A Staffing Matrix
For Support of
Alternate Care Sites
Jean Roberts
RN, DNP, PHN, CNL
Clinical Questions

What training is needed for staffing of an alternate care site?

Where is that training available?

What is the best way to provide that training?

How can individual training be tracked and retrieved for assignments as needed?
Alternate Care Sites

- A location typically not intended for provision of medical services that can be quickly converted to enable provision of care after a declared emergency (CDPH, 2008)
  - Designated by local government
  - Not an extension of an existing healthcare facility
  - Capable of housing multiple individuals
  - Meeting basic requirements for health and safety
  - Utah application during H1N1 outbreak in 2009
Setting: Kern County, CA

• **Risks**
  – Earthquakes
  – The Zombie Apocalypse
  – Environmental emergencies/ toxic chemical spills
  – Dam breach - Lake Isabella
  – Drought

• 1,500 hospital beds / 10 hospitals

• To care for *one percent* of its population in 50-bed alternate care sites
  Kern County would need over *150 sites*
• Population 856,000
• Third largest county in the state (8,000 square miles)
• Almost half (41.6%) speak a language other than English
• 22 percent of persons in Kern County live below the poverty level

(United States Census Bureau, 2014; Cubit Planning, 2014). Images from: www.californiavisitorsnetwork.net/kern
http://www.mappery.com/maps/Kern-County-Map.jpg
Spread of the Living Dead

Based on a model developed by Cornell researchers, areas close to multiple major cities would bear the brunt of a fictional zombie outbreak while more isolated spots would be less affected.
Problem Statement

2 contracted ACSs in Kern County but...

Lack of guidance for training of staff to support medical personnel needed for activation and operation of an alternate care site (ACS).
Research Question

What training should be completed by the staff of the new ACS partner organization?

• What positions?
• What duties?
• What training?
Literature Review

• Governmental guidance
  – Federal
    • CPG 101
    • National Preparedness Framework
  – State
    • Definitions
    • Tool templates
  – State code
    • Protections for ACS partners / activation participants
  – Manuals developed in other areas
    • Yolo County
    • Kern County prior efforts
    • Santa Clara County
  – Related articles based on evidence and best practices
Project Definition

• Base on requests and input from ACS partners in Kern County
• Define ACS staffing needs
  – Using widely-recognized definitions
  – Incorporating an organizational chart
  – Indicative of how the ACS would work when operational
• Determine training needs for each position.
  – Easily-accessible
  – cost-effective
  – widely available in varying formats
  – Setting targets and goals for acquisition of training
• Consolidate into a single tool
  – flexible and customizable
  – individual training tracking
  – Individual contact information
  – Based on a framework supportive of CQI
• For support of medical personnel during emergency/disaster activation of ACSs.
Project Development

• Define job positions needed
• Define job duties
• Determine training needed
• Provide a method of tracking training
• Include assumptions and directions for use
• Include brief instructions for navigation
• Combine into a single document
• Review by SMEs
Theoretical Considerations

– Complexity theory
  • Small changes produce large effects
  • Perception of the whole rather than solely through examination of its parts (relationship to nursing theory)
  • Lack of single-agent perception of the entire organism
  • Ability to share information rapidly
  • The butterfly effect
  • “simple agents follow simple rules” (Paley, 2007)
  • Tendency toward self-organization
  • Co-evolution in cyclic fashion (continuous quality improvement cycles)
Framework

National Preparedness Framework:

• "a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response" (FEMA).
Framework

Similarity of FEMA cycles to PDSA

• based on the lectures of Shewhart
• applied by Deming (Stratton, 1994)
• CQI based on identifying a need, creating a plan, performing a study, evaluating results
Matrix Development

• Job Positions
  – *HICS* training / new version release (May/June 2014)
    • Organizational structure
    • Job position definitions
    • Job descriptions
Matrix Development

• Training
  – FEMA
  – University at Albany Public Health Center of Public Health Preparedness
  – California Office of Emergency Services (Cal OES)
  – FEMA Center for Domestic Preparedness in Anniston, Alabama
  – Medical Reserve Corps TRAIN
Subject Matter Expert Review

– Eliminate duplicate courses
  • unchanged to maximize training options.
– Courses grouped by subject matter.
– Number of mandated courses reduced.
Assumptions

• ACS activation based on need to relieve surge at area hospitals.

• Conditions presented by the emergency prohibit safe discharge of patients who normally would be discharged to home or other community settings.

• These low-acuity patients could be cared for safely by a limited number of medical personnel until arrangements could be made for safe discharge to a community setting.
Additional Development Considerations

- Effectiveness comparing trained versus untrained individuals
- Disaster simulation exercise
- Access® development for selection of individuals for job positions based on training completed.
Matrix Revelations

- Importance/versatility of Hospital Incident Command System
- Lack of previous guidance for training to support ACS operations
- Importance of support for medical personnel in ACS operations
- Significance of training as support of an “all-hazards” approach to emergency management
Matrix Reloaded

– Lead from where you are

– Mixing the old and the new
  • Use of existing formats in combination to provide structure and functional support in a new framework
  • Still a lot of work!
  • Consolidation of formats into (more) useful tools
Assumptions

• ACS activation based on need to relieve surge at area hospitals.

• Conditions presented by the emergency prohibit safe discharge of patients who normally would be discharged to home or other community settings.

• These low-acuity patients could be cared for safely by a limited number of medical personnel until arrangements could be made for safe discharge to a community setting.
<table>
<thead>
<tr>
<th>Training Module #</th>
<th>Training Module Title</th>
<th>Module Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Health Alert Network (CAHAN) Alerting Level</td>
<td>Contact LHD EP</td>
<td>M</td>
</tr>
<tr>
<td>California Emergency Operations Manual (EOM) / MHOAC Training</td>
<td>Contact LHD EP</td>
<td>M</td>
</tr>
<tr>
<td>IS 100.b</td>
<td>Intro to ICS</td>
<td>FEMA ISP</td>
</tr>
<tr>
<td>IS 100.HCb</td>
<td>Intro to ICS for Healthcare/Hospitals</td>
<td>FEMA ISP</td>
</tr>
<tr>
<td>HICS</td>
<td>contact local health department Emergency preparedness</td>
<td>M</td>
</tr>
<tr>
<td>Emergency Preparedness Training for Hospital Clinicians</td>
<td>Albany</td>
<td>R</td>
</tr>
<tr>
<td>IS 200.b</td>
<td>ICS for Single Resources and Initial Action Incidents</td>
<td>FEMA ISP</td>
</tr>
<tr>
<td>IS-200.HCa</td>
<td>Applying ICS to Healthcare Organizations</td>
<td>FEMA ISP</td>
</tr>
</tbody>
</table>
## HICS Job Positions for ICS - Operations Section

### Training Module # | Training Module Title | Module Location
--- | --- | ---
5 | California Health Alert Network (CAHAN) Alerting Level | Contact LHD EP M R R R R R R M R R R R M
6 | California Emergency Operations Manual (EOM) / MHOAC Training | Contact LHD EP M R R R R R R R R R R R
7 | IS 100.b Intro to ICS | FEMA ISP M M M M M M M M M M M M
8 | IS 100.HCb Intro to ICS for Healthcare/Hospitals | FEMA ISP M R R R R R R R R R R R
9 | IS 200.b ICS for Single Resources and Initial Action Incidents | FEMA ISP M M M M M M M M M M M M
10 | IS-200.HCa Applying ICS to Healthcare Organizations | FEMA ISP M R R R R R R R R R R R
11 | HICS | contact local health department Emergency preparedness M M M M M M M M M M M M
12 | IS-700.a NIMS: An Introduction | FEMA ISP M M M M M M M M M M M M
13 | IS-800.b National Response Framework: An Introduction | FEMA ISP R
14 | ICS 300 Intermediate ICS for Expanding Incidents | CalOES M R M R M R M R R R R R
15 | ICS 400 Advanced ICS | CalOES M R R R R R M R R R R R
16 | IS-201 Forms Used for Incident Action Plan Development | FEMA ISP M R R R R M R R R M M M
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Provider</th>
<th>R</th>
<th>R</th>
<th>F</th>
<th>F</th>
<th>M</th>
<th>M</th>
<th>F</th>
<th>F</th>
<th>M</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS-403</td>
<td>Introduction to Individual Assistance</td>
<td>FEMA ISP</td>
<td>R</td>
<td>R</td>
<td></td>
<td></td>
<td>M</td>
<td>M</td>
<td></td>
<td></td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>IS-405</td>
<td>Overview of Mass Care/Emergency Assistance</td>
<td>FEMA ISP</td>
<td>R</td>
<td>M</td>
<td>F</td>
<td>F</td>
<td>M</td>
<td>M</td>
<td>F</td>
<td>F</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>Special Medical Needs Shelters</td>
<td>Albany</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>IS-808</td>
<td>ESF#8: Public Health &amp; Medical Services</td>
<td>FEMA ISP</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>IS-2900</td>
<td>National Disaster Recovery Framework Overview</td>
<td>FEMA ISP</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>IS-551</td>
<td>Devolution Planning</td>
<td>FEMA ISP</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>1029725</td>
<td>ABCs of Pandemic Influenza</td>
<td>MRC Train</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>How Do Viral Epidemics Emerge?</td>
<td>CDC Train</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>M</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>Emerging Infectious Diseases</td>
<td>CDC Train</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>An Introduction to Infectious Diseases</td>
<td>CDC Train</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>P3 Pandemic Planning and Preparedness</td>
<td>CDP</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>Preparedness &amp; Community Response to Pandemics</td>
<td>Albany</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>Emergency Preparedness Training for Hospital Clinicians</td>
<td>Albany</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>1037542</td>
<td>Basic Epidemiology</td>
<td>MRC Train</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>1042281</td>
<td>Isolation and Quarantine</td>
<td>MRC Train</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>Detecting Bioterror (Forensic Epidemiology)</td>
<td>Albany</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>R</td>
<td>M</td>
<td>R</td>
</tr>
<tr>
<td>1030369</td>
<td>Recognition &amp; Management of Bioterror Agents: An Overview</td>
<td>MRC Train</td>
<td>M</td>
<td>M</td>
<td>R</td>
<td>R</td>
<td>M</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HICS job positions for ACS -- Planning Staff

<table>
<thead>
<tr>
<th>Planning Section Chief</th>
<th>Resources Unit Leader</th>
<th>Personnel Tracking Manager</th>
<th>Materiel Tracking Manager</th>
<th>Patient Tracking Manager</th>
<th>Bed Tracking Manager</th>
<th>Documentation Unit Leader</th>
<th>Demobilization Unit Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning Staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Training

<table>
<thead>
<tr>
<th>Module #</th>
<th>Training Module Title</th>
<th>Module Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>California Health Alert Network (CAHAN) Alerting Level</td>
<td>Contact LHD EP</td>
</tr>
<tr>
<td>IS 100.b</td>
<td>Intro to ICS</td>
<td>FEMA ISP</td>
</tr>
<tr>
<td>IS 100.HCb</td>
<td>Intro to ICS for Healthcare/Hospitals</td>
<td>FEMA ISP</td>
</tr>
<tr>
<td></td>
<td>California Emergency Operations Manual (EOM) / MHOAC Training</td>
<td>Contact LHD EP</td>
</tr>
<tr>
<td></td>
<td>HICS</td>
<td>contact local health department Emergency preparedness</td>
</tr>
<tr>
<td>IS 200.b</td>
<td>ICS for Single Resources and Initial Action Incidents</td>
<td>FEMA ISP</td>
</tr>
<tr>
<td>IS-200.HCa</td>
<td>Applying ICS to Healthcare Organizations</td>
<td>FEMA ISP</td>
</tr>
<tr>
<td>IS-700.a</td>
<td>NIMS: An Introduction</td>
<td>FEMA ISP</td>
</tr>
<tr>
<td>IS-800.b</td>
<td>National Response Framework: An Introduction</td>
<td>FEMA ISP</td>
</tr>
<tr>
<td>ICS 300</td>
<td>Intermediate ICS for Expanding Incidents</td>
<td>CaIOES</td>
</tr>
<tr>
<td>ICS 400</td>
<td>Advanced ICS</td>
<td>CaIOES</td>
</tr>
<tr>
<td>IS-201</td>
<td>Forms Used for Incident Action Plan Development</td>
<td>FEMA ISP</td>
</tr>
<tr>
<td>IS-235.b</td>
<td>Emergency Planning</td>
<td>FEMA ISP</td>
</tr>
<tr>
<td>IS-551</td>
<td>Devolution Planning</td>
<td>FEMA ISP</td>
</tr>
</tbody>
</table>
### HICS job positions for ACS -- Finance Section

<table>
<thead>
<tr>
<th>Training Module #</th>
<th>Training Module Title</th>
<th>Module Location</th>
<th>Finance / Administration Section Chief</th>
<th>Time Unit Leader</th>
<th>Procurement Unit Leader</th>
<th>Compensation / Claims Unit Leader</th>
<th>Cost Unit Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 100.b</td>
<td>Intro to ICS</td>
<td>FEMA ISP</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>IS 100.HCb</td>
<td>Intro to ICS for Healthcare/Hospitals</td>
<td>FEMA ISP</td>
<td>M</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>IS 200.b</td>
<td>ICS for Single Resources and Initial Action Incidents</td>
<td>FEMA ISP</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>IS-200.HCa</td>
<td>Applying ICS to Healthcare Organizations</td>
<td>FEMA ISP</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
</tbody>
</table>

- IS 100.b: Intro to ICS
- IS 100.HCb: Intro to ICS for Healthcare/Hospitals
- IS 200.b: ICS for Single Resources and Initial Action Incidents
- IS-200.HCa: Applying ICS to Healthcare Organizations

**Training Module Details:****

- **California Health Alert Network (CAHAN) Alerting Level**
  - Contact LHD EP

- **California Emergency Operations Manual (EOM) / MHOAC Training**
  - Contact LHD EP

- **IS 100.b**
  - Intro to ICS
  - FEMA ISP
  - M, M, M, M, M

- **IS 100.HCb**
  - Intro to ICS for Healthcare/Hospitals
  - FEMA ISP
  - M, R, R, R, R

- **IS 200.b**
  - ICS for Single Resources and Initial Action Incidents
  - FEMA ISP
  - M, M, M, M, M

- **IS-200.HCa**
  - Applying ICS to Healthcare Organizations
  - FEMA ISP
<table>
<thead>
<tr>
<th><strong>Name</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Job Position</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Work Phone</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Work e-mail</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Mailing Address Street</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Mailing Address City, Zip (auto-fill)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Contact</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Preferred phone contact #</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Text? Y/N</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Preferred e-mail contact</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Credentials</strong> (credential, expiration date, issuer):</td>
<td></td>
</tr>
<tr>
<td>Training Module #</td>
<td>Training Module Title</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td></td>
<td>California Health Alert Network (CAHAN) Alerting Level</td>
</tr>
<tr>
<td></td>
<td>California Emergency Operations Manual (EOM) / MHOAC Training</td>
</tr>
<tr>
<td>IS-27</td>
<td>Orientation to FEMA Logistics</td>
</tr>
<tr>
<td>IS-29</td>
<td>PIO Awareness</td>
</tr>
<tr>
<td>IS 33.14</td>
<td>Initial Ethics Orientation</td>
</tr>
<tr>
<td>IS-35.14</td>
<td>FEMA Safety Orientation 2014</td>
</tr>
<tr>
<td>IS-36</td>
<td>Multihazard Planning for Childcare</td>
</tr>
<tr>
<td>IS-37</td>
<td>Managerial Safety &amp; Health</td>
</tr>
<tr>
<td>IS-42</td>
<td>Social Media in Emergency Management</td>
</tr>
<tr>
<td>IS 100.b</td>
<td>Intro to ICS</td>
</tr>
</tbody>
</table>