

California's Response to Life-Threatening High Temperatures

Strong emergency operation capacity maintains high-level response for extended emergencies.



July 2006 was the hottest July on record for California. When temperatures climbed well above 100 degrees and stayed there for weeks, the health and safety of the public was threatened. At least 100 deaths were attributed to extreme heat.

Many of the early heat-related fatalities were elderly people or those living alone. To target this high-risk group, California Department of Health Services (CDHS) staff contacted all long-term care facilities in the state to check temperatures inside the facilities and provide advice to those without air conditioning. Local health department workers contacted single-room occupancy hotels to inquire about frail and elderly residents who needed assistance. Seventy-five cooling centers were opened at fairgrounds and other locations to provide safe shelter for residents without access to air conditioning. Information on how to avoid heat-related illnesses was disseminated through news conferences and releases and posted on state agency websites.

To coordinate these activities, the CDHS activated its Joint Emergency Operations Center (JEOC). Unlike some emergency events, heat waves last for extended

periods of time. The activation of the JEOC allowed CDHS to successfully coordinate intra- and interagency response activities for the duration of the heat wave. Both the physical structure of the JEOC and previous staff training ensured that a consistent high-level response was maintained. Following the summer heat wave, a task force of state and local partners convened and developed an interim contingency plan for future heat emergencies.

According to the California Department of Health Services, the cooperative agreement is valuable because funding has provided resources for training in the Standard Emergency Management System (SEMS) and other aspects of emergency preparedness. California has been able to upgrade biological and chemical laboratories, develop a new emergency operations center, and develop protocols compliant with SEMS and NIMS. The state has greatly improved its preparedness capability at both the state and local levels to address potential public health threats.

Snapshot of Public Health Preparedness

Below are activities conducted by California in the area of public health preparedness. They support CDC preparedness goals in the areas of detection and reporting, control, and improvement; crosscutting activities help prepare for all stages of an event. These data are not comprehensive and do not cover all preparedness activities.

Disease Detection and Investigation

The sooner public health professionals can detect diseases or other health threats and investigate their causes and effects in the community, the more quickly they can minimize population exposure.

Detect & Report	Could receive and investigate urgent disease reports 24/7/365 ¹	Yes
	- Primary method for receiving urgent disease reports* ²	Telephone
	Linked state and local health personnel to share information about disease outbreaks across state lines (through the CDC <i>Epi-X</i> system) ³	Yes
	Conducted year-round surveillance for seasonal influenza ⁴	Yes

* Telephone, fax, and electronic reporting are all viable options for urgent disease reporting, as long as the public health department has someone assigned to receive the reports 24/7/365.

¹ CDC, DSLR; 2005; ² CDC, DSLR; 2006; ³ CDC, *Epi-X*; 2007; ⁴ HHS, OIG; 2007



California



Public Health Laboratories

Public health laboratories test and confirm agents that can threaten health. For example, advanced DNA “fingerprinting” techniques and subsequent reporting to the CDC database (PulseNet) are critical to recognize nationwide outbreaks from bacteria that can cause severe illness, such as *E. coli* O157:H7 and *Listeria monocytogenes*.

Detect & Report	Number of California laboratories in the Laboratory Response Network ¹	21
	Rapidly identified <i>E. coli</i> O157:H7 using advanced DNA “fingerprinting” techniques (PFGE): ²	
	- Number of samples received (partial year, 9/06 – 2/07)	257
	- Percentage of test results submitted to CDC database (PulseNet) within 4 days	91%
	Rapidly identified <i>Listeria monocytogenes</i> using advanced DNA “fingerprinting” techniques (PFGE): ²	
	- Number of samples received (partial year, 9/06 – 2/07)	3
	- Percentage of test results submitted to CDC database (PulseNet) within 4 days	33%
	Had a laboratory information management system that could create, send, and receive messages ³ (8/05 – 8/06)	Yes
	- System complied with CDC information technology standards (PHIN) ³ (8/05 – 8/06)	Yes
Had a rapid method to send urgent messages to frontline laboratories that perform initial screening of clinical specimens ³ (8/05 – 8/06)	Yes	
Crosscutting	Conducted bioterrorism exercise that met CDC criteria ⁴ (8/05 – 8/06)	No
	Conducted exercise to test chemical readiness that met CDC criteria ⁴ (8/05 – 8/06)	Yes

¹ CDC, DBPR; 2007; ² CDC, DSLR; 2007; ³ APHL, Public Health Laboratory Issues in Brief: Bioterrorism Capacity; May 2007; ⁴ CDC, DSLR; 2006

Response

Planning provides a framework for how a public health department will respond during an emergency. The plans can be tested through external reviews, exercises, and real events. After-action reports assess what worked well during an exercise or real event and how the department can improve.

Control	Developed a public health response plan, including pandemic influenza response, crisis and emergency risk communication, and Strategic National Stockpile (SNS) ^{1,2}	Yes
	California SNS plan reviewed by CDC ²	Yes
	- Score on CDC technical assistance review (1-100)	97
	Number of California cities in the Cities Readiness Initiative ³	7
Crosscutting	Developed roles and responsibilities for a multi-jurisdictional response (ICS) with: ¹ (8/05 – 8/06)	
	- Hospitals	Yes
	- Local/regional emergency management agencies	Yes
	- Federal emergency management agencies	Yes
	Public health department staff participated in training to support cooperative agreement activities ⁴	Yes
	Public health laboratories conducted training for first responders ⁵ (8/05 – 8/06)	Yes
	Activated public health emergency operations center as part of a drill, exercise, or real event* ⁶ (partial year, 9/06 – 2/07)	Yes
Conducted a drill or exercise for key response partners to test communications when power and land lines were unavailable ⁶ (partial year, 9/06 – 2/07)	No	
Improve	Finalized at least one after-action report with an improvement plan following an exercise or real event ⁶ (partial year, 9/06 – 2/07)	Yes

* Activation means rapidly staffing all eight core ICS functional roles in the public health emergency operations center with one person per position. This capability is critical to maintain in case of large-scale or complex incidents, even though not every incident requires full staffing of the ICS.

† States were expected to perform these activities from 9/1/2006 to 8/30/2007. These data represent results from the first half of this period only.

¹ CDC, DSLR; 2006; ² CDC, DSNS; 2007; ³ CDC, DSNS CRI; 2007; ⁴ CDC, DSLR; 1999-2005; ⁵ APHL, Chemical Terrorism Preparedness; May 2007; ⁶ CDC, DSLR; 2007