

**COUNTY OF SANTA CRUZ**  
**Healthcare Coalition (HCC)**  
**Pediatric Surge Annex**



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## Acknowledgements

County of Santa Cruz Healthcare Coalition (HCC) partners who graciously engaged in the development of the Pediatric Surge Annex Plans July-December 2020 via Microsoft Team meetings include:

- Dominican Hospital
- Sutter Maternity and Surgery Center
- Kaiser-Permanente
- Watsonville Community Hospital
- Health Service Agency: Public Health and Behavioral Health, MHOAC, EMS, HCC Clinical Advisor and the Public Health Emergency Preparedness Unit staff

On April 19, 2021, this plan was presented to the Western Regional Alliance for Pediatric Emergency Management ([WRAP-EM](#)) group for review and discussion. Consensus findings emphasized the need for strong regional based planning.



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## Introduction

The events of the H1N1 Pandemic Flu (2009), Haiti Earthquake (2010) and Japan Earthquake/Tsunami/Nuclear Crisis (2011), and the COVID-19 Pandemic (2020) demonstrate the need for a strong collaborative approach integrating newborns, infants, and children into disaster planning. The resources required for the care of neonates and children are limited and regionally distributed. Successful neonatal and pediatric all-hazard preparedness relies on a strong network of public health agencies, emergency medical services, hospitals, and communities.

## Purpose

This annex applies to a mass casualty incident or disease outbreak with a surge in pediatric patients. It supports the County of Santa Cruz Medical-Health Surge Plan by addressing specific needs of children and supporting appropriate pediatric medical care during a disaster. This plan is intended to support, not replace, any existing facility or agency policy or plan by providing uniform response actions in the case of an emergency that involves (or could involve) significant numbers of children.

## Scope

The timeframe for this plan is inclusive of the Hospital Preparedness Program (HPP) grant requirements. It will continue to be updated as events and processes evolve within the local, region, state, and nation. In coordination with the Santa Cruz County Healthcare Coalition (HCC) and Association Bay Area Health Officials (ABAHO) Region II – Bay Area, the Pediatric Surge Annex incorporates inclusion on preparedness and coordination in the event of a pediatric surge.

The first steps to effective response include ensuring bed capacity, competency, and equipment to support a system of emergency care for infants and children within the county under normal conditions. Emergency coordination within the County of Santa Cruz (SCC) is through the Medical Health Operational Area Coordinator (MHOAC) program per California's Standardized Emergency Management System (SEMS). The MHOAC program is housed in the Emergency Medical Services Unit within the SCC's Health Services Agency (HSA), Public Health Division. Locally and regionally, the MHOAC provides support for transportation, tracking, bed availability, staffing and other essential functions. In the event of a pediatric disaster, the MHOAC would operate with Region II (Bay Area) Disaster Medical Health Specialists (RDMHS) to coordinate the response as needed.

This plan does not supersede authorities of the participating entities involved. It is meant to serve as a guiding resource for local and regional response and as an annex to the SCC Medical-Health Surge Plan. Due to the small rural composition of the County and no pediatric trauma centers, a large-scale pediatric disaster would result in a rapid need to coordinate with regional and state partners. The assumption of pediatric age within this document is 0-17 years for future planning purposes.



## Santa Cruz County Pediatric Demographics

Any type of disaster occurring within our county is likely to impact children. Currently there are 52,227 children (0-17) in Santa Cruz County, in the following distribution as of 2020<sup>1</sup> ([link](#)). Due to size and additional factors (inability to communicate, express emotions, or understand the level of emergency) ([link](#)). A breakdown of additional demographics to consider while planning for a pediatric disaster are provided below:

Indicator Demographic	Year	Santa Cruz County
Children age 0-17 <sup>1</sup>	2020	52,227
Percentage of Infants Born Preterm (Based on Obstetric Estimates (OE)) ( <a href="#">link</a> )	2016	7.0%
Percentage of Children Living Below the Federal Poverty Threshold ( <a href="#">link</a> )*	2013- 2017	17.0%
Percentage of Public School Students Who Are Homeless ( <a href="#">link</a> )	2016	8.3%
Percentage of Children Ages 0-18 with Health Insurance Coverage ( <a href="#">link</a> )	2013- 2017	96.7%
Percentage of Children in Excellent or Very Good Health ( <a href="#">link</a> )	2013- 2014	65.5%
Percentage of Kindergarteners with All Required Immunizations ( <a href="#">link</a> )	2019	90.9%

\*expected to increase due to COVID-19 pandemic

## Overview of Healthcare Coalition (HCC) and Situational Capacity

Santa Cruz County HCC is coordinated by the County of Santa Cruz Health Services Agency, Public Health Division Emergency Preparedness Unit. The HCC is a non-governing body that coordinates in collaboration with two identify co-leads from partnering organizations and a Clinical Advisor. The HCC is comprised of two acute care hospitals, one maternity and surgery center, healthcare clinics, county agencies and departments (Behavioral Health, Environmental Health, etc.), pre-hospital partners, community-based organizations, skilled nursing facilities.

Santa Cruz County is a combination of rural and suburban demographic, with limited trauma response capacity. Dominican Hospital (level III NICU) and Watsonville Community Hospital (level II NICU) both have moderate pediatric emergency capacity, including Neonatal Intensive Care Units (NICU) and Emergency Department Approved for Pediatrics certifications. Both Dominican Hospital and Watsonville Community Hospital offer their NICU services through a pre-existing agreement with Stanford's Lucille Packard Children's Hospital specialists. Sutter Maternity and Surgery Center is an additional specialty hospital that is prepared to offer additional capacity and patient care support in surge events.



Table 1: *Local Hospital Pediatric Capacity*

Hospital	Medical/Surgical Beds	Perinatal	Emergency Department	NICU	PICU	Surge*
Dominican Hospital	-	-	26 (8 pediatric licensed)	14	-	10 post-partum
Watsonville Community Hospital	4			10		OB overflow
Sutter Maternity and Surgery Center	18	12	-	-	-	50 alternate; 23 for triage surge

\*staff dependent

In the event of a large-scale pediatric disaster coordination through the MHOAC, ambulance and air support, regional partners would be necessary due to limited capacity and lack of pediatric trauma centers. The nearest pediatric trauma center is approximately 35 miles northeast; located in Santa Clara County with limited road access (Route 17) and air support potentially limited by weather conditions.

### Access and Functional Needs

Santa Cruz County HCC members include Central Coast Alliance, County Public Health Division Medical Therapy Unit services, Behavioral Health representatives actively engaging the need for vulnerable pediatric patients within the county, Dominican, Sutter Maternity and Surgery Center and Watsonville Community hospitals. Santa Cruz County HCC continues to engage partners in capacity building through training and exercise to increase pediatric response capacity with an Equity and Access/Functional Need (AFN) lens.

## Concept of Operations – Regional Approach

### Activation

Santa Cruz County MHOAC, Public Health Officer(s), Director of Health Services Agency, and Director of the Office of Emergency Services or his/her designee can activate the surge plan. It may be activated with or without a local, state, or federal declared emergency. Activation, Information Gathering, Alert Process protocols can be found within the County of Santa Cruz Medical Health Surge Plan<sup>2</sup>. Protocols are to be adapted to alert and quickly adapt to a regional approach in the event of a large-scale pediatric emergency.

The State EMSA Pediatric Disaster Guidelines for Hospitals states, “It is inevitable that all hospitals in a large-scale disaster involving pediatric patients will be overwhelmed.” However, under current conditions most counties and regions are likely to be overwhelmed in much less dire situations than a, “large-scale disaster.”<sup>2</sup>



## Notifications

The Medical Health Operational Area Coordinator (MHOAC) coordinates with local, regional, and state partners in the event of a large-scale disaster. Notifications may vary and include conference call situational status updates, Microsoft Team meetings, California Health Alert Network (CAHAN) local alerts, or bed availability polling through ReddiNet.

Santa Cruz County EMS utilizes ReddiNet notification program to coordinate with local acute care hospitals and regionally across the Bay Area. Quarterly tests are conducted around bed availability within the system.

Watsonville Community Hospital has a pre-determined Memorandum of Agreement with Stanford’s Lucille Packard Children’s Hospital in the event of a pediatric surge. Internal notification processes would coordinate with the MHOAC program if assistance is required outside of internal capacity.

## Roles and Responsibilities

SCC Public Health Division, Emergency Preparedness Unit actively coordinates with the HCC composed of acute-care hospitals, clinics, long-term care facilities, and county agencies. The capabilities of each facility for pediatric care are assessed and coordinated with HCC partners for the response managed by the MHOAC.

Table 2: *Healthcare Coalition Roles and Responsibilities*

Facility/Entity Type	Responsibility
EMS Agency	<ul style="list-style-type: none"> <li>Coordinate EMS resources</li> </ul>
Ambulance Services	<ul style="list-style-type: none"> <li>Triage patients Field decontamination (if needed)</li> <li>Transport to healthcare facility</li> </ul>
Hospitals	<ul style="list-style-type: none"> <li>Triage &amp; treatment; Decontamination (if needed)</li> <li>Tracking secondary facility transfers Provide victim/casualty information</li> </ul>
Law Enforcement / Sheriff	<ul style="list-style-type: none"> <li>Coordinate with Child Protective Services to ensure the safety of all unaccompanied children</li> <li>Aid in the identification and reunification of children in disaster</li> </ul>
MHOAC	<ul style="list-style-type: none"> <li>Notification of pediatric stakeholders; coordinate with Healthcare facilities via conference call (if needed)</li> <li>Coordinate medical health resources</li> <li>Process medical health mutual aid requests</li> </ul>
Public Health	<ul style="list-style-type: none"> <li>Develop the Medical Health Situation report</li> <li>Public Health Officer Local Health Emergency Declaration (if needed)</li> </ul>
Skilled Nursing Facilities	<ul style="list-style-type: none"> <li>Respond to bed poll if requested</li> <li>Provide surge relief to hospital facilities</li> </ul>
Clinics/Specialty Clinics	<ul style="list-style-type: none"> <li>Provide pediatric consultation services to hospitals</li> </ul>





## Logistics

Like many emergency responses, considerations to create resources for a Pediatric Surge response will take additional pre-planning and specialties. It is vital to facilities to prepare with the considerations of Space, Staff, and Stuff. All three considerations require special attention regarding planning through a pediatric lens.

### Space

*The use of non-conventional spaces for pediatric care is likely in the event of surge. For this guide, spaces will be divided by Conventional, Contingency, and Crisis locations.*

- **Conventional spaces:** Areas where such care is normally provided.
- **Contingency spaces:** Areas where care could be provided at a level functionally equivalent to usual care.
- **Crisis spaces:** Areas where sufficient care could be provided when usual resources are overwhelmed.

At the time of an incident, an assessment should be made about the currently available beds and spaces (including operating rooms, post-anesthesia care unit (PACU), ICU, ventilators, etc.) The assessment could include the possibility of patient relocation or discharging of inpatients.<sup>4</sup>

Table 3: *Space Surge Examples*<sup>4</sup>

Space Needed	Conventional	Contingency	Crisis
<b>Triage</b>	Emergency	Emergency Lobby	Parking Lot
<b>Emergency Dept.</b>	Emergency	GI Procedure Area	Same Day Surgery
<b>Ambulatory</b>	Clinic	Meeting Rooms	Cafeteria
<b>Inpatient (Floor/ICU-level)</b>	None	Floor Beds	Floor Beds, ICS Care
<b>Pediatric Safe Area</b>	Family Room	Small Meeting Room	Secure Large Meeting/Dining Area

### Staff

The ability to respond to the need of pediatric patients will also likely take a toll of the level of staff able to respond. Many staff members have young children or families and may be impacted due to the nature of the emergency.

Staff working in the Emergency Department or who usually provide pediatric care may already have baseline training expectations for their positions. Additional staff, who would not normally be involved in emergency care and have had pediatric training, should be identified.<sup>3</sup>

Below are strategies for adapting to staffing challenges<sup>4</sup>:



- Cross train clinical staff to float throughout units
- Contact Nurse Staffing Agencies (registries/traveling nurses) to assist with supplemental staffing needs
- Use of non-conventional staff or expand scope of practice Student nurses (e.g., Student nurses, Medical students, or Military licensed staff)
  - Regulatory Considerations: regulations to expand clinical professionals' scope of practice may require a CDPH waiver and a Governor's order. Need clarification from professional boards.
- Use of non-conventional staff (e.g., MRC volunteers)
  - Regulator Considerations: professionals with inactive licenses will need to go through the process to reactivate it.

## Supplies

During a disaster, it is important to ensure there are adequate supplies and equipment for staff, patients, and families. The federal recommendation is to maintain a stockpile of at least 96 hours/72 hours of supplies Additional supply considerations are outlined below.<sup>5</sup>

- Children range from newborns to adolescents, so a wide range of supplies and equipment sizes are essential to meet their needs. Each facility should confirm the availability of pediatric-specific equipment on site as well as have a mechanism(s) for quick access to additional supplies through processes such as a Memorandum of Understanding (MOU) with their regular vendors.

## Additional Considerations

### Behavioral Health

Behavioral Health specialists working with children and families will be activated through the emergency operations response whether that is centered in the County EOC or HSA DOC. There are behavioral health personnel resources within the County including County Behavioral Health Services, School-based behavioral health, private, non-profit and community based/faith-based organizations. Many of these organizations are engaged in the HCC and have partnered with the County in disaster response. The County Office of Education and Pediatric Specialists through engagement with the Health Improvement Partnership (HIP) ,have convened regular (weekly or more frequently) with the Health Services Agency (HSA) throughout the COVID-19 pandemic response to coordinate response policy, procedures, resources, communication and coordination. Additional resources and trainings have been provided to HCC partners including:

*Resources:* <https://www.samhsa.gov/child-trauma/recognizing-and-treating-child-traumatic-stress>

<https://www.calhospitalprepare.org/pediatrics-nicu>



## Evacuation

MHOAC will coordinate with EMS and hospital emergency departments for evacuation coordination for pediatric patients, including Pediatric/Neonatal Intensive Care Unit (NICU) evacuation resources and plan for patient movement that includes coordination with specialty and referral partners outside the coalition boundaries using the State Emergency Management Systems (SEMS) and Region II RDMHS.

## Operations

### Triage - Treatment - Transport – Tracking – Reunification - Recovery

See the County Medical-Health Surge Plan which is the comprehensive surge plan to which this is the Pediatric Surge Annex, the County EOP and the State of California SEMS. Additional resources are found linked below:

- Pediatric preparedness best practices for Logistics (specifically triage) come from the [Preplanning Disaster Triage for Pediatric Hospitals](#) toolkit.
- SEMS <https://www.caloes.ca.gov/cal-oes-divisions/planning-preparedness/standardized-emergency-management-system>
- SHEA Infection Prevention Handout for Patients and Visitors: <https://www.shea-online.org/index.php/practice-resources/patients> [English Version](#) [Spanish Version](#)

## Footnotes and references

1. <https://www.kidsdata.org/export/pdf?loc=370>
2. Contra Costa Plan: [https://cchealth.org/ems/pdf/emsc\\_ped\\_final.pdf](https://cchealth.org/ems/pdf/emsc_ped_final.pdf)
3. <https://www.health.state.mn.us/communities/ep/surge/pediatric/primer.pdf>
4. Stanislaus County Plan <https://files.asprtracie.hhs.gov/documents/stanislaus-calif-pediatric-disaster-surge-plan-draft-1-23-19.pdf>
5. [https://www.luriechildrens.org/globalassets/documents/emsc/resourcesguidelines/guidelines-tool-and-other-resources/practice-guidelinestools/00\\_peddisasterguide3ed\\_jan2019final.pdf](https://www.luriechildrens.org/globalassets/documents/emsc/resourcesguidelines/guidelines-tool-and-other-resources/practice-guidelinestools/00_peddisasterguide3ed_jan2019final.pdf)