A Staffing Matrix

For Support of

Alternate Care Sites

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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?

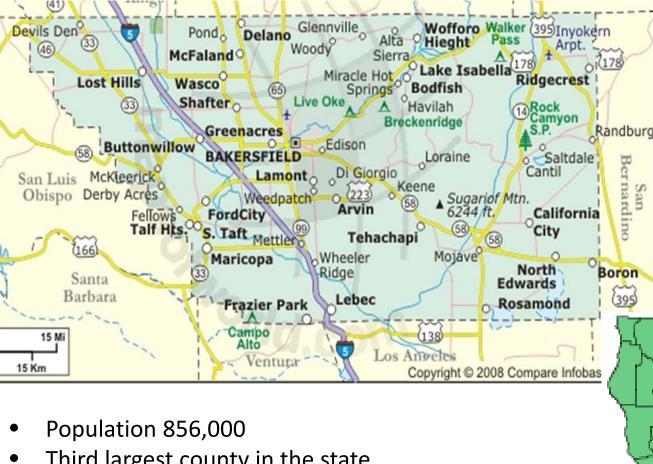How can individual training be tracked and retrieved for assignments as needed?

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.

- Hard hit areas
- Less affected areas

CANADA

Missoula, Mont.

Boise, Idaho

Scranton, Pa.

Chicago
Cleveland
New York
Philadelphia

Fort Wayne, Ind.
Columbus
Baltimore

San Francisco

Salt Lake City

Denver

Indianapolis

Washington, D.C.

Bakersfield, Calif.

Los Angeles

San Diego

Dallas

Austin, Texas
Houston

San Antonio

MEXICO

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)

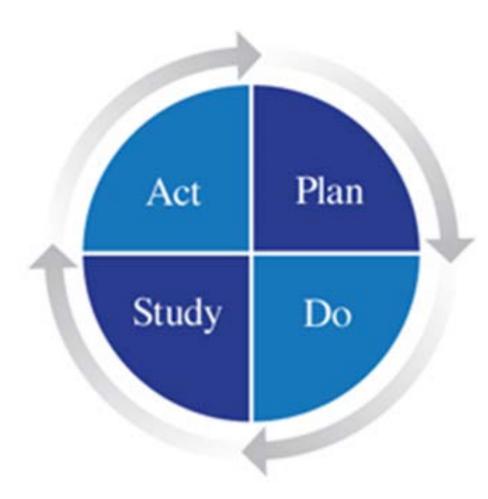# *Framework*

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

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	A	B	C	D	E	F	G
1	*Command Staff*			**HICS job positions for ACS**			
2				Incident Commander	Public Information Officer (PIO)	Liaison Officer	Safety Officer
3	*Training Module #*	*Training Module Title*	**Module Location**				
4							
5		California Health Alert Network (CAHAN) Alerting Level	Contact LHD EP	M	M	M	M
6		California Emergency Operations Manual (EOM) / MHOAC Training	Contact LHD EP	M	M	M	M
7	**IS 100.b**	Intro to ICS	FEMA ISP	M	M	M	M
8	**IS 100.HCb**	Intro to ICS for Healthcare/Hospitals	FEMA ISP	M	M	M	M
9		HICS	contact local health department Emergency preparedness	M	M	M	M
10		Emergency Preparedness Training for Hospital Clinicians	Albany	R			R
11	**IS 200.b**	ICS for Single Resources and Initial Action Incidents	FEMA ISP	M	M	M	M
12	**IS-200.HCa**	Applying ICS to Healthcare Organizations	FEMA ISP	M	M	M	M

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
		HICS job positions for the ACS		Operations Chief	Staging Manager	Personnel Staging Team Leader	Vehicle Staging Team Leader	Equipment /Supply Staging Team Leader	Medication Staging Team Leader	Medical Care Branch Director	Inpatient Unit Leader	Behavioral Health Unit Leader	Clinical Support Unit Leader	Patient Registration Unit Leader	Infrastructure Branch Director
3	*Training Module #*	*Training Module Title*	*Module Location*												
4															
5		California Health Alert Network (CAHAN) Alerting Level	Contact LHD EP	M	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		M	R	R	R	R	R
16	**IS-201**	Forms Used for Incident Action Plan Development	FEMA ISP	M	R	R	R	M	R	M	R	R	M	M	M

Code	Title	Source											
IS-403	Introduction to Individual Assistance	FEMA ISP	R	R				M	M				M
IS-405	Overview of Mass Care/Emergency Assistance	FEMA ISP	R	M	F	F	M	M	M	F	F	M	M
	Special Medical Needs Shelters	Albany	R	R	R	R	R	R	R	R	R	R	R
IS-808	ESF#8: Public Health & Medical Services	FEMA ISP	R	R	R	R	R	R	R	R	R	R	R
IS-2900	National Disaster Recovery Framework Overview	FEMA ISP	R	R	R	R	R	R	R	R	R	R	R
IS-551	Devolution Planning	FEMA ISP	M	M	M	M	M	M	M	M	M	M	M
1029725	ABCs of Pandemic Influenza	MRC Train	R	R	R	R	R	R	R	R	R	R	R
	How Do Viral Epidemics Emerge?	CDC Train	R	R	R	R	R	R	M	R	R	R	R
	Emerging Infectious Diseases	CDC Train	R	R	R	R	R	R	R	R	R	R	R
	An Introduction to Infectious Diseases	CDC Train	R	R	R	R	M	R	M	R	R	R	R
P3	Pandemic Planning and Preparedness	CDP	R	R	R	R	R	R	R	R	R	R	R
	Preparedness & Community Response to Pandemics	Albany	R	R	R	R	R	R	R	R	R	R	R
	Emergency Preparedness Training for Hospital Clinicians	Albany	R	R	R	R	R	R	R	R	R	R	R
1037542	Basic Epidemiology	MRC Train	R	R		R	M	R	M	R	R	M	M
1042281	Isolation and Quarantine	MRC Train	M	M	M	R	M	M	M			M	M
	Detecting Bioterror (Forensic Epidemiology)	Albany	R	R	R	R	M	R	M	R	R	M	R
1030369	Recognition & Management of Bioterrorist Agents: An Overview	MRC Train	M	M			R	R	M			M	

Training Module #	Training Module Title	Module Location	Planning Section Chief	Resources Unit Leader	Personnel Tracking Manager	Materiel Tracking Manager	Situation Unit Leader	Patient Tracking Manager	Bed Tracking Manager	Documentation Unit Leader	Demobilization Unit Leader
	HICS job positions for ACS -- Planning Staff										
	California Health Alert Network (CAHAN) Alerting Level	Contact LHD EP	R	R	R	R	R	R	R	R	R
	California Emergency Operations Manual (EOM) / MHOAC Training	Contact LHD EP	R	R	R	R	R	R	R	R	R
IS 100.b	Intro to ICS	FEMA ISP	M	M	M	M	M	M	M	M	M
IS 100.HCb	Intro to ICS for Healthcare/Hospitals	FEMA ISP	M	M	M	M	M	M	M	M	M
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IS-700.a	NIMS: An Introduction	FEMA ISP	M	M	M	M	M	M	M	M	M
IS-800.b	National Response Framework: An Introduction	FEMA ISP	R	R	R	R	R	R	R	R	R
ICS 300	Intermediate ICS for Expanding Incidents	CalOES	M	R	R	R	M	R	R	M	M
ICS 400	Advanced ICS	CalOES	M	R	R	R	R	R	R	M	M
IS-201	Forms Used for Incident Action Plan Development	FEMA ISP	M	M	M	M	M	M	M	M	M
IS-235.b	Emergency Planning	FEMA ISP	M	R	R	R	R	R	R	R	R
IS-551	Devolution Planning	FEMA ISP	M	M	M	M	R	M	M		M

Training Module #	Training Module Title	Module Location	Finance / Administration Section Chief	Time Unit Leader	Procurement Unit Leader	Compensation / Claims Unit Leader	Cost Unit Leader
	California Health Alert Network (CAHAN) Alerting Level	Contact LHD EP	R	R	R	R	R
	California Emergency Operations Manual (EOM) / MHOAC Training	Contact LHD EP	R	R	R	R	R
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	R	R	R	R	R

HICS job positions for ACS -- Finance Section

Individual Training Tracker for ACS Staff Training Matrix		Please Print
Name		
Current Job Position		
Work Phone		
Work e-mail		
Mailing Address Street		
Mailing Address City, Zip (auto-fill)		
Emergency Contact		
Preferred phone contact #		
Text? Y/N		
Preferred e-mail contact		
Credentials (credential, expiration date, issuer):		

Training Module #	Training Module Title	
	California Health Alert Network (CAHAN) Alerting Level	
	California Emergency Operations Manual (EOM) / MHOAC Training	
IS-27	Orientation to FEMA Logistics	
IS-29	PIO Awareness	
IS 33.14	Initial Ethics Orientation	
IS-35.14	FEMA Safety Orientation 2014	
IS-36	Multihazard Planning for Childcare	
IS-37	Managerial Safety & Health	
IS-42	Social Media in Emergency Management	
IS 100.b	Intro to ICS	