The Emergency Medical Services for Children Innovation and Improvement Center (EIIC)

January 30 Webinar
Pediatric-Youth Needs During Times of Disaster Part 1

Objective:
Participants will be able to provide an example of one youth mental health impact during disaster continuum

Reminder: Please include you name, credentials and affiliated organization in the chat
We welcome all the questions, please unmute or type them in the chat.

EIIC
EMSC Innovation and Improvement Center

AN ORIENTATION TO DISASTERS

NATURE OF DISASTERS

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- Resources demands outpace needs, let alone wants
- Inherently more chaos – normal way of doing things doesn't apply
- High stakes: Life/health, property (private/public), cultural/environmental
- Requires adaptation, prioritization, and quick decisions
- Requires doing things you don't normally do, in ways you're not used to, to solve problems you likely were not aware would arise, with less resources than you're used to and need

TYPES OF HAZARDS

Natural Hazards

- *Natural* processes that impact people
- Extreme weather, geological, hydrological, disease, space weather, and so forth
- Impacts influenced by:
  - Onset (speed and timing)
  - Location
  - Duration
  - Magnitude
- "Second order" impacts dramatically increase complexity
  - Example: Earthquakes create fires, wildfires create floods

Human-caused Hazards

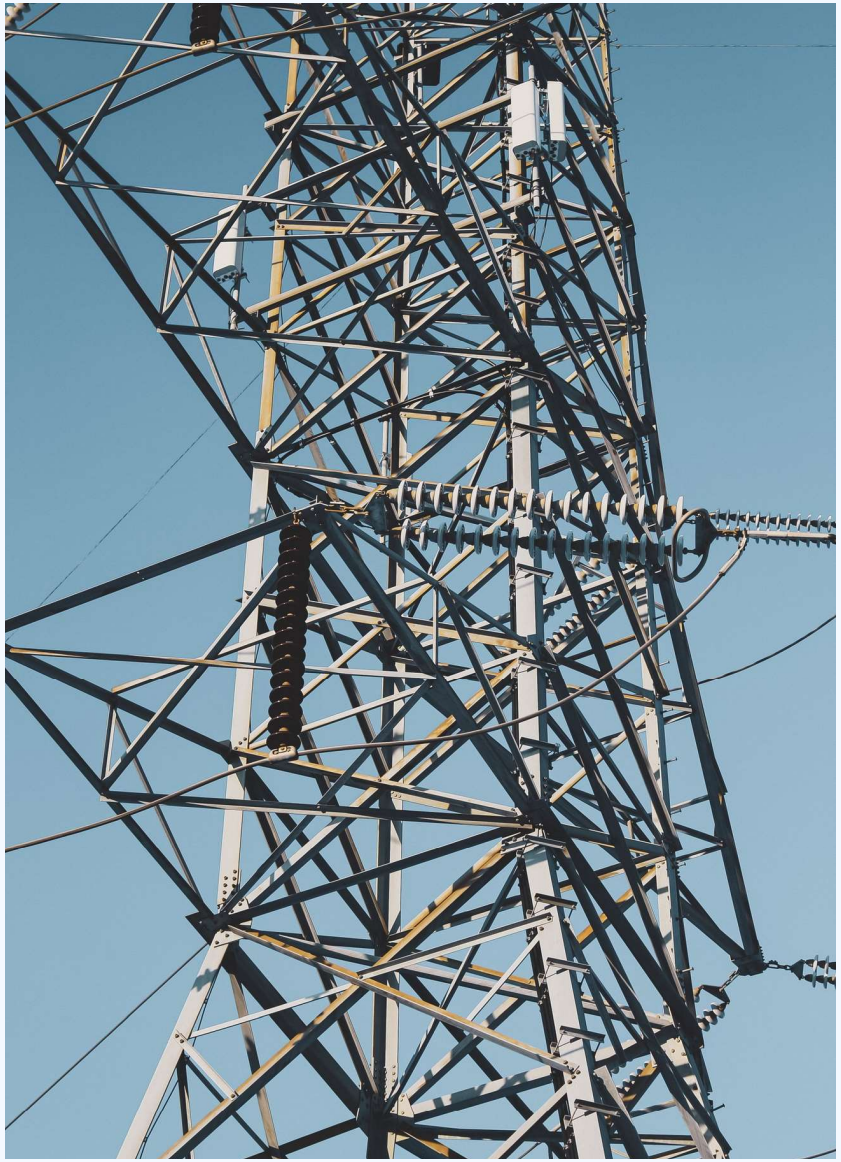
- Broad categories of accidental and intentional (acts of violence/terrorism)
- Chemical, biological, radiological, nuclear, and explosive (CBRNE) along with large accidents often fall in this category
- Impacts and response are dramatically different for intentional disasters

LET'S PRETEND....

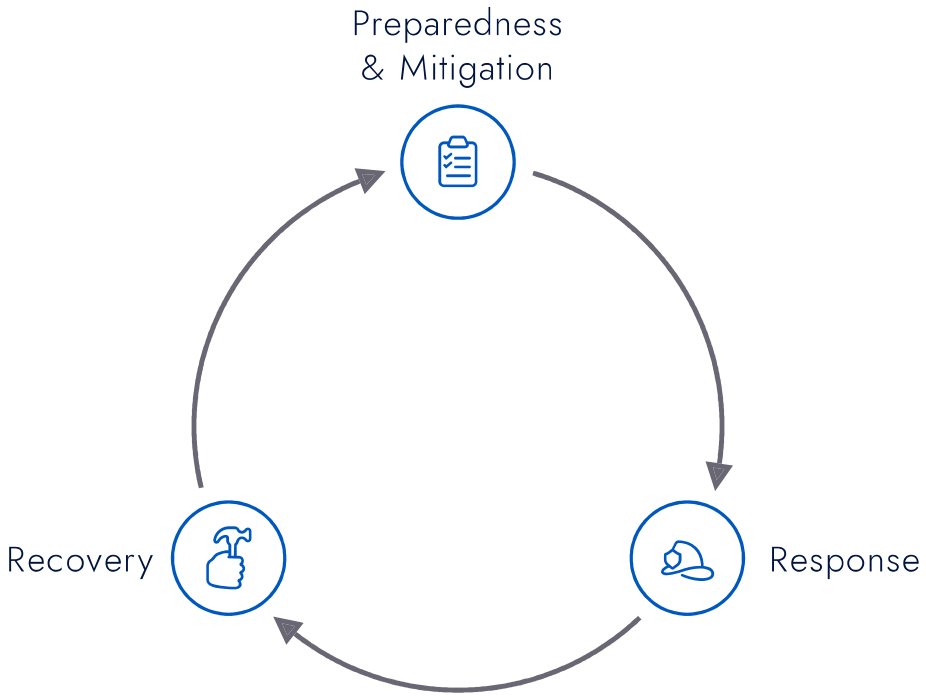
- It is currently the middle of winter.
- Late last night, an unidentified group conducted an organized attack on the regional electrical grid.
- This attack has disabled or destroyed several key pieces of equipment that may take up to a week to replace.
- Electricity in the region is expected to be sporadic, at best, until the equipment is repaired.

What would this mean for your community?

What do you think would be impacted in terms of systems and services?



FUNCTIONS & PHASES



Framework for Each Mission Area

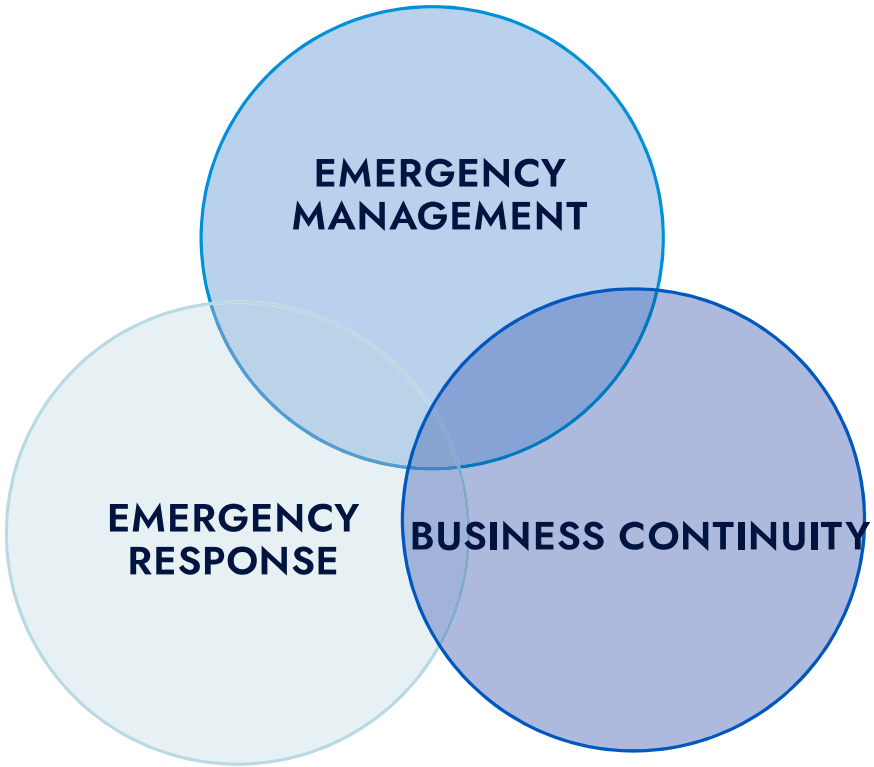
The National Planning Frameworks are part of the National Preparedness System.
There is one Framework for each of the five preparedness mission areas.

- National Prevention Framework
- National Protection Framework
- National Mitigation Framework
- National Response Framework
- National Disaster Recovery Framework

Source: ICS 300 Student Manual, FEMA

NOTE: THESE PHASES ALMOST ALWAYS OVERLAP - NO CLEAN TRANSITIONS.

RELATED FIELDS, UNCLEAR LINES



Life, limb, and physical health

Property, infrastructure
(public and private)

Cultural resources, religious/spiritual
places of significance

Environmental resources

Mental and behavioral health

Disaster Impacts - First Order Effects

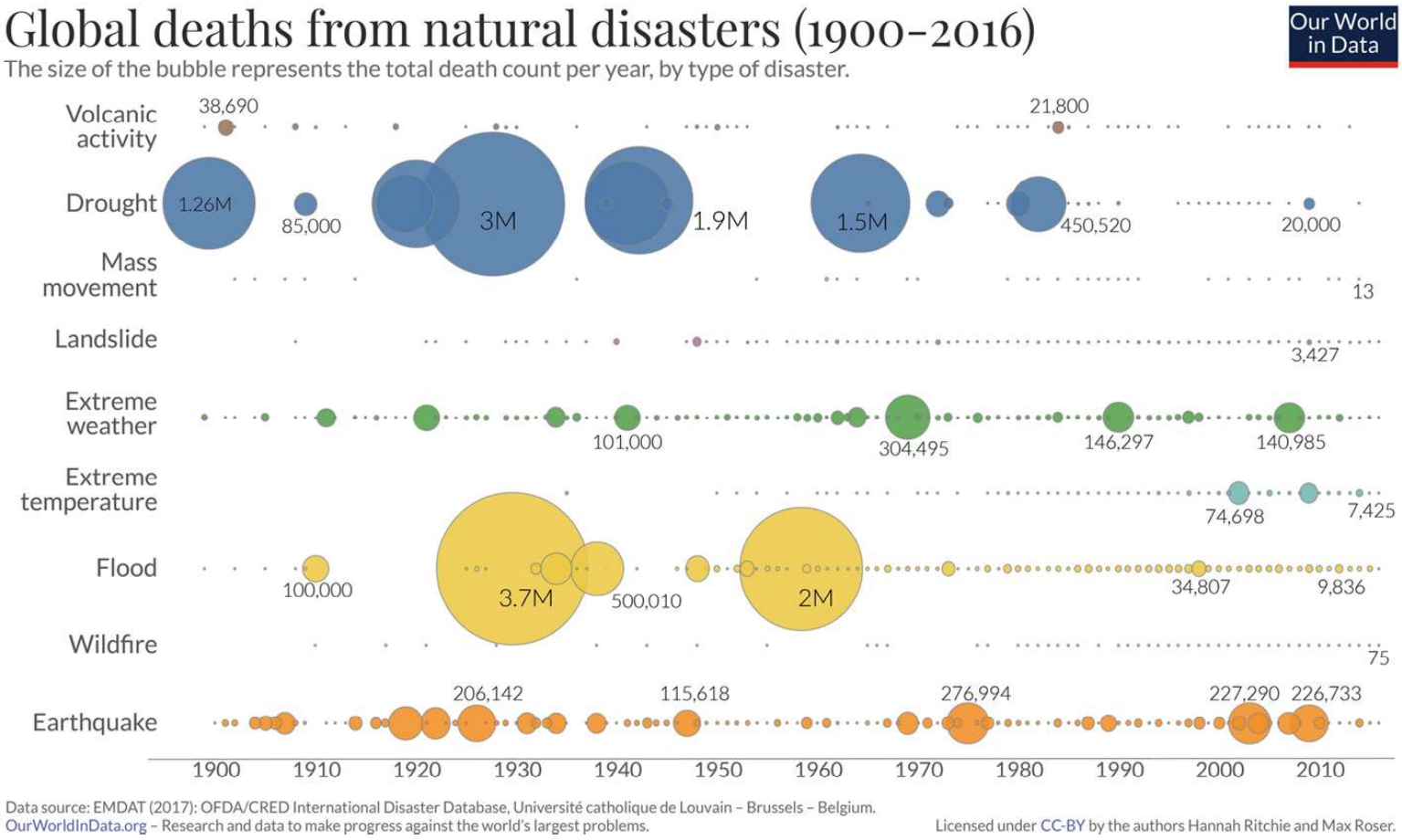
Consequences *cascade* over time

- Opacity and uncertainity
- Second order unclear, third is impossible
- Causation clear in retrospect (hindsight bias, experience matters)
- Resources vs demands: grows, shrinks, and unexpectedly fluctuates

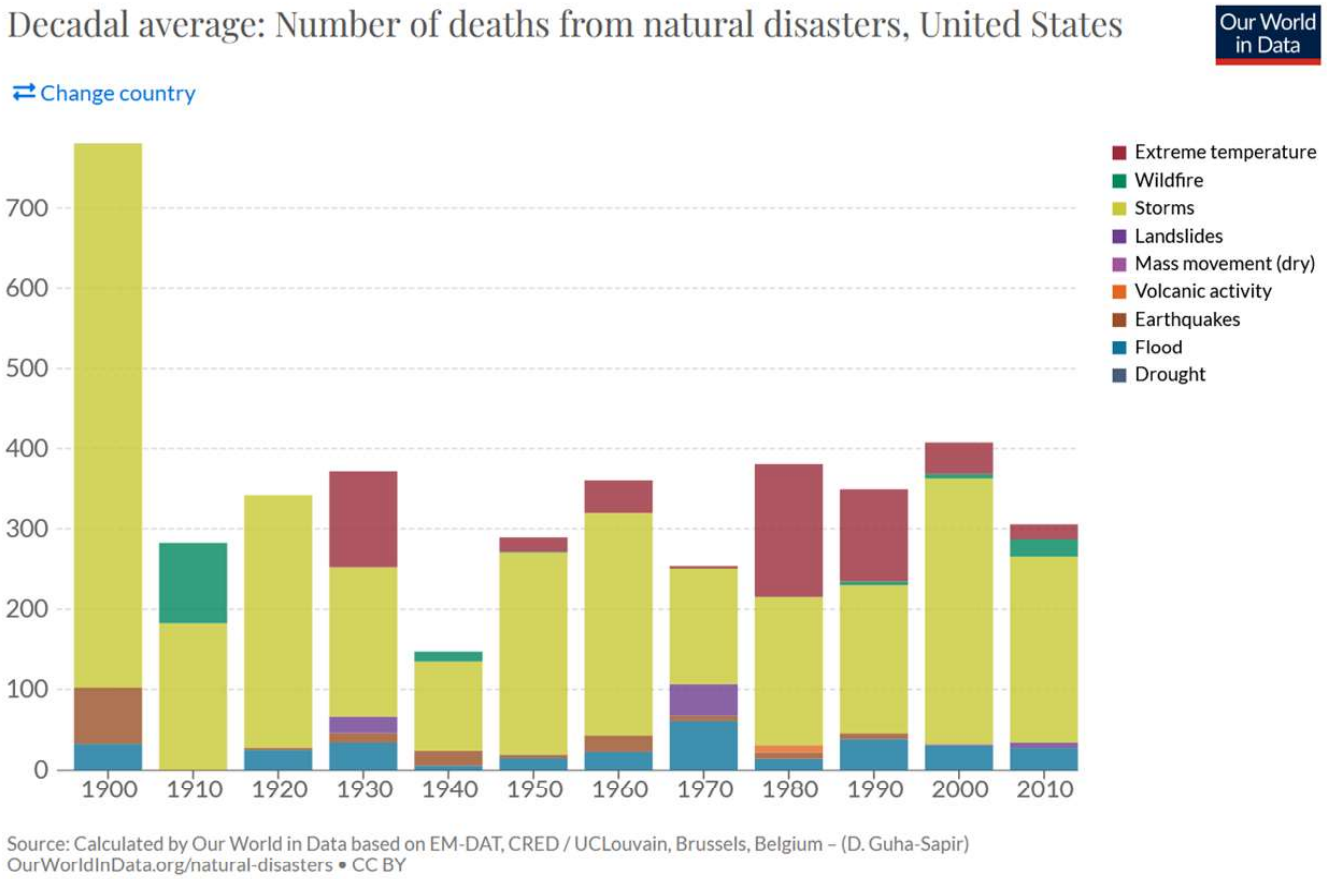
Examples

- Global supply chains during COVID
- Large earthquakes
  - Land disrupted, in turn
  - Travel disrupted, in turn
  - Gas disrupted, in turn.....
- Pushing for short-term objectives

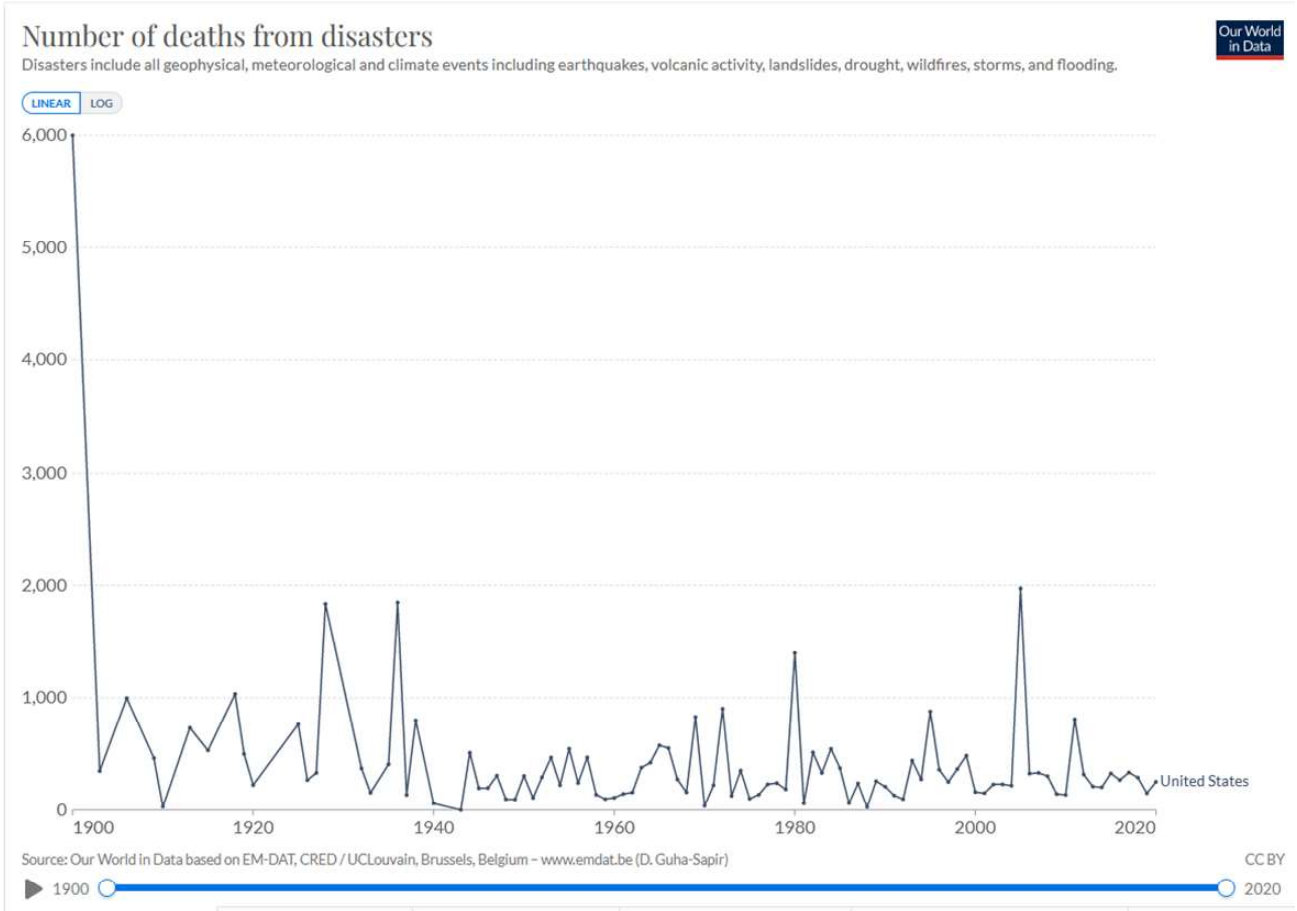
Disaster Impacts - Second Order Effects



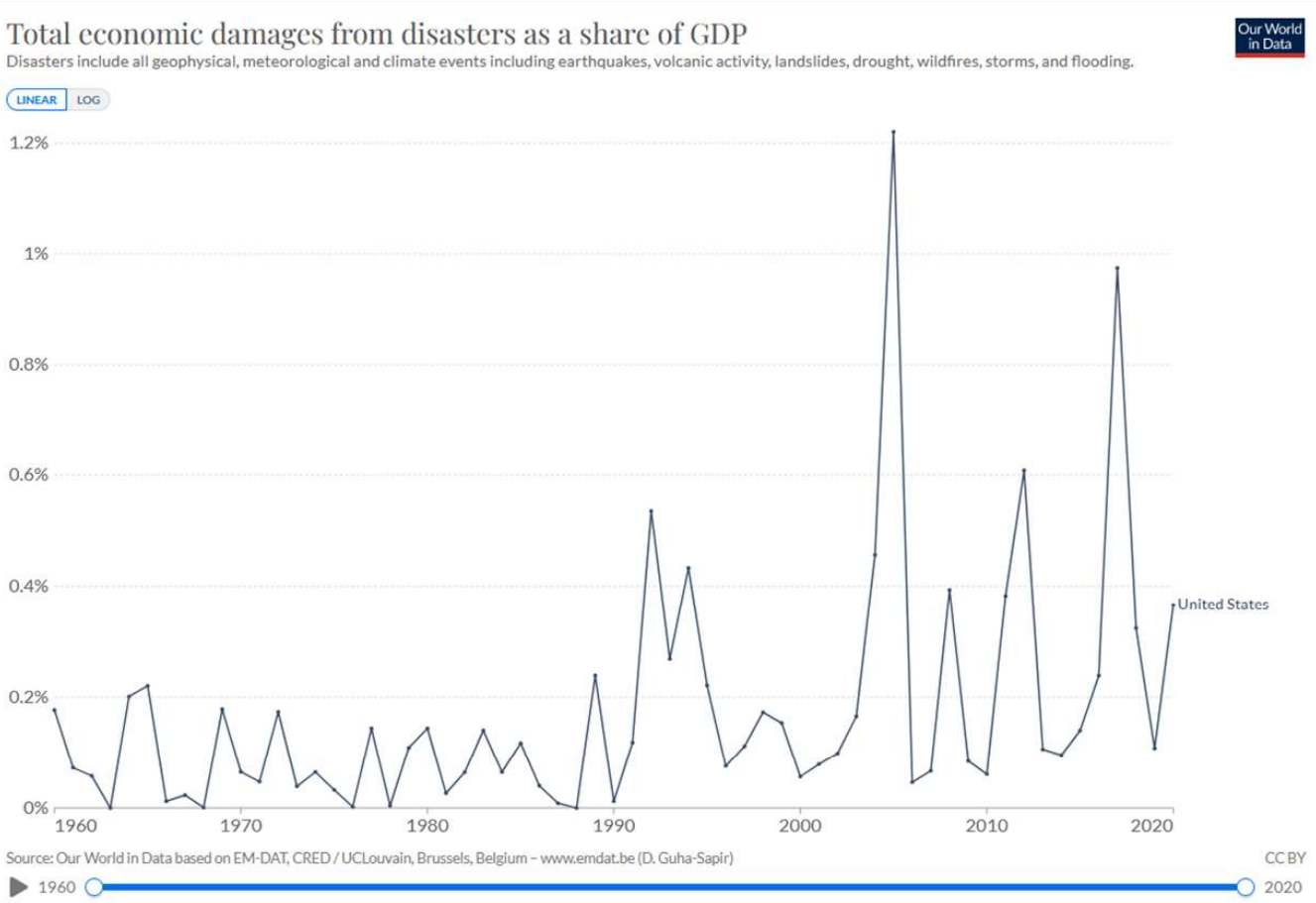
Disaster Prevalence & Trends - Worldwide



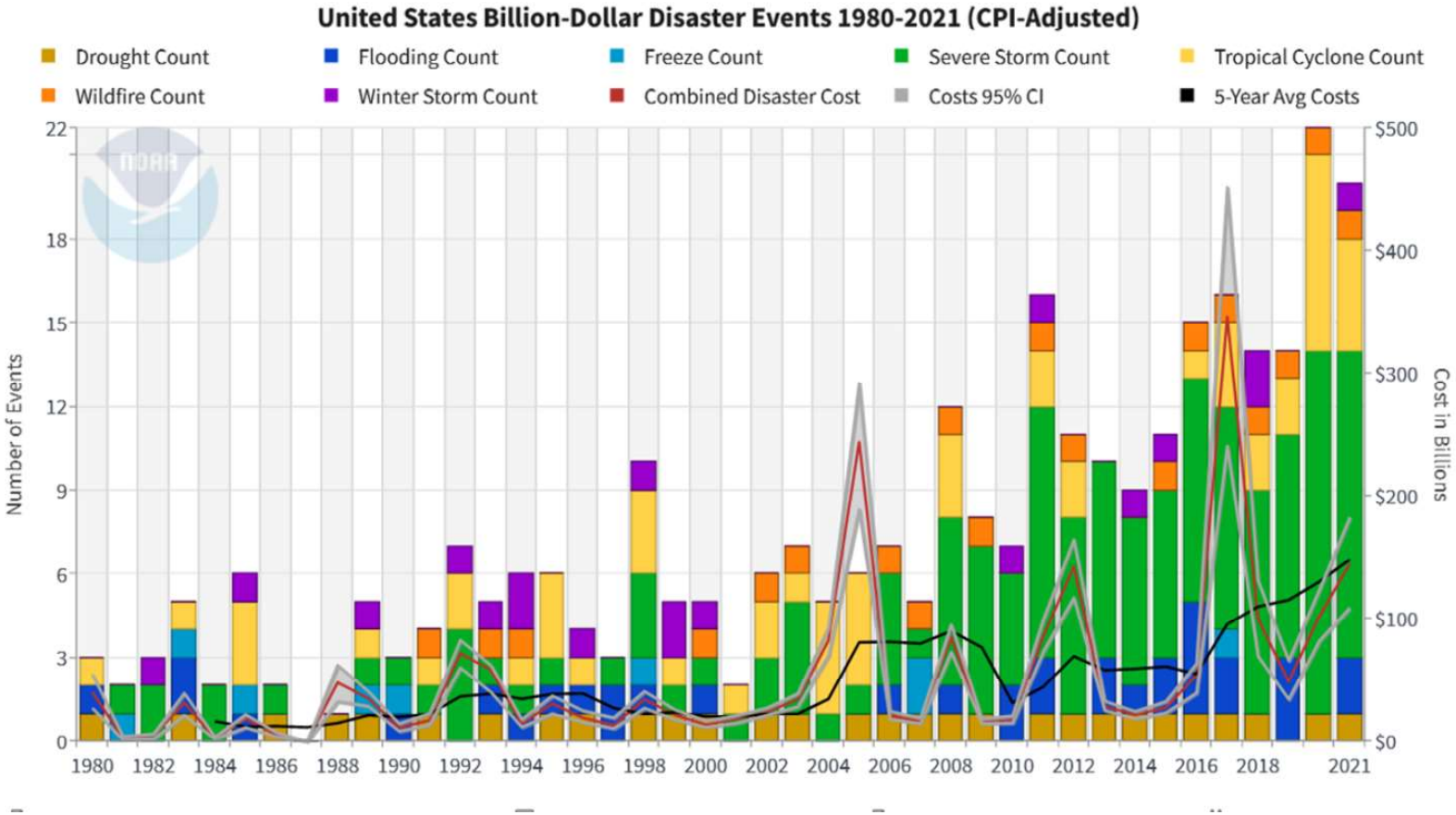
Disaster Prevalence & Trends - United States, Natural Hazards



Disaster Prevalence & Trends - United States, Natural Hazards



Disaster Prevalence & Trends - United States, Economic

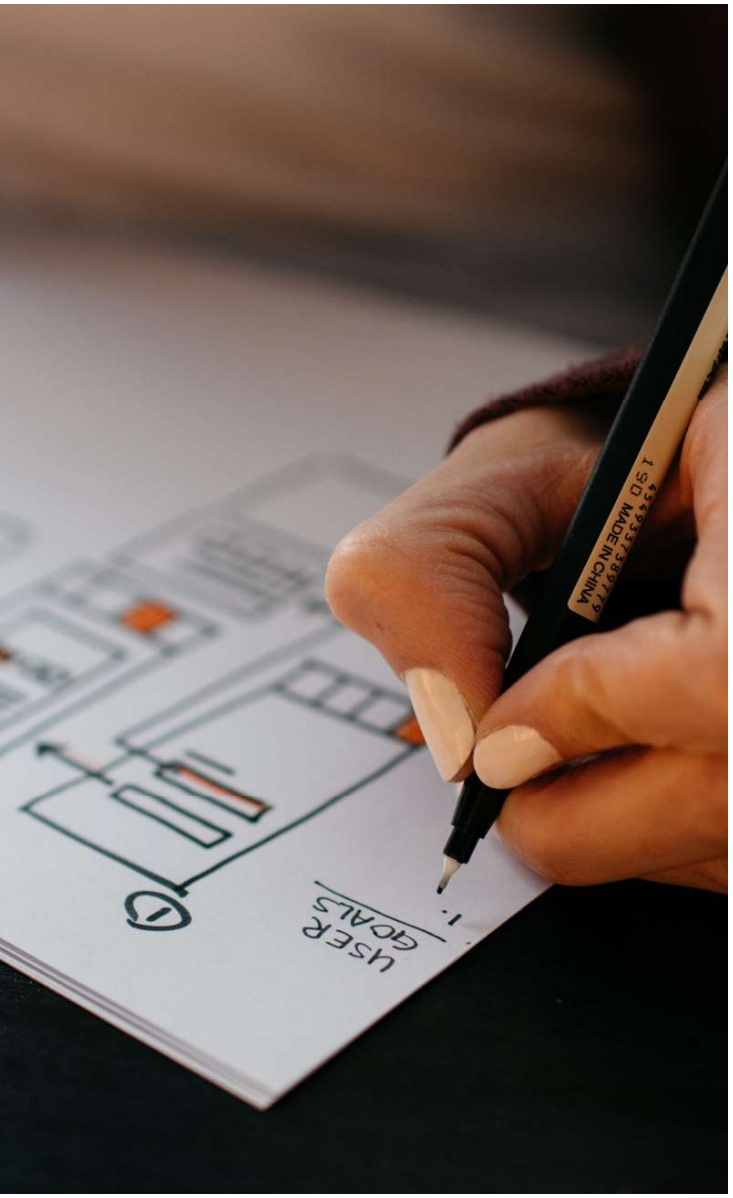


Disaster Prevalence & Trends - United States, Economic

WHY CARE ABOUT LOW CHANCE EVENT?

	L F	H F
H I	**High Impact/Low Freq** Lurking risk of ruin! • Big problems, no practice, no heads up • Black swans here	**High Impact/High Freq** Big problems to work • Likely already an area of focus • Key area of work for most
L I	**Low Impact/Low Freq** Nuances we can ignore • Infrequent • If you get it wrong, so what?	**Low Impact/High Freq** Nuances to resolve? • Thousand cuts over time? • Impacts may scale - watch

- Impact (hazard) is not the only thing that determines risk
- Resilience and capability are major factors
- Infrequency of hazards causes:
  - Less resilience due to lack of testing
  - Decreased awareness of vulnerability
  - Less capability to respond and adapt
- Planning and preparedness is how we stack the deck
  - Challenge: have to prepare before you know its worth it



IMPLICATIONS FOR WORK - DISASTERS

- Disasters are infrequent but extremely high impact
  - Preparedness is critical for reduced loss of life and suffering
  - Less frequency = more vulnerability = more impact
- Disasters cause cascading impacts and outcomes are difficult to forecast
  - A large number of resources and agencies are often required to meet needs
  - Responding is about adaptability and capacity - there are systems for this
- More resources = more coordination need

  Unity of effort = avoiding unmet needs and duplication of efforts

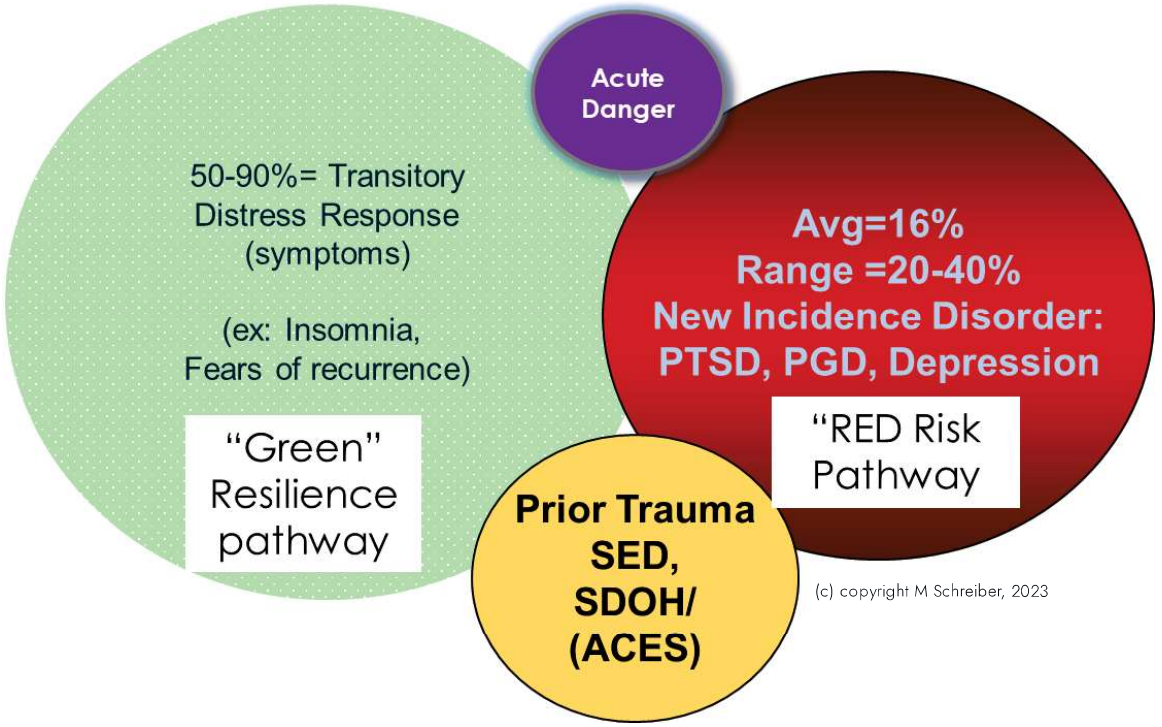
  Doesn't magically happen, preparedness - planning - practice is key
- Deck is stacked against you, preparedness is how we even the odds

YOUTH MENTAL HEALTH IMPACTS

- High vulnerability: children among the highest risk for sustained-post disaster distress
  - Review of 85,000 disaster victims worldwide (Norris et al, 2002)
- Families with children represent large portion of impacted population, provider impacts as well
  - If children are impacted, families are impacted (see childcare in disasters)
  - Providers: burn-out, secondary traumatic stress, moral injury, and so forth
- Many factors influence outcomes: the hazard, the response, age and maturity, family, community
- Often a underdeveloped emergency management focus area in many communities, and lack of day-to-day resources

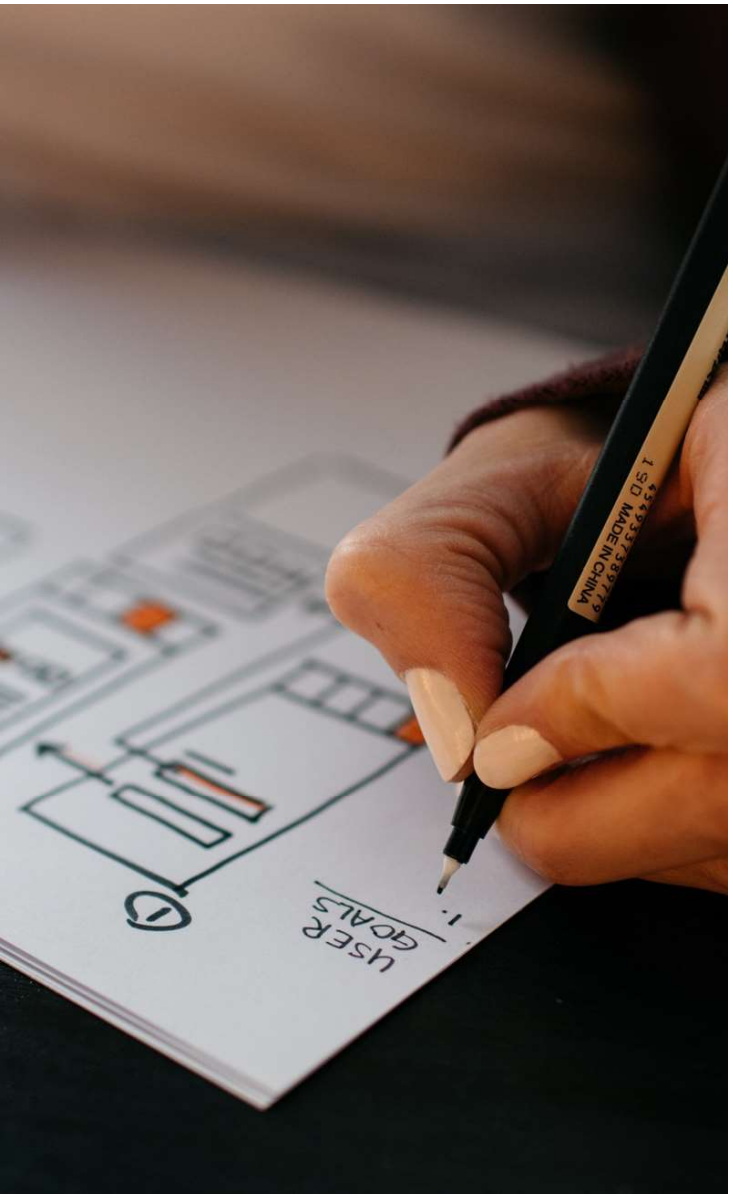
A high risk, low frequency population for many facilities….

A RANGE OF YOUTH REACTIONS TO DISASTERS & EMERGENCIES



Rates assume no disaster behavioral health interventions!
Effective, early interventions can reduce these rates and improve outcomes!

NOTE: Acute distress is not a reliable indicator - it is common in disasters!
This also means symptom measures are not as reliable for a period of time after a disaster.



IMPLICATIONS FOR WORK - YOUTH

- Preparing for youth mental health needs and response capability is critical:
  - Not enough resources day-to-day, let alone disasters
  - High risk group that presents cascading impacts
  - High impact to youth due to vulnerability
  - Less capability and readiness due to low frequency (for many facilities)
- Readiness is important because timeliness is important
  - Timely interventions required to lower mental health impacts
  - Mental health impacts often become apparent long after you should have acted (population-level analysis)
  - Not something you want to figure out and organize during a disaster
- Integration of mental health into preparedness and response activities is essential

THAT'S IT FOR TODAY!

Questions, comments, thoughts?