A Seismic Hazard Map represents the earthquake shaking potential from possible future earthquakes.

Seismicity and Hospital Density in California

Legend
- Hospitals w/ SPC 1 Buildings
- Hospitals w/o SPC 1 Buildings

Level of Earthquake Hazard
- These regions are near major, active faults and will on average experience stronger earthquake shaking more frequently. This intense shaking can damage even strong, modern buildings.
- These regions are distant from known, active faults and will experience lower levels of shaking less frequently. In most earthquakes, only weaker, masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking here.
Quantification of SPC-1 & SPC-2 Buildings

- **SPC-1** = Buildings posing a significant risk of collapse and a danger to the public. These buildings must be brought up to the SPC 2 level by January 1, 2008, or be removed from acute care service. (Extended until 2013).

- **SPC-2** = Buildings in compliance with the pre-1973 California Building Standards Code or other applicable standards, but not in compliance with the structural provisions of the Alquist Hospital Facilities Seismic Safety Act. These buildings do not significantly jeopardize life, but may not be repairable or functional following strong ground motion. These buildings must be brought into compliance with the structural provisions of the Alquist Hospital Facilities Seismic Safety Act, its regulations or its retrofit provisions by January 1, 2030, or be removed from acute care service.
Quantification of Seismic Resilience for a Critical Facility

Hospital Services e.g. Patients/Day

Quality of Building %

Pre-EQ Level = 100%

Robustness

Vulnerability

Significant Seismic Event Occurs

Without the Earthquake

Earthquake Effects (Damaged systems or equipment)

Enforcement of resilience by Services provided by EMSA

Hospital building Recovers

Parking lot palliative interim measures until weather inclement or National Guard withdraws

$\Delta t =$ Rapidity

Rebuilding of Capacity (Repair, Retrofit, Replacement)

Time

0 $t_0$ $t_1$