



CARE TEAM
COMPETENCIES
Focus Area #5

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PURPOSE STATEMENT

Develop a robust pediatric competency program that ensures staff maintain the skills, knowledge, and attributes necessary to safely and effectively manage critically ill and/or injured children.

BACKGROUND

Children account for only 10% of EMS calls and 20-25% of emergency department visits every year in the United States^[1, 2]. This translates to less than 3 pediatric emergencies per month for EMS practitioners and less than 15 children per day in emergency departments, on average^[3, 4]. Given that fewer than 5% of these children ultimately require tertiary care, the opportunity for EMS practitioners, nurses, physicians, and other healthcare professionals to reinforce pediatric competencies is limited^[5].

In the absence of frequent practice and continuing education, critical pediatric skills and knowledge can be difficult to maintain. Most national accreditation programs require pediatric competencies be demonstrated upon initial training and CE requirements for maintenance of certification or licensure supports maintenance of pediatric competencies^[4]. Pediatric advanced life support courses have been shown to immediately increase provider knowledge, yet in the absence of regular opportunities to apply the knowledge, competency returns to baseline levels within 6-12 months^[4]. While nationally registered EMS practitioners report that CE is the main source of knowledge and skills in pediatrics, cost, availability, and travel distance are often barriers to obtaining pediatric CE. Furthermore, pediatrics may account for only a small component of CE required—depending on the specialty or certification. Similarly, skills maintenance or demonstration of competency is not consistently included in re-certification processes^[4]. As an example most EMS practitioners report having fewer than 8 CE hours in pediatric topics over the preceding 2 years^[3].

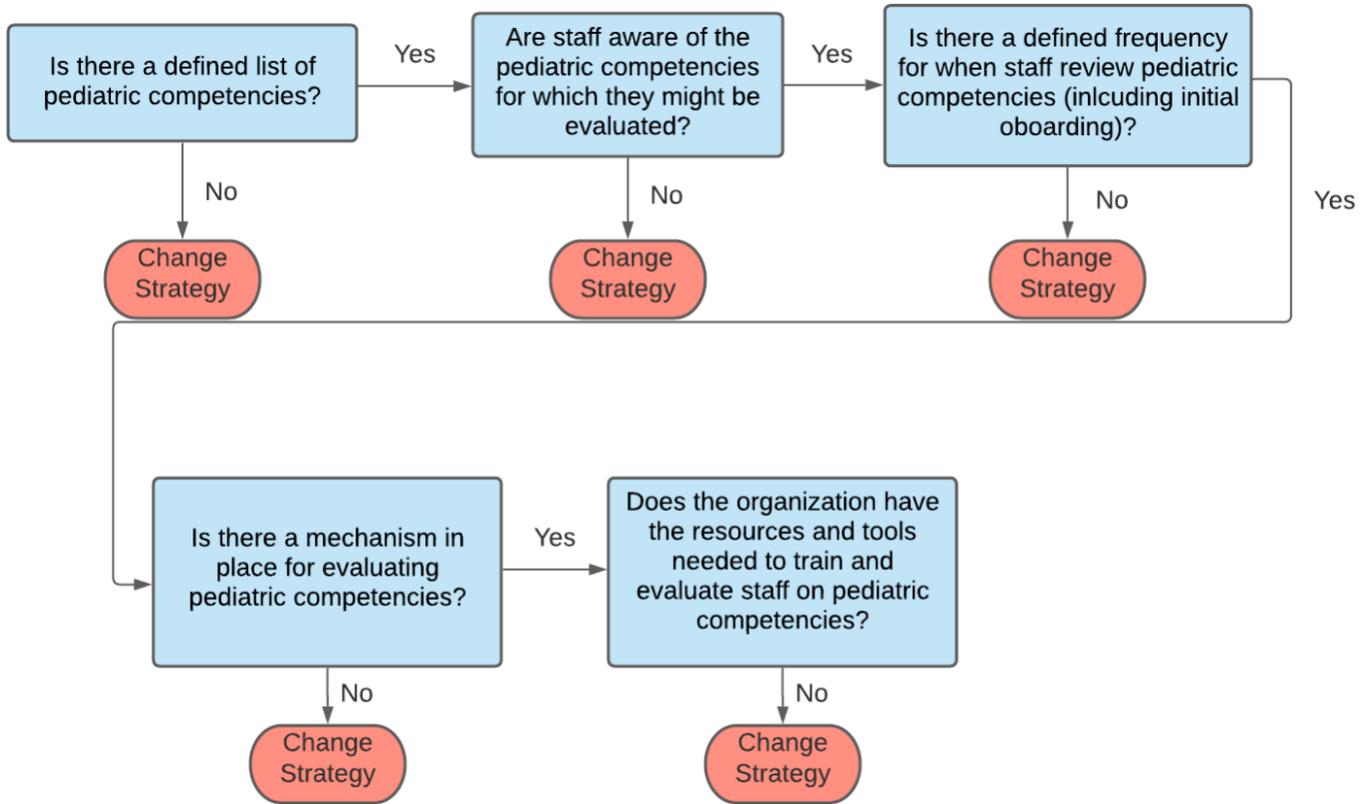
While most national training courses do a thorough job of teaching the cognitive aspect of pediatric competencies (the knowledge of what needs to be done in a given situation) as well as the skill (physically performing the task correctly). However, to be fully competent includes not only the knowledge and skill (how to physically perform the task) but also ability. Ability includes the behavioral aspects of a task such as a calm, confident, reassuring manner, employing family-centered care, and anticipating potential complications being able to minimize or prevent those risks.

The development of a robust pediatric competency program within an organization can help ensure that staff maintain critical knowledge, skills, and behaviors to meet the needs of children throughout their individual professional practice as a physician, nurse, EMS practitioner or other healthcare provider.

1. Gausche-Hill, M., et al., *A National Assessment of Pediatric Readiness of Emergency Departments*. JAMA Pediatrics, 2015. **169**(6): p. 527-534.
2. Shah, M.N., et al., *The Epidemiology of Emergency Medical Services Use by Children: An Analysis of the National Hospital Ambulatory Medical Care Survey*. Prehospital Emergency Care, 2008. **12**(3): p. 269-276.
3. Stevens, S.L. and J.L. Alexander, *The impact of training and experience on EMS providers' feelings toward pediatric emergencies in a rural state*. *Pediatr Emerg Care*, 2005. **21**(1): p. 12-7.
4. Remick, K., S. Caffrey, and K. Adalgais, *Prehospital Provider Scope of Practice and Implications for Pediatric Prehospital Care*. *Clinical Pediatric Emergency Medicine*, 2014. **15**(1): p. 9-17.
5. Cabalatungan, S.N., H.C. Thode, and A.J. Singer, *Emergency medicine physicians infrequently perform pediatric critical procedures: a national perspective*. *Clinical and experimental emergency medicine*, 2020. **7**(1): p. 52-60.

FLOW DIAGRAM

This flow diagram is designed to help one think about how to break down this focus area into small steps. The questions in this flow diagram align with the environmental scan worksheet in the next section. Consider the primary drivers of an equipment program as you review the following process map:



ENVIRONMENTAL SCAN WORKSHEET



Focus Area 5: Care Team Competencies

Environmental Scan Worksheet

Instructions

The purpose of these questions is to help you explore the current state of the focus area at your EMS agency, ED, or hospital and identify areas for improvement. To be eligible for CE credit, you must answer the Yes/No and strengths/barriers questions in REDCap. The “Key Elements/Considerations”, “Best/Suggested Practices” and “Possible Change Strategies” sections are not required but are designed to help you delve deeper into the focus area, capture best practices shared during learning sessions, and help strategize on how to improve in this area. Please remember that there is an individual link to each of these forms. Please email Meredith Rodriguez at collaboratives@emscimprovement.center for assistance.

1) Is there a defined list of pediatric competencies?			<input type="checkbox"/> Yes <input type="checkbox"/> No
Key Elements / Considerations	Best / Suggested Practices	Possible Change Strategies	
<i>What is the source of this list?</i> <i>Where is the list located?</i> <i>Is it readily available to staff?</i>	<i>What are groups doing around the country that you think could work well for you?</i>	<i>What could be done to improve here?</i>	
2) Are staff aware of the pediatric competencies for which they may be evaluated?			<input type="checkbox"/> Yes <input type="checkbox"/> No
Key Elements / Considerations	Best / Suggested Practices	Possible Change Strategies	

<p><i>How are staff made aware of the pediatric competencies?</i></p>	<p><i>What are groups doing around the country that you think could work well for your agency or ED/hospital?</i></p>	<p><i>What could be done to improve here?</i></p>
<p>3) Is there a defined frequency for when staff review pediatric competencies (including initial onboarding)?</p>		<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Key Elements / Considerations</p>	<p>Best / Suggested Practices</p>	<p>Possible Change Strategies</p>
<p><i>What is the frequency?</i> <i>Is it often enough to ensure competency?</i></p>	<p><i>How often are similar organizations assessing pediatric competencies?</i></p>	<p><i>What could be done to improve here?</i></p>
<p>4) Is there a mechanism for assessing pediatric competencies?</p>		<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Key Elements / Considerations</p>	<p>Best / Suggested Practices</p>	<p>Possible Change Strategies</p>
<p><i>What does this mechanism look like?</i> <i>How does one ensure competency has been objectively demonstrated?</i> <i>What strategies are employed to address the findings?</i></p>	<p><i>How do other PECCs assess their care team’s pediatric competencies?</i> <i>Are there tips or tricks that you could incorporate into your daily practice?</i> <i>How are pediatric competencies assessed for real world application of the combined knowledge, skill, and overall performance.</i></p>	<p><i>What could be done to improve here?</i></p>
<p>5) What are your organization’s strengths as it relates to this focus area?</p>		

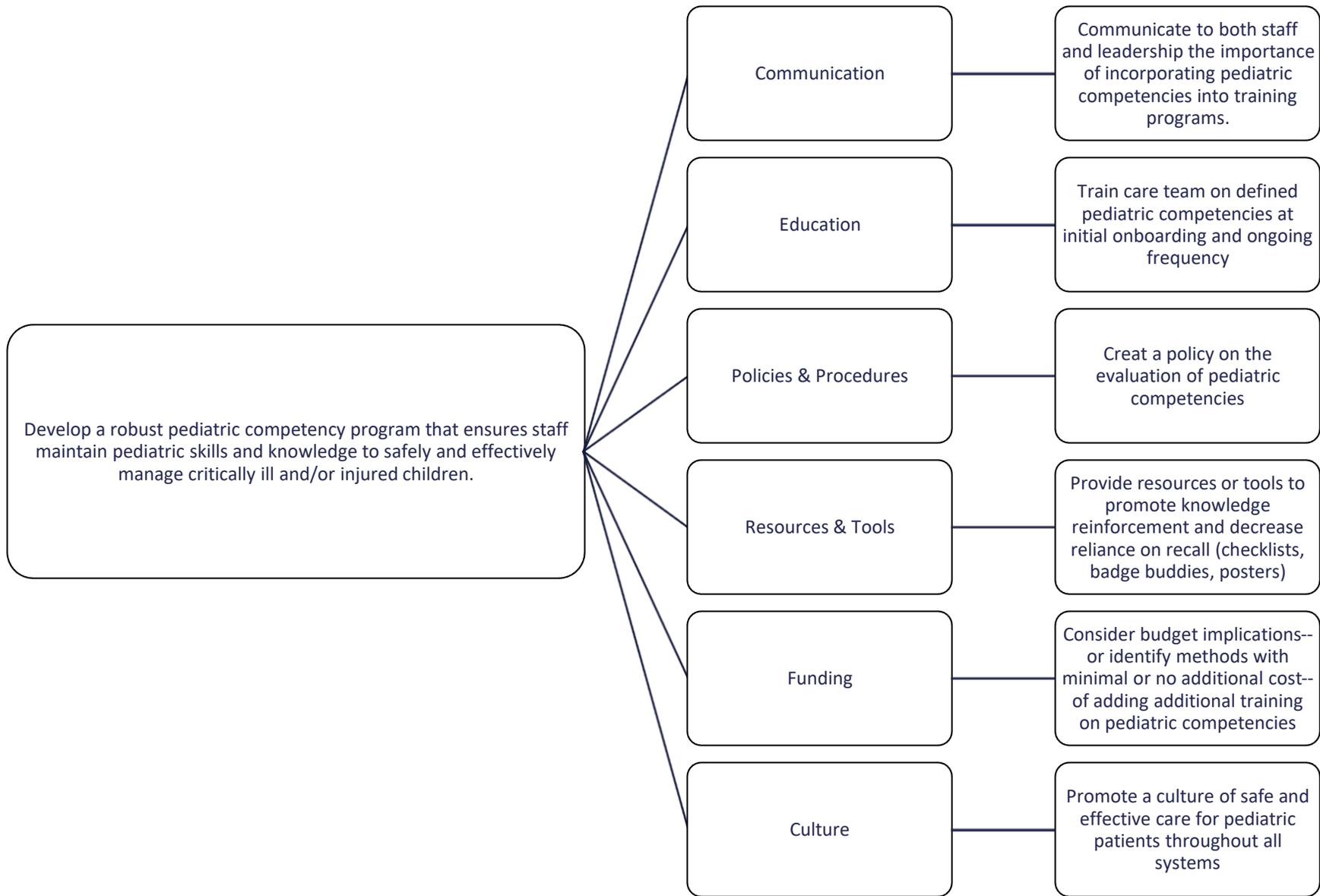
What would you share with others to help them achieve success? What could be leveraged to drive further improvement?

6) List the potential barriers to optimizing staff's pediatric competencies at your organization.

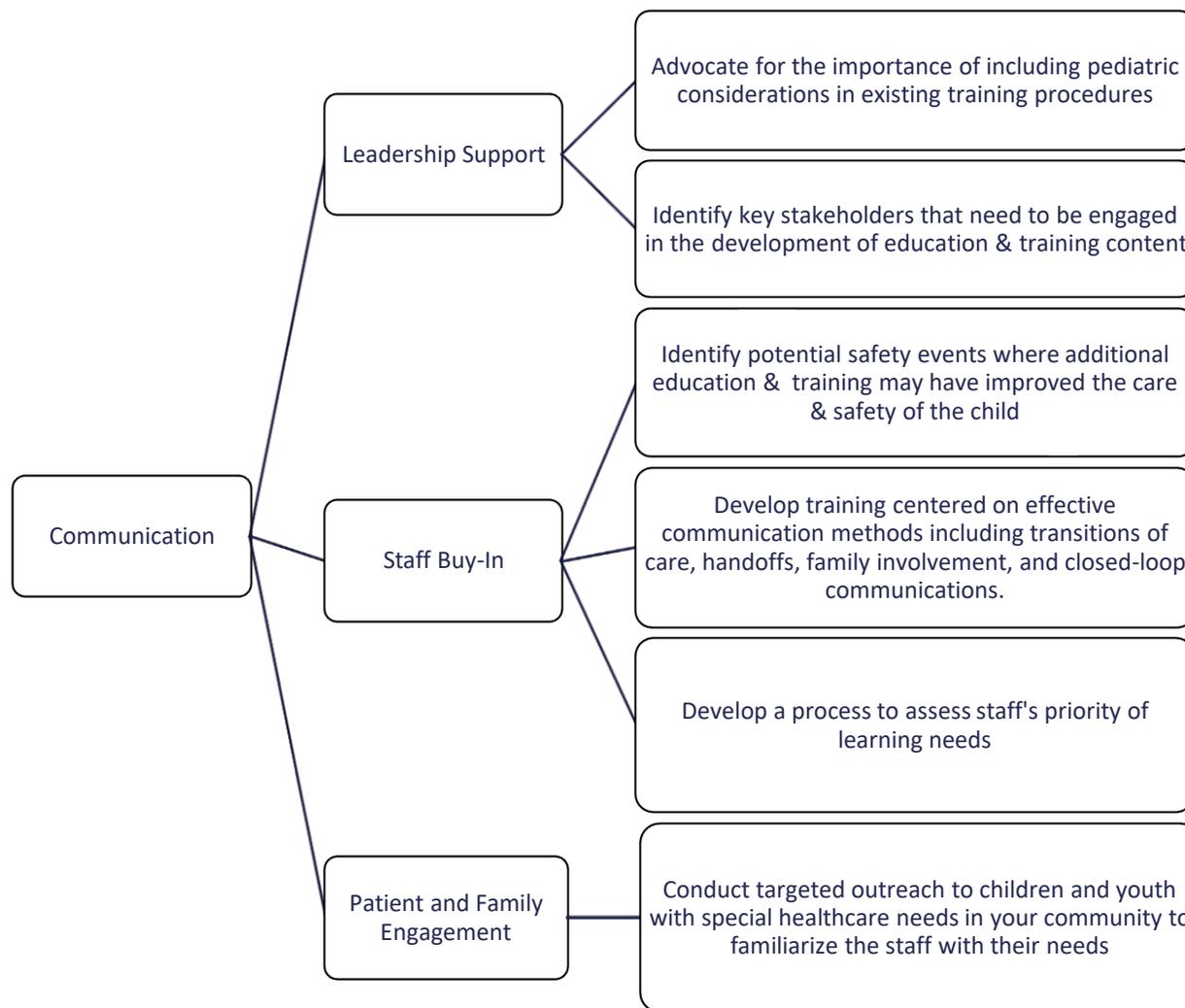
How might these barriers be overcome? What support or resources are needed to overcome them?

7) Is there a specific change strategy that you would like to implement at your organization?

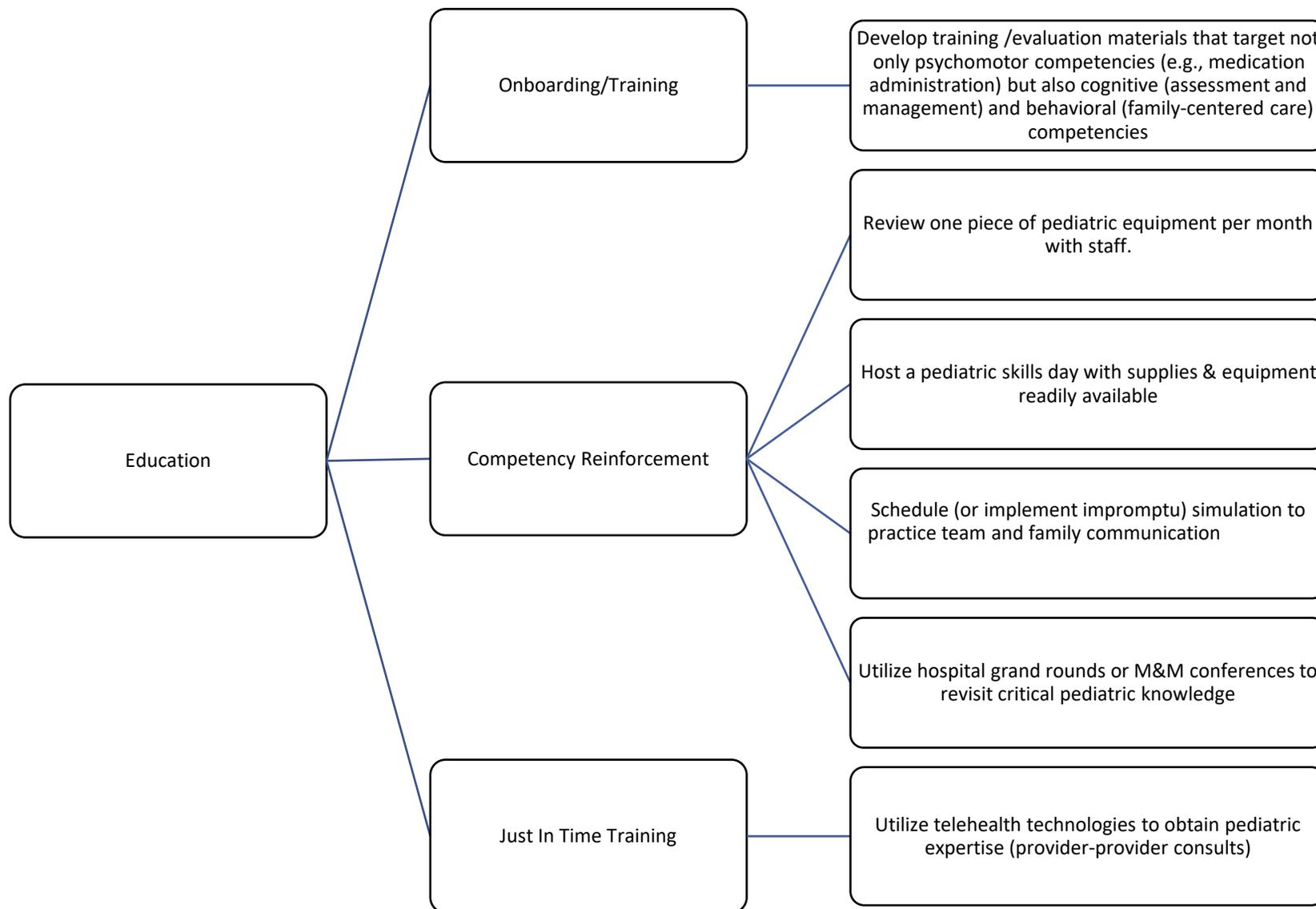
Where would you start? What is the best first step to take?



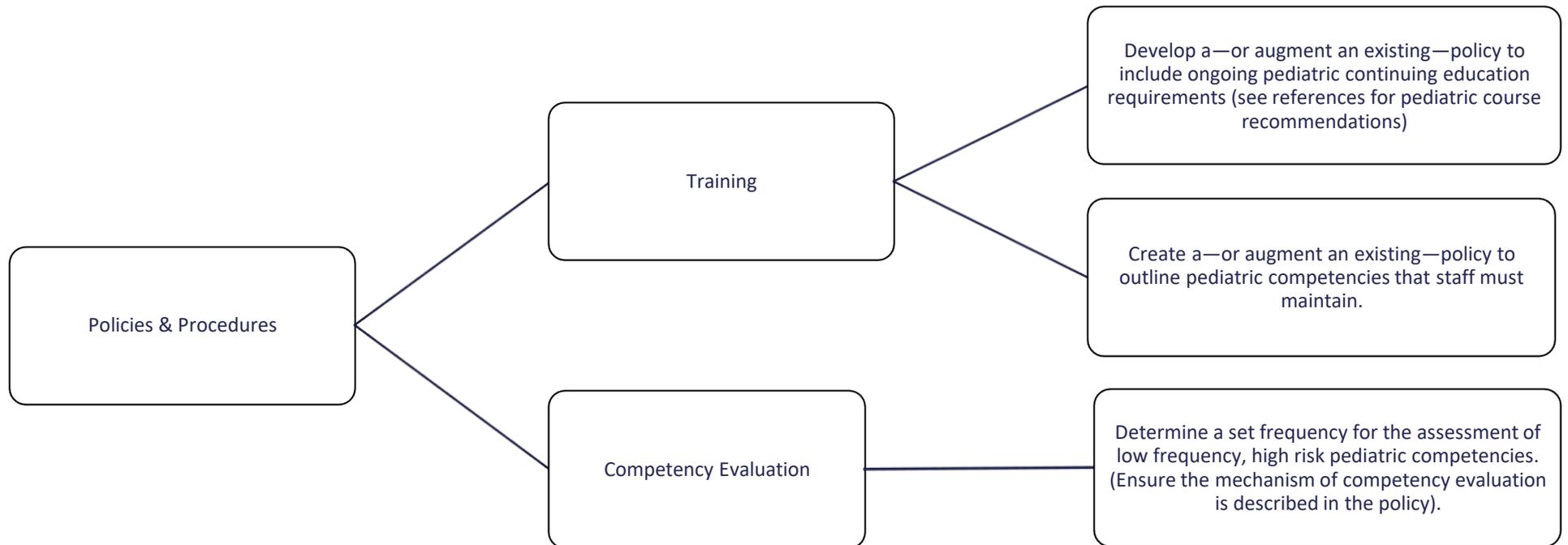
1. COMMUNICATION



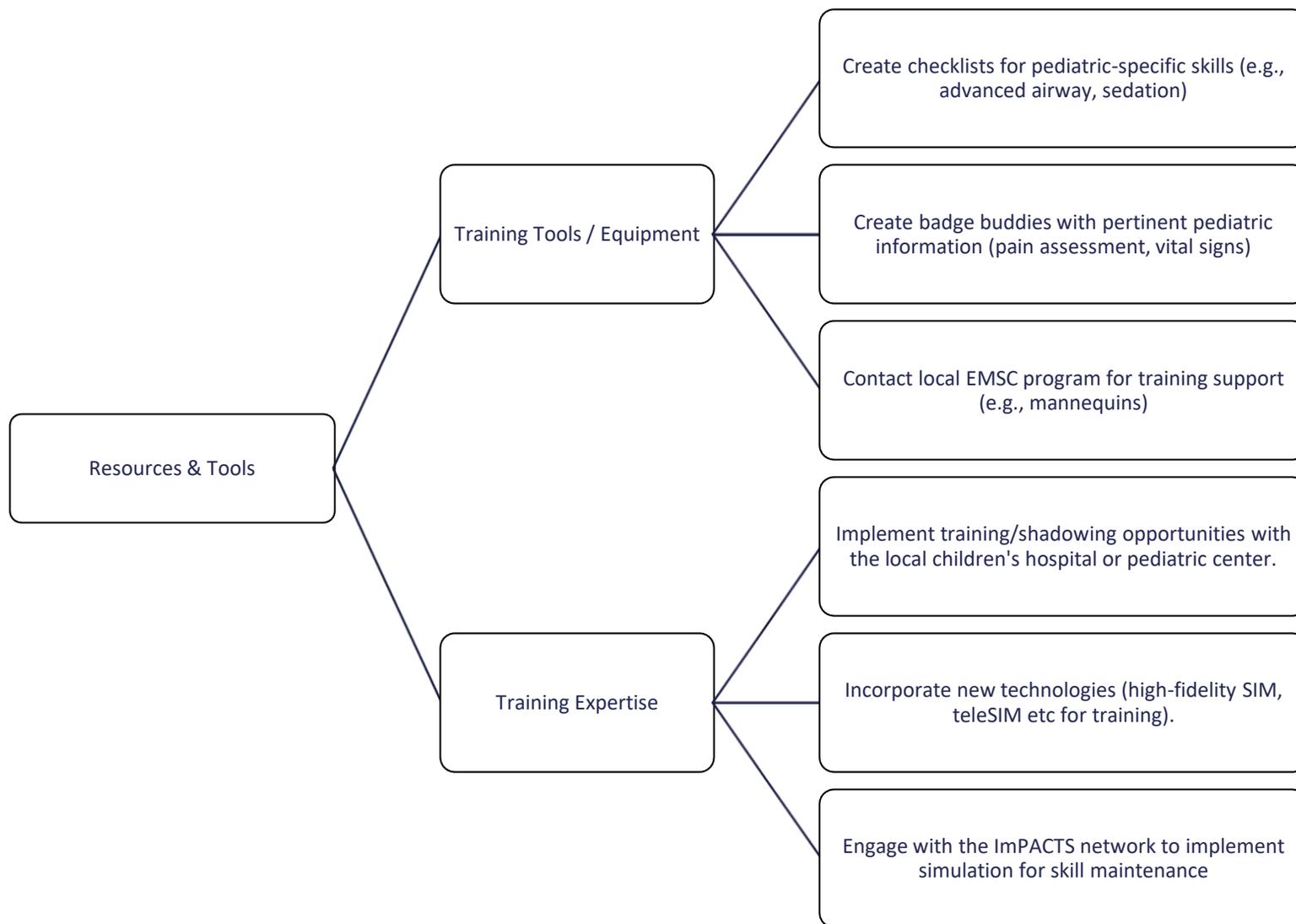
2. EDUCATION



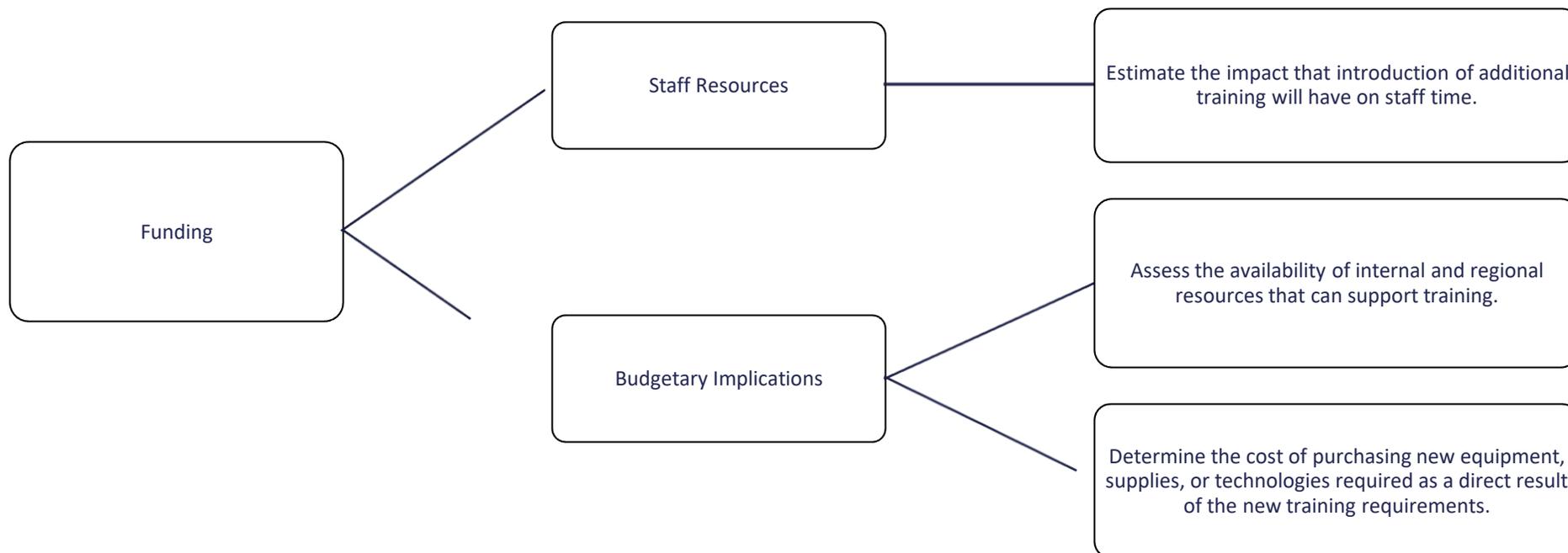
3. POLICIES & PROCEDURES



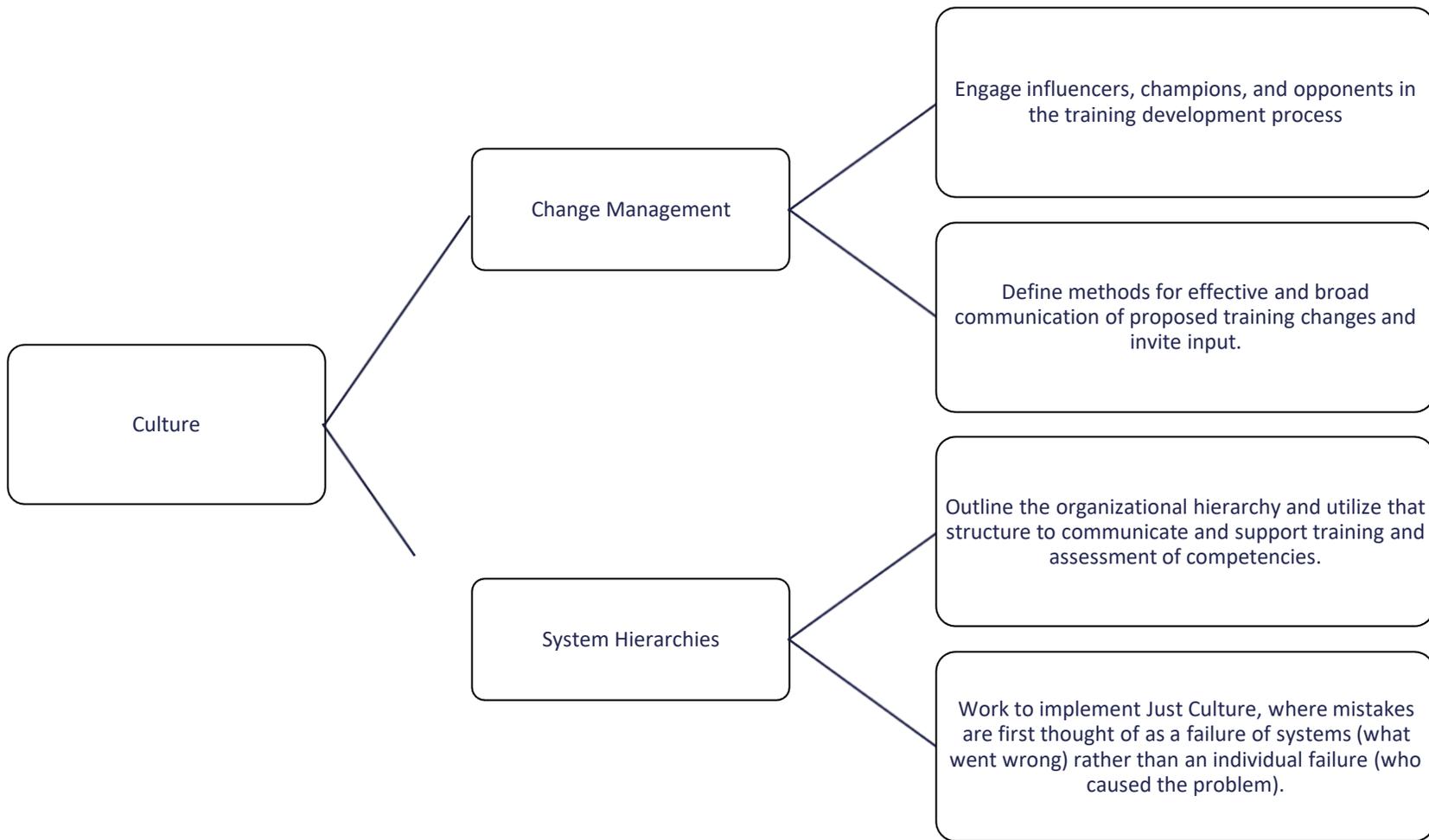
4. RESOURCES & TOOLS



5. FUNDING



6. CULTURE



RESOURCES

TOOLS

1. National Pediatric Readiness Project Toolkit: <https://emscimprovement.center/domains/pediatric-readiness-project/readiness-toolkit/>
2. Prehospital Pediatric Readiness Project Toolkit: <https://emscimprovement.center/domains/prehospital-care/prehospital-pediatric-readiness/pprp-toolkit/>
3. PECC Community of Practice Website (Agency PECCs): <https://emscimprovement.center/collaboratives/pecclc/resources/agency-peccs/>
4. [EMS Education Toolkit for Pediatrics](#) (NASEMSO)
5. [Autism First Responder Training Video](#) (Autism Society of Texas)
6. [Emergency Care: Pregnancy Infants, and Children Course](#)
7. [TeleSimBox EMS Case Simulations](#) (Seizure and Non-Accidental Trauma) – ACEP
8. [Identifying Child Abuse](#) – Online Module (University of Colorado & Colorado EMSC)
9. [Online Pediatric Education](#) (University of Colorado & Colorado EMSC)
10. [Simulation-Based Pediatric Resuscitation Curriculum for Prehospital Providers](#) (MedEd Prtal)

TEMPLATES

1. [Equipment Competency Validation Record](#)
2. [Physical Assessment Skills Checklist](#) (Pediatric)
3. [Orientation Knowledge and Skills Checklist for the Registered Nurse](#)
4. [PRIDE Pediatric Disaster Simulation Curriculum](#)
5. [Skills Workshop Sample](#) (Gaston County EMS)
6. [Skills Competencies](#) (Gaston County EMS)
7. [Prehospital Pediatric Care Course Scenarios](#) (New York)

ARTICLES

1. Babl, F.E., et al., *Pediatric Pre-Hospital Advanced Life Support Care in an Urban Setting*. Pediatric Emergency Care, 2001. **17**(1) https://journals.lww.com/pec-online/Fulltext/2001/02000/Pediatric_pre_hospital_advanced_life_support_care.2.aspx
2. Burton, J.H., et al., *Endotracheal Intubation in a Rural Ems State: Procedure Utilization and Impact of Skills Maintenance Guidelines*. Prehospital Emergency Care, 2003. **7**(3): p. 352-356 <https://doi.org/10.1080/10903120390936554>
3. Krauss, B.A. and B.S. Krauss, *Managing the Frightened Child*. Annals of Emergency Medicine, 2019. **74**(1): p. 30-35 <https://doi.org/10.1016/j.annemergmed.2018.12.011>
4. Lammers, R.L., et al., *Simulation-Based Assessment of Paramedic Pediatric Resuscitation Skills*. Prehospital Emergency Care, 2009. **13**(3): p. 345-356 <https://doi.org/10.1080/10903120802706161>
5. Reisdorff, E.J., et al., *Prehospital Interventions in Children*. Prehospital Emergency Care, 1998. **2**(3): p. 180-183 <https://doi.org/10.1080/10903129808958868>

6. Shah, M.I., et al., *Impact of High-Fidelity Pediatric Simulation on Paramedic Seizure Management*. Prehosp Emerg Care, 2016. **20**(4): p. 499-507
<https://www.tandfonline.com/doi/abs/10.3109/10903127.2016.1139217?journalCode=ipec20>
7. Tsai, A. and G. Kallsen, *Epidemiology of Pediatric Prehospital Care*. Ann Emerg Med, 1987. **16**(3): p. 284-92
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