2007 San Diego Wildfires: Lessons Learned

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Overview

- Review results of wildfire event
- Review EOC/EMS DOC structure
- Identify key surveillance features
- Outline successes and lessons learned
OVERVIEW OF FIRESTORM 2007

2007 San Diego Wild Fires: Lessons Learned
Significant Damage

- Over 12 Fires burned during the Emergency
- Over 15% of the County of San Diego
The Result

- 368,000 acres burned

1,751 residences and businesses destroyed
Largest Evacuation in California History

- Approximately 515,000 people evacuated
- Over 2,200 medical patients evacuated
Medical Scope of the Disaster

- 23 civilian injuries
- 89 firefighter injuries
- 10 fire related deaths
Evacuations

- Reverse 911 – 587,000 calls made
- 515,000 residents evacuated
Evacuations

- Ambulance Strike Teams to evacuate medical facilities
- 3 Hospitals evacuated (2 Acute Care Hospitals and Psychiatric Hospital)
- 12 Skilled Nursing Facilities evacuated
Mass Care & Shelter

Max of 45 Shelters
Medical Reserve Corp

- 876 members currently
- 260 members replied with their availability
- 66 members deployed:
  - 48 Nurses
  - 15 Physicians
  - 1 Nurse Practitioner
  - 1 Physician Assistant
  - 1 Respiratory Therapist
- Also received support from State CalMat (1) and federal DMat (2) Teams
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EOC / EMS DOC
Disaster Coordination

- Emergency Responders work in field operations
- County of San Diego, Office of Emergency Services maintains the Operational Area Emergency Operations Center (EOC)
- The County of San Diego, EMS maintains the Department Operations Center (DOC) also known as the Medical Operations Center (MOC)
Emergency Operations Center (EOC)

- Strategic Operations
- Decision-makers
- Medical/Health
- Regional coordination of state and federal resources
- Mutual Aid
EOC Operations

- Leadership
- 85 Agencies
- Situational Awareness – WebEOC
Web EOC

- Over 400 users logged in and contributed to the County Wide Significant Events Board
- 775 Entries from 85 agencies Data-linked to the County Wide Events Board
EOC Joint Information Center

- Over 200 press releases
- 211 – 109,000 calls received in first week
- Emergency and a Response Website
• 2003 After Action Report recommendations
• Grant funding used to create and enhance EMS DOC
  • Telecommunications
  • Information sharing
  • Radio
  • Video conferencing
Role of EMS DOC

• Responsibilities are to:
  • Identify and address medical and health system Issues
  • Coordinate the Hospital and Prehospital System
  • Coordinate the Evacuation of Medically Fragile Populations
  • Communicate with healthcare community
Staffing the EMS DOC

- EMS staff positions
  - Operations
  - Logistics
  - Planning
  - Finance
  - IT support
  - Medical Director
  - Epidemiology/GIS Mapping
  - Emergency Medical Alert Network (EMAN)
  - Medical Reserve Corps (MRC)

- Adding PHS staff positions
  - Public Information Officer
  - Deputy Public Health Officer
  - Public Health Nurses
  - SNS/CRI Coordinator
  - Community Epidemiology
Community Partners at EMS DOC

- Hospital Association
- Medical Society
- Base Hospital Nurse Coordinator
- Council of Community Clinics
- Medical Reserve Corps
- Ambulance Coordinator
- ARES
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KEY SURVEILLANCE FEATURES
Surveillance of Health Issues

- Infectious Disease at Shelters
- Air Quality
- Water Quality
## Air Quality Index

<table>
<thead>
<tr>
<th>Air Quality Index (AQI) Values</th>
<th>Levels of Health Concern</th>
<th>Colors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When the AQI is in this range:</strong></td>
<td><strong>...air quality conditions are:</strong></td>
<td><strong>...as symbolized by this color:</strong></td>
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<tr>
<td>0 to 50</td>
<td>Good</td>
<td>Green</td>
</tr>
<tr>
<td>51 to 100</td>
<td>Moderate</td>
<td>Yellow</td>
</tr>
<tr>
<td>101 to 150</td>
<td>Unhealthy for Sensitive Groups</td>
<td>Orange</td>
</tr>
<tr>
<td>151 to 200</td>
<td>Unhealthy</td>
<td>Red</td>
</tr>
<tr>
<td>201 to 300</td>
<td>Very Unhealthy</td>
<td>Purple</td>
</tr>
<tr>
<td>301 to 500</td>
<td>Hazardous</td>
<td>Maroon</td>
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</tbody>
</table>
Total Emergency Department Visits*

* - from 8 participating hospitals

30 day baseline
Surveillance of Respiratory Visits
Emergency Department Visits for Respiratory Symptoms*

* from 8 participating hospitals
30 day baseline
Emergency Department Visits for Respiratory Symptoms by Age, 10/21/2007 - 11/14/2007

ED Visits

- <1 year
- 1-19 years
- 20-34 years
- 35-64 years
- 65+ years

Date:
- 10/21/2007
- 10/23/2007
- 10/25/2007
- 10/27/2007
- 10/29/2007
- 10/31/2007
- 11/2/2007
- 11/6/2007
- 11/10/2007
- 11/12/2007
- 11/14/2007
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SUCCESES and LESSONS LEARNED
Success of Firestorm 2007

- Standardized Emergency Management System (SEMS) (Command)
- Previous Experience (Communication)
- Partnerships and Volunteerism (Collaboration)
Previous Experience *(Firestorm 2003)*

- Recommendations from 2003
  - Joint Information Center (improve)
  - EMS DOC (MOC)
  - Web EOC
  - Reverse 911
• Communication systems (CASS and EMAN) were successful in getting critical information to hospitals, clinical providers, and first responders in a timely manner.

• The use of WebEOC significantly improved communication ability in the MOC and with hospitals and outside agencies.

• Greater communication to the media via over 200 media outlets.
Communicating Public Messages

- Close proximity in District staff
- Daily check-ins
- Inclusion of daily District reports in all public communications
Lessons Learned: Firestorm 2007

- Increase communication with the local American Lung Association (added to WebEOC)
- Improve Joint Information Center (improved communication)