Children and Disaster Emergency Management: Threat Assessment, Hazard Identification, and Risk



Children are a high-risk vulnerable population and are consistently left out of hospital & regional threat and hazard assessments.

Including children in threat and hazard assessments creates opportunities to avoid, control, and reduce community impacts as well as promote whole community engagement & capability







National pediatric readiness scores for hospitals in Michigan/Ohio was 66/67 out of 100 in 2014. While these scores fall within the national average, higher scores are known to be associated with improved pediatric care outcomes.



A Center for American Progress 2020 analysis reported that 30% of the Ohio/Michigan Health Care workforce have children < 14 years old. Planning with childcare and schools preserves local and regional health provider workforce.



According to KIDS COUNT Data Center in 2019 18% of Ohio and Michigan children live in poverty. Planning for children is essential for shelter & food assistance programs. Disaster events increase the need for food and shelter assistance and have lasting community impacts.

Child-Centric Disaster Readiness

Sources: American Academy of Pediatrics, FEMA & CDC





Community resilience Children are able to begins with teaching children to be disaster disaster readiness ready.

engage parents in learned in schools.



capable to become disaster leaders.



Children & youth are Children & families who are disaster ready experience less long term impacts.

Pediatric Disaster Readiness = Whole Community Readiness



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Regional **Healthcare Coalition** 2020 Top 5 Hazard **Vulnerabilities**



- Blizzard Snow
- Awareness: Children are at greater risk of injury and death due to severe weather events. Pediatric admissions to hospitals associated with frostbite, hypothermia, and carbon monoxide poisoning should be anticipated.
- **Preparedness:** Workforce with children may travel long distances to and from their children impacting their ability to respond to disasters.
- Response: Families with children who are dependent on medical devices are known to seek assistance from 911 and hospitals during a severe weather power outage.
- Mitigation: Children rely on their families, childcare providers, and schools to prepare and gather supplies prior to freezing winter storms.



Active Shooter

- Awareness: There were 70 school shootings in Michigan and 55 in Ohio in 2020. Most shootings occur within proximity to schools.
- **Preparedness:** Active shooter drills in schools were associated with a 42% increase in anxiety & stress and 39% in depression. The American Academy of Pediatrics recommends that drills be conducted in a manner that does not traumatize children.
- **Response:** PsySTART Triage assists providers in allocating mental health resources to children and adults after the event. Limiting children's media exposure when an incident occurs reduces anxiety. Practice age-appropriate community messaging to reassure children.
- **Mitigation:** Stop-the-bleed training is for everyone, including middle and high school students. Hospitals need to ensure there is a practiced plan for family reunification and unaccompanied children.



Chemical

- **Awareness:** Children have a greater risk of respiratory failure and acute toxicity. Children breathe more air per kilo and have a higher body surface area that increases the absorption of toxins. Agents of the highest concern include nerve, blistering, asphyxiants, and disabling agents.
- Preparedness: Childcare, schools, and families should have plans for sheltering in place. Prehospital providers and Hospitals decontamination equipment and PPE. **Response:** Anticipate the decontamination of children within a short period of time. Prevent hypothermia using warmed water for decontamination. Prepare for pediatric medical countermeasure administration. • **Mitigation:** Communities should have reliable mechanisms to alert the community Exposure to a toxic exposure and how to shelter in place.



- Awareness: Only 13% of communities have a mass casualty plan that includes • children. Trauma accounts for approximately 20% of pediatric EMS encounters under normal conditions. Children are at greater risk of blunt chest and abdominal trauma, including traumatic asphyxia.
- **Preparedness:** Adopting a single standard for pediatric triage such as JumpSTART • or SALT improves on-scene triage between responders.
- **Response:** Children with critical trauma or burns require a regional coordinated system of response. EMS transport mutual aid, including air transport to distant pediatric regional centers, should be anticipated.
- Mitigation: Promote Stop-the-Bleed Programs. Place stop-the-bleed kits with public access defibrillators.



Cyber

Mass

Casualty

- Awareness: Every year thousands of children become victims of cybercrime. The National Center for Missing and Exploited Children (NCMEC) Cybertipline reports included over 69 million images, videos, and other files related to child sexual exploitation.
- **Preparedness:** Secure computer networks in schools, libraries, and other areas where children gather. Train caretakers in the signs of child cybercrime.
- **Response:** As children move to online learning the need to monitor and report cybercrime events against children through appropriate law enforcement channels including the NCMEC.
- **Mitigation:** Promote programs known to reduce the risk of cybercrime of children from the FBI and National Center for Missing and Exploited Children.