

**Health Centers in Earthquakes:
Northeast Valley Health Corporation's
Experience**

Krista Bringley, MPH
Northeast Valley Health
Corporation

**Northeast Valley Health Corporation in
2010**

- San Fernando and Santa Clarita Valleys in Los Angeles County
- 12 Health Centers
- 17 WIC sites
- 1 DUI/Substance Abuse facility
- 3 Administrative offices, 1 co-located with warehouse
- Joint Commission Accredited since 1999

**Northeast Valley Health Corporation on
January 16, 1994**

- 4 Health Centers
- 7 WIC sites
- 1 DUI facility, 2 Substance Abuse facilities
- Corporate office
- Health Education office

Northridge Earthquake

- January 17, 1994, 4:31am
- Magnitude 6.7
- 57 deaths, 16 in one apartment building
- 9,000+ injured, 1,600 hospitalized
- 20,000+ displaced from homes
- 1,600+ buildings red-tagged
- Estimated \$20-40 billion in damage

Physical and Utility Damage

- Collapsed buildings, parking structures
- Broken gas and water lines
- Power and water outages
- Landline telephone network outages
- Mail temporarily suspended

Transportation Damage

- Major roads closed
- Collapsed interchanges
- Rail service interrupted
- One bus line cancelled
- Detours and delays for operating buses

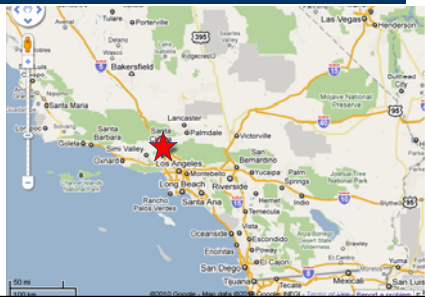


Hospital Damage

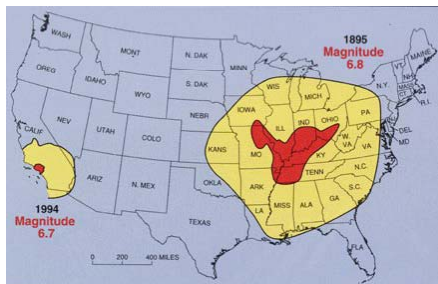
- 11 hospitals damaged or unusable



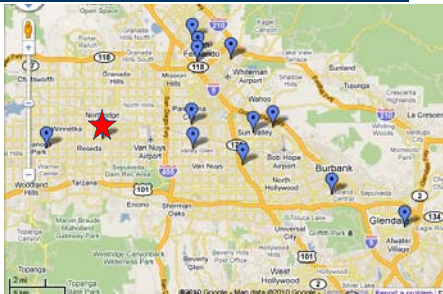
Earthquake Epicenter



Comparison of Earthquakes



NEVHC Facilities and Epicenter



Effects on NEVHC

- Earthquake occurred on scheduled holiday
- No formal message to staff
- Employees dealt with personal impacts
- Most employees reported as normal Tuesday
- Those who could not report:
 - Were significantly impacted at home
 - Had travel difficulties

Corporate Office



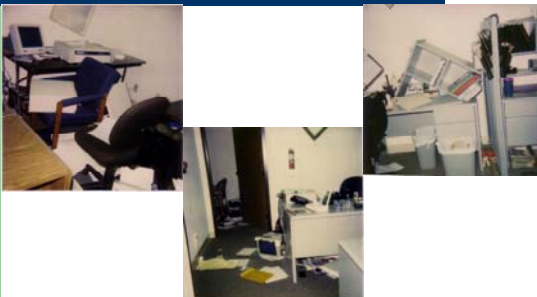
Earthquake Damage



Earthquake Damage



Earthquake Damage



Earthquake Damage – San Fernando Health Center



Corporate Office

- Significant damage, red-tagged
- Multi-day recovery operation in parking lot
- Purchased 3 cellular phones
- Hired help to remove records from building
- Employees packed their own desks
- 24-hour security guard

Corporate Business Continuity

- Payroll completed manually
 - From Payroll Manager's home
 - Based on previous pay period
- Seven moves, including two new leases
 - Within two weeks
 - Found new space through existing relationships

Corporate Business Continuity

- Took time to set up new spaces:
 - Two weeks for phone setup
 - Everything disrupted in boxes
- Mail delivered to Corporate and redistributed
 - Delays in mail receipt, processing
- Billing delayed six weeks

Clinic Operations

- Clinics were largely on their own
- Medical Records and Business Office cleanup
- Pharmacy cleanup
- Some clinical staff dispatched to volunteer
- Petty cash important for small expenditures

Clinic Operations

- San Fernando Health Center
 - Opened following Monday
- Pacoima Health Center
 - Opened Thursday or Friday
- Teen Health Center
 - No damage, had been reinforced after 1971
 - Reopened with school following Monday

Clinic Operations

- Hired private engineers for reopening inspection
- Developed resource list for referrals
- Cash flow issues caused resource shortages
- Kind vendors facilitated continued operations



Observed Needs

- Not open to see first aid needs
- Increased patient and staff behavioral health needs
- Staff experienced:
 - High stress
 - Crowded work conditions
 - Fear of aftershocks
 - Increased work

Management of Staff

- Know employees' personalities
- Guide employees to most appropriate tasks
 - Flexible employees more able to adapt
 - More rigid employees had difficulty with reduced structure
- Internal services available for staff

Difficulty

- Reimbursement process was difficult and frustrating
- State Office of Emergency Services contact
- FEMA reimbursement focused on physical damage:
 - \$100,000 for replacement of computer system
 - \$0 for staff time, including clinical volunteering
 - Required detailed documentation of staff time

Opportunity

- Increased coordination with County, State, and others
- Opportunities for new funding
- \$1 million from HRSA to repair Health Center
 - Completed repairs and constructed new annex
- Newly leased spaces led to expansion
- Emergency management training, resources, and support available

Overall Impact

- Lots of basic clean up
- Very few records were lost
- Employees flexible and willing, but experienced stress
- Disruption was lengthy
- Financial impact was lasting
- Both great difficulty and opportunity

Lessons Learned



- Standard earthquake preparedness for individuals and the organization:
 - Duck, cover, and hold on!
 - Emergency Operations Plan and drills
 - Emergency supplies, including flashlights, food, water
 - Secure facilities: furniture, hanging and heavy items, cabinets, utilities.
 - Know how to turn off utilities.

Lessons Learned

- Determine your organization's philosophy
 - Could have moved faster to reopen
 - After, leadership committed to staying open/ reopening quickly.
- Commitment requires buy-in at all levels:
 - Board, CEO, business/medical leadership, providers, staff.

Lessons Learned

- Opening after an earthquake likely includes:
 - Canceling preventive services
 - Increasing episodic care, triage, behavioral health
- Still have to manage risks:
 - Ensure that workers are insured and credentialed
 - Know limitations of FTCA (PIN 2007-16)
 - Work within scope of practice

Lessons Learned

- Be able to make coffee!
- Pre-identify and place documentation forms for reimbursement
- Begin using documentation forms immediately
- Identify alternate/back-up work locations
- Payroll, IT, and HR business continuity plans

Lessons Learned

- Develop staff and patient communication plans/resources
- Have reasonable expectations of staff
- Leaders may be unexpected
- Leaders must demonstrate calm and patience
- Give employees a role in emergency response
 - Train, drill, and exercise regularly

Lessons Learned

- Health centers must be self-sufficient
- Have sufficient petty cash on hand
- Know condition of roads before travel
- Refueling may be difficult – consider a bicycle

Lessons Learned

- Have a list of backup vendors
- You may not be vendor's priority
- Consider stockpiling supplies
- Consider line of credit
- Develop relationships within your community:
 - Clinics, hospitals, government, associations, non-profits, private industry
 - Relationships may help obtain and replenish resources

Lessons Learned

- Good planning mitigates earthquake disruption
- Major earthquakes are still major disruptions for:
 - Employees' homes and families
 - Communication
 - Transportation (for employees, patients, and supplies)
 - Finances and reimbursement

THANK YOU!

Krista Bringley
KBringley@nevhc.org
