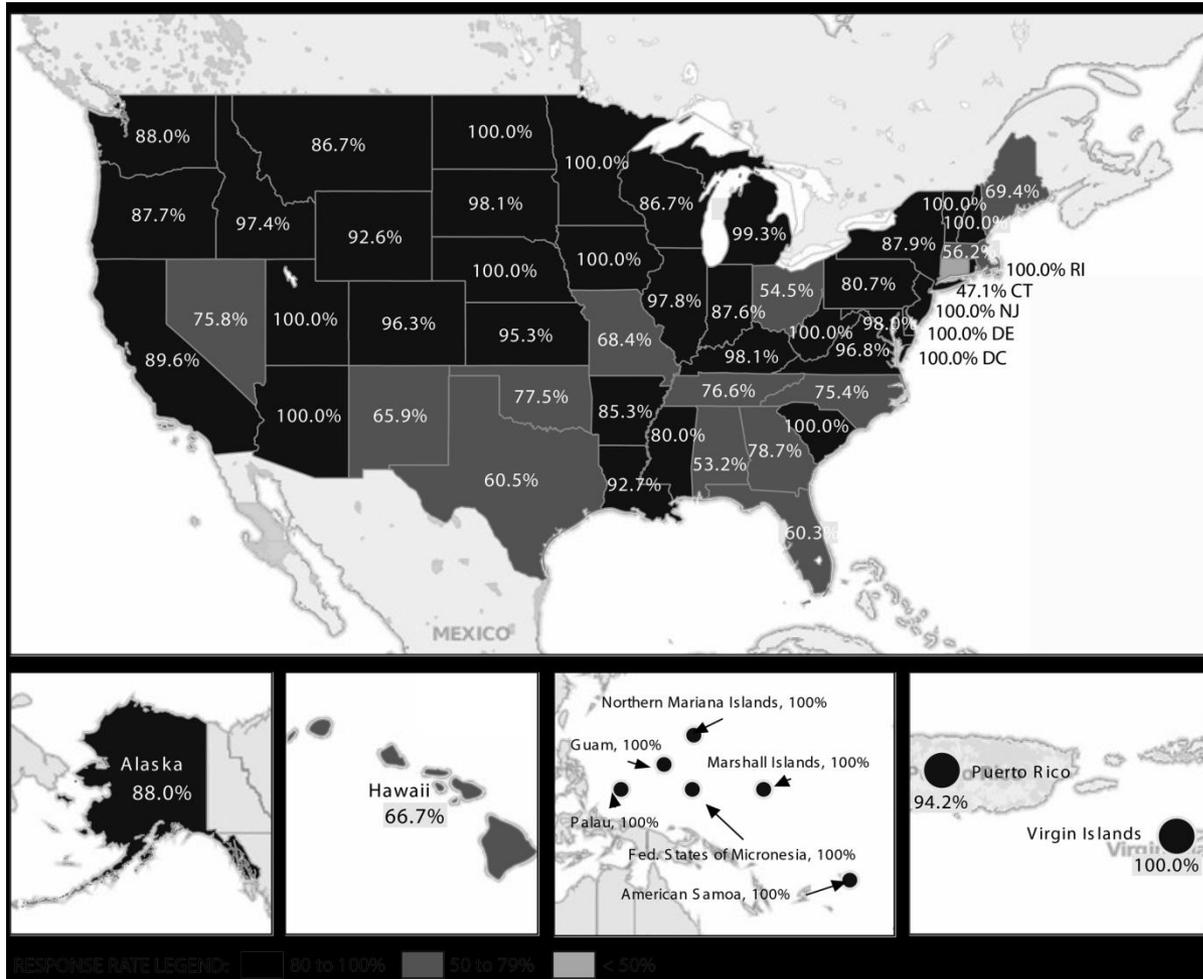
- California served as pilot state to test assessment and tools and implementation process



# Staggered Roll Out: Jan –August 2013

Field Test/Pilot	Group 1	Group 2	Group 3	Group 4	Group 5
	Arizona	Colorado	Alabama	Alaska	Delaware
California	CNMI	D.C.	Connecticut	American Samoa	Kansas
Guam	Hawaii	Florida	Georgia	Arkansas	Louisiana
Maryland	Montana	Kentucky	Indiana	Idaho	Maine
Minnesota	Nebraska	Michigan	Iowa	Illinois	New Hampshire
	Nevada	Mississippi	Massachusetts	Missouri	North Dakota
	Oregon	Oklahoma	New Jersey	North Carolina	Ohio
	Rhode Island	Utah	New Mexico	Pennsylvania	Puerto Rico
	Texas	Virginia	New York	South Dakota	South Carolina
	Washington		Virgin Islands	Tennessee	Wisconsin
	W Virginia		Wyoming	Vermont	Palau
					Marshall Islands
					Fed States of Micronesia

Of the 5,017 assessments sent - 4,149  
**(82.7%)** ED Managers responded.  
 4,137 hospitals were included in the data analysis



# National Assessment of Pediatric Readiness of Emergency Departments

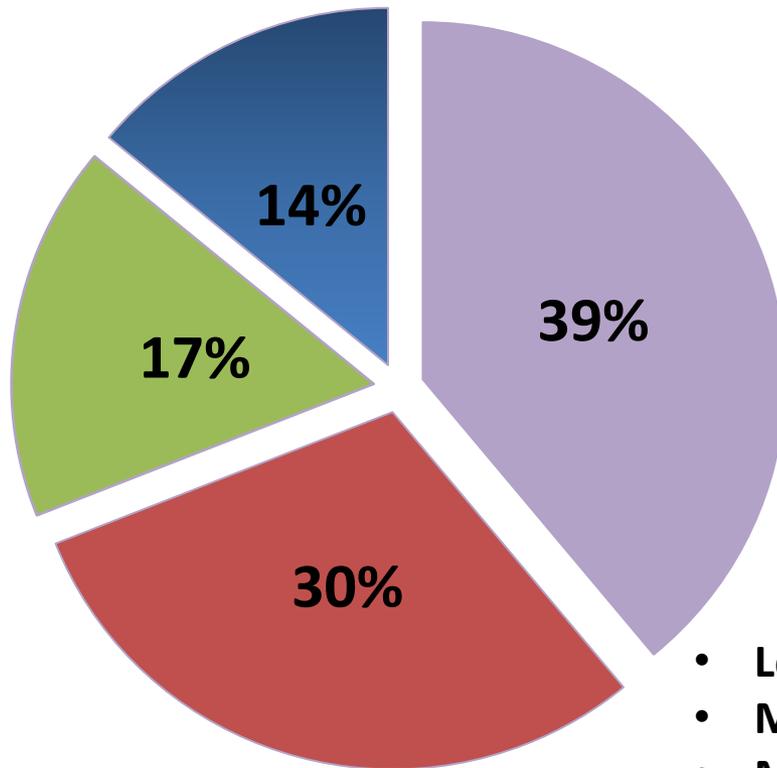
- ***Results:***

- The assessment of EDs represents approximately 24 million pediatric visits
- **Nearly 83% of children are seen in non-children's hospitals**
- **69% of EDs see < 15 children per day.**
- **Almost a third of hospitals are located in rural or remote areas.**

# The National Picture

## % EDs by Volume

N=4,146  
(82.7% of all EDs)



- < 5 children/day
- 5- 14 children/day
- 15-25 children/day
- >25 children

- **Low** pediatric volume (<1800 pediatric visits)
- **Medium** volume (1800-4999 visits)
- **Medium high** volume (5000-9999 visits)
- **High** volume (10,000+ visits)

# National Assessment of Pediatric Readiness of Emergency Departments Main Outcome

	All Hospitals	Low	Medium	Medium High	High
<b>WPRS Median (IQR)</b>	68.9 (56.1, 83.6)	61.4 (49.5, 73.6)	69.3 (57.9, 81.8)	74.6 (60.9, 87.9)	89.8 (74.7, 97.2)

p<0.0001

- **Low** pediatric volume (<1800 pediatric visits)
- **Medium** volume (1800-4999 visits)
- **Medium high** volume (5000-9999 visits)
- **High** volume (10,000+ visits)

# National Assessment of Pediatric Readiness of Emergency Departments

**Table: Median Adjusted WPRS by Volume and Presence of PECC\***

	No PECC	Nurse PECC Only	Physician PECC Only	Both	P-Value
<b>All Hospitals</b>					
<b>Median [Q1, Q3]</b>	66.5 [56.0, 76.9]	69.7 [58.9, 80.9]	75.3 [64.4, 85.6]	82.2 [69.7, 92.5]	<.0001
Low Volume	60.6 [51.0, 71.9]	63.2 [54.1, 73.6]	66.6 [55.0, 80.2]	70.6 [59.7, 81.0]	<.0001
Medium Volume	69.2 [60.5, 77.5]	73.8 [64.4, 83.4]	76.5 [70.4, 82.4]	81.4 [70.7, 90.4]	<.0001
Medium High Volume	71.4 [62.1, 80.0]	78.1 [69.2, 84.4]	81.3 [71.0, 88.3]	86.0 [76.7, 93.3]	<.0001
High Volume	74.3 [63.5, 80.7]	82.4 [71.9, 89.7]	77.4 [68.7, 88.1]	93.8 [86.7, 98.3]	<.0001
					

\*PECC: Pediatric Emergency Care Coordinator

# National Assessment of Pediatric Readiness of Emergency Departments Results

**Table: Adjusted Relative Risk and 95% CI of having all ‘Yes’ responses to a scored section given the presence of at least one Pediatric Emergency Care Coordinator (PECC)**

Section	ARR: 95% CI
Physicians, Nurses, and Other Health Care Providers Who Staff the ED	1.53 (1.38, 1.70)
Guidelines QI/PI in the ED	4.31 (3.47, 5.35)
Guidelines for Improving Pediatric Patient Safety in the ED	1.44 (1.29, 1.60)
Guidelines for Policies, Procedures, and Protocols for the ED	2.68 (2.11, 3.40)
Guidelines for Equipment, Supplies, and Medications for the Care of Pediatric Patients in the ED	1.44 (1.23, 1.68)
*Relative Risks adjusted for Pediatric Patient Volume, Hospital Configuration, and Geo Location.	

# National Assessment of Pediatric Readiness of Emergency Departments

## Results:

**Table : Barriers by Pediatric Volume**

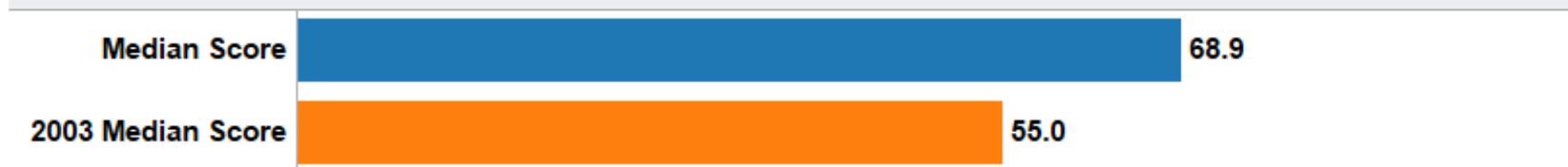
**Barriers were reported in 81% of EDs**

Barrier	By Pediatric Patient Volume				
	Overall (N = 4137)	Low (N = 1626)	Medium (N = 1244)	Medium High (N = 706)	High (N = 561)
<b>Cost of training personnel</b>	2250 (54.4%)	999 (61.4%)	684 (55.0%)	355 (50.3%)	212 (37.8%)
<b>Lack of educational resources</b>	2026 (49.0%)	989 (60.8%)	609 (49.0%)	286 (40.5%)	142 (25.3%)
<b>Lack of a Quality Improvement/ Performance Improvement plan for children</b>	2005 (48.5%)	927 (57.0%)	636 (51.1%)	306 (43.3%)	136 (24.2%)
<b>Lack of policies for pediatric emergency care</b>	1961 (47.4%)	950 (58.4%)	591 (47.5%)	284 (40.2%)	136 (24.2%)
<b>Unaware that national guidelines existed and/or unfamiliar with national guidelines</b>	1766 (42.7%)	895 (55.0%)	540 (43.4%)	226 (32.0%)	105 (18.7%)
<b>Lack of a disaster plan for children</b>	1723 (41.6%)	790 (48.6%)	540 (43.4%)	248 (35.1%)	145 (25.8%)
<b>Lack of appropriately trained nurses</b>	1703 (41.2%)	822 (50.6%)	497 (40.0%)	247 (35.0%)	137 (24.4%)
<b>Lack of appropriately trained physicians</b>	1657 (40.1%)	810 (49.8%)	500 (40.2%)	225 (31.9%)	122 (21.7%)
<b>Cost of personnel</b>	1655 (40.0%)	717 (44.1%)	506 (40.7%)	263 (37.3%)	169 (30.1%)
<b>Lack of administrative support</b>	847 (20.5%)	382 (23.5%)	247 (19.9%)	128 (18.1%)	90 (16.0%)
<b>Lack of interest in meeting the guidelines</b>	513 (12.4%)	264 (16.2%)	143 (11.5%)	67 (9.5%)	39 (7.0%)
<b>No Barriers Reported</b>	795 (19.2%)	200 (12.3%)	211 (17.0%)	161 (22.8%)	223 (39.8%)

# Improvement is Happening

## How are we improving? 2003 vs 2013

### Overall Median Pediatric Readiness Score



### Median Pediatric Readiness Score for Emergency Departments by Patient Volume



- ***Conclusions and Relevance:***

- The compliance of EDs with pediatric readiness guidelines has improved since the last data were reported in 2007.
- The assignment of a PECC improves compliance with national guidelines across all ED patient volume categories, ED configuration, and geographic locations.
- Barriers were commonly reported and may be targeted for future initiatives.
- The NPRP is a successful implementation of a public health initiative by a national coalition that achieved a high response rate and is poised for further engagement with the goal to ensure day-to-day pediatric readiness of our nation's EDs.

# Next Steps

## **Having one or more coordinators can ensure:**

- Ongoing education and skills in Pediatric ED care
- Policies and procedures are in place for children
- Quality Improvement Plan and Disaster Plan is in place for Pediatric Patients
- Appropriate medication is stocked
- Pediatric care is included in staff orientation

# Local, Regional, and State Efforts to Improve Pediatric Emergency Care

- *2009 Guidelines for Care of Children in the Emergency Department* - awareness campaigns
- EMS Recognition Programs
- Pediatric Facility Recognition Programs
- EMS for Children Performance Measures
  - Interfacility transfer guidelines & agreements
  - Hospital medical and trauma designation

# National Efforts

- 3 Projects to be led by National Partners AAP, ENA, ACEP based on gaps identified in pediatric readiness data
- ENA leading with the development of state champion teams to assist state level efforts with the pediatric readiness project
- Formation of PedsReady Steering Committee
- Priority focus: outreach to rural access and other low volume emergency departments
- Resource development and dissemination:
  - Webinars, resource development, focus groups

# Acknowledgements

- We would like to acknowledge the expertise of the National Pediatric Readiness Steering Committee, sponsored by the Federal EMS for Children Program, with representatives from the three major professional organizations which co-authored the 2009 “Guidelines for Care of Children in Emergency Departments”:
  - American Academy of Pediatrics (AAP)
  - American College of Emergency Physicians (ACEP)
  - Emergency Nurses Association (ENA).
- We would also like to acknowledge state’s and territories’ EMS for Children program managers, whose local outreach and awareness efforts greatly enhanced response to the national assessment.

# Pediatric Readiness Toolkit



Project Support Provided by:  
EMS for Children Program, MCHB/HRSA  
American Academy of Pediatrics  
American College of Emergency Physicians  
Emergency Nurses Association

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## Welcome to the National Pediatric Readiness Project

Ensuring Emergency Care for All Children

**A 5-year-old child chokes on a small rubber ball, and is rushed to their local emergency department (ED) in respiratory arrest. If the child arrived at your ED or the ED in your community, would it be ready to provide appropriate pediatric care?**

**DID YOU KNOW?** One in four ED visits involve children. For just 18 cents per visit, your facility can ensure that their ED is pediatric ready.

Multimedia Presentations from HRSA/MCHB



To learn more about the National Pediatric Readiness Project click on the MCHB.com webcast above.

(Note that the audio may take up to 5 seconds to upload.)





*Pediatric Readiness Project*

Ensuring Emergency Care for All Children

[www.pediatricreadiness.org](http://www.pediatricreadiness.org)

# Contact Information

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