PATIENT CARE & OPERATIONS
COUNTY OF SAN DIEGO
COVID-19 EMS STRATEGY

Kristi L. Koenig, MD, FACEP, FIFEM, FAEMS
Medical Director, Emergency Medical Services
County of San Diego Health & Human Services Agency

Professor Emerita of Emergency Medicine & Public Health
University of California at Irvine
FIRE-BASED 911 ALS FIRST RESPONDERS (EXCEPT 1-2 SMALL TRIBES)

MIX OF DUAL-ROLE AND SINGLE-ROLE TRANSPORT UNITS
EMERGENCY MEDICAL SERVICES

- 260,000 ambulance calls per year
- 58 ambulance agencies, including ALS, BLS, 2 Air
  - Federal, Military, Tribal
- 22 ambulance zones, including 2 County Service Areas
- 21 receiving emergency departments
  - 17 designated stroke centers
  - 14 designated cardiac centers
  - 6 trauma centers: 5 adult, 1 pediatric
  - 7 base hospitals
- Personnel
  - 2,370 Paramedics (2,077 rostered with an agency [87%])
  - 7,588 EMTs (3,842 rostered with an agency [50%])
  - 286 MICNs (256 with an agency [89%])
OVERVIEW OF SAN DIEGO COUNTY

• **4,261 square miles** - urban and rural regions, from coast to mountains to desert
• **Larger than 21 U.S. States**
  - Same size as Connecticut
• **5th largest U.S. county**, 2nd largest in California
• 18 municipalities; 17 unincorporated cities
• 18 sovereign tribal nations
• **> 3.3 million population**
  - 48% White
  - 32% Latino
  - 11% Asian/PI
  - 5% African American
  - 1% American Indian
  - 3% Other
• Region is very diverse

- Over 100 languages
- Large military presence
- Largest refugee resettlement site in CA
- Busiest international border crossing in the world (San Ysidro/Mexico)
Overview

3-Pronged Strategy

- Flatten the Curve (via NPIs)
- Increase Health Care System Capacity
  - 3S Surge System (Stuff, Staff, Structure)
- Use Incident Command System (ICS)

EMS Actions

- Stuff, Staff, Structure

Special Border Considerations

- Baja California
- Imperial County
1) Flatten the Curve (via NPI)

Wash hands
Wear masks
Walk away

March 17 “Stay-at-Home” Order (State March 19), >1200 lives saved

2) Increase Healthcare System Capacity

- 3S Surge System (Stuff, Staff, Structure)
- All-Hazard Health Services Capacity Management Plan
  - Activated to Level 1 despite NOT meeting metrics (March 15)

3) Manage resources via ICS

County EOC activated
Fire Rescue Branch staffed
EMS ACTIONS
MCAS MIRAMAR REPATRIATION EARLY FEBRUARY

Wuhan Repatriates & Cruise Ship Passenger - Gained lots of experience transporting PUIs/Cases!
COVID-19 Information

County of San Diego:

Frequently Asked Questions for EMS Agencies and EMS Providers Regarding the COVID-19 Outbreak (March 9, 2020, updated May 27, 2020)

CoSD Public Health Services Epidemiology Unit Updates (updated continuously)

CoSD EMS COVID 19 Destination Considerations Memo (February 14, 2020)

CoSD EMS COVID 19 Infection Control and Communicable Disease Reporting Memo (February 25, 2020, updated March 21, 2020)

CoSD EMS Communicable Disease Reporting Form

CoSD EMS Treatment Considerations During The COVID-19 Outbreak (March 11, 2020)

CoSD EMS COVID 19 Non Patient Passenger Restriction Memo (March 12, 2020)

CoSD EMS COVID 19 MDI Option Approval Memo (March 14, 2020)

CoSD EMS COVID 19 AHA Card Expiration Extension Memo (March 14, 2020, updated April 1, 2020)

CoSD EMS COVID 19 EMS Medical Director Urges Social Distancing (March 15, 2020)

CoSD EMS COVID 19 Assess and Refer Option Memo (March 27, 2020, updated May 27, 2020)

CoSD EMS COVID 19 EMS Personnel Masking Recommendations (April 3, 2020)

CoSD EMS COVID 19 Safe EMS Handoff at Receiving EDs (April 5, 2020)

CoSD EMS COVID 19 Annual County Of San Diego EMS Protocol Updates (April 10, 2020)

CoSD EMS COVID 19 Cardiac Arrest Management Principles (April 20, 2020)

CoSD EMS COVID 19 POLST Verbal Signature Guidance (April 24, 2020)

CoSD EMS COVID 19 Provisional Paramedic Extension Memo (April 24, 2020)
EMS ACTIONS

Stuff

- PPE preservation strategies

Staff

- Safer training (students and providers for skills)
- First responder testing

Structure

- Lodging for staff needing isolation
Dispatch Centers

Q11 ADDED APRIL 10: What are dispatch centers doing to manage the COVID-19 pandemic?

A11: In late January 2020, dispatch centers began screening for travel history and symptoms to identify patients at risk for COVID-19 during 911 caller interrogations. Responding fire and EMS crews were notified prior to arrival and donned proper PPE before patient contact. In February, the geographic screening was expanded to include additional countries designated by the CDC as virus hotspots. As the pandemic progressed, additional questions and screening criteria were added, including screening for callers with known or suspected COVID-19 contacts, or contacts with someone diagnosed with COVID-19. Dispatch centers now ask callers to collect patient medications, including albuterol inhalers, prior to EMS arrival and, when possible, to meet the responding emergency scout member outside of their residences with a surgical mask or face covering in place.
EMS ACTIONS

Assume Everyone Has COVID-19!

Daily health screenings

- Added loss of taste/smell

Scout with full PPE

- Patients meet outside residence, masked and with their medications

Masking of all patients

Avoids AGPs

- Use/bring patients’ own albuterol inhalers (drug shortages)

Safer ED Transfer of Care
Reduce Viral Transmission to EMS Personnel

Q8 UPDATED APRIL 6: How can we achieve social distancing while on duty?

A8: While hand hygiene and enhanced cleaning around the station (including equipment and apparatus) are critical, social distancing remains one of the most important methods to decrease the spread of the novel coronavirus. Actions to take to enhance social distancing and other measures to reduce virus transmission include:

- spread out chairs and recliners in the station
- stagger mealtimes
- consider web-based, ready-for-pick-up grocery orders
- don’t share snacks, training materials, or other items during meetings
- crack the window while driving to ensure sufficient air exchange in the vehicle
- transition meetings, including morning briefings, to web platforms like FaceTime or Skype
- institute cold turnovers at shift change

In addition, the EMS Medical Director, echoing CDPH and CDC, recommends wearing a face cover whenever possible while on- and off-duty.
EMS ACTIONS

Local Optional Scope of Practice authority from State of California

- EMS provider PCR test administration
- Assess & Refer program

Cardiac Arrest Management

- Full PPE for provider/iPPE for patient
- Passive oxygenation
- 2-person BVM (use HEPA filters)
- Peri-mortem PCR testing

Mental health support resources
WHAT’S HAPPENING AT THE BORDER?

- 5 Border Crossing Locations in San Diego & Imperial Counties
- US citizens/legal permanent residents cross the border to seek healthcare
  - Estimated 125,000 to 300,000 U.S. citizens living in Baja
  - Estimated 250,000 U.S. citizens living in Mexicali
- Current Daily Average is 80,000 (plus 25,000 to Imperial County)
  - Well below baseline of 130-140K per day, but increasing (was 40K)
- Ambulance stationed at border
- Volume increased at southernmost hospitals
- Transfers from Imperial County
<table>
<thead>
<tr>
<th>Epidemiology (Surveillance)</th>
<th>Healthcare (Hospital Capacity)</th>
<th>Public Health (Response)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Case Count</strong>&lt;br&gt; Increase new case counts of at least 10% for five consecutive days above a stable baseline without substantial increase in testing</td>
<td><strong>5. Hospital Capacity</strong>&lt;br&gt; Approach 80% capacity for all hospital beds in the county 66%</td>
<td><strong>10. Cases</strong>&lt;br&gt; Greater than 8% of positive tests as a percent of total tests within a 14-day period 4%</td>
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<td>-18% ✓</td>
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<td>97% ✓</td>
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<td><strong>2. Community Outbreaks</strong>&lt;br&gt; Seven or more new outbreaks in community settings in a 7-day period</td>
<td><strong>6. Increasing Hospitalizations</strong>&lt;br&gt; Average change &gt;1% in number of confirmed COVID-19 patients currently hospitalized, measured as a 3-day rolling average and compared to the prior 3-day average 0%</td>
<td><strong>11. Case Investigation</strong>&lt;br&gt; 70% or less of investigations are initiated within 24 hours of notification over a 7-day period</td>
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<tr>
<td>4 ✓</td>
<td></td>
<td>97% ✓</td>
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<td><strong>3. COVID-Syndromic</strong>&lt;br&gt; Upward trajectory of COVID-like syndromic cases reported within a 14-day period</td>
<td><strong>7. ICU Capacity</strong>&lt;br&gt; &lt;20% availability of ICU beds 31%</td>
<td><strong>12. Contact Tracing</strong>&lt;br&gt; Make first contact attempt for 70% or less of close contacts of new positive cases within 24 hours of identification 88%</td>
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<tr>
<td>1% ✓</td>
<td></td>
<td>88% ✓</td>
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<td><strong>4. Influenza Like Illness</strong>&lt;br&gt; Upward trajectory of influenza-like illnesses (ILI) reported within a 14-day period</td>
<td><strong>8. Limited Ventilator Capacity</strong>&lt;br&gt; &lt;25% availability of ventilators 50%</td>
<td><strong>13. Homeless Population</strong>&lt;br&gt; Temporary shelter available for less than 15% of homeless population</td>
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<tr>
<td>1% ✓</td>
<td></td>
<td>42% ✓</td>
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<td><strong>9. PPE Supply</strong>&lt;br&gt; ≤50% of hospitals have at least a 15-day supply of PPE</td>
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<td>71% ✓</td>
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SUMMARY

• County of San Diego has successfully
  • Flattened the curve
  • Increased healthcare system capacity

• Now simultaneously
  • Relaxing NPIs, restarting urgent “elective” healthcare services
  • Receiving increased volume of patients from outside County

• Our goal is to continue to protect prehospital providers, preserve the
equity health care system, and optimize patient outcomes during
this pandemic