# **Colorado Pediatric Readiness Project Assessment - PILOT Data**



**Overall AVERAGE Pediatric Readiness Score** 

**Overall MEDIAN Pediatric Readiness Score**  **Overall Maximum** and Minimum **Scores** 

Maximum Score:

**Comparison of Hospitals Participating** in Both Years (n=62) (compared to same questions asked in both years - 69 questions)

n=76

n=76

Minimum Score:

39.8

#### **AVERAGE 1:1 Comparison**

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2013	2021
62.8	57.6
(Out of 89 points)	(Out of 89 points)

#### **Current Average and Median PedsReady Assessment Scores by Annual Pediatric Volume**

	of Hospitals	% of Hospitals	Average Score	Median Score
Low: <1,800 pediatric patients (average of 5 or fewer a day)	43	56.6%	60.8	60.1
Medium: 1,800 – 4,999 pediatric patients (average of 6-13 a day)	17	22.4%	65.6	60.0
Medium to High: 5,000 – 9,999 pediatric patients (average of 14-26 a day)	10	13.2%	66.4	62.8
High: >=10,000 pediatric patients (average of 27 or more a day)	6	7.9%	91.1	94.3
Grand Total	76	100.0%	65.0	62.8

#### **MEDIAN 1:1 Comparison**

2013	2021
61.1	54.4
(Out of 89 points)	(Out of 89 points)

Final	Res	ponse	Rate	
1/15/20	21 11:4	9:11 AM		

1/15/2021 11:49:11 AM			
		Total Number of Hospitals	% of Respondents
Colorado	76	88	86.4%
Grand Total	76	88	86.4%

## **Pediatric Emergency Care Coordinators**

	N =	Number of Hosp	
Nurse Coordinator	13	76	17.1%
Physician Coordinator	10	76	13.2%

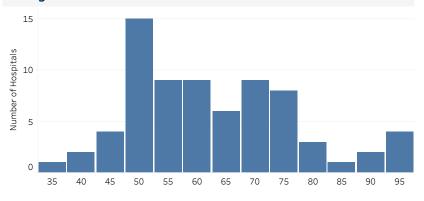
#### **Have Both Coordinators**

N=Both		
Coordinators	Num of Hospitals	% With Both
0	7.0	10.50/
8	76	10.5%

## Weigh and Record in Kilograms

	N =	Number of Hospitals	Percent Have
Children seen in the ED weighed in kilograms (without conversion from pounds)	60	76	78.9%
Children's weights recorded in the ED medical record in kilograms only	62	76	81.6%

## **Histogram of Scores:**



## **Trauma Designation**

Adult Designation	Pediatric Designation	Number of Hospitals	% of Hospitals	Average Score	Median Score
No Trauma Design	Pediatric Level I	1	1.3%	97.5	97.5
Adult Level I	Pediatric Level II	1	1.3%	78.5	78.5
	None	4	5.3%	73.8	71.9
Adult Level II	Pediatric Level II	1	1.3%	100.0	100.0
	None	10	13.2%	73.2	74.1
Adult Level III	None	21	27.6%	63.0	62.9
Adult Level IV	None	28	36.8%	59.3	54.9
Adult Level V	None	1	1.3%	79.0	79.0
No Trauma Design	No Trauma Designa	9	11.8%	64.2	67.0
Grand Total		76	100.0%	65.0	62.8

## Hospital Type and ED Configuration

Hospital Type	ED Configuration	Number of Hospitals	% of Hospitals	Average Score	Median Score
Children's Hospital	Pediatric ED in a Children's hospital	3	3.9%	92.6	97.5
Children's Hospital within a General Hospital	Separate pediatric ED in a hospital that treats both adults and children	2	2.6%	88.7	88.7
General Hospital	General ED (pediatric and adult patients seen in same area)	40	52.6%	66.3	65.3
Critical Access Hospital	General ED (pediatric and adult patients seen in same area)	27	35.5%	57.6	55.9
Off-Site Hospital-Based or Satellite Emergency Department	General ED (pediatric and adult patients seen in same area)	2	2.6%	81.2	81.2
Micro-Hospital	General ED (pediatric and adult patients seen in same area)	2	2.6%	59.8	59.8
Grand Total		76	100.0%	65.0	62.8

# **Pediatric Emergency Care Coordinators**

	Point Value	N =	Number of Hospitals	Percent Have
Physician Coordinator	9.50	10	76	13.2%
Nurse Coordinator	9.50	13	76	17.1%

## **Competency Evaluations**

	Point Value	N =	Number of Hospitals	Percent Have
Physician Competency Evaluations	2.50	47	76	61.8%
Physician Maintenance of Board Certification (NEW)	2.50	38	76	50.0%
Nurse Competency Evaluations	2.50	70	76	92.1%
Nurse Maintenance of Specialty Certification (NEW)	2.50	17	76	22.4%

#### **Quality Improvement**

Quanty improvement				
	Point Value	N =	Number of Hospitals	Percent Have
Patient care review process (chart review)	1.40	28	76	36.8%
Identification of quality indicators for children	1.40	22	76	28.9%
Collection and analysis of pediatric emergency care data	1.40	28	76	36.8%
Development of a plan for improvement in pediatric emergency care	1.40	26	76	34.2%
Re-evaluation of performance using outcomes-based measures	1.40	25	76	32.9%

# **Patient Safety**

	Point Value	N =	Number of Hospitals	Percent Have
Children seen in the ED weighed in kilograms (without conversion from pounds)	1.50	60	76	78.9%
Children's weights recorded in the ED medical record in kilograms only	1.50	62	76	81.6%
Temperature, heart rate, and respiratory rate recorded	1.00	75	76	98.7%
Blood pressure monitoring available based on severity of illness	1.00	75	76	98.7%
Pulse oximetry monitoring available based on severity of illness	1.00	76	76	100.0%
End tidal CO2 monitoring available based on severity of illness (NEW)	0.50	72	76	94.7%
Process in place for notification (manual or automated) of physicians when abnormal vital si	3.00	73	76	96.1%
Process in place for the use of pre-calculated drug dosing in all children	3.00	59	76	77.6%
Process in place that allows for 24/7 access to interpreter services in the ED	0.50	75	76	98.7%
Level of consciousness (e.g. AVPU or GCS) assessed in all children (NEW)	0.50	70	76	92.1%
Level of pain assessed in all children (NEW)	0.50	72	76	94.7%

## **Policies and Procedures**

	Point Value	N =	Number of Hospitals	Percent Have
Triage policy that specifically addresses ill and injured children	2.00	41	76	53.9%
Policy for pediatric patient assessment and reassessment	1.50	56	76	73.7%
Policy for immunization assessment and management of the under-immunized child	1.50	29	76	38.2%
Policy for child maltreatment	1.50	63	76	82.9%
Policy for death of the child in the ED	1.50	46	76	60.5%
Policy for reduced-dose radiation for CT and x-ray imaging based on pediatric age or weight	1.50	53	76	69.7%
Policy for behavioral health issues for children of all ages (NEW)	1.50	46	76	60.5%
Written interfacility transfer guidelines	2.00	52	76	68.4%

# Policies for Family-Centered Care (New Sub-Questions)

	Point Value	N =	Number of Hospitals	Percent Have
Involving families and caregivers in patient care decision-making (NEW)	0.40	48	76	63.2%
Involving families and caregivers in medication safety processes (NEW)	0.40	40	76	52.6%
Family and guardian presence during all aspects of emergency care, including resuscitation (NEW)	0.40	46	76	60.5%
Education of the patient, family, and caregivers on treatment plan and disposition (NEW)	0.40	47	76	61.8%
Bereavement counseling (NEW)	0.40	38	76	50.0%

# Policies for Disaster Planning (New Sub-Questions)

	Point Value	N =	Number of Hospitals	Percent Have
Disaster plan includes availability of medications, vaccines, equipment, supplies, and appropriately trained providers for children (NEW)	0.29	28	76	36.8%
Disaster plan includes decontamination, isolation, and quarantine of families and children (NEW)	0.29	31	76	40.8%
Disaster plan includes minimization of parent-child separation and methods for reuniting separated children with their families (NEW)	0.29	30	76	39.5%
All disaster drills include pediatric patients (NEW)	0.29	29	76	38.2%
Disaster plan includes pediatric surge capacity for both injured and non-injured children (NEW)	0.28	30	76	39.5%
Disaster plan includes access to behavioral health resources for children (NEW)	0.28	29	76	38.2%
Disaster plan includes care of children with special health care needs (NEW)	0.28	27	76	35.5%

# **Equipment and Supplies Management**

	Point Val	N =	Number	Percent
All staff trained on the location of all pediatric equipment and medications	3.000	75	76	98.7%
Daily method used to verify the proper location and function of pediatric equipment and supplies	3.000	59	76	77.6%
Standardized chart or tool to estimate weight if resuscitation precludes the use of a weight scale (e.g., length-based tape)	3.000	76	76	100.0%
Neonatal blood pressure cuff	0.500	69	76	90.8%
Infant blood pressure cuff	0.500	76	76	100.0%
Child blood pressure cuff	0.500	76	76	100.0%
Defibrillator with pediatric and adult capabilities including pads and/or paddles	0.500	76	76	100.0%
Pulse oximeter with pediatric and adult probes	0.500	76	76	100.0%
Continuous end-tidal CO2 monitoring device	0.500	74	76	97.4%
22 gauge catheter-over-the-needle	0.500	76	76	100.0%
24 gauge catheter-over-the-needle	0.500	76	76	100.0%
Pediatric intra-osseus needles	0.500	76	76	100.0%
IV administration sets with calibrated chambers	0.500	64	76	84.2%
Endotracheal tubes: cuffed or uncuffed 2.5 mm	0.575	70	76	92.1%

<b>Equipment and</b>	<b>Supplies</b>	Management
Equipment and	Supplies	Management

	Point Val	N =	Number	Percent
Endotracheal tubes: cuffed or uncuffed 3.0 mm	0.575	73	76	96.1%
Endotracheal tubes: cuffed or uncuffed 3.5 mm	0.575	74	76	97.4%
Endotracheal tubes: cuffed or uncuffed 4.0 mm	0.575	76	76	100.0%
Endotracheal tubes: cuffed or uncuffed 4.5 mm	0.575	75	76	98.7%
Endotracheal tubes: cuffed or uncuffed 5.0 mm	0.575	76	76	100.0%
Endotracheal tubes: cuffed or uncuffed 5.5 mm	0.575	75	76	98.7%
Endotracheal tubes: cuffed 6.0 mm	0.575	76	76	100.0%
Laryngoscope blades: straight, size 0	0.576	72	76	94.7%
Laryngoscope blades: straight, size 1	0.576	76	76	100.0%
Laryngoscope blades: straight, size 2	0.576	76	76	100.0%
Laryngoscope blades: curved, size 2	0.576	75	76	98.7%
Pediatric-sized Magill forceps	0.576	64	76	84.2%
Nasopharyngeal airways: infant-size	0.576	68	76	89.5%
Nasopharyngeal airways: child-size	0.576	70	76	92.1%

<b>Equipment and Supplies Management</b>
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	Point Val	N =	Number	Percent
Oropharyngeal airways: size 0 (50mm)	0.576	72	76	94.7%
Oropharyngeal airways: size 1 (60mm)	0.576	76	76	100.0%
Oropharyngeal airways: size 2 (70mm)	0.576	75	76	98.7%
Oropharyngeal airways: size 3 (80mm)	0.576	75	76	98.7%
Stylets for pediatric/infant-sized endotracheal tube	0.576	73	76	96.1%
Bag-mask device, self-inflating (infant/child)	0.576	75	76	98.7%
Masks (neonatal size) to fit bag-mask device	0.576	69	76	90.8%
Masks (infant size) to fit bag-mask device	0.576	76	76	100.0%
Masks (child size) to fit bag-mask device	0.576	76	76	100.0%
Simple oxygen masks: standard infant	0.576	73	76	96.1%
Clear oxygen masks: standard child	0.576	74	76	97.4%
Non-rebreather masks: infant-sized	0.576	65	76	85.5%
Non-rebreather masks: child-size	0.576	73	76	96.1%
Nasal cannulas: infant	0.576	75	76	98.7%

# **Equipment and Supplies Management**

	Point Val	N =	Number	Percent
Nasal cannulas: child	0.576	76	76	100.0%
Suction catheters: at least one in range 6-8F	0.576	76	76	100.0%
Suction catheters: at least one in range 10-12F	0.576	76	76	100.0%
Supplies/kit for pediatric patients with difficult airways	0.576	68	76	89.5%

### Difference in Scored 1:1 Questions, Hospitals in Both Years (n=62), 2013-14 and 2020 Differences

Survey Section	2020 Gap Report Question Language	2013-14 Score	Hospitals in BothYears	2013-14 N (%)	2020 N (%)	2020 - 2013 N (% Difference)
Guidelines for Administration and	Physician Coordinator	9.5	62	29 (46.8%)	8 (12.9%)	-21 (-33.9%)
Coordination of the ED for the Care of Children	Nurse Coordinator	9.5	62	37 (59.7%)	12 (19.4%)	-25 (-40.3%)
Other Health Care Providers Who Staff the ED	Physician Competency Evaluations	5	62	24 (38.7%)	37 (59.7%)	13 (21.0%)
	Nurse Competency Evaluations	5	62	36 (58.1%)	57 (91.9%)	21 (33.9%)
Guidelines for QI/PI in the ED	Patient care review process (chart review)	5	62	32 (51.6%)	23 (37.1%)	-9 (-14.5%)
	Identification of quality indicators for children	0.5	62	18 (29.0%)	18 (29.0%)	0 (0.0%)
	Collection and analysis of pediatric emergency care data	0.5	62	30 (48.4%)	21 (33.9%)	-9 (-14.5%)
	Development of a plan for improvement in pediatric emergency care	0.5	62	25 (40.3%)	21 (33.9%)	-4 (-6.5%)
	Re-evaluation of performance using outcomes-based measures	0.5	62	19 (30.6%)	19 (30.6%)	0 (0.0%)
Guidelines for Improving Pediatric Patient Safety in	Children seen in the ED weighed in kilograms (without conversion from pounds) $$	1.75	62	38 (61.3%)	50 (80.6%)	12 (19.4%)
the ED	Temperature, heart rate, and respiratory rate recorded	1.4	62	61 (98.4%)	61 (98.4%)	0 (0.0%)
	Blood pressure monitoring available based on severity of illness	1.4	62	61 (98.4%)	61 (98.4%)	0 (0.0%)
	Pulse oximetry monitoring available based on severity of illness	1.4	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
	Process in place for notification (manual or automated) of physicians when abnormal vital signs	1.4	62	43 (69.4%)	59 (95.2%)	16 (25.8%)
	Process in place for the use of pre-calculated drug dosing in all children	3.5	62	50 (80.6%)	46 (74.2%)	-4 (-6.5%)
	Process in place that allows for 24/7 access to interpreter services in the ED	1.4	62	59 (95.2%)	61 (98.4%)	2 (3.2%)
Guidelines for Policies, Procedures, and Protocols	Triage policy that specifically addresses ill and injured children $% \left( \frac{1}{2}\right) =\frac{1}{2}\left( \frac{1}{2}\right) \left( \frac$	2.12	62	38 (61.3%)	33 (53.2%)	-5 (-8.1%)
for the ED	Policy for pediatric patient assessment and reassessment	1.7	62	47 (75.8%)	45 (72.6%)	-2 (-3.2%)
	Policy for immunization assessment and management of the under-immunized $\mbox{\it child}$	1.7	62	33 (53.2%)	23 (37.1%)	-10 (-16.1%)
	Policy for child maltreatment	1.7	62	55 (88.7%)	51 (82.3%)	-4 (-6.5%)
	Policy for death of the child in the ED	1.7	62	42 (67.7%)	36 (58.1%)	-6 (-9.7%)
	Policy for reduced-dose radiation for CT and x-ray imaging based on pediatric age or weight	1.7	62	34 (54.8%)	42 (67.7%)	8 (12.9%)
	Written interfacility transfer guidelines	2.12	62	41 (66.1%)	41 (66.1%)	0 (0.0%)
Guidelines for Equipment, Supplies, and Medications	All staff trained on the location of all pediatric equipment and medications	1	62	62 (100.0%)	61 (98.4%)	-1 (-1.6%)
Supplies, and Medications for the Care of Pediatric Patients in the ED.	Daily method used to verify the proper location and function of pediatric equipment and supplies	1	62	52 (83.9%)	45 (72.6%)	-7 (-11.3%)
	Standardized chart or tool to estimate weight if resuscitation precludes the use of a weight scale (e.g	1	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
	Neonatal blood pressure cuff	0.55	62	54 (87.1%)	55 (88.7%)	1 (1.6%)
	Infant blood pressure cuff	0.55	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
	Child blood pressure cuff	0.55	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
	Defibrillator with pediatric and adult capabilities including pads and/or paddles	0.55	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
	Pulse oximeter with pediatric and adult probes	0.55	62	62 (100.0%)	62 (100.0%)	0 (0.0%)

#### Difference in Scored 1:1 Questions, Hospitals in Both Years (n=62), 2013-14 and 2020 Differences

Survey Section
Guidelines for Equipment,
Supplies, and Medications
for the Care of Pediatric
Patients in the ED.

2000 Care Describeration of the Language	2013-14	Hospitals in	2013-14 N (%)	2020 N (%)	2020 - 2013 N (% Difference)
2020 Gap Report Question Language  Continuous end-tidal CO2 monitoring device	<b>Score</b> 0.55	Both Years	57 (91.9%)	60 (96.8%)	3 (4.8%)
22 gauge catheter-over-the-needle	0.55	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
24 gauge catheter-over-the-needle	0.55	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
Pediatric intra-osseus needles	0.55	62	61 (98.4%)	62 (100.0%)	1 (1.6%)
IV administration sets with calibrated chambers	0.55	62	61 (98.4%)	53 (85.5%)	-8 (-12.9%)
Endotracheal tubes: cuffed or uncuffed 2.5 mm	0.557	62	57 (91.9%)	56 (90.3%)	-1 (-1.6%)
Endotracheal tubes: cuffed or uncuffed 3.0 mm	0.557	62	59 (95.2%)	59 (95.2%)	0 (0.0%)
Endotracheal tubes: cuffed or uncuffed 3.5 mm	0.557	62	60 (96.8%)	60 (96.8%)	0 (0.0%)
Endotracheal tubes: cuffed or uncuffed 4.0 mm	0.557	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
Endotracheal tubes: cuffed or uncuffed 4.5 mm	0.557	62	61 (98.4%)	61 (98.4%)	0 (0.0%)
Endotracheal tubes: cuffed or uncuffed 5.0 mm	0.557	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
Endotracheal tubes: cuffed or uncuffed 5.5 mm	0.557	62	60 (96.8%)	61 (98.4%)	1 (1.6%)
Endotracheal tubes: cuffed 6.0 mm	0.557	62	60 (96.8%)	62 (100.0%)	2 (3.2%)
Laryngoscope blades: straight, size 0	0.557	62	57 (91.9%)	58 (93.5%)	1 (1.6%)
Laryngoscope blades: straight, size 1	0.557	62	59 (95.2%)	62 (100.0%)	3 (4.8%)
Laryngoscope blades: straight, size 2	0.557	62	61 (98.4%)	62 (100.0%)	1 (1.6%)
Laryngoscope blades: curved, size 2	0.557	62	60 (96.8%)	61 (98.4%)	1 (1.6%)
Pediatric-sized Magill forceps	0.557	62	56 (90.3%)	52 (83.9%)	-4 (-6.5%)
Nasopharyngeal airways: infant-size	0.557	62	44 (71.0%)	54 (87.1%)	10 (16.1%)
Nasopharyngeal airways: child-size	0.557	62	52 (83.9%)	56 (90.3%)	4 (6.5%)
Oropharyngeal airways: size 0 (50mm)	0.557	62	60 (96.8%)	58 (93.5%)	-2 (-3.2%)
Oropharyngeal airways: size 1 (60mm)	0.557	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
Oropharyngeal airways: size 2 (70mm)	0.557	62	61 (98.4%)	61 (98.4%)	0 (0.0%)
Oropharyngeal airways: size 3 (80mm)	0.557	62	62 (100.0%)	61 (98.4%)	-1 (-1.6%)
Stylets for pediatric/infant-sized endotracheal tube	0.557	62	60 (96.8%)	59 (95.2%)	-1 (-1.6%)
Bag-mask device, self-inflating (infant/child)	0.557	62	59 (95.2%)	62 (100.0%)	3 (4.8%)
Masks (neonatal size) to fit bag-mask device	0.557	62	55 (88.7%)	57 (91.9%)	2 (3.2%)
Masks (infant size) to fit bag-mask device	0.557	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
Masks (child size) to fit bag-mask device	0.557	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
Simple oxygen masks: standard infant	0.557	62	58 (93.5%)	59 (95.2%)	1 (1.6%)
Clear oxygen masks: standard child	0.557	62	62 (100.0%)	60 (96.8%)	-2 (-3.2%)

### Difference in Scored 1:1 Questions, Hospitals in Both Years (n=62), 2013-14 and 2020 Differences

Survey Section	2020 Gap Report Question Language	2013-14 Score	Hospitals in Both Years	2013-14 N (%)	2020 N (%)	2020 - 2013 N (% Difference)
Guidelines for Equipment, Supplies, and Medications for the Care of Pediatric Patients in the ED.	Non-rebreather masks: infant-sized	0.557	62	56 (90.3%)	51 (82.3%)	-5 (-8.1%)
	Non-rebreather masks: child-size	0.557	62	61 (98.4%)	59 (95.2%)	-2 (-3.2%)
	Nasal cannulas: infant	0.557	62	60 (96.8%)	61 (98.4%)	1 (1.6%)
	Nasal cannulas: child	0.557	62	61 (98.4%)	62 (100.0%)	1 (1.6%)
	Suction catheters: at least one in range 6-8F	0.557	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
	Suction catheters: at least one in range 10-12F	0.557	62	62 (100.0%)	62 (100.0%)	0 (0.0%)
	Supplies/kit for pediatric patients with difficult airways	0.557	62	53 (85.5%)	56 (90.3%)	3 (4.8%)