Stanislaus County Healthcare Emergency Preparedness Coalition Pediatric Disaster Surge Plan

Pediatric Disaster Surge Plan

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Record of Changes

Brief Description of Change	Revision Date	Page(s) Affected	Change Made By
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Introduction

Children represent close to a quarter of the total U.S. population and are particularly vulnerable during a disaster. Their unique needs and characteristics make it important to identify and incorporate special considerations for this population into preparedness, response, recovery and mitigation plans and actions. In 2016, the Stanislaus County Healthcare Emergency Preparedness Coalition identified Pediatric Disaster Surge Capacity as a priority area for local hospitals planning and capability enhancement. The coalition appointed a subcommittee of members to begin drafting a plan to address the issues of pediatric disaster surge in a community with limited pediatric disaster surge capability.

Purpose

The purpose of this plan is to be a supporting annex the Stanislaus County Healthcare Emergency Preparedness Coalitions' (SCHEPC) Medical Health Surge Plan, to protect children and provide appropriate pediatric medical care during a disaster. This plan is intended to support, not replace, any agencies' existing policies or plans by providing uniform response actions in the case of pediatric emergency.

Scope

This plan is designed to provide a guide for Stanislaus County Healthcare Coalition partners to:

- Enable safe pediatric transfer decision making
- Implement standardized care guidelines as needed
- Ensure associated communications processes are in place
- Support the tracking of pediatric patients throughout the incident
- Identify strategies to manage surge and scarce resources
- Assist with the coordination of transferring acutely ill/injured pediatric patients to pediatric tertiary care centers/specialty care centers
- Assist with the decompression from pediatric tertiary care centers/specialty care centers to make additional critical care beds available for acutely ill/injured pediatric patients

For this plan, the following pediatric age groups were used by the planning team to define the pediatric population and determine special age group related considerations:

- Infants/toddlers (0 - 24 months)
- Toddlers/preschoolers (2 - 5 years)
- School aged children (6 – 13 years)
- Adolescent children over 14; and children with underlying complex medical conditions. (It is important to note that some children with special needs who are over 14 and experience chronic pediatric conditions such as cystic fibrosis, cerebral palsy, and others will likely require specialized attention during a disaster.)

Goals

The goal of this project was to develop a county Healthcare Coalition Pediatric Disaster Surge Plan for the first 36 hours of an unusual event that overwhelms local healthcare system capacity to triage, stabilize, and/or transfer pediatric patients to a treatment facility outside of Stanislaus County.

Objectives

The following objectives were identified by the Pediatric Disaster Surge Plan Work group for this planning project:

- Conduct a comprehensive assessment of the capabilities of every Stanislaus County hospital to care for kids in time of disaster.
- Define roles and responsibilities of all entities involved in a pediatric disaster response.
- Create a pediatric preparedness response plan.
- Determine resource needs related to pediatric surge and identify funding opportunities to meet those needs.
- Determine training needs of coalition members and identify funding opportunities to meet those needs.

Methodology

For this planning project, the Healthcare Coalition identified a work group comprised of representatives from each of the five local acute care hospitals, local EMS agency, Public Health department, and the Office of Emergency Services to make up the core planning team. Other community partners were consulted during the planning process. Those partners include, Stanislaus County Child Welfare Services, Stanislaus County Sheriff's department, the American Red Cross, and Valley Children's Hospital Madera.

Beginning in January 2017, the core work group met on a bi-monthly schedule to discuss the planning elements needed to develop this plan. The planning timeline is described below.

Date	Planning Topics
January 2017	Initial meeting to identify planning team and project scope
April 2017	Situation assessment and assignment of work group activities
June 2017	Survey – pediatric capability assessment for hospitals
August 2017	HVA assessment and review – identify disaster risk profile
September 2017	Essential resources for pediatric surge
December 2017	Scarce resources, PAR levels, Vendor MOAs
February 2018	Scarce resource lists review
April 2018	Staffing, volunteers, clinics and partners
June 2018	Care and shelter, transportation, patient mobility, and tracking
August 2018	Infection control, triage, decontamination
October 2018	Pediatric champion, pediatricians, and draft plan review
December 2018	Draft plan complete for review by group and partners

Once completed, the plan will be tested using a progressive exercise design approach. A seminar will be used to introduce the plan, it's concepts, and procedures to local partners.

Following the seminar, a tabletop exercise will be used to test the plans concepts and procedures during a no-fault discussion-based scenario exercise. A functional exercise component will be used during the tabletop, to test operational procedures of the plan such as, pediatric triage methods, patient tracking, and reunification. Finally, a full-scale exercise will be developed to comprehensively test the plan and all its operational components, to ensure that the plan and contents are feasible, realistic, and useful to users.

Situation Overview

Demographics

Stanislaus County is in central California. It is bordered to the North by San Joaquin County, the east by Mariposa, Tuolumne, and Calaveras Counties, the south by Merced County, and the west by Alameda and Santa Clara Counties. The total population of Stanislaus County is 514,453[1].

Stanislaus County lies within the Medical Health Mutual Aid (MHMA) Region IV that includes the counties of San Joaquin, Tuolumne, Calaveras, Amador, Alpine, El Dorado, Sacramento, Yolo, Placer, and Nevada. The table below depicts the pediatric population dispersal of the Region IV MHMA system.

County	Pediatric (0-5 years) population	%	Pediatric (0-18 years) population	%	Total[2] Population
Stanislaus	39,613	7.7%	147,133	28.6%	514,453
San Joaquin	54,228	7.9%	200,724	29.3%	685,306
Tuolumne	2,328	4.2%	9,682	17.5%	55,365
Calaveras	1,992	4.4%	8,943	19.6%	45,578
Amador	1,431	3.8%	6,393	16.8%	38,091
Alpine	71	6.0%	256	21.8%	1,175
El Dorado	9,513	5.3%	41,175	22.7%	181,058
Sacramento	101,063	7.1%	363,053	25.6%	1,418,788
Yolo	12,577	6.3%	45,631	22.7%	200,849
Placer	20,851	6.0%	85,085	24.4%	348,432
Nevada	4,365	4.4%	19,106	19.3%	98,764
Totals	**248,032**	**5.74%**	**927,181**	**22.57%**	**3,587,859**

Acute Care Hospitals and Trauma Centers

Stanislaus County has eight healthcare facilities designated as General Acute Care Hospitals; five of these facilities provide 24-hour emergency care services. The County has two trauma centers: Doctor's Medical Center (Level II) and Memorial Medical Center (Level II). Both trauma centers are located within the city of Modesto approximately 1.4 miles from each other.

Hospitals within the County have limited capability to provide comprehensive medical care to pediatric populations with traumatic injuries identified in the Disaster Risk Profile section of this plan. There are four facilities in Stanislaus County that have limited capability to provide comprehensive medical care to some pediatric populations; Memorial Medical Center, Doctors

[1] "U.S. Census Bureau," (2010).

[2] "American Community Survey 5-Year Estimates," U.S. Census Bureau, (2012-2016).

Medical Center, and Kaiser Permanente Modesto facilities all have Level III Neonatal Intensive-Care Units (NICU). Emanuel Medical Center has a Level II Special Care Nursery. While some hospitals provide care services to pediatric populations, none of the acute care hospitals in the county have the capability of a Pediatric Intensive Care Unit (PICU).

Facility Name	Trauma Center Designation	NICU Level of Care Designation	24 Hour Emergency Services
Memorial Medical Center	Level II	Level II (Level III-In progress)	Yes
Doctors Medical Center	Level II	Level III	Yes
Emanuel Medical Center	None	Level II	Yes
Kaiser Permanente Modesto	None	Level III	Yes
Oak Valley Hospital	None	None	Yes
Central Valley Specialty Hospital	None	None	No
Stanislaus Surgical Hospital	None	None	No
HealthSouth Rehabilitation Hospital of Modesto, LLC	None	None	No

Regional Pediatric Transfer Facilities

The following facilities are the regional pediatric transfer facilities for Stanislaus County:

Facility Name	Address/ Location	Trauma Center Designation	PICU Designation	NICU Designation/ Level
Sutter Children's Center Sacramento	2825 Capitol Ave, Sacramento, CA 95819	Level I	Yes	Regional Level IV
UCSF Benioff Children's Hospital Oakland	747 52nd St, Oakland CA 94609	Level I	Yes	Regional Level IV
UCSF Benioff Children's Hospital San Francisco	1975 4th St, San Francisco, CA 94158	Level I	Yes	Regional Level IV
UC Davis Children's Hospital	2315 Stockton Blvd, Sacramento, CA 95817	Level I	Yes	Regional Level IV
Santa Clara Valley Medical Center	751 S Bascom Ave, San Jose, CA 95128	Level I	Yes	Regional Level IV
Valley Children's Hospital Madera	9300 Valley Children's Pl, Madera, CA 93636	Level II	Yes	Regional Level IV
Lucile Packard Children's Hospital of Stanford	725 Welch Rd, Palo Alto, CA 94304	Level II	Yes	Regional Level IV

Surge Capacity

Surge capacity is defined as a healthcare system's ability to expand quickly beyond normal services to meet an increased demand for medical care in the event of bioterrorism or other large-scale public health emergencies.

The table below represents the daily total number of licensed beds by type in facilities with 24-hour emergency care services. These numbers represent the normal licensed bed capacity for inpatient and emergency care services.

	Doctor's Medical Center	Memorial Medical Center	Emanuel Medical Center	Kaiser Permanente Modesto	Oak Valley Hospital	Total
ED	29	44	27	35	12	**151**
Medical/Surgical	231	262	163	55	24	**735**
ICU/CCU	44	50	12	25	5	**136**
Pediatric	22	35	4	8	0	**69**
PICU	0	0	0	0	0	**0**
NICU	32	11	6	16	0	**65**
Operating Rooms	18	21	7	10	2	**58**
Totals	**380**	**423**	**219**	**149**	**43**	**1,214**

The table below represents the number of beds that 24-hour emergency care facilities can expand beyond normal licensed bed capacity for inpatient and emergency care services.

	Doctor's Medical Center	Memorial Medical Center	Emanuel Medical Center	Kaiser Permanente Modesto	Oak Valley Hospital	Total
Inpatient	30	50	25	25	4	**134**
ED	18	20	20	0	30	**88**
Totals	**48**	**70**	**45**	**25**	**34**	**222**

Disaster Risk Profile

The Pediatric Disaster Surge Work Group identified the top (3) classes of injuries that pose the greatest challenge for local healthcare facilities to address during a pediatric surge. The following injury classifications were identified as the largest gap for the county's ability to stabilize, treat, and transport pediatric patients in a disaster:

- Blunt force traumas
- Gunshot wounds
- Burns

Concept of Operations

In a disaster, all hospitals must be prepared to receive trauma victims, burn victims and children, regardless of service capabilities. This plan is built on the assumption that sending children to treatment facilities outside of Stanislaus County will not be an immediate option in the most severe disasters/emergencies.

If the hospitals within the service area become significantly impacted and cannot accept or find appropriate alternate placement for all the referred pediatric patients, non-pediatric hospitals throughout the area will necessarily be required to care for pediatric patients that they typically do not. Such a situation, by its very nature, will impact the healthcare system.

Standardized Emergency Management System (SEMS)

The primary assumption for SEMS is that an event has reached an Emergency System Activation (ESA) Level 2 or 3 events as defined in the California Public Health and Medical Emergency Operations Manual (EOM, see table below) outside of traditional general acute care facility day to day operations. It should be noted an event does not need to reach an ESA Level 2 or 3 events prior to using these guidelines. Once an event has become an Unusual Event, as described in Unusual Event, the user should evaluate the incident and determine if the use of the framework is appropriate for the event.

Activation Levels of Event Complexity	
Level 1	Requires resources or distribution of patients within the affected Operational Area only or as available from other Operational Areas through existing agreements (including day-to-day agreements, memoranda of understanding or other emergency assistance agreements).
Level 2	Requires resources from Operational Areas within the Mutual Aid Region beyond existing agreements (including day-to-day agreements, memoranda of understanding or other emergency assistance agreements) and may include the need for distribution of patients to other Operational Areas.
Level 3	Requires resources or distribution of patients beyond the Mutual Aid Region. May include resources from other Mutual Aid Regions, State or Federal resources.

The California EOM defines an “Unusual Event”, as an incident that significantly impacts or threatens public health, environmental health or emergency medical services. An unusual event may be self-limiting or a precursor to emergency system activation. The specific criteria for an unusual event may include any of the following:

- The incident significantly impacts or is anticipated to impact public health or safety;
- The incident disrupts or is anticipated to disrupt the Public Health and Medical System;
- Resources are needed or anticipated to be needed beyond the capabilities of the Operational Area, including those resources available through existing agreements (day-to-day agreements, memoranda of understanding, or other emergency assistance agreements);
- The incident produces media attention or is politically sensitive;
- The incident leads to a Regional or State request for information; and/or
- Whenever increased information flow from the Operational Area to the State will assist in the management or mitigation of the incident’s impact.

The second assumption understands general acute care facilities have exhausted all day-to-day agreements, MOUs and vendor agreements prior to use of the SEMS processes. Moreover, general acute care facilities have exhausted all secondary transfer agreements. It should also be understood this document does not supersede any of the day-to-day general acute care facilities and/or pre-hospital processes such as code triage and Local Emergency Medical Services Agency (LEMSA) pre-hospital destination policies.

The last assumption is once SEMS is implemented, stakeholders understand that all resources, including patient movement and bed availability, will be coordinated through the proper emergency management channels as defined in both the Standardized Emergency Management System (SEMS) and the EOM.

Activation

In accordance with SEMS, this plan may be activated by any of the following positions or entities:

- the Stanislaus County Multi-Agency Coordination Group (StanMAC)
- the Medical Health Operational Area Coordinator (MHOAC),
- the Public Health Officer, or his/her designee; and,
- the Director of the Office of Emergency Services or his/her designee
- the local EMS agency director or his/her designee

This plan may be activated in response to any incident in Stanislaus County with a disproportionate number of pediatric casualties. The plan may also be activated prior to a declared or proclaimed emergency. In those cases, in which the plan is activated prior to a declaration or proclamation, the gathering of information, assessment of the situation, and notification of healthcare facilities and providers will be emphasized to provide a basis for the full implementation of the plan should an emergency be declared, and surge be required.

The declaration of an emergency along with other actions taken by the governor's office has significant impact on the ability to meet the demands created by a surge incident. Specifically, healthcare regulations may be relaxed during a declared emergency. This allows the healthcare system to meet these demands in ways that it cannot when regulations are in effect.[3]

It is assumed that the systems, structures, and guidance recommended within this plan will always be used after the hospital's emergency operations plan (EOP) has been activated. Therefore, it is also assumed that the Hospital Incident Command System (HICS) will be used throughout the duration of the hospital's emergency response. Because each hospital will have its own unique HICS structure and EOP, this plan does not replace or alter an institution's fundamental HICS structure but rather proposes to add additional specific functional components that may be utilized during emergency response. Whenever relevant, this planning guidance will show where a proposed function may fit within a general HICS structure.

Notifications

Upon the activation of the Pediatric Disaster Surge Plan, the Disaster Control Facility will be responsible for notifying the EMS Duty Officer and initiating an MCI alert in EMResource (if necessary). The EMS Duty Officer then notifies the Medical Health Operational Area Coordinator (MHOAC) and local hospitals.

The MHOAC will be responsible for notifying appropriate stakeholders and coordinating a threat assessment conference call if needed. Please see the Notification Flow Chart in the Appendices section of this document.

[3] "California Department of Public Health Standards and Guidelines for Healthcare Surge During Emergencies," Vol. 1, (2008).

Contact Name	Contact Number
Disaster Control Facility	1-844-855-7232
EMS Duty Officer	1-800-945-2273 - PRIMARY 209-272-0901 209-985-0764
Public Health/MHOAC	209-664-6032

Organization and Assignment of Responsibilities

During an incident with significant numbers of pediatric casualties, resources at health care facilities with pediatric critical care capabilities will quickly become exhausted. Therefore, developing a system that outlines how all health care facilities and supporting entities can assist with providing care to children is crucial to the response. The table below lists the responsibilities of local healthcare facilities and supporting entities.

Facility/Entity Type	Responsibilities
Child Protective Services	Provide staff for Family Assistance Center Collect victim/casualty information Provide temporary care for unaccompanied minors Coordinate reunification of families
Disaster Control Facility	Initial notifications Patient dispersal Tracking patient destinations
EMS Agency	Coordinate EMS resources
Field Level EMS/First Response	Triage patients Field decontamination (if needed) Transport to healthcare facility
Hospitals	Triage & treatment Decontamination (if needed) Tracking secondary facility transfers Provide victim/casualty information to FAC POC
Law Enforcement	Coordinate with Child Protective Services to ensure the safety of all unaccompanied children Aid in the identification and reunification of children in disaster
MHOAC	Notification of pediatric stakeholders Conduct TAG conference call (if needed) Coordinate medical health resources Process medical health mutual aid requests
Office of Emergency Services	Assist coordinating requests for Mutual Aid resources
Public Health	Develop the Medical Health Situation report Public Health Officer Local Health Emergency Declaration (if needed)
Sheriff	Initiate Family Assistance Centers Notifications to families of victims/casualties

Facility/Entity Type	Responsibilities
	Conduct investigations (if needed)
Skilled Nursing Facilities	Respond to bed poll if requested Provide surge relief to hospital facilities
Specialty Clinics (Pediatric)	Provide pediatric consultation services to hospitals

Essential Pediatric Domains

Children have unique, often complex physiological, psychosocial and psychological needs that differ from adults, especially during disaster situations; and unfortunately, children are often involved when disasters occur. These Essential Pediatric Domains and considerations are intended to support every hospital's disaster preparedness policies, not replace them. The Domains were developed as tools to help hospital administrators and leadership incorporate essential pediatric considerations into existing hospital disaster plans and policies.

The SCHEPC Pediatric Disaster Surge Work Group has identified the following Domains as priority planning areas for healthcare facilities:

- Essential Resources – Space, Staff, Supplies
- Care and Shelter
- Transportation, Tracking, and Reunification
- Triage, Infection Control, Decontamination
- Behavioral Health
- Access and Functional Needs

Each of these Essential Pediatric Domains are organized into functional appendices of this plan and are intended to be used as quick reference guides for healthcare facilities.

Appendices

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Essentials Resources – Space, Staff, Supplies

Every hospital in Stanislaus County must be prepared to provide supportive care services to all patients regardless of age. This section of the plan identifies strategies for facilities to address critical resource shortages and the corresponding regulatory considerations that may impact critical resource allocation decision making.

This section of the plan is intended to provide guidelines for healthcare providers to continue to provide treatment in an ethical manner to pediatric patients, when there may be a significant imbalance between the needs of the patients and the resources available to the healthcare provider.

Space Surge Strategy

Primary Goal: To maintain operations and increase capacity to preserve life and the safety of patients and ensure appropriate healthcare delivery to the community.

SPACE[4]	
Strategies	**Regulatory Considerations**
• Utilize licensed space for other types of patients • Use outpatient beds for inpatient care • Use internal skilled beds as acute patient areas • Convert adult space into pediatric space • Convert pediatric space to adult space	• 22 CCR 70811(c): Patient rooms which are approved for ambulatory patients only shall not accommodate non-ambulatory patients • 22 CCR 70805: Spaces approved for specific uses at the time of licensure shall not be converted to other uses without the written approval of CDPH • 22 CCR 70809(a): No hospital shall have more patients or beds set up for overnight use by patients that the approved licensed bed capacity except in the case of justified emergency when temporary permission may be granted by the CDPH Director or designee
• Increase capacity in patient rooms or hallways in patient care areas o Two (2) patients in a single room o Three (3) patients in a double room	• 22 CCR 70811(a): Patients shall be accommodated in rooms with a minimum floor area (as detailed in 22 CCR 70811 (a) (1) and (a) (2) • 22 CCR 70805: Spaces approved for specific uses at the time of licensure shall not be converted to other uses without the written approval of CDPH • 22 CCR 70809(a): No hospital shall have more patients or beds set up for overnight use by patients than the approved licensed bed capacity except in the case of justified emergency when temporary permission may be granted by the CDPH Director or designee
• Open Hospital Floors that are vacant • Use areas of the hospital for inpatients	• 22 CCR 70805: Spaces approved for specific uses at the time of licensure shall not be

[4] "Los Angeles County Pediatric Surge Plan," (2013).

SPACE[4]	
o GI Lab o Recovery Room o Outpatient Surgery o Physical Therapy o Other • Use non-traditional areas of the hospital for inpatients o Cafeterias o Conference Rooms o Parking Structures o Other	converted to other uses without the written approval of CDPH • 22 CCR 70809(c): Patients shall not be housed in areas which have not been approved by CDPH for patient housing and which have not been granted a fire clearance by the State Fire Marshal
• Shut off floor ventilation system to make a cohort of infected patients	• 22 CCR 70823: A private room shall be available for any patient in need of physical separation as defined by the infection control committee • 22 CCR 70855: Heating, air conditioning, and ventilation systems shall be maintained in operating condition to provide a comfortable temperature
• Use tents to create additional patient care areas	• 22 CCR 70809(c): Patients shall not be housed in areas which have not been approved by CDPH for patient housing and which have not been granted a fire clearance by the State Fire Marshal
• Request relaxation of nurse/patient ratios to allow occupancy of all licensed beds	• 22 CCR 70217: Nurse ratios • Union Regulations • AB 294: California RN Staffing Ratio Law, requires Governor's standby order for statutory suspension

Staff Surge Strategy

Primary Goal: Increase the ability to maintain staffing levels and/or expand the workforce.

STAFF[5]	
Strategies	**Regulatory Considerations**
• Cross train clinical staff	• Age limits to MD Malpractice Coverage
• Contact Nurse Staffing Agencies (registries/traveling nurses) to assist with supplemental staffing needs	• None
• Use of non-conventional staff or expand scope of practice o Student nurses o Medical students o Military licensed staff	• Regulations to expand clinical professionals' scope of practice may require a CDPH waiver and a Governor's order. Need clarification from professional boards. • 22 CCR 70217: Nurse ratios
• Use of non-conventional staff o Volunteers	• Professionals with inactive licenses will need to go through the process to reactivate it

[5] "Los Angeles County Pediatric Surge Plan," (2013).

STAFF[5]	
o Paramedics o Dentists o Veterinarians o Retired health professionals with an active license	• Liability/licensing regulations • State laws regarding malpractice coverage for granted a fire clearance by the State Fire Marshal volunteers
• Utilize pediatric skilled RNs to supervise adult skilled patients and vice versa	• Liability regulations and insurance limitations
• Utilize families to render care under direction of a healthcare provider	• Title 22 – Certified nursing assistant to render care
• Implement and/or develop just in time training for clinical staff normally assigned to non-direct patient care positions	• None

Supplies Surge Strategy

Primary Goal: Ensure adequate levels of supplies and equipment are available.

The SCHPEC Pediatric Disaster Surge Work Group identified the following three (3) areas to prioritize when developing strategies for the allocation of scarce supply and equipment resources:

- **Airway**
- **Breathing**
- **Circulation**

The work group has identified the following categories of supplies and equipment that should be available for use in the emergency room during a pediatric surge event:

SUPPLIES	
Airway	Oral Pediatric Airway Nasopharyngeal Airway Laryngeal Masks Endotracheal Intubation Tubes Laryngoscope Blades
Breathing	Face Masks Non-rebreather Masks Ambubags Chest Tubes Nasogastric Tubes
Circulation	Intravenous Supplies Invasive Mechanical Vents HFO Ventilators OR Invasive Mechanical Ventilators Portable Invasive Mechanical Non-invasive Ventilators
Pediatric Specific	Broselow Bags
	Broselow Carts

The work group also conducted an inventory of supplies for each of the 24-hour emergency care hospitals in the county for the abovementioned categories and found the following supply gaps and identified strategies to address them:

SUPPLY / EQUIPMENT GAPS	
Supplies / Equipment	**Strategies**
Broselow™ Carts	Request additional supplies from HPP grant
Broselow™ Kit (bags)	Request additional supplies from HPP grant
Pediatric Ventilators	Utilize coalition MOU to share resources
Pediatric ALS Response Kit	Request additional supplies from HPP grant
Burn Care MedKit	Request additional supplies from HPP grant

Minimal Pediatric Equipment Recommendations for Emergency Departments[6]

When planning and purchasing pediatric equipment, hospitals should prepare for the number of patients expected based on its anticipated surge in pediatric patients. Each institution must determine what its expected surge capacity for pediatric critical patients is and should adjust inventory according to the number of patients for which it will plan.

The following recommendations suggest specific equipment emergency departments should keep on hand per **one** critical pediatric patient of unknown age or size.

Equipment Type	Size/Type	Quantity	Importance E = Essential D= Desirable
Ambu Bags	Infant	2	**E**
	Child	2	**E**
Arm Boards		2	D
Blood Pressure Cuffs	Infant/Small Child	1	**E**
Chest Tubes	Sizes 12F, 16F, 20F, 24F, 28F	2 Each size	**E**
Dosing Chart, Pediatric		1	**E**
$ETCO_2$ Detectors (Pediatric, Disposable)		2	**E**
ET Tubes	Sizes 2.5mm-6.5mm	6 Each size	D
Foley Catheters	Sizes 8F, 10F, 12F	6 Each size	D
Gastronomy Tubes	Sizes 12F, 14F, 16F	2 Each size	D
Infant Scale		1 for several patients	D
Intraosseous Needles		8	**E**
Intravenous Infusion Pumps		1	D

[6] "Children in Disasters: NYC DOHMH Hospital Guidelines for Pediatric Preparedness," 3rd Edition, (2008).

Equipment Type	Size/Type	Quantity	Importance E = Essential D= Desirable
Laryngoscope Blades	Macintosh 0, 1, 2 Miller 001, 2	2 Each size	**E**
Laryngoscope Handles (pediatric)		2	**E**
Masks: Face Masks, clear self-inflating bag (500cc)	Infant	10	**E**
	Child	10	**E**
Non-Rebreather	Infant	10	**E**
	Child	2	**E**
Nasal Cannula	Infant Child	2 Each size	**E**
Nasogastric Tubes	Sizes 6F,8F, 10F,12F, 14F, 16F	10 Each size	**E**
Nasopharyngeal Airways	All pediatric sizes	1 Each size	D
Newborn Kit/Obstetric/ delivery kit		1	**E**
Oral Airways	All pediatric sizes 00, 01	2 Each size	**E**
Over-the-needle intravenous catheters	Angiocatheter		D
	Sizes 20, 22, 24		**E**
Restraining Board (pediatric)		1	D
Broselow Resuscitation Tape, Length-based		2	**E**
Seldinger Technique Vascular Access Kit	Sizes 4F, 5F Catheters, 15cm length	2 Each size	D
Semi-rigid Cervical Spine Collars	Infant	2	**E**
	Small Child	2	**E**
	Child	2	**E**
Suction Catheters	5F, 8F	5 Each size	**E**
Syringes	60cc, catheter tip (for use with gastronomy tube)	2	**E**
Warming Device (overhead warmer for newborns)		1	D
Tracheostomy Tubes	Sizes 00 to 6	2 Each size (per ED not per Patient)	**E**

Minimal Pediatric Equipment Recommendations for Pre-hospital Providers

Pre-hospital ambulance providers that operate in the Stanislaus County service area carry a standard inventory of medical equipment and supplies on each Advanced Life Support (ALS) and Basic Life Support (BLS) vehicles. The Mountain Valley EMS Agency has identified the following equipment and supplies that will be included in ALS and BLS ambulance inventories. Please see Attachment ALS Par Levels and Attachment BLS Par Levels.

Care and Shelter

In Stanislaus County, the Care and Shelter function is managed and coordinated through the Community Services Agency and provided with support from local and State government, voluntary organizations, and the private sector. The Community Services Agency in partnership with the American Red Cross has developed a Mass Care and Shelter plan to be used in the event of an emergency or disaster requiring the activation of the care and shelter function.

Under most circumstances, within a community, hospitals should not be utilized as the primary shelter option. It is important to ensure that the local emergency management agency communicates with the public during an emergency, to inform them of identified shelter locations. However, during a disaster, there will be segments of the population that are not aware of preidentified shelter locations and will seek refuge at local hospitals. Hospitals must be prepared to address the needs and concerns associated with operating a shelter inside of the hospital facility.

While the use of hospitals as shelters is not preferred, there may be times when it is unavoidable. For example, in single parent households where the parent is considered essential staff at the hospital, he or she must report for work to assist with the disaster. As a result, these parents may have no other choice but to bring their children with them. In addition, children who are technology-dependent may require access to a hospital facility's power source, if the child's home setting is no longer available.

Hospitals may also need to function as a shelter during certain emergency situations, particularly chemical/HAZMAT, biological, radioactive events or weather emergencies, where it may be advisable for employees and patients to shelter-in-place rather than evacuate the building. In these instances, hospitals must develop plans to be prepared to support the needs of staff and patients for greater than 24-hours.

The needs of children who are separated from their families should be met in a safe and developmentally sensitive manner. The Red Cross, which runs many shelters in disasters, cannot assume legal responsibility for unaccompanied minors. Children at a Red Cross shelter without a parent or legal guardian will be referred for local government services (for example, law enforcement, the County Department of Social Services, or the local Health Jurisdiction) to support reunification with families.

More information on the care and shelter function can be found in the Stanislaus County Mass Care and Shelter Plan.

Transportation, Tracking, and Reunification

Transportation[7]

All hospitals should be prepared to provide extended care to children during a disaster. As part of this care, hospitals will need to transport children from one clinical area to another (including inpatient units) or to diagnostic testing locations (such as radiology, computed tomography and ultrasound areas).

Hospitals lacking specialized pediatric services may need to transfer children, after initial evaluation and stabilization, to centers with advanced pediatric capabilities. Keep in mind, however, that transfer (or evacuation, if necessary) might be impossible due to local conditions, safety concerns, lack of appropriate transport vehicles or personnel, or lack of capacity at specialty children's hospitals.

Even when transfer to pediatric centers is possible, usual staff and equipment will be stretched thin by the disaster; therefore, hospitals should develop alternative mechanisms for safely transferring children based on the following guidelines:

Stable Children

Arrange for child car safety seats, including:

- Rear-facing seats for children younger than two years of age or who weigh less than 40 pounds
- Forward-facing seats for children two to four years of age or who weigh more than 40 pounds or are more than 40 inches tall
- Booster seats for children four to eight years of age or taller than 4' 9"
- Rear seats with seat belts for children 8 to 12 years of age; children younger than 13 years should not ride in the front seat
- To obtain appropriate car seats:
    - Purchase them
    - Request them through donations
    - Prepare a list of potential local sources to approach for car seats during a disaster
        - Doctors Medical Center "Safe Kids Stanislaus County" program maintains a cache of car seats (between 50-400 seats, various sizes) which may be made available upon request to the MHOAC during a disaster under the SCHEPC Healthcare Facility Mutual Aid MOU
    - Survey employees to identify car seats available in personal vehicles

Unstable Children or Potentially Unstable Injured or Ill Children

Potential transport vehicles include ambulances staffed with emergency medical technicians or paramedics that also include:

- Hospital staff skilled in pediatric airway care and resuscitation
- Equipment appropriate for the child's age and acuity

[7] "Children in Disasters: NYC DOHMH Hospital Guidelines for Pediatric Preparedness," 3rd Edition, (2008).

- Specialty pediatric transport vehicles and teams from referral pediatric institutions
- For less critical patients only, paramedic ambulances with no additional hospital staff

If ambulances are not available, appropriate transport possibilities include:

- Cars, vans and city or private buses may be appropriate for children who can sit up (Car seats may be necessary)
- School buses may be used for children aged five years and older who can sit up
- Drivers must be able to communicate with hospital emergency command centers by cell phone or radio
- Appropriate medical personnel (emergency medical technicians, physician assistants, nurse practitioners, nurses or physicians) must accompany children during transport
- Ideally, mental health personnel or staff trained in children's psycho-social needs should accompany children

When transporting children, the following guidelines are recommended to ensure compliance with State or local laws regarding child safety seats:

- Children will remain in a rear facing car seat until at least 2 years old unless the child weighs 40 or more pounds or is 40 or more inches tall.
- Forward-facing car seats will be used for children who are older than 2 years old or meet the maximum weight and height limit of their convertible car seats to remain rear facing. These children will be harnessed in a 5-point restraint forward facing until they meet the maximum height and weight limit of the car seat.
- Children who meet the maximum weight and height limit of the forward-facing car seat will be transported in a booster seat using the lap and shoulder belt.
- Children can be transported in a seat belt when their knees bend at the edge of the vehicle seat, their backs and bottoms are against the vehicle seat back, the vehicle lap belt fits across the upper thighs, and the shoulder belt fits across the shoulder and chest.
- Children under the age of 13 will be transported in the back seat of the vehicle.

Appropriate Use and Type of Car Seats for Transporting Children*

	Infants	Toddlers	School-aged Children	School-aged children >8 years
Age/Weight	Birth to 2 years old or 40 lbs and 40 inches in height	2 years and older who have out grown the maximum height and weight limit of their rear-facing convertible car seat	Children reaching the maximum height and weight limit of their forward facing harnessed car seat	Children who's knees bend at the edge of the vehicle seat, their backs and bottoms are against the vehicle seat back, the vehicle lap belt fits across the upper thighs, and the

				shoulder belt fits across the shoulder and chest.
Seat Type	Infant-only or rear-facing convertible seats	Convertible/forward-facing harnessed and tethered car seat	Belt-positioning booster seat	Seatbelt
Seat Positioning	Rear-facing seat only	Forward-facing seat	Forward-facing seat	Forward-facing

*All children aged 13 years and younger should ride in the back seat

Tracking

Hospitals have historically served as safe havens for displaced persons during a disaster. Abandoned children are also often brought first to a hospital emergency department for evaluation. During a disaster, hospitals may again serve as safe havens and may find themselves host to displaced and unaccompanied children. As a recent example, Hurricane Katrina and the ensuing floods and chaos caused over 3,000 children to be displaced throughout the United States. These displaced children, if unaccompanied, are at increased risk for maltreatment, neglect, exploitation, and subsequent psychological trauma. Hospitals and medical clinics will therefore need to be especially alert to the safety and mental health issues of these children.

The focus of this document is to establish a standard process to identify, track, and reunify children and families and outline the roles and responsibilities of agencies involved in tracking and reunification activities. Hospitals, especially those that do not routinely take care of the pediatric population, need to pay special attention to the specific security needs of this group and take the necessary precautions to ensure proper care of these individuals while they are in the hospital.

Accompanied Children in a Disaster

There are two populations of accompanied children during a disaster that should be addressed:

1. The pediatric patient who is a patient of the hospital because of the disaster and who may become separated from the responsible adult; for example, if the responsible adult is also a patient.

2. The pediatric visitor who is *not* a patient of the hospital but who may be accompanying an adult person who is a patient; for example, a critical adult patient who was caring for a minor at the time of the disaster or event.

A possible solution to tracking these persons is to use a system of identification bands for the minors and corresponding responsible adults that are distributed as soon as these individuals contact the Emergency Department (ED) area. Care must be taken to quickly and correctly place bands or other identification devices on both parties.

Special attention needs to be taken to ensure that this measure is completed as soon as possible at the entry point to the hospital to reduce the possibility of human error during the matching and placing of the bands.

There are hospital policies in place for the tracking of minors from pediatric and maternity wards. These identification bands are used on all patients as they enter the hospital. The specific concern raised here is minors accompanying the adults during a disaster-level event who could easily be lost during the chaos of a disaster event.

The identification bands used should include the following information which will be useful in maintaining a tight link between pediatric patient/ visitor and adult:

- Name of pediatric patient/ visitor + Date of Birth (DOB)
- Name of adult + DOB
- Admission date of adult
- Admission date of pediatric patient
- Date of visit of pediatric visitor

In addition, a more sophisticated approach to tracking could be implemented using bar coded bracelets as identifiers that can be affixed to the pediatric patient / visitor and to the adult at the time of entry to ED or other entry point of the hospital. In this manner, the same bar code is assigned to the adult and the pediatric patient/ visitor (s) with the adult.

Displaced or Unaccompanied Children in a Disaster

Rapid identification and protection of displaced children (less than 18 years) is imperative to reduce the potential for maltreatment, neglect, exploitation, and emotional injury. A critical aspect of pediatric disaster response is effectively addressing the needs of children who have been displaced from their families and legal guardians. The separation of children from significant others is a recognized factor influencing the psychological responses of children after a disaster.

All hospitals, medical clinics, and shelters providing care to child survivors of disasters should immediately implement appropriate child-safety measures in direct response to this crisis. Initiatives such as “Operation Child ID” implemented in Camp Gruber Oklahoma after Hurricane Katrina in 2005 have provided a rapid, systematic protocol for successfully identifying and protecting displaced children. The CDC has reviewed this protocol and considers it to be a useful resource to share with its partners to promote a safer and healthier environment for displaced children in shelters.[8]

Protocol to Rapidly Identify and Protect Displaced Children

- Survey all children in your hospital, medical clinic, or shelter to identify children who are not accompanied by an adult; these children have a high probability of being listed as missing by family members. Find out where they are sleeping/being held and the name and age of person(s) who is/are supervising them, if available. A sample survey form for identifying displaced child is attached.

[8] “Instructions for Identifying and Protecting Displaced Children,” CDC Health Advisory, (2005).

- Place a hospital-style identification bracelet (or, ideally, a picture identification card) on the child and a matching one on the supervising adult(s), if such an adult is available. Check frequently to make sure that the wrist band matches that of the adult(s) seen with the child in the hospital or shelter. Some children may also have a triage tag number that will accompany the child from the field to the hospital that must not be removed. If there is no supervising adult, the child should be taken to the hospital's pre-determined Pediatric Safe Area (see following pages) where he/she can be appropriately cared for until a safe disposition or reunification can be made.

- The names of all children identified through the survey as not being with their legal guardians or who are unaccompanied should be considered at high-risk and immediately reported to the hospital's Incident Command Center (HCC). Additional reporting should also be made to the Stanislaus County Department of Child Support Services (CSS) Emergency Response Division at (209) 558-3665 notifying them that there are unaccompanied minors at the facility.

- The Stanislaus County CSS Emergency Response Division will coordinate with local law enforcement to identify the child and the child's parent or guardian. If a guardian cannot be identified, the CSS will take actions to assume emergency custody of the child, so they may be discharged from the hospital.

- Unaccompanied children and those who are not with their legal guardians should undergo a social and health screening taking into consideration an assessment of the relationship between the child and accompanying adult, ideally performed by a physician with pediatric experience.

Reunification

It is essential that children are definitively identified and matched to their legal custodial parent/guardian before release from the hospital. Accurate identification of children before releasing them from the hospital is key to preventing harm. Mistaken identity may lead to:

- Release of a child to the wrong family
- Release of a child to an unauthorized noncustodial parent
- Delay of reunification with the child's actual family (this affects both the child and the family)
- Failure to identify significant medical and other conditions important to the care of the child

Most children will be able to self-identify verbally, as well as identify their parents. Children who can identify both themselves and their parents can typically be released to their parents following usual hospital policies.

For those children who cannot be definitively identified, it is recommended that hospitals develop procedures to safely maintain care for all unidentified children until they can later be definitively reunited with their families. This includes planning for a pediatric safe area (PSA) as identified later in this document. Children may not be able to self-identify if they are nonverbal because of developmental age, illness, or ability. In addition, it is possible that some children's usual guardians may have experienced an extreme loss of resources and may be unable to safely care for the child at the time of release from the hospital.

For children unable to be reunited with a parent or legal guardian, the county child protective services should be notified to take emergency custody. Protective services will work with law enforcement personnel to continue the search for the legal custodians and will work with hospital personnel to arrange temporary placement for the child, as either a temporary social admission to the hospital or placement with a child's relatives or a foster family. The timeline for transferring unaccompanied minors to foster care or specialized care, when applicable, differs depending on specific state criteria and the specific details of the disaster. Service options could range from immediate transfer to foster care to delayed transfer following an extended period. To expedite the reunification process for children placed into foster care, courts may choose to issue an order stating that children may be immediately released from foster care back into their parents or legal guardians once they are located and identification is confirmed. Health care facilities should take care to familiarize themselves with state laws regarding unaccompanied minors in advance of a disaster and adjust planning efforts accordingly.

The Hospital Family Reunification Center (HFRC)

It is recommended that all hospitals have a plan in place to manage a surge of concerned family members, guardians, and friends that may present following a disaster, especially if large numbers of unaccompanied pediatric patients could be involved in the event. This is recommended because the volume of family members presenting to the hospital looking for their loved ones will typically overwhelm hospital lobbies and other care areas and could adversely affect clinical operations. This place where families and others may gather is often called a Hospital Family Reunification Center (HFRC). The HFRC is meant to:

- Provide a private and secure place for families to gather, receive, and provide information regarding children and other loved ones who may have been involved in the incident
- Provide a secure area for these families away from the media and curiosity seekers.
- Facilitate efficient information sharing among hospitals and other response partners to support family reunification.
- Identify and support the psychosocial, spiritual, informational, medical, and logistical needs of family members to the best of the hospital's ability.
- Coordinate death notifications, when necessary.

Hospitals should consider locations in their facility that are best suited to effectively and respectfully establish a family reunification center. Some considerations to keep in mind are:

- Locate the HFRC away from the hospital Emergency Department and media staging sites as well as away from the designated pediatric safe area (see security section below).
- Ensure there is sufficient space to accommodate many individuals.
    - Adequate space facilitates communication between designated hospital personnel and family members.
- Provide nearby access to smaller rooms that may be used for confidential discussions, notifications, and provision of other support.
    - Distraught family members may need additional space; alcoves or additional rooms may help both psychologically and with security.
- Ensure the space has an area for food and beverage.
- Ensure restrooms are easily accessible.

- Ensure the space is accessible to patients and family members with considerations for access and functional needs.
- Access to the HFRC can be controlled and security can be assured within the site.

The Family Reunification Site

Once identification and verification of a child and family is complete, there should be a separate area to facilitate the actual reunification of the family and child. The physical place where pediatric patients are reunited with their legal caregivers should be located away from the HFRC as well as the PSA. This is to permit the reunification to occur in a safe, well-controlled area located well away from the noise and distractions of the other areas. The family reunification site should allow for secure and simple departure from the hospital. Hospitals should also plan for reunification of patients who have been admitted to the hospital and for escorting of parents or guardians to other areas of the hospital.

Separation of the Family Reunification Site from the HFRC is also important to prevent creating additional trauma for families still waiting tin the HFRC who are not yet reunited with their children but who would otherwise be watching reunifications happening in front of them.

Families arriving at the hospital will be under a tremendous amount of stress and may have limited ability to process instructions or other information while they are looking for their children. Therefore, staff members in the HFRC must have experience in helping people under stressful conditions. Hospital staffing may include, but are not limited to, the following departments:

- Security
- Social Work
- Nursing
- Chaplaincy
- Psychiatry or Psychology
- Pediatrics
- Family Medicine
- Child Life

Information Management

In the aftermath of a disaster, people immediately try to seek information. The lack of timely information to the public about a disaster can result in more chaotic circumstances, such as increased crowds, increased call volume, and presence of anxious family members seeking their loved ones. Hospital communications plans and plans for information sharing should ensure that the hospital gathers and disseminates the best possible internally and externally available, credible, and verified information to families and staff. Ensuring that all families have regular updates to their understanding of the incident status and the hospital response relevant to them will help minimize some of the potential psychological and security concerns that are generally associated with these incidents. Some considerations for information sharing include:

- Information that can be shared with community representatives ahead of time
- How and what kinds, of critical information can be shared considering HIPAA and other laws, regulations, or policies
- How to rapidly implement communication processes, including pre-scripted messaging

- How the emergency management and public health communities will coordinate their public messaging with hospitals
- How to inform hospital staff regarding what information they can or cannot share
- How best to establish good relationships with local news agencies

Hospitals must be able to manage the ways in which family members will utilize their existing public-facing infrastructure (such as an Information Desk, an Emergency Department Reception Area, or a Hospital Operator) as they inquire whether a loved one is present within the facility. If hospitals manage these points of contact effectively, they can support facilitation of rapid identification of survivors by family members whose presence is confirmed at the hospital. Internal sharing of information among response roles and centers is paramount to ensure a common operating picture for the facility. Hospitals should consider the following approaches to help maintain situational awareness among response roles:

- Establish a process for the Family Reunification Branch Director to obtain updated lists of patients at regular, prescribed intervals, and distribute these lists to all appropriate staff aiding in reunification efforts.
    - Frontline staff must know when to expect the next update (i.e., every 30 minutes)
- Maintain consistency; that is, ensure that family members seeking information receive the same correct information (when they have an appropriate right to know) whether they present in person or call on the telephone to speak with an operator.
- Designate key points of contact for information collection and sharing in each area, including the emergency department, the HFRC, the PSA, the Family Reunification Site, and the Information Desk, to ensure proper oversight and communication among involved locations.

When family members cannot definitively be told that their relative is not present as a hospital patient, family members should then be directed to the HFRC to wait, or to other appropriate municipal reunification resources. Hospitals should include detailed contact information for municipal reunification resources (if available) in all their communications to the public and to families to assist with the family reunification process overall.

Security

Security will play an integral role in any event requiring the activation of a hospital's family reunification plan. Many of these events could involve increased security risks, such as in the case of an active shooter scenario or terrorist activities. In addition, as families attempt to find their loved ones, crowds will form requiring an increased need for security personnel. As such, it is important to engage the institution's security leadership early in the planning process. At a minimum, the hospital family reunification plan should include the creation of a security leader within its command structure. Hospital security personnel can also assist with coordination of interface between the institution and outside law enforcement. Ideally, an individual with preexisting relationships with law enforcement on local and regional levels, including relevant federal entities (eg, Federal Bureau of Investigation; Bureau of Alcohol, Tobacco, Firearms and Explosives), may fill this position. There will need to be a security presence in the HFRC and the PSA.

Pediatric Safe Area (PSA)

To ensure the pediatric patients' safety, as well as to help patients cope, a Pediatric-Safe Area (PSA) should be established in an appropriate area that allows children to play and move about

safely. Therefore, the hospital should preplan for, and be able to securely operate, a PSA. The PSA is a controlled and supervised space where children can play and wait safely and securely while awaiting reunification with their families. This space should be in an area separate from both the Emergency Department and the HFRC. The following are some issues to consider when determining a PSA location:

- The PSA should be away from the hospital Emergency Department and media staging sites as well as the HFRC.
- Ensure there is sufficient space to accommodate children of different ages with age-appropriate activities for each group; consider leveraging an existing infrastructure such as a child care center.
- Provide nearby access to smaller rooms or adjacent spaces that may be used for younger children such as babies or for children with sensory integration issues.
- Ensure that restrooms are easily accessible and appropriate for pediatric patients.
- Ensure the space has an area for food and beverage; ensure attention to patients with possible food allergies.
- Access to the PSA and restrooms must be able to be controlled, and security must be assured around and within the site.

Triage, Infection Control, Decontamination

Triage

Disaster triage is a method of quickly identifying victims who have life-threatening injuries and who also have the best chance of survival. Identification of such victims serves to direct other rescuers and health care providers to these patients first when they arrive on the scene. The use of disaster triage involves a change of thinking from everyday care to:

- High intensity care should go to the sickest patient doing the greatest good for greatest number.
- Identify victims with best chance of survival for immediate intervention focusing care on those with serious and critical injuries but who are salvageable.
- Identify victims at extremes of care by sorting those who are lightly injured and those who are so severely injured that they will not survive.
- Immediate treatment to only those victims that procedure or intervention may make difference in survival.
- Altered standards of care based on resource availability.

Disaster triage must be dynamic and fluid in its execution. Primary triage is done at the scene by first responders; the triage category is assigned rapidly and is based on physiologic parameters and survivability. Secondary triage occurs typically at the facility where the patient is transported. The initial triage assignments may change and evolve as the patient's condition changes so reassessment is crucial. It is essential that medical personnel prioritize transport and treatment based on level of injury and available resources.[9]

In Stanislaus County, prehospital primary triage of pediatric and adult patients is accomplished using the Simple Triage and Rapid Treatment (START) method. The first arriving medical personnel will use a triage tag to categorize the victims by the severity of their injury. The victims will be easily identifiable in terms of what appropriate care is needed by the triage tags they were administered. Once the evaluation is complete, the victims are labeled with one of the four color-coded triage categories:

- Minor (Green) – delayed care/can delay up to three hours
- Delayed (Yellow) – urgent care/can delay up to one hour
- Immediate (Red) – immediate care/life threatening
- Deceased (Black) – victim is dead, or mortally wounded/no care required

A survey of the five Stanislaus County hospitals that provides 24-hour emergency care, found that all facilities use some form of a pediatric assessment tool for secondary triage.

Infection Control

The purpose of this section is to guide hospitals involved with a major communicable disease emergency in managing exposure risks between and among differentially affected children (contacts, suspected cases) and their adult caregivers.

The Stanislaus County Health Services Agency, Public Health Division, maintains the County's Infectious Disease Emergency Response Plan. This document is an Annex to the Stanislaus

[9] "Planning for Children in Disasters," State of Michigan, (2005).

County All-Hazards Emergency Operations Plan and is the primary plan for preparing for and responding to infectious disease emergencies in Stanislaus County.

The Stanislaus County Healthcare Emergency Preparedness Coalitions Pediatric Disaster Work Group, as part of the planning process, met to discuss planning considerations and coordination for hospital facilities for response to an Infectious Disease Emergency (IDE). The work group determined that the Stanislaus County Infectious Disease Emergency Response Plan would be adopted as the coalitions' response plan for infectious disease emergencies.

Activation of the Infectious Disease Emergency Response Plan will be coordinated with and through the Stanislaus County Health Services Agency's Public Health Divisions' Department Operations Center (DOC) (if activated). Hospital Command Centers may also be activated in response to an infectious disease emergency and will coordinate response activities with the Public Health DOC. For further information on infectious disease response, please see the Stanislaus County Health Services Agency Infectious Disease Response Plan.

Decontamination[10]

The following recommendations are intended to facilitate decontamination of all children presenting to any hospital during a disaster in a timely manner. Children require special considerations that may not be addressed in a general Hospital Decontamination Plan.

General Guidelines

Infants and children have unique needs that require special consideration during the process of hospital-based decontamination, such as:

- Avoiding separation of families during the decontamination process
- Older children may resist or be difficult to handle due to fear, peer pressure and modesty issues
- Since parents or caregivers may not be able to decontaminate both themselves and their children at the same time, decontamination personnel may need to assist them
- Incorporating high-volume, low pressure water delivery systems that are "child-friendly" into the hospital decontamination showers
- Risk of hypothermia increases proportionally in smaller, younger children when the water temperature in the decontamination shower is below 98°F
- Attention to airway management, a priority in decontamination showers
- The smaller the child, the bigger the problem regarding any of the above considerations

Decontamination Recommendations Based on Child's Age

The following recommendations are based on the child's estimated age of appearance, since asking may be impractical due to the limitations of personal protective equipment (PPE) and or due to a large influx of patients. These recommendations are divided into three groups by ages – infants and toddlers (0-2 years), preschool children (2-8 years), and school aged children and adolescents (8-18 years).

Infants and Toddlers (0-2 years)

[10] "Children in Disasters: NYC DOHMH Hospital Guidelines for Pediatric Preparedness," 3rd Edition, (2008).

Infants and toddlers are the most challenging group to treat; special needs considerations are of the utmost importance in this group. Follow the guidelines below during treatment.

1. All infants and toddlers should be placed on a stretcher and undressed by either the child's caregiver or hospital decontamination personnel. All clothes and items should be placed in appropriate containers or bags provided by the hospital and labeled.
2. Each child should then be accompanied through the decontamination shower by either the child's caregiver or hospital decontamination personnel to ensure that the patient is properly and thoroughly decontaminated. It is not recommended that the child be separated from family members or adult caregivers. **Caregivers <u>should not</u> carry the child because of the possibility of injury from a fall, or from dropping a slippery and squirming child.** Special attention must be given to the child's airway while in the shower.
3. Non-ambulatory children should be placed on a stretcher by hospital decontamination personnel and undressed (using trauma shears if necessary). All clothes and items that cannot be decontaminated (glasses, hearing aids, or other devices) should be placed in appropriate containers or bags as provided by the hospital and labeled.
4. All non-ambulatory children should then be escorted through the decontamination shower by either the child's caregiver or decontamination personnel to ensure the patient is properly and thoroughly decontaminated. Special attention must be paid to the child's airway while in the shower.
5. Once through the shower, the child's caregiver or post-decontamination personnel will be given a towel and sheets to dry off the child, and a hospital gown. The child should immediately be given a unique identification number on a wristband and then triaged to an appropriate area for medical evaluation.
6. Children and their parents or caregivers should not be separated unless critical medical issues take priority.

Preschool-Aged Children (2-8 years)

Children ages two to eight years can walk and speak, yet (with considerable variations in physical characteristics), are clearly children.

1. Ambulatory children should be assisted in undressing with help from either the child's caregiver or hospital decontamination personnel. All clothes and items that cannot be decontaminated should be placed in appropriate containers or bags as provided by the hospital and labeled.
2. Each child should be directly accompanied through the shower by either the child's caregiver or hospital decontamination personnel to ensure the entire patient is properly and thoroughly decontaminated. The child should not be separated from family members or the adult caregiver.
3. Non-ambulatory children should be placed in a stretcher by hospital decontamination personnel and undressed (using trauma shears if necessary). All clothes and items that cannot be decontaminated should be placed in appropriate containers or bags as provided by the hospital and labeled.
4. Each non-ambulatory child on a stretcher should be escorted through the decontamination shower and assisted with decontamination to ensure the patient is thoroughly and properly decontaminated.
5. Once through the shower, each child should be given a towel and sheets to dry themselves, and a hospital gown. The child should immediately be given a unique

identification number on a wristband and then triaged to an appropriate area for medical evaluation.
6. Children and their parents or caregivers should not be separated unless critical medical issues take priority.

School-Aged Children and Adolescents (8-18 years)

At the age of eight years and older, children's airway anatomy approximates that of an adult. Although it is tempting to regard this age group as "small adults" there are special needs unique to this age group.

1. Ambulatory children should undress as instructed by hospital decontamination personnel. All clothes and items that cannot be decontaminated should be placed in appropriate containers or bags as provided by the hospital and labeled.
2. Each child should then walk through the decontamination shower, preferably in succession with their parent or caregiver, and essentially decontaminate him or herself.
3. Non-ambulatory children should be placed on a stretcher by hospital decontamination personnel and undressed (using trauma shears if necessary). All clothes and items that cannot be decontaminated should be placed in appropriate containers or bags as provided by the hospital and labeled.
4. Each non-ambulatory child should be escorted through the decontamination shower and assisted with decontamination to ensure the entire patient is properly and thoroughly decontaminated.
5. Once through the shower, each child should be given a towel and sheets to dry themselves, and a hospital gown. The child should then immediately be given a unique identification number on a wristband and triaged to an appropriate area for medical evaluation.
6. Children and their parents or caregivers should not be separated unless critical medical issues take priority.

Behavioral Health[11]

Children may respond to disaster and hospitalization in similar ways to adults, but will also experience, mediate and communicate trauma in unique ways characteristic of their developmental levels. Hospital staff should consider this when helping children cope with their hospital stay after a disaster. Staff can help children feel safer in the unfamiliar environment of a hospital by including familiar people, things and routines. Hospitals should also prepare staff for the different ways culture impacts a child's response to trauma.

Developmental Level-Specific Guidelines for Treating Children in the Hospital

Infants

- Let a parent or caregiver stay with and, when possible, hold the infant during medical procedures
- Use familiar objects from the baby's home such as stuffed animals, blankets, music boxes or toys for comfort before, during and/or after a procedure

Toddlers and Preschool-aged Children

- Avoid discussing toddler or preschoolers' care in their presence unless you include them in the conversation. Children overhear much more than adults realize and, without any explanation, information may seem terribly frightening.
- Let a parent or caregiver stay overnight with the child if possible and let other family members, including brothers and sisters, visit (if appropriate).
- Reassure the child that the hospitalization is not a punishment. Avoid applying good or bad labels to the child, particularly during a procedure. For example, instead of saying "See, you were so good, the doctor only had to do this once," you can say, "You did such a good job of sitting still, I know that was hard."
- Allow children to handle medical equipment such as stethoscopes, blood pressure cuffs, etc. and to practice procedures on a doll. Children learn best through play— "medical play" can be particularly useful.
- Allow the child to make choices whenever possible, but don't offer a choice when none exist. For example, do not say, "Would you like to come into the treatment room now, so the doctor can look at you?" Instead say, "Do you want to bring your bear or blanket with you to the treatment room?"

School-Aged Children

- You can give school-aged children more specific information about what they will experience; however, many medical terms can be confusing. For example, the term "I.V." could be confused with the word "ivy," or "dye" with "die." Give simple, specific explanations for procedures and use non-technical language.
- This is a great age for medical play (communicating understanding, fears, etc. through play with medical equipment). Let the child reenact events through play with different kinds of toys or art materials. This will help school-aged children express their feelings and gain a sense of control over what is happening to them.

[11] "*Children in Disasters: Hospital Guidelines for Pediatric Preparedness,"* 3rd Edition (2008).

- Encourage all staff to respect the child's privacy by knocking before entering his or her room and by being sensitive to who is around when examinations are in progress.
- Children this age may regress or revert to behaviors that they had outgrown (thumb sucking, bed wetting, etc.) during stressful situations such as hospitalization. Do not berate (e.g., say, “come on, you’re a big girl now…”) or punish children for such behavior; instead encourage them to express their feelings and discharge emotions through play.

Adolescents

- Avoid discussing teenagers’ care in their presence unless they are included in the conversation. Adolescents can understand much more about their bodies and what is happening to them than younger children and may resent being excluded from discussions.
- Do not assume that teens manage their emotions the same way as adults. Give teens opportunities to talk to staff about what is happening and to ask questions, both with and without parents or caregivers present.
- Encourage all staff to respect teens’ privacy by knocking before entering exam rooms and by being sensitive to who is around during examinations.
- Adolescents are particularly concerned about body image and do not want to be perceived as “different” than peers because of an illness or injury. Be especially sensitive to the physical changes adolescents may experience when explaining any procedures, injuries or treatments.

How to Help Children During and After a Disaster

There are many ways to help children both before and during a disaster, especially if their age is considered.

Children Younger than Five Years of Age

- Maintain their normal routines and favorite rituals as much as possible.
- Limit exposure to TV programs and adult conversations about the events.
- Ask what makes them feel better.
- Give plenty of hugs and physical reassurance.
- Provide opportunities for them to be creative and find other ways to express themselves.

Children Older than Five Years of Age

- Don’t be afraid to ask them directly what is on their minds and answer their questions honestly.
- Talk to them about the news and any adult conversations they have heard.
- Make sure they have opportunities to talk with peers, if possible.
- Set gentle but firm limits for “acting out” behavior.
- Encourage expression, verbally and through play, of thoughts and feelings.
- Listen to their repeated retellings of the event.

When to Consult a Mental Health Professional

Seek psychiatric consultation if children exhibit any of the following behaviors:

- Excessive fear of something terrible happening to their parents or loved ones
- Excessive and uncontrollable worry about unfamiliar people, places or activities
- Fear of not being able to escape if something goes wrong
- Suicidal thoughts or the desire to hurt others
- Hallucinations
- Feelings of being helpless, hopeless or worthless

Access and Functional Needs

Children (0-18 years of age) are a highly vulnerable segment of the population in times of disaster. Children in this age category comprise nearly 25 percent of the U.S. population and have important and often complex planning and emergency response needs. Under normal conditions, there are components at the governmental, private and non-profit level which together form the networks on which children depend to support their development and protect them from harm. In addition to these systems, children fall under the supervision of their parents, guardians and/or primary caregivers. Once a disaster occurs, however, most or all these foundations in a child's life may collapse.

The American Academy of Pediatrics has established that children have unique physical and emotional needs when a disaster strikes. In addition to being placed at an increased risk of physical harm, children respond to illness, injury, and treatment differently than adults do. They also rely on stable routines in their daily lives, and when a disaster occurs, the drastic changes to their known world not only endanger their safety, but also greatly frighten them. To ensure the physical security and emotional stability of children in disasters, communities must modify their emergency planning efforts to include children's unique needs during disasters.

A critical step in preparing for any event is to gain and understanding of the extent to which an issue or situation exists. The following information on children in Stanislaus County may be used to assess the extent to which local response agencies may need to provide support for children with disabilities and others with access and functional needs following a disaster.

Children with Major Disabilities, by City, School District and County (Regions of 65,000 Residents or More): 2011 – 2015 (Stanislaus County)[12]

2011	2012	2013	2014	2015
4.3%	4.2%	6.5%	3.7%	4.2%

Special Education Enrollment, by Disability: 2011 – 2015 (Stanislaus County)

Disability	2011	2012	2013	2014	2015
Autism	5.8%	6.7%	7.3%	9.6%	10.3%
Deaf	0.5%	0.4%	0.5%	0.4%	0.4%
Deaf-Blindness	N/A	N/A	N/A	0.0%	0.0%
Emotional Disturbance	5.0%	5.0%	4.9%	4.5%	4.5%

[12] As cited on kidsdata.org, U.S. Census Bureau, American Community Survey (Sep. 2016).

Hard of Hearing	0.8%	0.8%	0.9%	1.3%	1.2%
Intellectual Disability	7.3%	7.0%	7.1%	7.0%	6.9%
Learning Disability	51.9%	51.7%	50.4%	45.6%	45.4%
Multiple Disability	0.4%	0.6%	0.6%	0.6%	0.6%
Orthopedic Impairment	1.5%	1.3%	1.3%	1.4%	1.3%
Other Health Impairment	5.7%	6.2%	6.8%	6.9%	7.4%
Speech or Language Impairment	20.2%	19.5%	19.6%	21.9%	21.3%
Traumatic Brain Injury	0.2%	0.2%	0.2%	0.2%	0.2%
Visual Impairment	0.5%	0.5%	0.5%	0.5%	0.4%

Hospital Discharges, by Primary Diagnosis: 2010 – 2014 (Stanislaus County)

Primary Diagnosis*	2010	2011	2012	2013	2014
Asthma/Bronchitis	13.7%	10.0%	10.0%	8.8%	10.6%
Burns	0.3%	LNE	0.3%	0.2%	LNE
Diabetes	1.5%	1.8%	1.6%	1.3%	1.7%
Fractures	3.1%	3.2%	4.0%	3.6%	3.5%
Mental Diseases and Disorders	6.6%	7.7%	10.8%	13.0%	10.7%
Metabolic/Nutritional Disorders	3.4%	3.2%	2.2%	3.0%	2.3%
Pneumonia/Pleurisy	9.1%	5.5%	4.6%	4.9%	5.3%

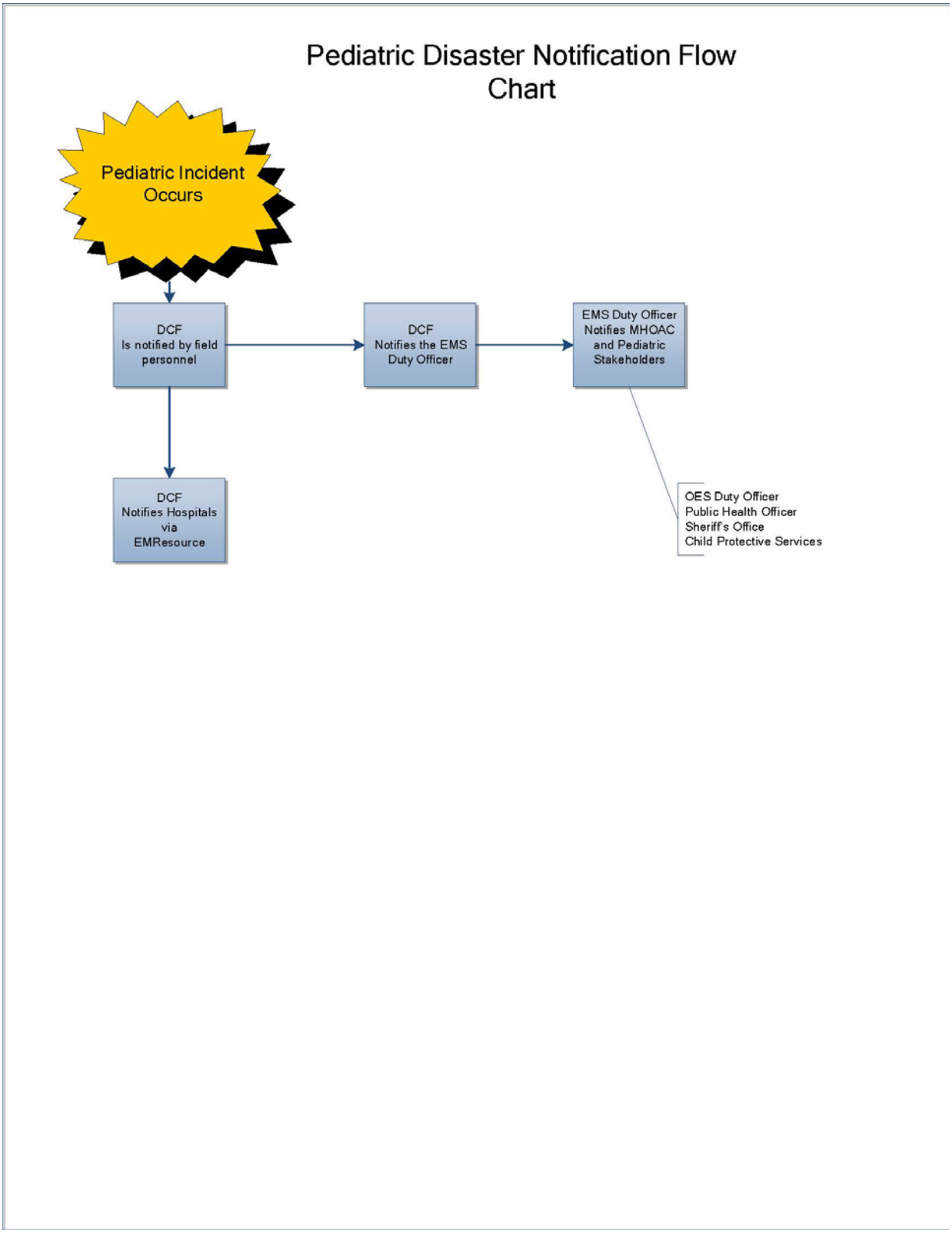
Poisoning	0.8%	0.7%	0.8%	0.9%	LNE
Seizures/Headaches	2.0%	2.3%	2.3%	2.5%	2.6%
Traumatic Injuries	1.2%	1.6%	1.1%	1.7%	0.7%
Viral Illnesses or Fevers of Unknown Origin	1.2%	1.1%	0.8%	0.7%	0.9%

*Ten most common primary diagnoses for hospital stays among children ages 0-17, excluding childbirth, as a percentage of total hospital discharges.

Children Living in Areas of Concentrated Poverty: 2006 – 2014 (Stanislaus County)

2006-2010	2007-2011	2008-2012	2009-2013	2010-2014
12.6%	17.8%	18.8%	20.9%	20.1%

Notification Flow Chart



Resources and References

The following resources were reviewed during the development of this plan:

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"*Child Welfare Services Disaster Response Plan Template*," Stanislaus County Community Services Agency (2016).

"*Children in Disasters: Hospital Guidelines for Pediatric Preparedness,"* 3rd Edition (2008), available at: www.nyc.gov/html/doh/downloads/pdf/bhpp/hepp-pedschildrenindisasters-010709.pdf

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"*Establishment of Service Areas for Trauma Centers*," MVEMSA Policy 545.00 (2010), available at: https://www.mvemsa.org/policies

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"*Guidelines for Pediatric Interfacility Transport Program*," 2nd Edition (2015), available at: https://emsa.ca.gov/wp-content/uploads/sites/71/2017/07/emsa181-2015.pdf

"*Infectious Disease Emergency Response*," Stanislaus County Health Services Agency (2018).

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"*Pediatric/Neonatal Disaster and Medical Surge Plan and Preparedness Toolkit*," Emergency Medical Services Agency, Contra Costa Health Services (2011), available at: https://cchealth.org/ems/pdf/emsc_ped_final.pdf

"*Pediatric and Neonatal Surge Annex*," Illinois Department of Public Health (2017), available at: http://www.dph.illinois.gov/sites/default/files/publications/peds-neo-surge-annex-final-march2017-public-complete-file-031417.pdf

"*Pediatric Preparedness Resource Kit*," American Academy of Pediatrics, (2009), available at: https://www.calhospitalprepare.org/pediatrics-nicu?page=1

"*Pediatric Readiness Assessment and Scoring*," National Pediatric Readiness Project (2013), available at: http://cdphready.org/pediatric-readiness-assessment-and-scoring/

"*Planning for Children in Disasters*," State of Michigan, (2005), available at: https://www.michigan.gov/documents/mdch/Planning_for_Children_in_Disasters_15_495237_7.pdf

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"*Trauma Center Bypass*," MVEMSA Policy 546.00 (2010), available at: https://www.mvemsa.org/policies

"*Trauma Patient Transfer and Transportation*," MVEMSA Policy 580.31 (2004), available at: https://www.mvemsa.org/policies

"*Trauma/Burn Triage & Patient Destination*," MVEMSA Policy 553.25 (2017), available at: https://www.mvemsa.org/policies

Attachments

Stanislaus County Mass Care and Shelter Plan

Stanislaus County Health Services Agency Infectious Disease Emergency Response Plan

(Please request from MHOAC@schsa.org)

MVEMSA ALS Ambulance Par Levels

(will link to SCHEPC Groupsite)

MVEMSA BLS Ambulance Par Levels

(will link to SCHEPC Groupsite)