

Building Community Resilience through Disaster Preparedness

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What is a disaster?

Emergency

- Impacts individuals or group
- Usually no loss of communication or other utilities

Disaster

- Impacts large geographic area
- Overwhelmed response groups
- Life, health and environment endangered
- Loss of power, communication and other utilities

What makes you vulnerable to disaster?

No supplies at home or work

Don't know what's going on or what to do

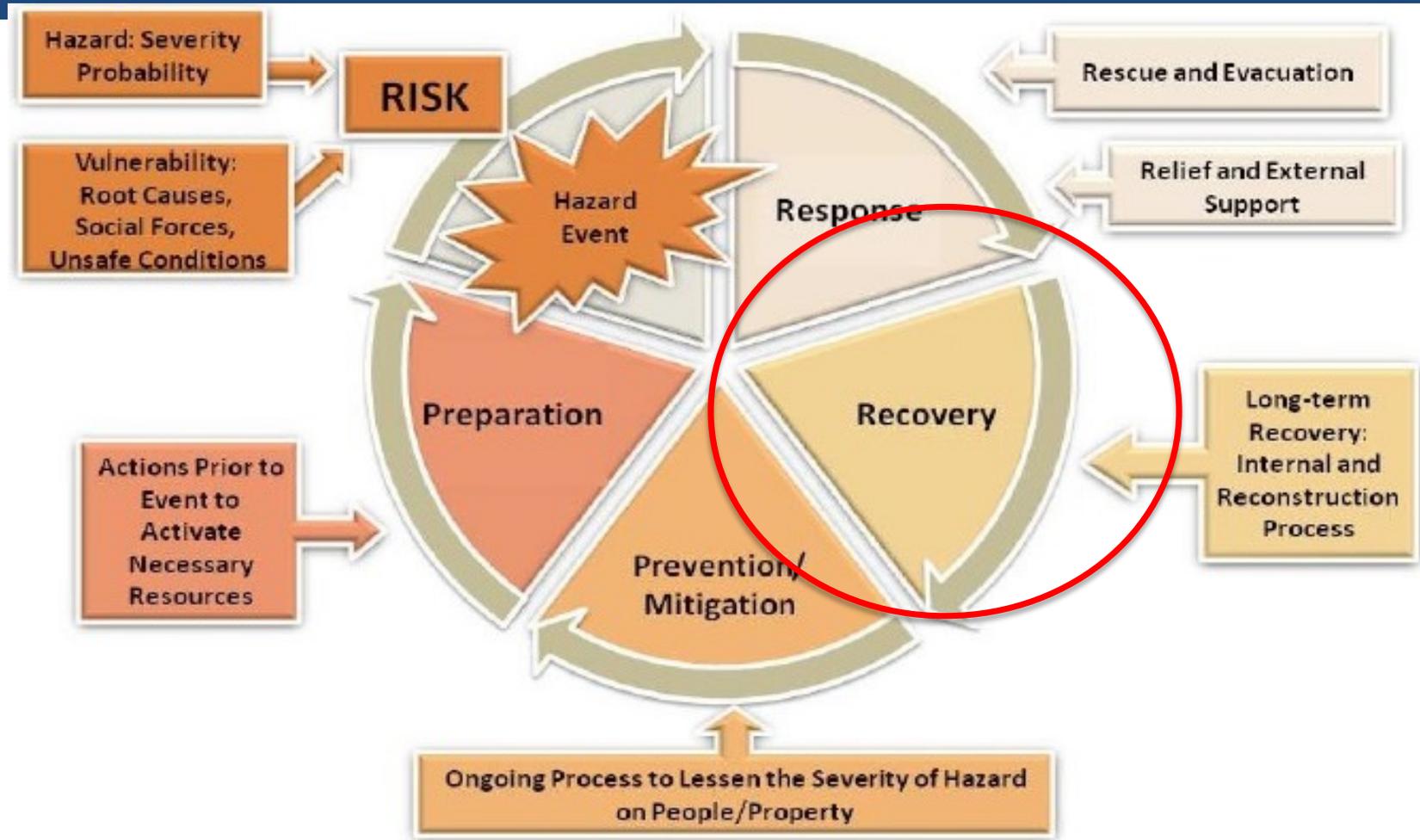
Didn't discuss with family what to do

Can't speak with loved ones

No supply of fresh water

Can't use phone or computer

Disaster Management Cycle

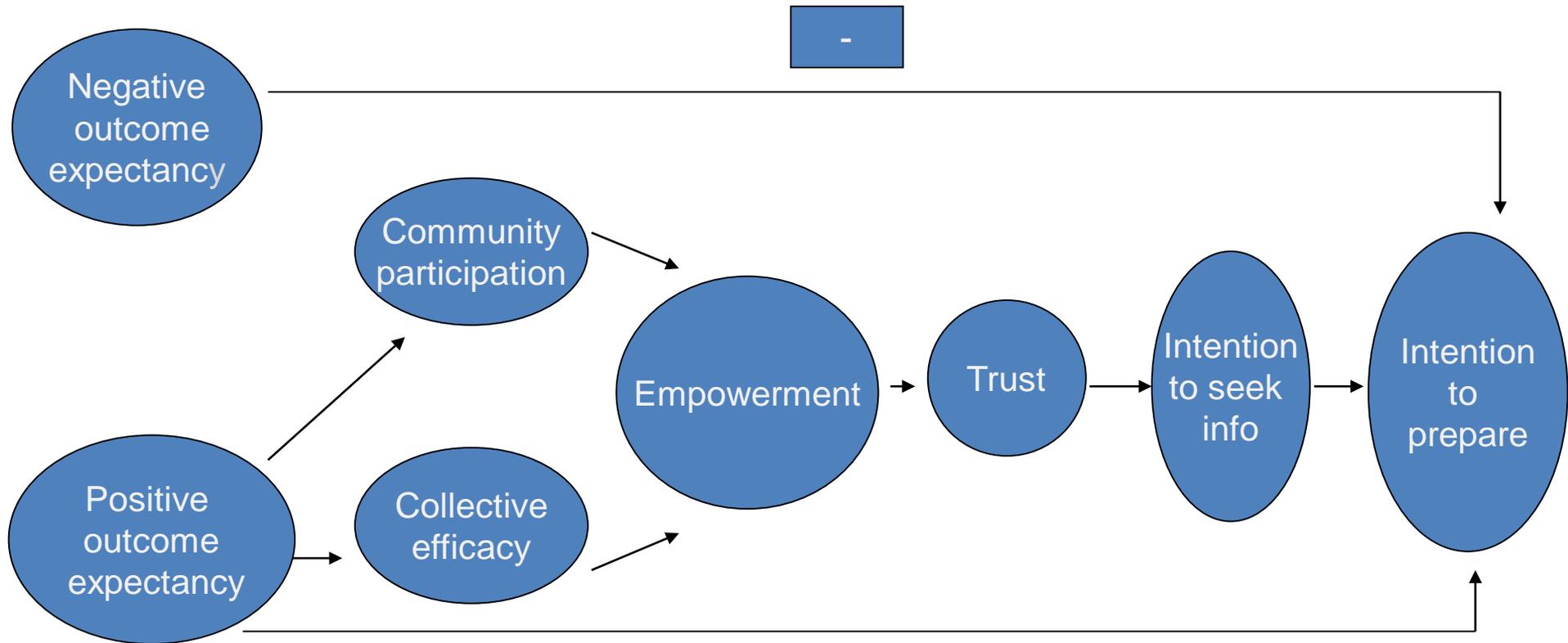




**Disaster Recovery
Resiliency**

The Water
is
Rising
Please

Hazard Preparedness Model



Los Angeles Times

CIRCULATION:
1,235,197 SUNDAY

TUESDAY, JANUARY 18, 1994
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DAILY 35¢
DESIGNATED AREAS HIGH RISE

33 Die, Many Hurt in 6.6 Quake L.A. Area Freeways Buckle, Buildings Topple

Sylmar Jolted by Ghosts of Horror Past

■ **History:** The city that crumpled under a 6.5 quake in 1971 remembers well the terror that came when the earth gave way. On Monday, it seemed like it was cursed.

By CRAIG TURNER
and RICHARD E. MEYER
TIMES STAFF WRITERS

Beate Heuss had nearly conquered her fear when she felt it again.

That's why it was so terrifying. It was happening again. She and her husband, David, were in bed, like the last time. In a mobile home, just like the last time. It was, in fact, the same mobile home, at the same trailer park.

"This one felt much worse," she said afterward, calm but able to remember every tremor, then the shaking, then the violence. "It was much harder, a hard jolt. The '71 one swayed a little." But this one did not sway. It simply slammed David and Beate Heuss and their



The body of LAPD Officer Clarence W. Dean lies near his motorcycle, which was crushed by a falling concrete pillar. The body of a woman is seen lying on the Golden State Freeway during Monday's earthquake. The 6.6 tremor closed at least 14 major freeways or interchanges.

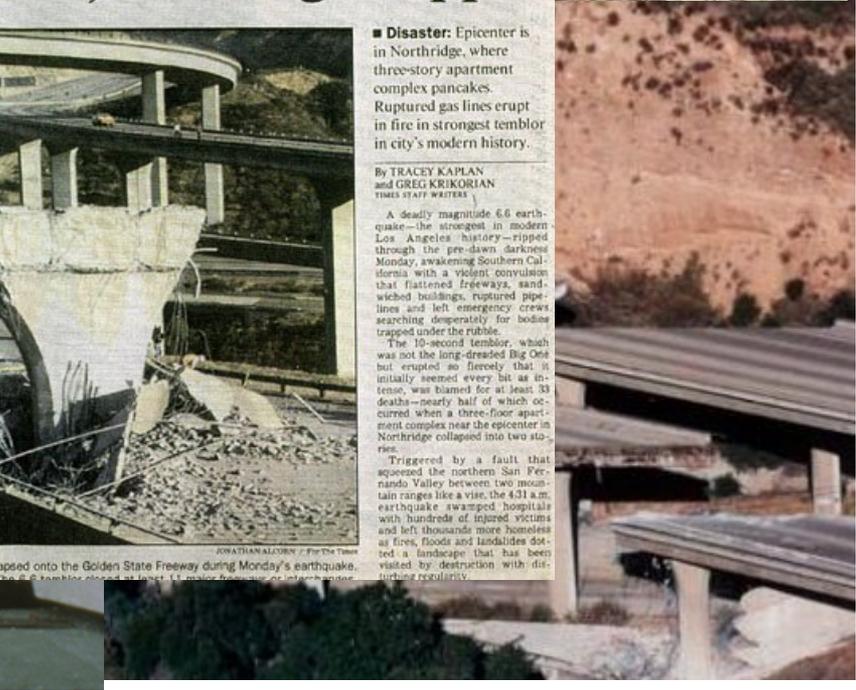
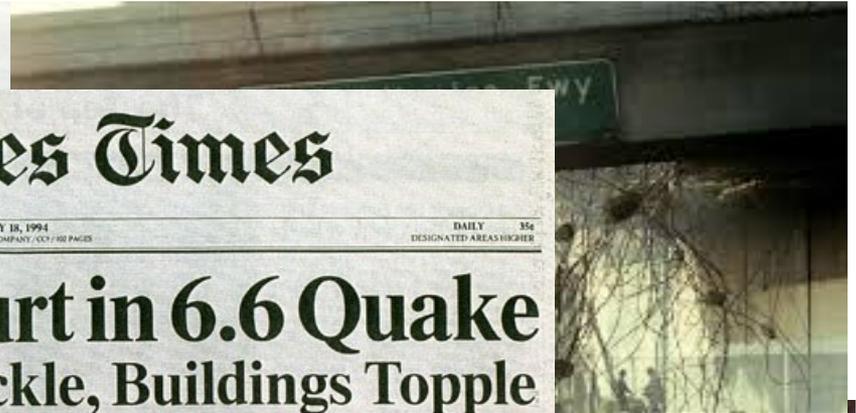
■ **Disaster:** Epicenter is in Northridge, where three-story apartment complex pancakes. Ruptured gas lines erupt in fire in strongest tremor in city's modern history.

By TRACEY KAPLAN
and GREG KRICKORIAN
TIMES STAFF WRITERS

A deadly magnitude 6.6 earthquake—the strongest in modern Los Angeles history—ripped through the pre-dawn darkness Monday, awakening Southern California with a violent convulsion that flattened freeways, sand-wiched buildings, ruptured pipelines and left emergency crews searching desperately for bodies trapped under the rubble.

The 10-second temblor, which was not the long-dreaded Big One but erupted so fiercely that it initially seemed every bit as intense, was blamed for at least 33 deaths—nearly half of which occurred when a three-floor apartment complex near the epicenter in Northridge collapsed into two stories.

Triggered by a fault that accessed the northern San Fernando Valley between two mountain ranges like a vise, the 4:31 a.m. earthquake swamped hospitals with hundreds of injured victims and left thousands more homeless as fires, floods and landslides dotted a landscape that has been visited by destruction with disturbing regularity.



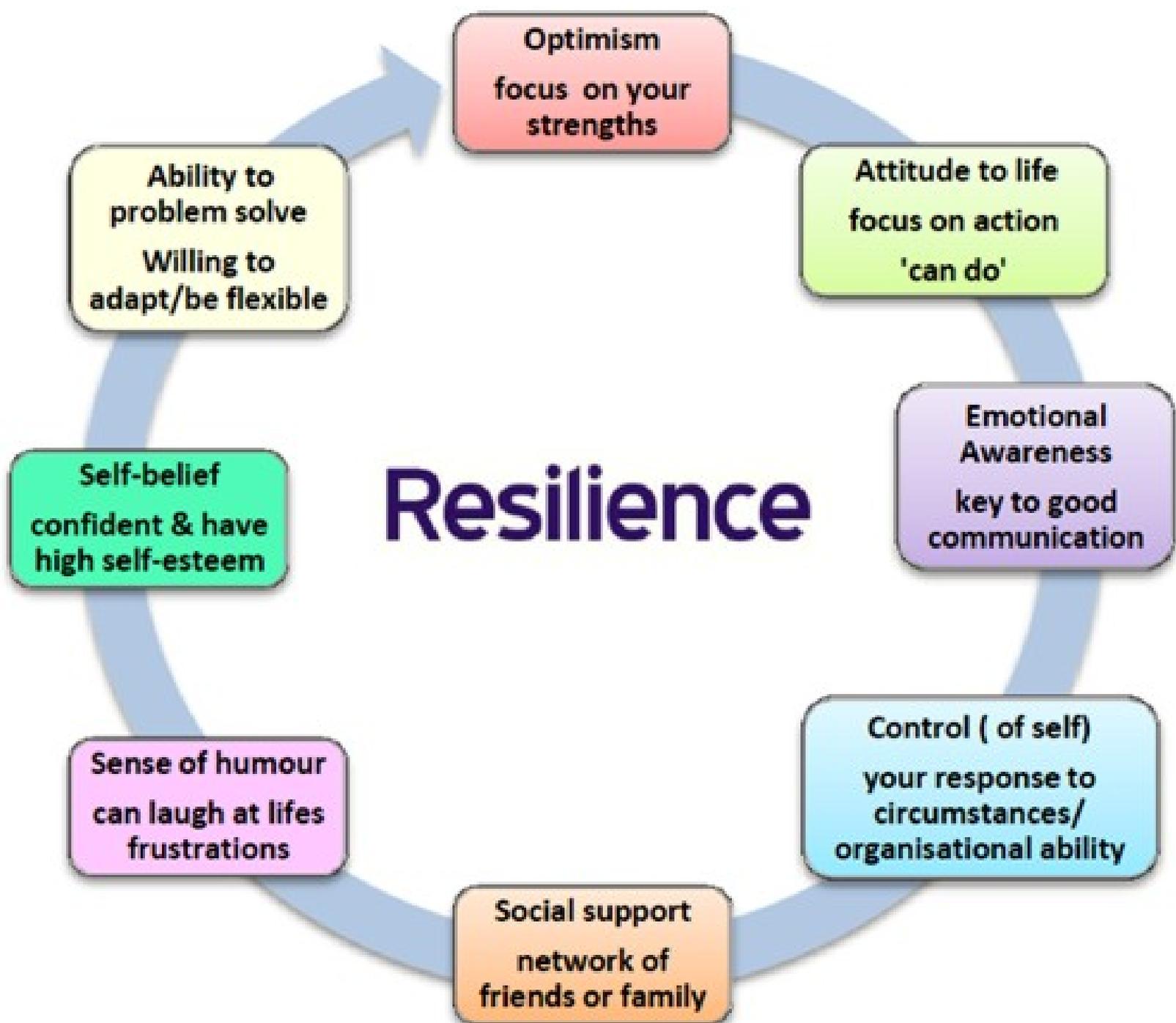
What is Resilience?

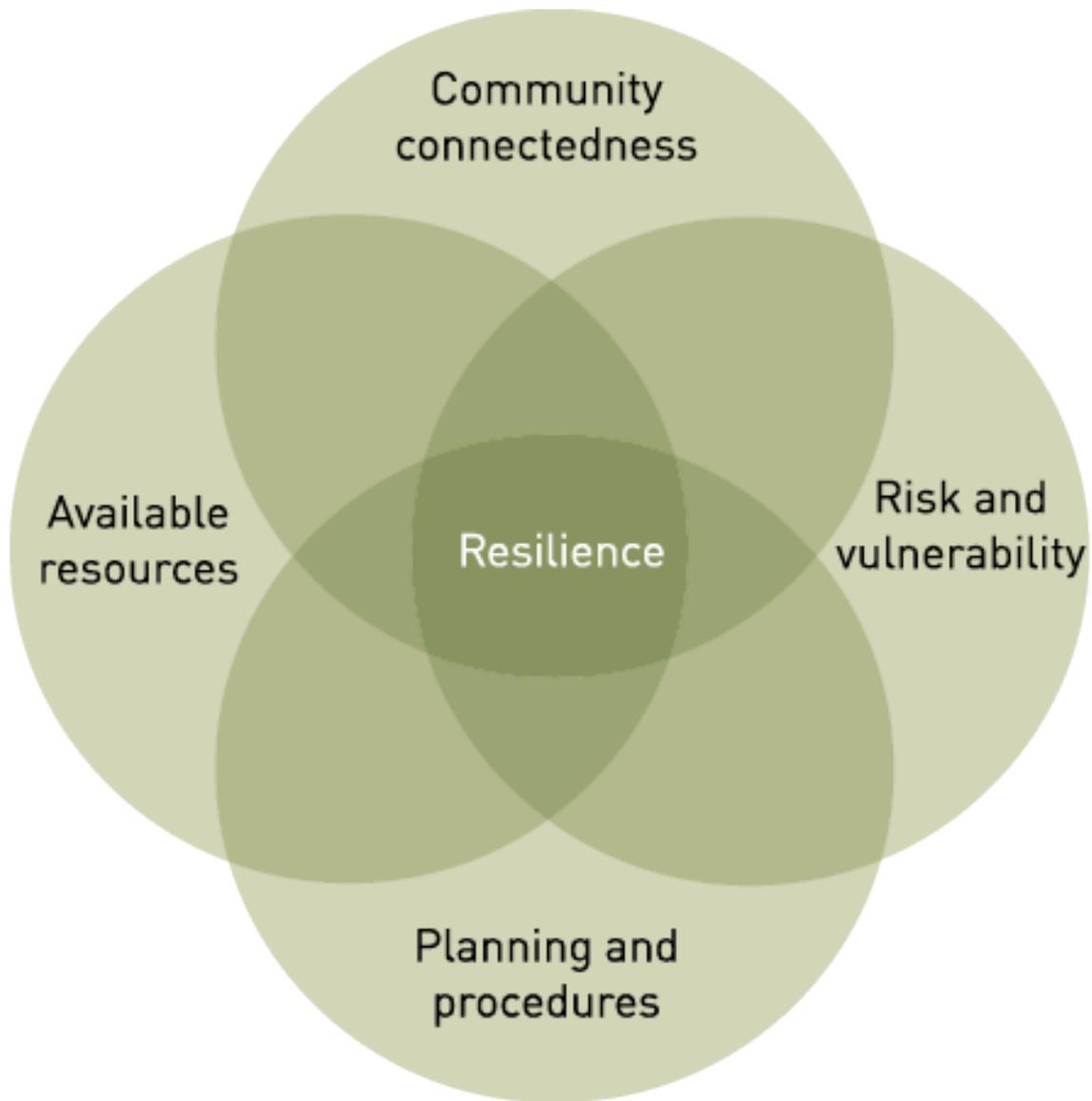
“the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to, and recover from the effects of a hazard in a timely and efficient manner”

UNISDR, 2009



Resilience





Characteristics of a Resilient Community

1. Knowledgeable and healthy
2. Organized
3. Connected
4. Infrastructure and services
5. Economic opportunities
6. Manage its natural assets

Thinking about Resilience

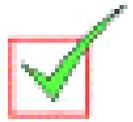
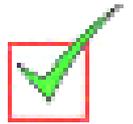
- Individual
- Community
- Institution



Individual Resilience

Disaster Plan

- Disaster kit
- Disaster plan
- Disaster education and training



How to Build a Disaster Kit?



Source: www.ready.gov

Types of Kits

- Go Kit
 - Easy to carry when you have to leave home in a hurry
- Home Kit
 - Larger kit with essential items
- Work Kit
 - Items you will need if you get stuck at work
- Bedside Kit
 - Items needed if you are trapped in or near your bed (Flashlight and Shoes)
- Car Kit
 - Essential everyday items - similar to the Go Kit



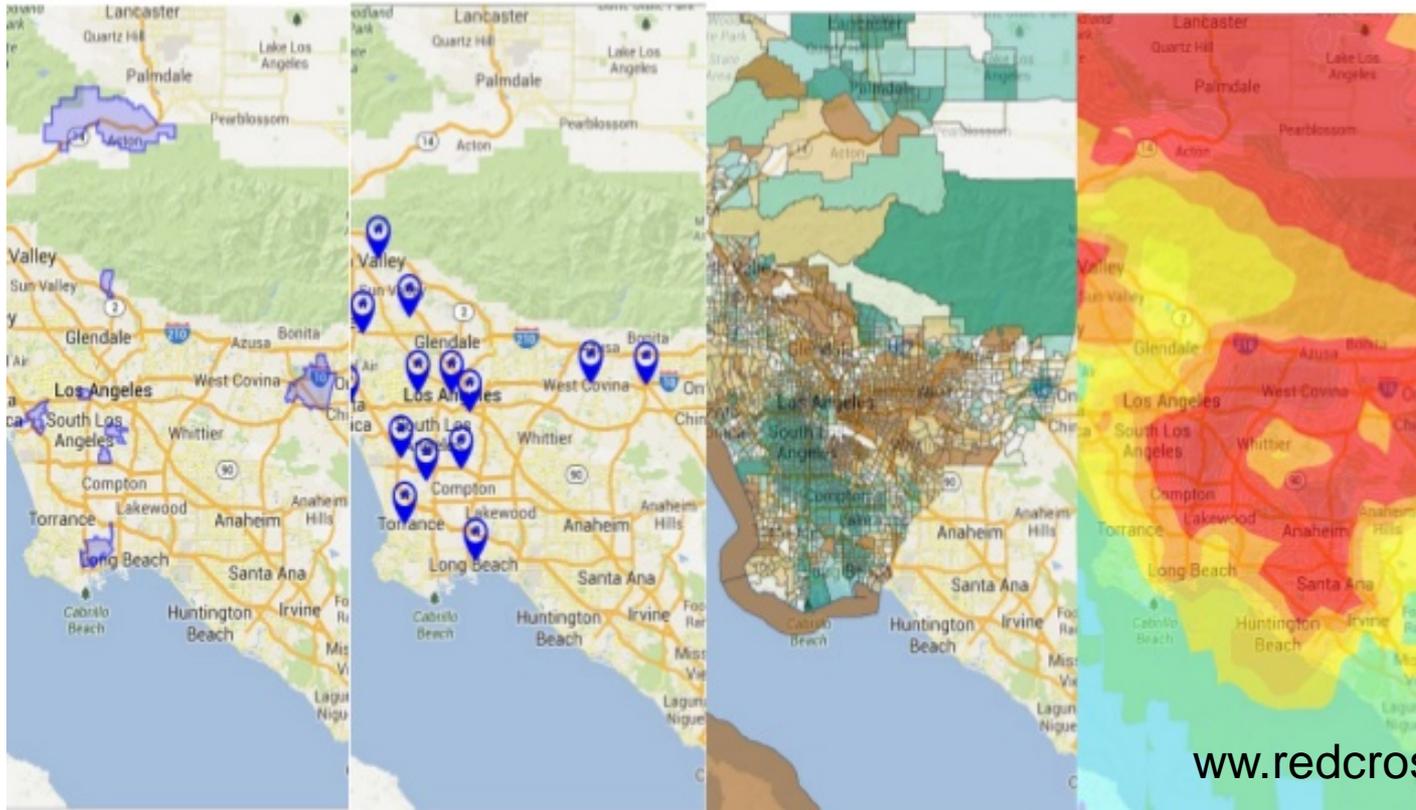
Water
1 gallon per
person per
day
(for 3 days)

Tools to Develop Community Resilience

- Map your neighborhood
- Develop community partnerships
- Provide disaster education and training

Map your Neighborhood

Resources, Vulnerabilities, Hazards...



Single Photo

All Your Data in One Place

Manage the data you collect with data from external sources such as Hazard Data from USGS and Census Data

Analyze Your Community's Resilience

Use maps and charts to understand the relationships between different factors which affect your community's resilience.

Updates

[All](#) | [My Community](#)

Recent Community Data / Added Map Layers

Display About and Login if not Logged in

Community Data

Record the vulnerabilities, hazards, resources and activities which affects the your community's resilience

Add new Vulnerable People

Vulnerabilities

450 Vulnerable People

Hazards

34 Risks

27 Community Incidents

Resources

12 Organizations

156 Trained People

17 Locations

2 Evacuation Routes

93 Activities

Interactive Map

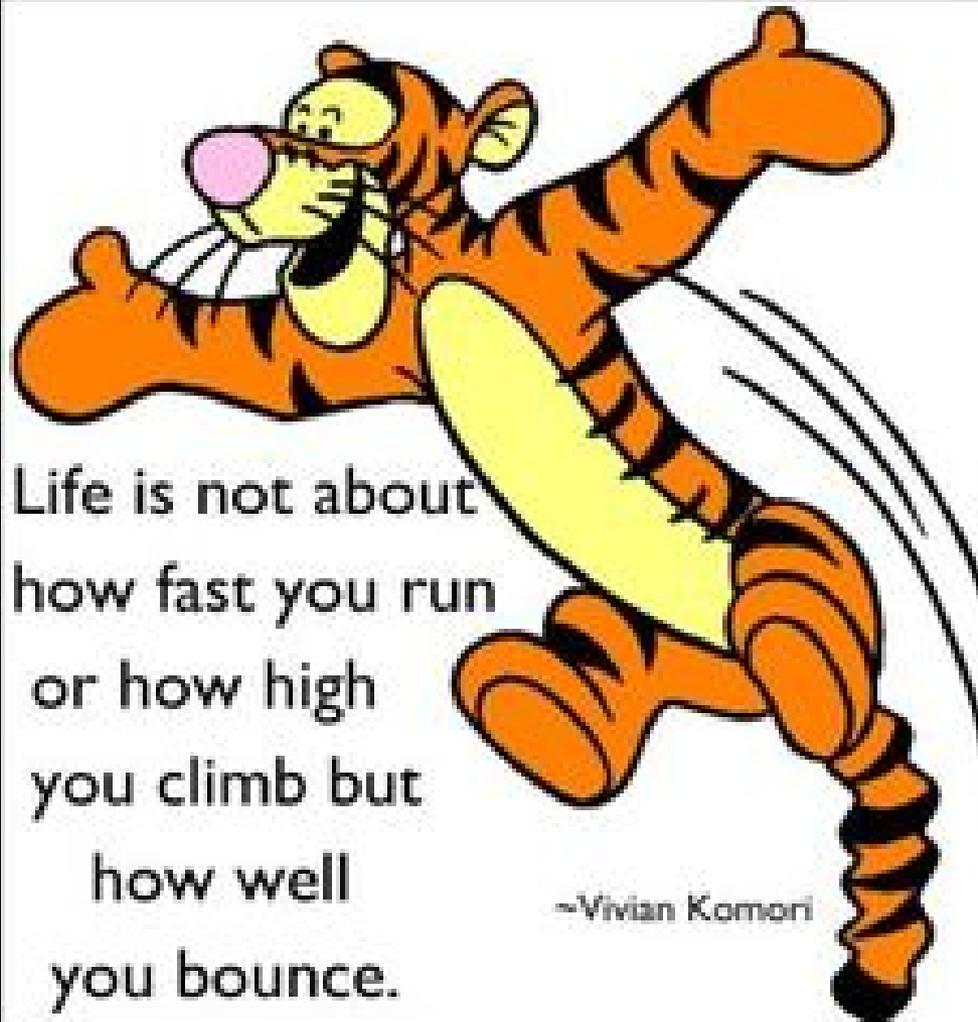
Full Screen

Community



Disaster Education and Training





Life is not about
how fast you run
or how high
you climb but
how well
you bounce.

~Vivian Komori

Children and Disasters



650,000 K-12 Students

+

250,000 Adult Students

*82,000 Special Education Students

70,000 Employees

1,110 Schools

710 Square Miles

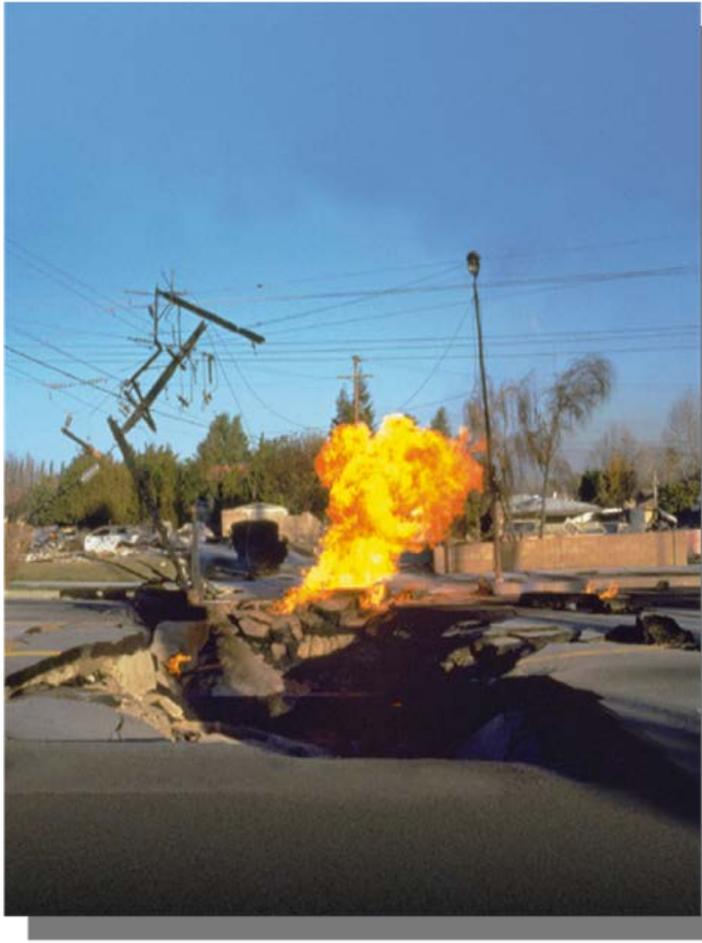
Emergency Supplies

What will you need in an emergency?

- Emergency plan
- Water
- First aid supplies
- Search and rescue supplies
- Shelter and communication supplies
- Food
- Disaster management supplies



An Earthquake Brings a Variety Pack of Response Challenges!



The good news is ... if you are prepared for an earthquake, you're well-prepared for many disasters!



LOS ANGELES UNIFIED SCHOOL DISTRICT
SCHOOL OPERATIONS - EMERGENCY SERVICES

DOWNLOAD. PREPARE. ACT.

Get the free **LAUSD Emergency Plan App** for your mobile device.

Learn how LAUSD schools respond to earthquakes, lockdowns, fires, and other emergencies.
You can make a difference.



Download **In Case of Crisis-Education**
achieve.lausd.net/emergencyapps



Versions available for:
District Employees & Local First Responders
Parents, Students & Community (English/Spanish)



There's an app for that!

Achieve.lausd.net/emergencyapps



English Version



Spanish Version

How Long Do We Plan to Care for Students at School Following a Disaster?



LAUSD employees are Disaster Service Workers under Ca Govt Code 3100

What plans/expectations are in place for you and those you serve?

Special Needs

What “Functional Needs” Might Children Have?

Mobility

Visual

Deaf/Hard of Hearing

Cognitive

Autism Spectrum

Medically Fragile

Emotional

Medication Dependent

Multiple Disabilities



Categories of Disaster Care for Children with Functional Needs:

Building/Site Evacuation

Toileting

Supplies

Medical Procedures

Shelter

Medication

Feeding

Evacuation - Mobility

Tips



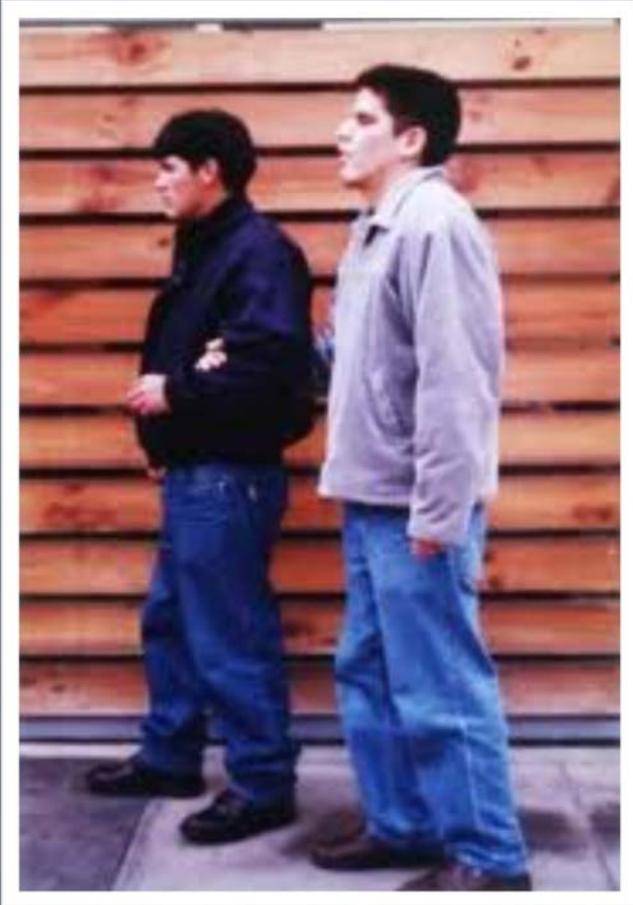
Know the Kids, Their Needs and Fragilities

Identify Rescuers Ahead of Time

Evacuate Necessary Equipment/supplies with Kids – Ready to Go

Practice!

Blind/Visually Impaired



Familiarity with Evacuation
Route Important

Communicate Hazards as
You Guide

Consider Tactile Strips
Along Evacuation Route

Be Advised:

Don't Grab the person –
Ask!

Deaf/Hard of Hearing

Use Touch and Eye Contact to Gain Attention

Flick Lights Rapidly if Indoors

Speak in Short, Clear Phrases

Use Common Gestures

Provide Flashlights if Possible

Be Advised:

Alarm Tones Painful for Those with Hearing Aids

If No Strobes (outdoors, announcement) How will Deaf Population be Informed?



Cognitive



Reminders Helpful

Use Simple, Concrete Words

Avoid Multiple-step Directions

Use Visual or Tactile Cue

Be Advised:

Reaction May be Delayed;
Some May Freeze and be
Difficult to Motivate to
Move

Autism Spectrum

Speak Calmly

Use Direct, Concrete Phrases
without Multiple Steps

Allow Extra Time for Response

Avoid Touch

Find Quiet Location for
Evacuation

Be Advised:

Check for Injuries if
Appropriate



Evacuation

Medically Fragile

Take Equipment when
Evacuating – Ready to Go!

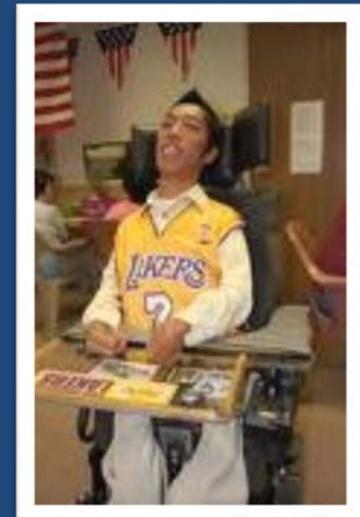
Have Extra Supplies in Bin

Be Advised:

Don't Plan to Re-enter
Building for
Equipment/Supplies left
Behind

Take Care Moving Oxygen –
Pressurized!

Secure Oxygen Tanks Once
Moved



Supplies

Evacuate belongings with the person – may include necessities

Spare Clothing

Generators for Electrically-dependent
Necessary Equipment



Shelter

Canopies for Sun/Rain

Mylar Blankets

Buses

Cots/Mats for Individuals who Cannot Be Upright for Long Periods

Sunscreen



Feeding

Some have Special Medically-Necessary Diet or Severe Allergies

Pureed Foods = Blenders Stored (Battery Operated or Generator)

G-Tubes = Extra Supplies + Formula Stored



Toileting

Accessible Latrine Stall

- Commercially Available or Built with Materials On-hand
- Extra-Large Stall for Maneuverability

Diapering Station for adults and larger children

- Table with Straps and Privacy
- Diapers and Wipes Stored



Medication/Medical Procedures

Do You have Extra Doses of Medications on Hand?

What do you know about the medical needs and medication for your population when they are not with you?

Protocols for Chronic Conditions:

- Create Station with Privacy –
- Can be Near/In First Aid Station
- Table with Straps



Pediatric Medical Considerations

Know the location of your nearest pediatric trauma centers

Triage protocols a bit different for children:

- JumpSTART pediatric MCI Triage

- 5 rescue breaths

- Respirations between 15-45

Pediatric Medical Considerations

Children's smaller size MATTERS:

- Multiple injuries more common
- Less blood volume = uncontrolled bleeds more serious faster
- Body temp not regulated efficiently = dehydrate faster

Pediatric Medical Considerations

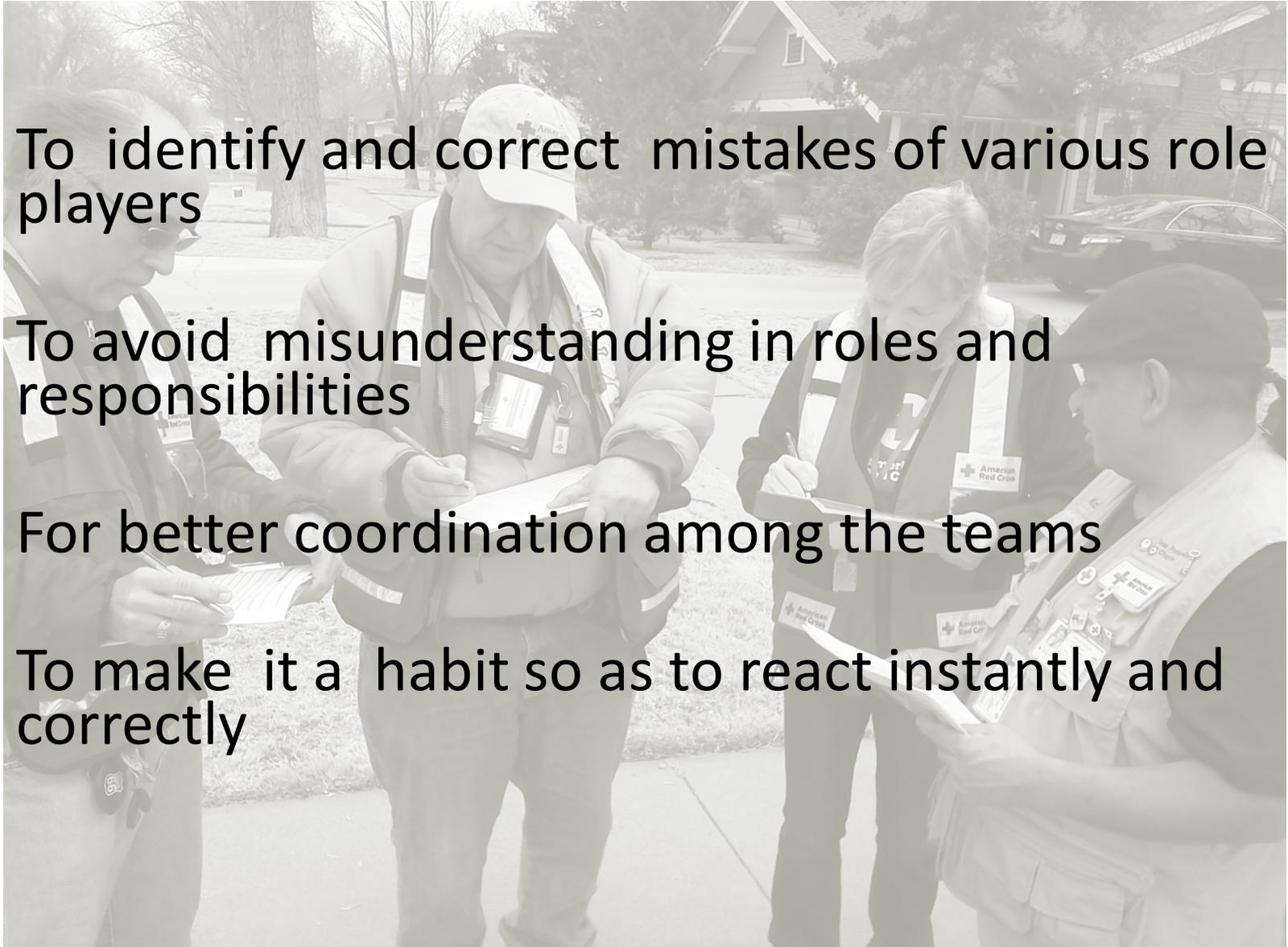
Children's smaller size MATTERS:

- Thinner skin = more susceptible to environmental changes (temp + contaminants)
- Skeleton more pliable + less fat under skin = internal organs not well protected
- Higher volume of air+ lower to ground + faster metabolic rate + smaller lung capacity = more susceptible to airborne contaminants

Implementation: Drill Design and Evaluation

Why Drill?

- To identify and correct mistakes of various role players
- To avoid misunderstanding in roles and responsibilities
- For better coordination among the teams
- To make it a habit so as to react instantly and correctly



More Reasons to Drill

- Police: address incidences of grave public safety
- Firefighters: suppress major fires
- EMS personnel: handle life-threatening injuries
- Lower priority needs met in other ways



Types of Drills

Keep children
safe inside

- Evacuation
- Relocation

Hazard is
outside

- Lockdown
- Shelter in place



Applications



1

DROP!

An instructional diagram on a red background. It shows a white silhouette of a person in a crouching position, with a black arrow pointing to their head. To the right is a black silhouette of a table. Below the illustration, the word "DROP!" is written in large, bold, white capital letters.

2

COVER!

An instructional diagram on a red background. It shows a white silhouette of a person lying flat on the ground with their arms extended under a black silhouette of a table. A black arrow points to the person's head. Below the illustration, the word "COVER!" is written in large, bold, white capital letters.

3

HOLD ON!

An instructional diagram on a red background. It shows a white silhouette of a person kneeling on the ground with their hands firmly gripping the legs of a black silhouette of a table. A black arrow points to the person's hands. Below the illustration, the words "HOLD ON!" are written in large, bold, white capital letters.





LOCKDOWN





S·I·P

Shelter-In-Place

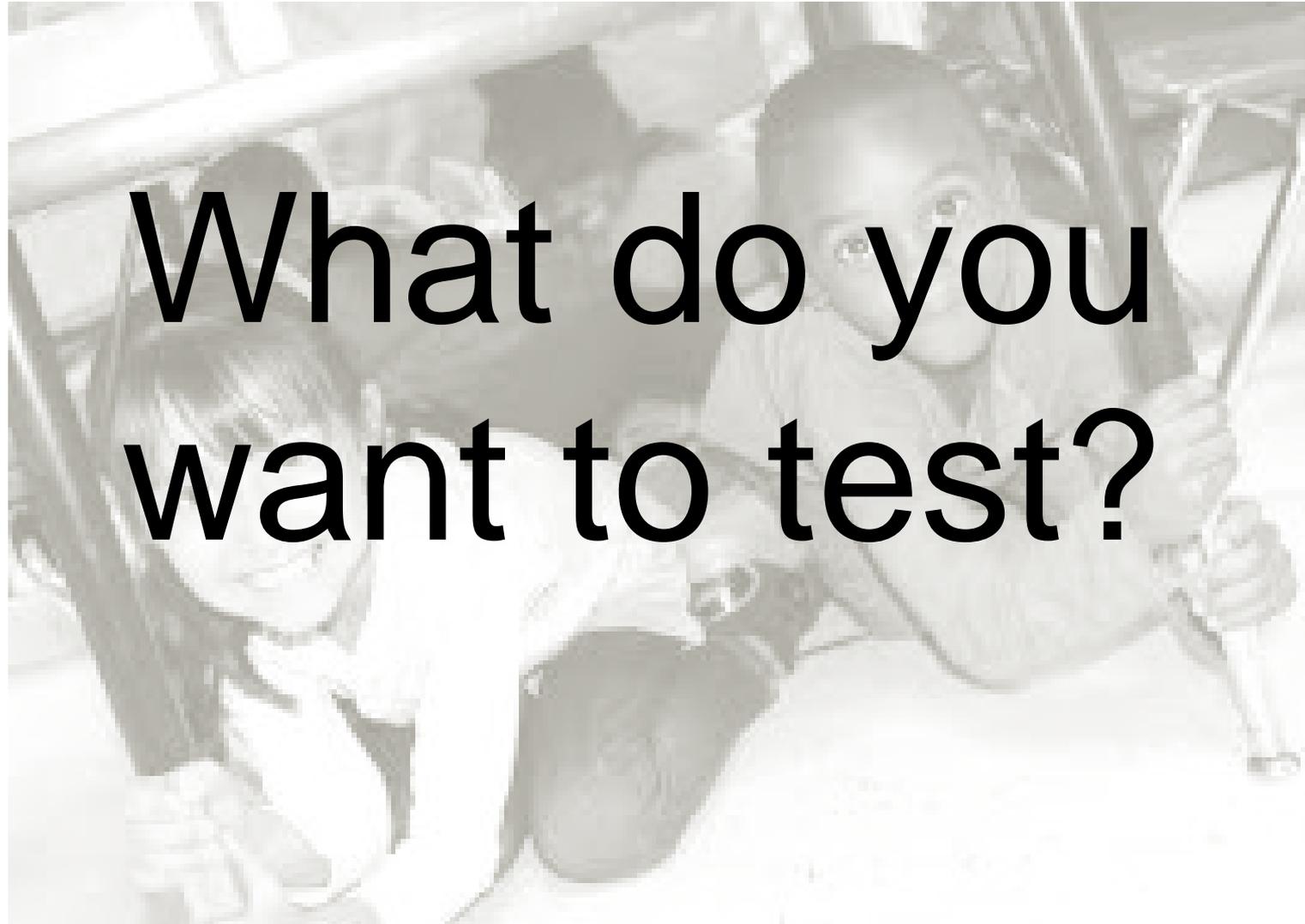
How Often Should You Drill?

Type of Drill	Frequency
Drop, cover and hold	Every month
Evacuation (fire drill)	Every month
Lockdown	4 times a year
Shelter-in-place	2 times a year
Relocation	Once a year
Parent reunification	Once a year

How to Drill?

- Identify the objectives
- Design the drill
- Identify key partners
- Evaluate the effectiveness

Identify the Objectives



What do you
want to test?

Design the Drill

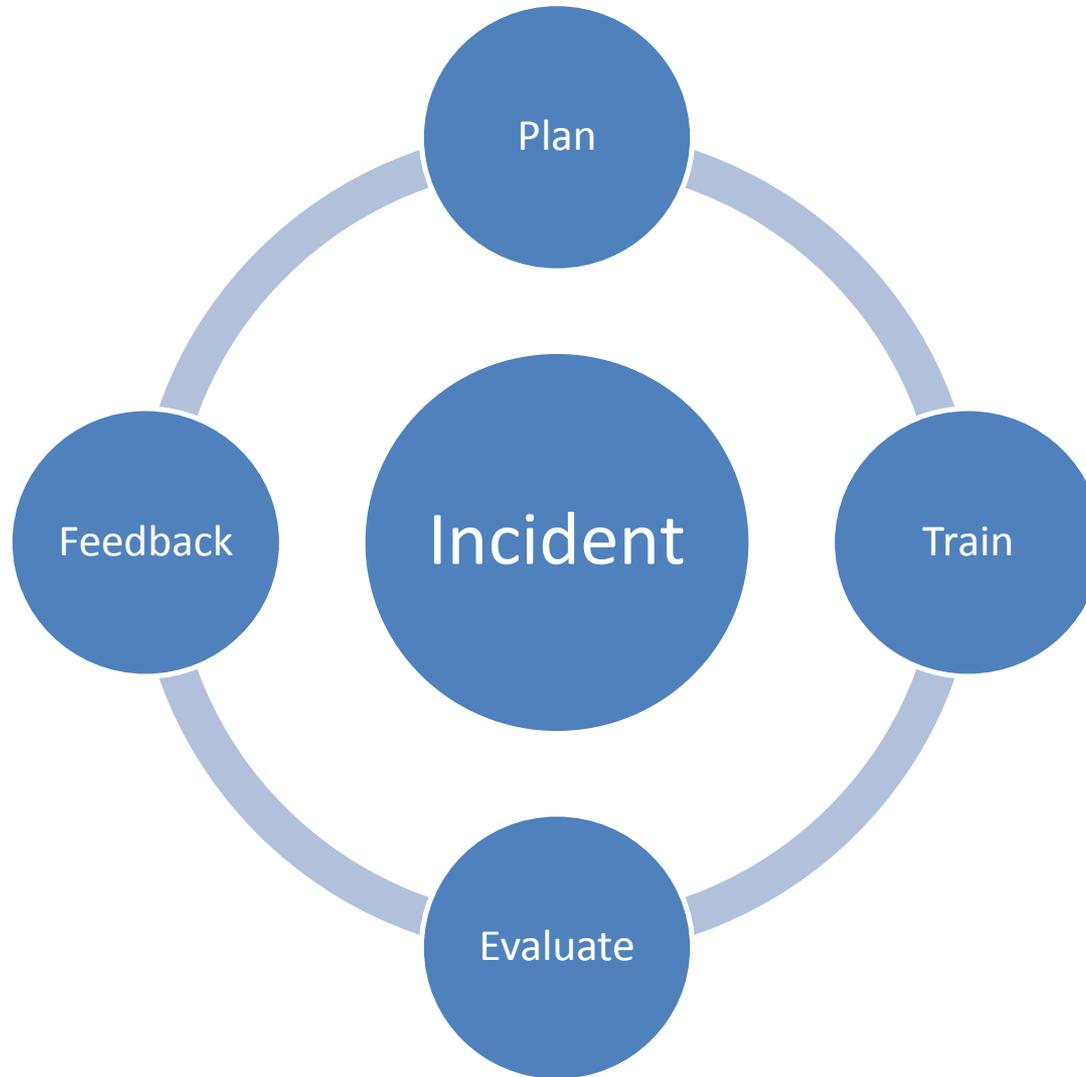
- Scenario
- Type
- Date and time
- Participants
- Communication

Identify Key Partners



American Red Cross
Los Angeles Region

Evaluate



Communication about Drills

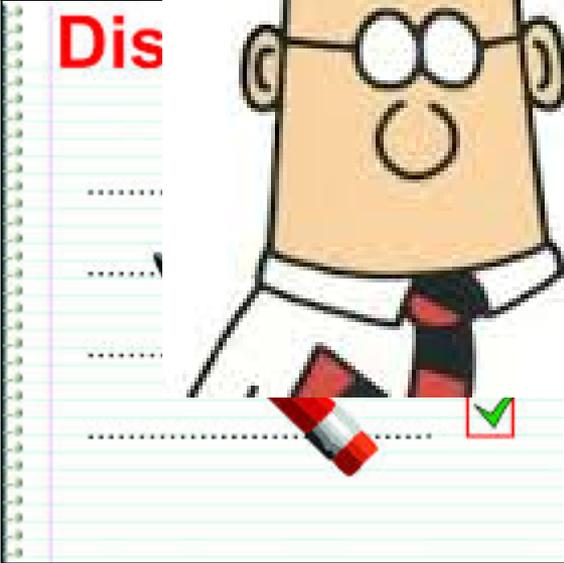
- Always communicate plans with parents
- When doing drills, keep parents informed about procedures
- Inform in advance of any “full-scale” drills



Get EVERYONE Involved



**Our Disaster Recovery Plan
Goes Something Like This...**



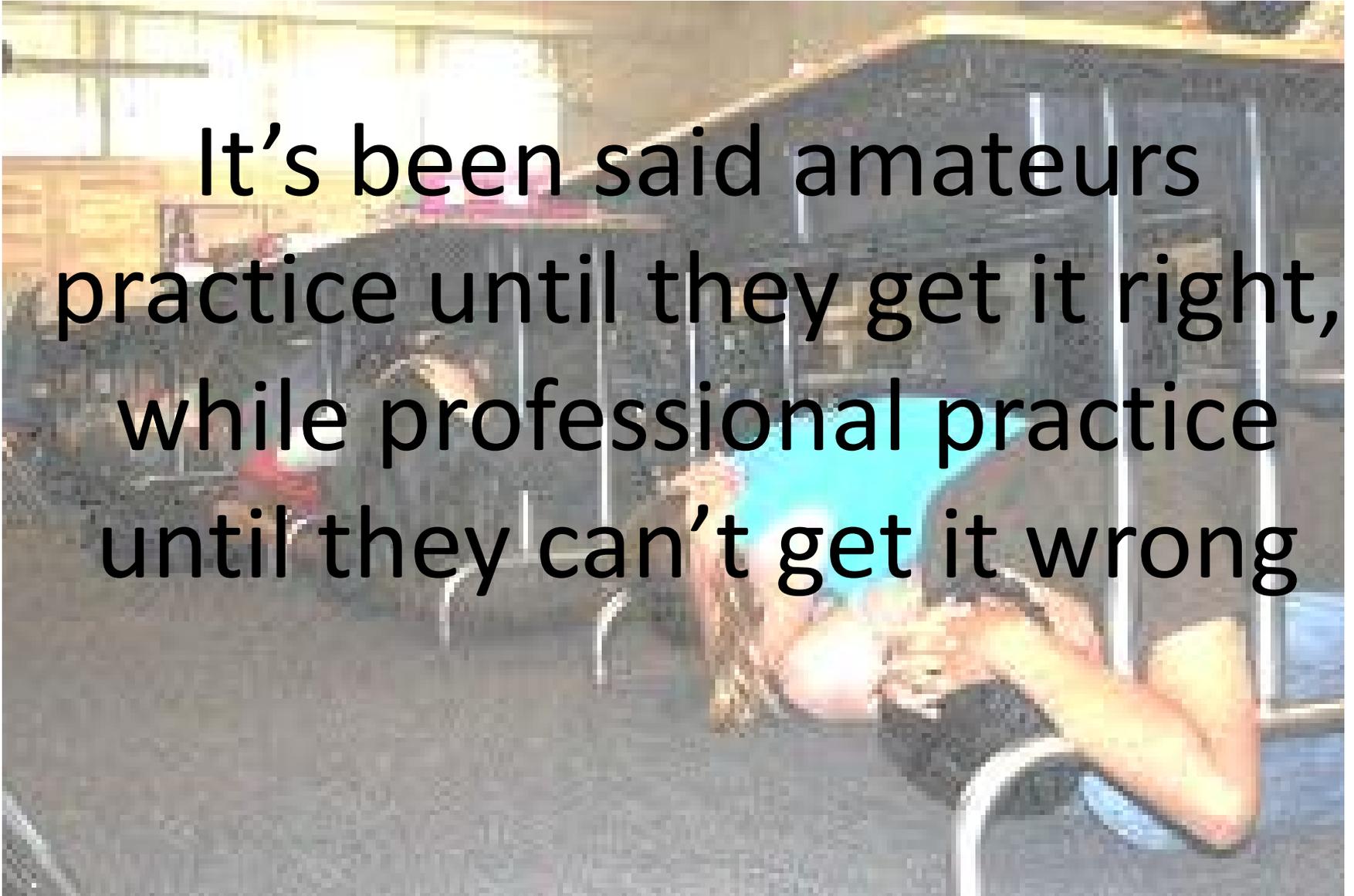
Resources for Drills



FEMA

Why Practice is Important

It's been said amateurs practice until they get it right, while professional practice until they can't get it wrong



Conclusions

- Know your community
- Choose one component
- Practice, practice, practice
- Building resilience takes time



QUESTIONS?



Contact

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[**STEPS.LAUSD.net**](http://STEPS.LAUSD.net)

[**ParentEmergencyInformation.lausd.net**](http://ParentEmergencyInformation.lausd.net)

[**YOYO7.lausd.net**](http://YOYO7.lausd.net)

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