

PATIENT MOVEMENT SURGE PLAYBOOK: NEXT GENERATION CAPABLE

LEVERAGING HOSPITAL TRANSFER READINESS ACROSS REGIONAL BORDERS IN CATASTROPHIC EVENTS

Proposed Operational Guidance Framework to Strengthen Transfer Capability



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Introduction

- PATIENT MOVEMENT GAPS WERE IDENTIFIED in unprecedented complex evacuation events & hospital transfers of critical patients across regional borders during catastrophic surge events.
- THE CALIFORNIA PATIENT MOVEMENT SURGE PLAYBOOK is conceptualized to ensure maximum patient movement capability & efficient coordination in time-sensitive surge events.
- GIVEN THE IMPERIAL COUNTY COVID-19 PATIENT MOVEMENT, HOSPITAL TRANSFER & LOAD LEVELING CHALLENGES, A PROPOSED SOLUTION IS RECOMMENDED:
 - To establish robust specific surge transfer response capability with hospitals
 - To facilitate specific hospital strategies to expedite transfer
 - To lay groundwork for a strengthened patient movement surge plan & a Medical Operations Coordination Cell (MOCC).

Poster Objectives

- TO IDENTIFY COORDINATION PRIORITIES for patient movement in a catastrophic surge transfer event with Regional Disaster Medical Health Specialists (RDMHS), Medical Health Operational Area Coordinators (MHOAC), ALL Access Transfer Center (AATC) & hospitals.
- TO IDENTIFY GAPS, NEEDS, BEST PRACTICES, & recommend solutions.
- TO PROMOTE A PROPOSED PATIENT MOVEMENT SURGE PLAYBOOK to maximize & leverage time-sensitive transfer needs & health system capability during catastrophic events.
- TO INFORM PATIENT MOVEMENT STRATEGIES for real-time situation awareness, triage decisions & Subject Matter Experts (SME) operational response between ESF-8, state organizations, transfer centers, hospitals & pre-hospital providers across regions.

1. PLAYBOOK Vision

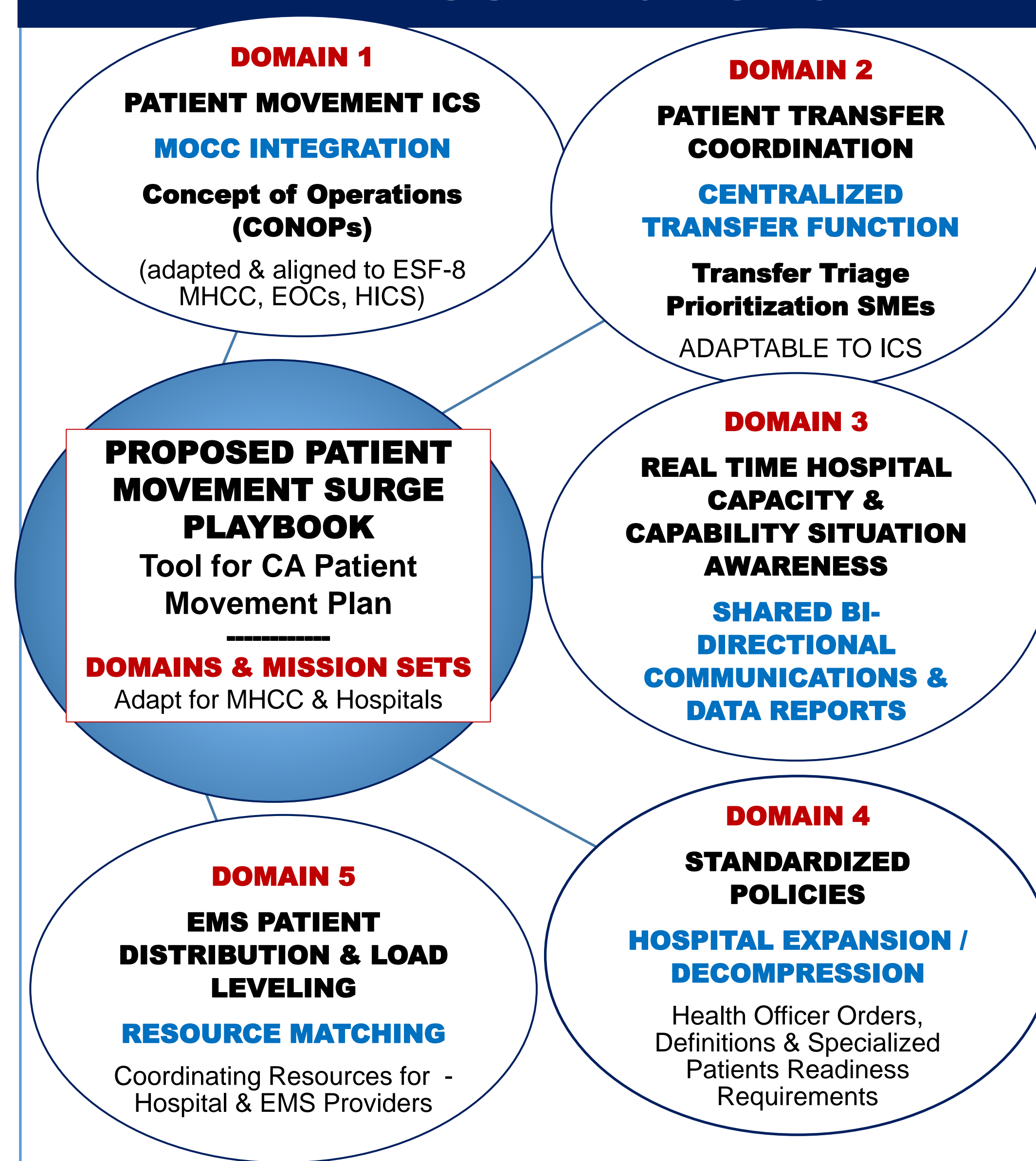
- STRENGTHEN statewide capability for patient movement in catastrophic surge events impacting adults & children with consideration for specialty needs.
- MAXIMIZE patient movement operations with hospitals, prehospital transport providers, transfer centers, & specialty resources in a catastrophic event.
- EXPAND patient surge movement capabilities through MOCCs, standardized situation awareness metrics, asset mapping, guidance tools, focused training, & coordinated plans including disaster mental health.
- PROMOTE rapid expansion & transfer capability across the entire health care system with operational framework that addresses special needs and disparities.

Adults primarily moved during COVID19. Consider need for pediatric patient transfer during future events.

- During the recent Respiratory Virus (RSV & Influenza) surge events, gaps were identified including systemic limited critical care pediatric bed/staffing capabilities.



2. PLAYBOOK Framework



3. Patient Movement EMS, Hospitals, & State Contracted Transfer Center (AATC) Challenges

LACK OF "BIG PICTURE" SITUATION AWARENESS (COVID19 & Pediatric Respiratory illness SURGE EVENT)

- Limited ICU/PICU/ED staffed beds (local, regional, & state)
- Multiple simultaneous State & Local Polls & SMART Sheets confusing to hospitals
- Polling Inconsistencies: unreliable / lacking (e.g. ReddiNet) standardization or unreliable communications
- Limited statewide Hospital Capacity / Capacity Mapping (e.g., Available specialty staffed Beds by type such as dialysis & ECMO)

LIMITED HOSPITAL EXPANSION / DECOMPRESSION

- Delays in identifying & reporting staffed beds
- Alternate Care Sites often variable and inadequate
- Inadequate "Brick and Mortar" expansions
- Hospital pushback on Health Officer Load Leveling Orders
- Hospitals dependency on Transfer & Specialty Centers
- Difficulty obtaining sufficient specialty staff
- Lack of Transfer SME Advisors (including pediatrics)

TRANSFER COORDINATION ISSUES

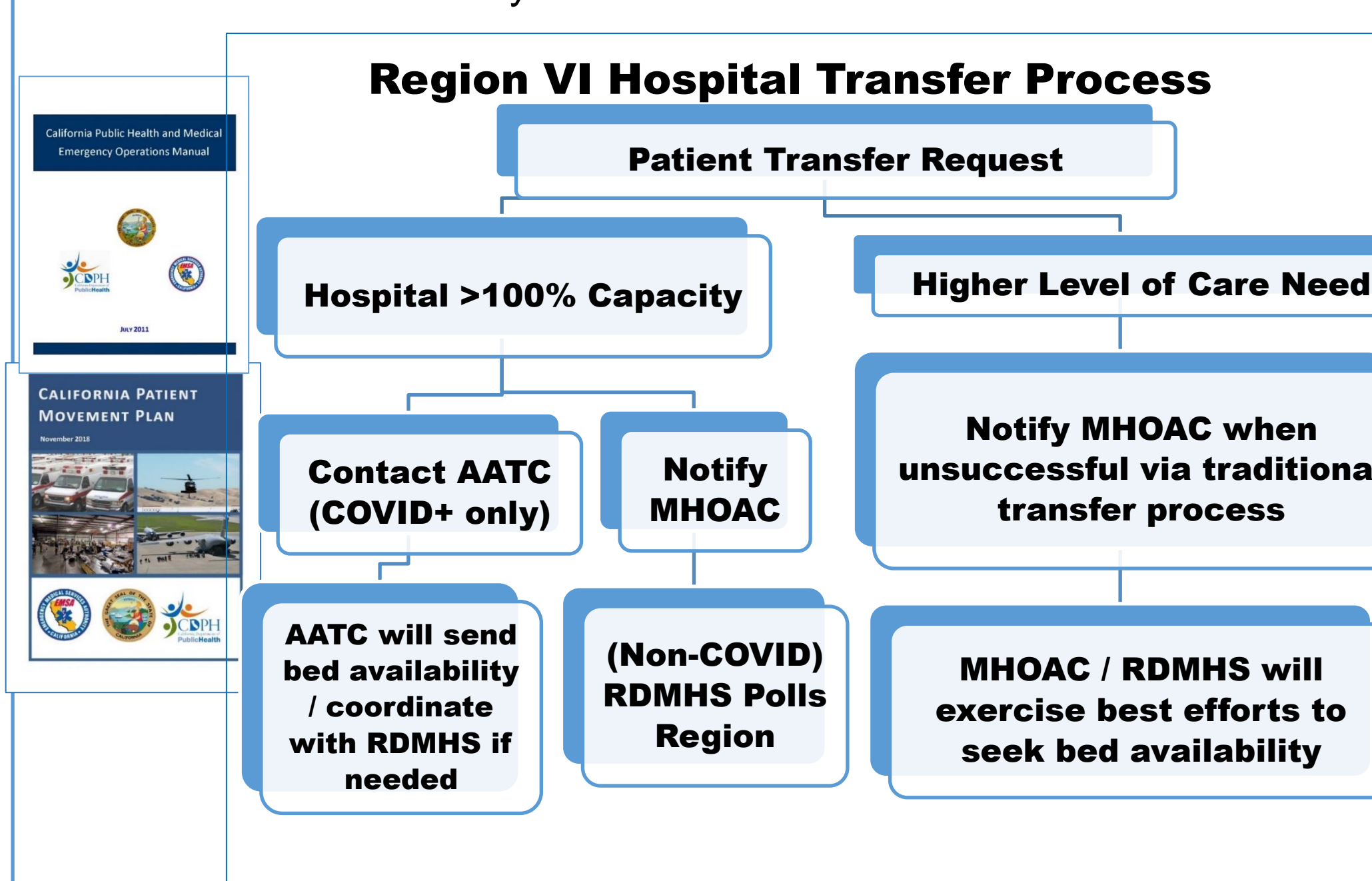
- Gaps in CA Public Health & Medical EOM & Patient Movement Plan
- Overwhelming volume & acuity of patients needing transfer in simultaneous surge events
- Duplicate Hospital Transfer Requests from Regional Hubs & EMS
- Limited Specific transport options
- Variable Equipment types (e.g., ECMO, Ventilators)
- Air & Ground transport challenges
- Delays finding accepting facilities; Delays in Hospital Approval / Authorizations; Long transport distances; Insurance and cost; Repatriation and Reimbursement
- Disposition of Decedents & coordination with Coroner
- Delays notifying local health jurisdictions on confirmed patient transfers arriving in operational areas

4. Patient Movement CONOPS - Best Practices – ESF-8 / MHOAC

Surge response effectively met unprecedented complex transfer demands & immense evacuation needs.

Given Imperial County's overwhelming surge in patient numbers, the situation warranted immediate actions:

- Pioneers Memorial Hospital & El Centro Regional Medical Center combined for 200 licensed beds including expanding care for many residents of Mexico working in Imperial County.
- ICU & surge space state sponsored buildouts occurred to absorb patient transfers.
- VA, Cedars-Sinai, & other hospitals accepted many patients.
- Utilized federal facilities to accept patients.
- Utilized CA Medical Assistance Team (CAL-MAT) assets
- "Hold-for-an-Hour Rule" at Receiving Hospitals was valuable to maintain bed availability



CONOPS Best Practices Hospital Coordination & AATC

Utilization of a state contracted Regional Transfer Center COVID Winter Surge, 2020-2022

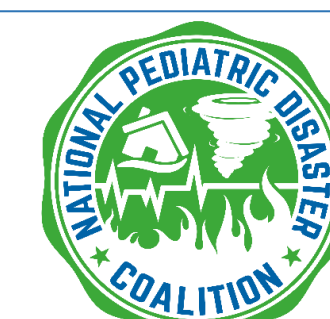
- 650 patients moved by ground and air ambulance facilitated by MOU with Global Medical Response (GMR) & State coordination
- Implemented official State Health Officer Order
- Coordinated Transfer process

24/7 Centralized patient placement services - AATC

- Emergent & non-emergent transfers occurred:
 - Electronic Health Record (EHR) integration to coordinate all elements
 - Developed & customized to support partnership
 - All patient condition and mobility types transferred
 - Inbound, repatriation, intra-system, & discharge
 - Behavioral health considered
 - Joint/coordinated medical direction
- In CA, AATCs tracked patients to hospitals, alternate care sites (ACS) & quarantine locations across Operational Areas, regions & states.
- Worked across 58 counties in multiple states (CA, AZ, NV, OR, Colorado), coordinating with over 600 facilities in partnership with EMSA & MHOAC's
- AMR & other teams were sent as strike teams to facilitate transport - managed COVID patients, managed placement of patients

SMART Sheets & Priority Essential Elements of Information (EIs) utilized

- ReddiNet Customized Polling & CDPH/California Hospital Association (CHA) Data Metric Polls adapted to event needs
- Reports included Staffed Bed Availability & Critical Patient Bed Types

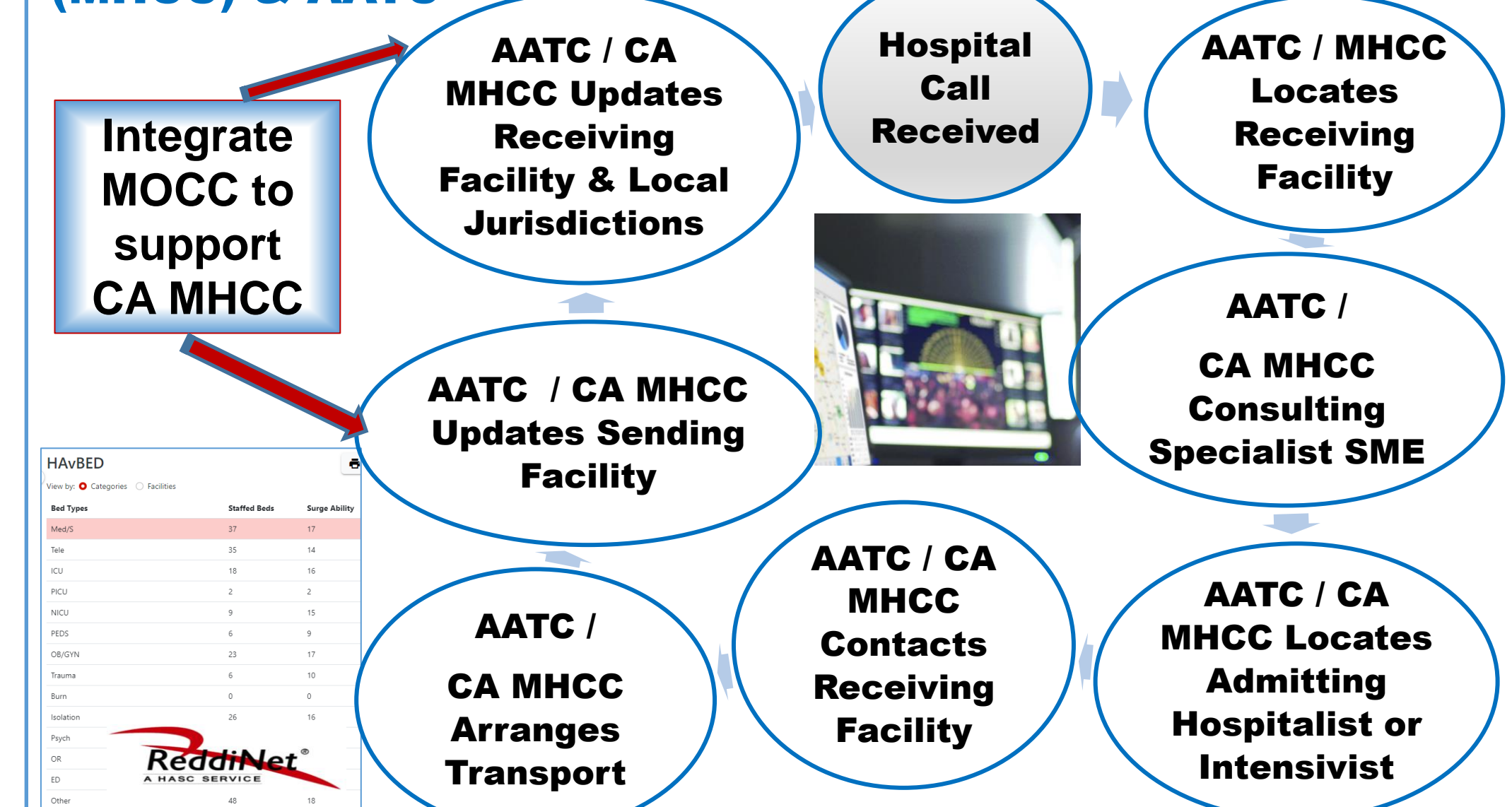


5: Future PLAYBOOK Solutions

Domain 1: Centralized Medical Operations Coordination Cell (MOCC) - ESF-8 MHCC with RDMHS

- Promote Situational Awareness using Timely, Reliable, Centralized Streamlined, Consistent, & Efficient Polls without multiple parallel polls
- Standardize admitting process during surge & evacuation events to minimize duplication
- Ensure State Map with Hospital Capacity & Capability (e.g., Full Dialysis) with Average Staffed Specialty beds
- Use Standardized SMART Sheet & Bed Status Forms

Domain 2: 24/7 Centralized Patient Placement Services & Transfer Coordination - Medical Health Coordination Center (MHCC) & AATC



Domain 3: Situational Awareness (Hospitals / Health Care Coalitions (HCCs))

- Use standardized SMART Sheet (e.g. AATC) to Share Patient Information Data & limit data collected to Transfer Need
- Ensure Bi-Directional Communications / Verifications
- Utilize ReddiNet, EM, or other information management system

Domain 4: Identify Staffed Beds, Expand, & Ensure Timely Response - Comply with Health Officer Orders (Hospitals)

- Ensure consistent & reliable internal Hospital Communications
- Maximize hospital expansion / decompression strategies
- Require hospital expansion benchmarks & modified staffing strategies in Health Officer Orders. Use Surge 4Ss (Space, Staff, Stuff, & Systems)
- Promote ALL Hospitals' Readiness for specialty patients
- Utilize HICS Patient Movement Job Action Sheets (JAS adults/pediatrics). Address special needs of children. Use Pediatric Emergency Care Coordinators (PECCs). Consider TRAIN[®] (Triage by Resource Allocation for Inpatients) for internal evacuation/patient transfer

Future CA Patient Movement Plan Integration & Momentum

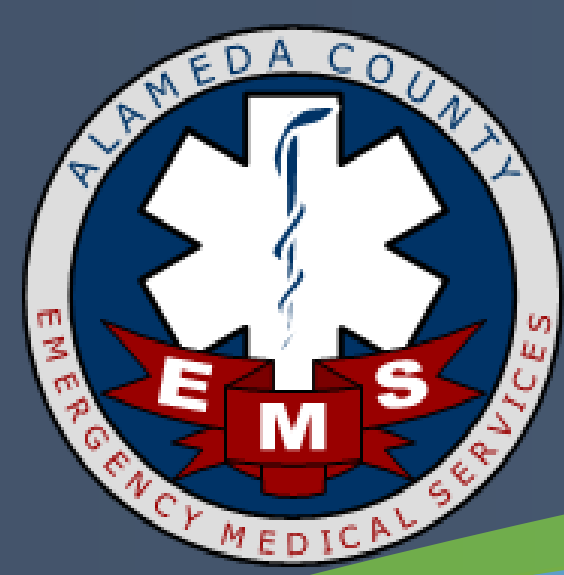
Domain 5: Ensure Transfer Center SME JAS & Strike Team Coordination For Patient Movement, EMS Patient Distribution, & Load Leveling; Integrate Pediatrics into overall response (e.g. Pediatric MOCC or PMOCC)

PATIENT MOVEMENT PLAN SUGGESTIONS

- Utilize Transfer Center expertise in planning & response to support existing ESF-8 Emergency Operations Center (EOC) infrastructure with a dedicated MOCC (Adaptable, Flexible & Scalable)
- Ensure Centralized Patient Transfer Prioritization within MOCC / PMOCC in an Operational Command Center (e.g. MHCC) with a procedure to rapidly process patient placement / resource matching
- Ensure statewide reporting in single platform with a State & Regional managed bed board & data base of all hospitals & their capabilities
- Promote Transfer Center to include integration of Pediatric SME within (MOCC/PMOCC) capabilities
- Build out surge capacity units in existing hospitals & hospitals that had recently been closed
- Conduct statewide Patient Movement Training & Exercises with MOCC, MHCC, contracted Transfer Centers, & Hospitals
- Establish accountability for Hospital & Transfer Center roles, hospital expansion requirements, & local jurisdiction updates on confirmed incoming patient transfers before and during surge Events

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ASPR Administration for Strategic Preparedness & Response



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POSTER - SUPPLEMENTAL RESOURCE



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Acronyms

- **AATC** = ALL Access Transfer Center
- **ACS** = Alternate Care Site
- **AST** = Ambulance Strike Team
- **ASPR** = Administration for Strategic Preparedness & Response
- **CAL-MAT** = California Medical Assistance Team
- **CONOPS** = Concept of Operations
- **DMAT** = Disaster Medical Assistance Team
- **DOC** = Department Operations Center
- **EEL** = Essential Elements of Information
- **EOC** = Emergency Operations Center
- **EOM** = Emergency Operations Manual
- **EMS** = Emergency Medical Services
- **ESF-8** = Emergency Support Function – Public Health/Medical
- **HCC** = Health Care Coalitions
- **HICS** = Hospital Incident Command System
- **HO** = Health Officer
- **HPP** = Hospital Preparedness Program
- **ICS** = Incident Command System
- **JAS** = Job Action Sheet
- **LHJ** = Local Health Jurisdiction
- **MHCC** = Medical Health Coordination Center
- **MHOAC** = Medical Health Operational Area Coordinator
- **MOCC** = Medical Operations Coordination Cell
- **OA** = Operational Area
- **PECC** = Pediatric Emergency Care Coordinator
- **PMOCC** = Pediatric Medical Operations Coordination Cell
- **PsySTART** = Psychological Simple Triage & Rapid Treatment
- **RDMHS** = Regional Disaster Medical Health Specialist
- **RSV** = Respiratory Syncytial Virus
- **SEMS** = Standardized Emergency Management System (CA)
- **SME** = Subject Matter Expert
- **SOC** = State Operations Center
- **TRAIN** = Triage by Resource Allocation for INpatients [TRAIN®] Tool (Neonatal/Pediatrics)
- **WRAP-EM** = Western Regional Alliance for Pediatric Emergency Management

HOSPITALS COORDINATE WITH MHOAC

- HOSPITALS**
- Communicate with the County OA via the SEMS process
 - Contact your OA MHOAC if you have questions. **Any transfer of patients out of county (OA), communicate with LEMSA / MHOAC.**

- MHOAC**
- Assessment of immediate medical needs.
 - Coordination of patient distribution and medical evaluation.
 - Coordination with inpatient and emergency care providers.
 - Coordination of out-of-hospital medical care providers.
 - Coordination and integration with fire agency personnel, resources, and emergency fire pre-hospital medical services.
 - Coordination of providers of non-fire based pre-hospital emergency medical services.
 - Coordination of the establishment of temporary field treatment sites.
 - Coordination of disaster medical and health resources.
 - Coordination with LTCs/SNFs, dialysis centers, home health agencies, hospices, mortuaries, & other allied health providers.

CA Health & Medical EOM

<https://www.cdph.ca.gov/Programs/EPO/CDPH%20Document%20Library/FinalEOM712011.pdf>

CA Patient Movement Plan

https://ems.ca.gov/wp-content/uploads/sites/71/2019/03/Patient-Movement-Plan_Final-3-6-19.pdf

CA Pediatric Surge Annex

<https://ems.ca.gov/wp-content/uploads/sites/71/2022/02/CA-Pediatric-Surge-Annex-9.30.21-FINAL.pdf>



MOCC Support for MHCC Integration Resources

MOCC

- MOCCs are cells often located within emergency operations centers at the sub-state regional, state-wide, & federal regional levels (Federal Emergency Management Agency [FEMA] / U.S. Department of Health and Human Services [HHS] regions) that facilitate patient movement, healthcare staffing, & life-saving resource allocation.
- MOCCs rely upon a range of stakeholders to provide the healthcare personnel & data needed to understand current capacity & gaps in the healthcare system & facilitate referrals & load-balancing through patient transfers.
- Key stakeholder groups include healthcare facilities, emergency medical services (EMS), & supporting government partners.

MOCC Toolkit – 2nd Edition (HHS ASPR TRACIE)

<https://files.asprtracie.hhs.gov/documents/fema-mocc-toolkit.pdf>

Pediatric MOCC Integration Resources

Pediatric Medical Operations Coordinating Cells (MOCC): A Telehealth Alternative to Deployable Pediatric Disaster Medical Assistance Teams (DMATs)

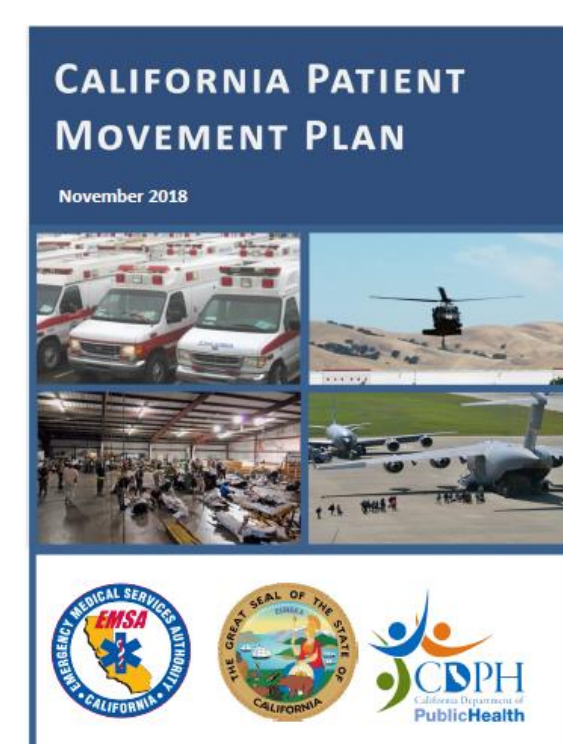
<https://publications.aap.org/pediatrics/article/149/1%20Meeting%20Abstracts%20February%202022/24185752/pediatric-pediatric-medical-operations-coordinating-cells?autologincheck=redirected>

Northwest Healthcare Response Network (Adult & Pediatric MOCC)

<https://nwhrn.org/clinical-pediatric-resources/>

EOM COORDINATION PATHWAYS

SEMS & HEALTH & MEDICAL COORDINATION



State Level
Duty Officer, MHCC, SOC

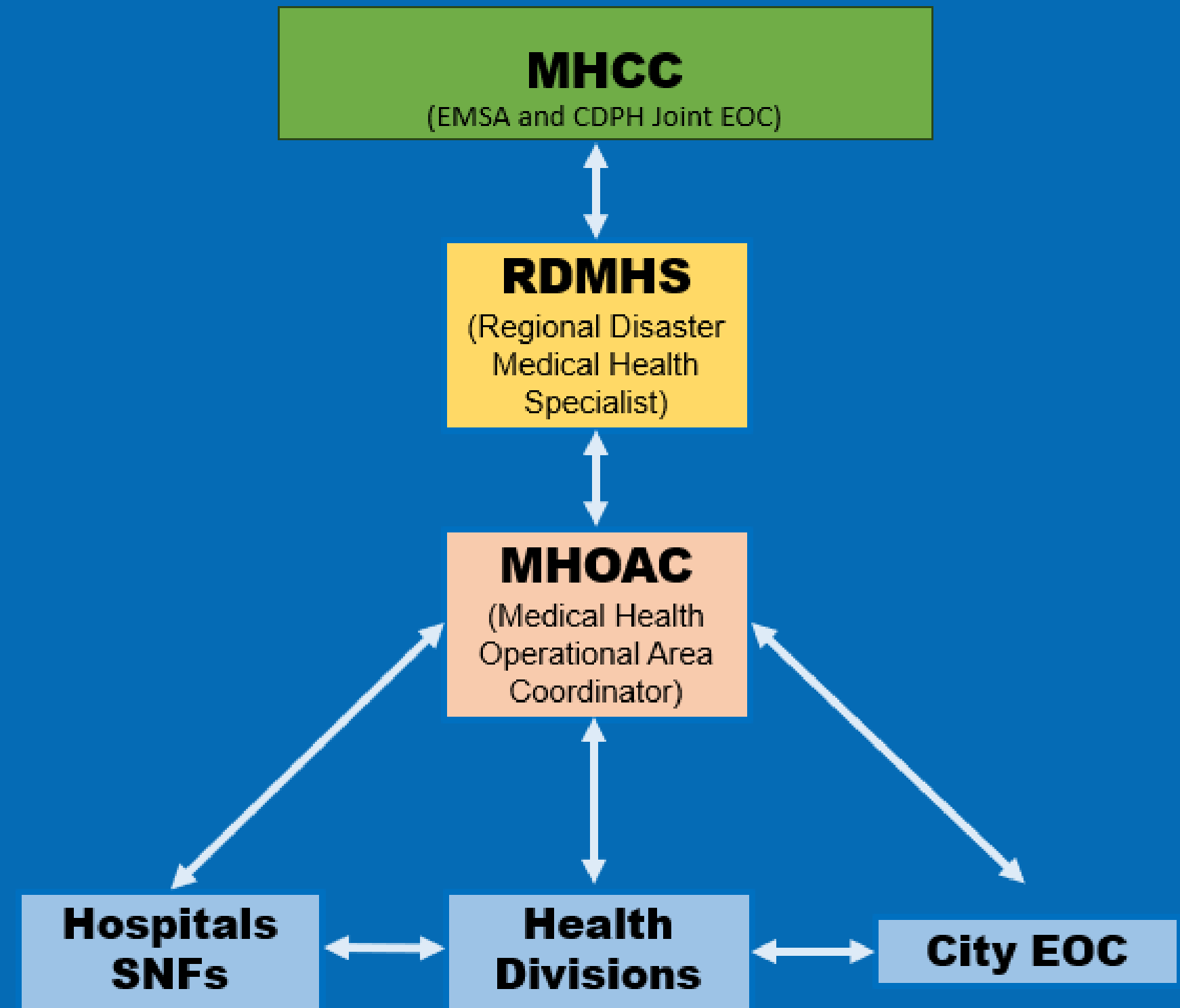
Region Level
RDMHC Program

Operational Area Level
MHOAC Program, OA EOC

Local Government Level
Cities, DOC

Field Level
EMS Providers, Healthcare Facilities

COMMUNICATION PATHWAY



Hospital Surge Expansion Recommendations & Resources

CA Department of Public Health (CDPH) & California Hospital Association (CHA) - Guidance for Response to Surge in Respiratory Viruses among Pediatric Patients

- **AFL-22-23 (ca.gov) 7-14-2023** <https://www.cdph.ca.gov/Programs/CHQ/LCP/Pages/AFL-22-23.aspx>
- Preserve dedicated pediatric facilities for those requiring critical &/or specialized care. Facilities with Inpatient Pediatric Units, such as Pediatric Wards, PICUs, & NICUs, Facilities with existing inpatient pediatric units, children's hospitals & some community hospitals best able to manage complex pediatric patients.
- Expand provider capacity & privileges by training / credentialing pediatric/family practice outpatient providers for inpatient care. Engage licensed staff (RN/RT) not currently assigned as inpatient & have them assist.
- Explore potential for in-facility patient movement, for mixed facilities offering care to neonatal, pediatric, & adult populations. Manage adult-size children who have conditions common to children & adults (e.g. trauma, appendicitis, sepsis) on adult Med/Surge (M/S) units.
- Utilize telemedicine to help community adult care organizations to support pediatric patients.
- Prioritize admission for critically ill pediatric patients.

SURGE & Health Care Coalition (HCC) PLANNING

- Leverage existing facility &/or HCC pediatric surge plans.
- <https://asprtracie.hhs.gov/hcc-resources>
- Prepare for & consider implementation of measures to expand capacity (e.g. bed space & staff) to accommodate a surge of at least 30% over licensed capacity, including to board pediatric patients, who have differing, monitoring, & space needs than adults.

PICU (Washington State)

- **PICU in the MICU: How Adult ICUs Can Support Pediatric Care in Public Health Emergencies (King, et al.)**
- **Training - Pediatric Fundamental Critical Care Support (Society of Critical Care Medicine)** <https://www.sccm.org/Education-Center/Educational-Programs/Fundamentals/Pediatric-Fundamental-Critical-Care-Support>

Pediatric Surge Resources

WRAP-EM Pediatric Surge PLAYBOOK

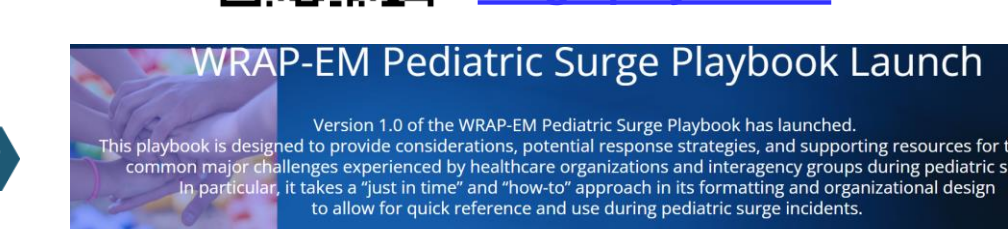
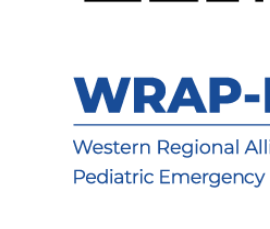
- This pediatric playbook is designed to provide considerations, potential response strategies, & supporting resources for the most common major challenges experienced by healthcare organizations & interagency groups during pediatric surge. In particular, it takes a "just in time" & "how-to" approach in its formatting & organizational design to allow for quick reference & use during pediatric surge incidents.



<https://wrap-em.org/>



<https://wrap-em.org/index.php/table-view/420-wrap-em-pediatric-surge-playbook-2>



TRAIN® (STANFORD)

- TRAIN® tool determines level of transport required for evacuation based on resource utilization. Tool aligns with local EMS protocols for transport type capabilities & expert opinion.



<https://www.stanfordchildrens.org/en/research-innovation/train>



Patient Movement & Tracking (HHS ASPR TRACIE)



<https://asprtracie.hhs.gov/technical-resources/70/patient-movement-and-tracking/0>



National Pediatric Disaster Coalition (NPDC)



<http://www.npdcoalition.org/resources/>

Event: COVID-19 CA MHCC & Health Officer Orders

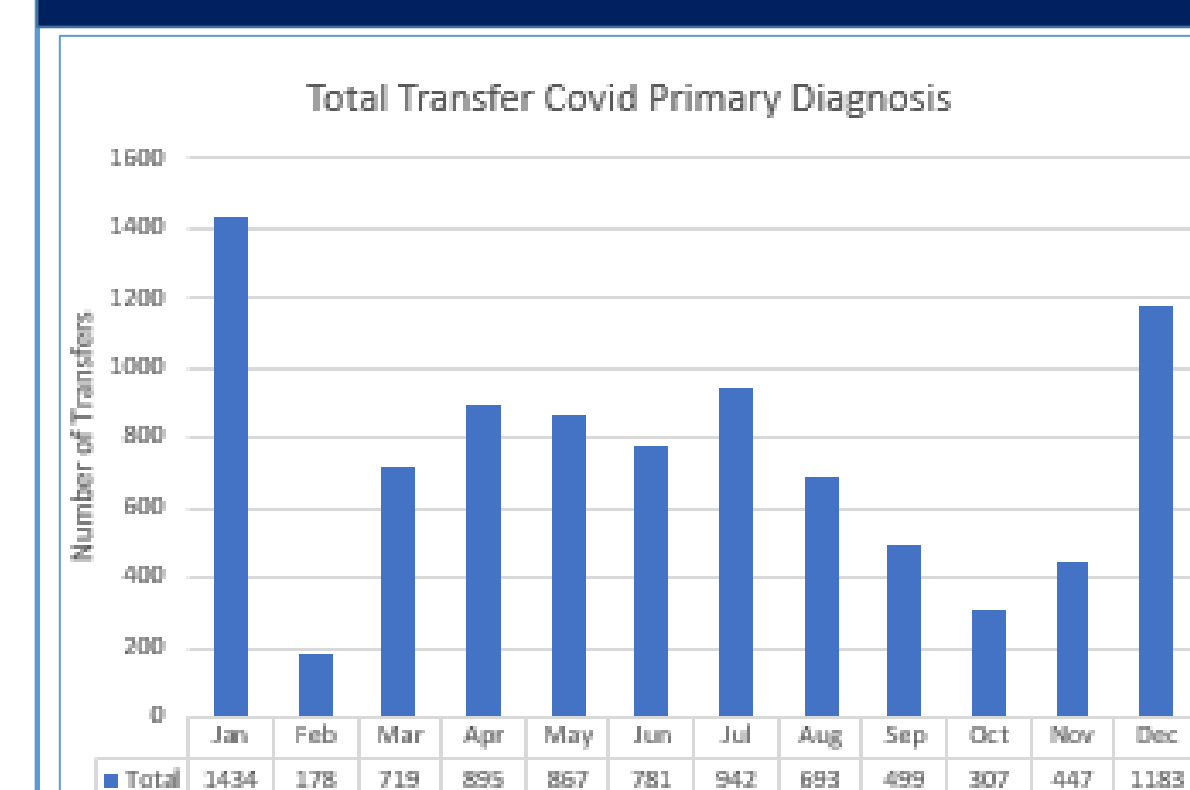
- Governor Newsom activated the State Operations Center (SOC) in Mather, California, to its second highest level to support state, federal & local emergency managers, public health officials & first responders.
- The SOC provides operational and logistical support to the California Department of Public Health's Medical & Health Coordination Center (MHCC). The MHCC was activated to coordinate California's public health response to COVID-19.

COVID-19 - CA HO Orders FAQ (CDPH)



<https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Order-of-the-State-Public-Health-Officer-Hospital-Health-Care-System-Surge-FAQ.aspx>

Data Metrics – EEIs & SMART Sheet Dashboard Samples



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Date	Region	Verified By	Backtrack 1	Backtrack 2	Backtrack 3	Backtrack 4	Status	County	ICU	CCU	TELE	MED/S
1/13/2020	I	Supervisor	✓	✓	✓	✓	✓	Los Angeles	4	2	3	3
1/13/2020	II	Supervisor	✓	✓	✓	✓	✓	Napa	3	2	2	2
1/13/2020	III	Supervisor	✓	✓	✓	✓	✓	Sonoma	2	2	3	7
1/13/2020	IV	Supervisor	✓	✓	✓	✓	✓	Solano	0	5	2	8
1/13/2020	V	Admin	✓	✓	✓	✓	✓	Shasta	0	0	0	0
1/13/2020	VI	Charge RN	✓	✓	✓	✓	✓	Placer	0	0	0	0
1/13/2020	VII	Supervisor	✓	✓	✓	✓	✓	Kings	0	0	0	2
1/13/2020	VIII	Admin	✓	✓	✓	✓	✓	San Diego	0	0	0	8

Category	Count	Surge Ability
ICU	15	14
CCU	18	16
PICU	2	2
MCU	9	15
ICU	4	2
CCU	22	17
ICU	4	10
CCU	0	0
ICU	25	18
CCU	7	0
ICU	11	12
CCU	16	15
ICU	48	18

HICS & SME FORMS



- Examples of Medical Technical Specialists: e.g., Hospital Administration, Pediatric Care
- HICS 260 – Patient Evacuation/Transfer Tracking Form Instructions (Updated 11/07/2021)
- HICS 260 – Patient Evacuation/Transfer Tracking Form (Updated 11/07/2021)
- Hospital Incident Command System – Current Guidebook and Appendices

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