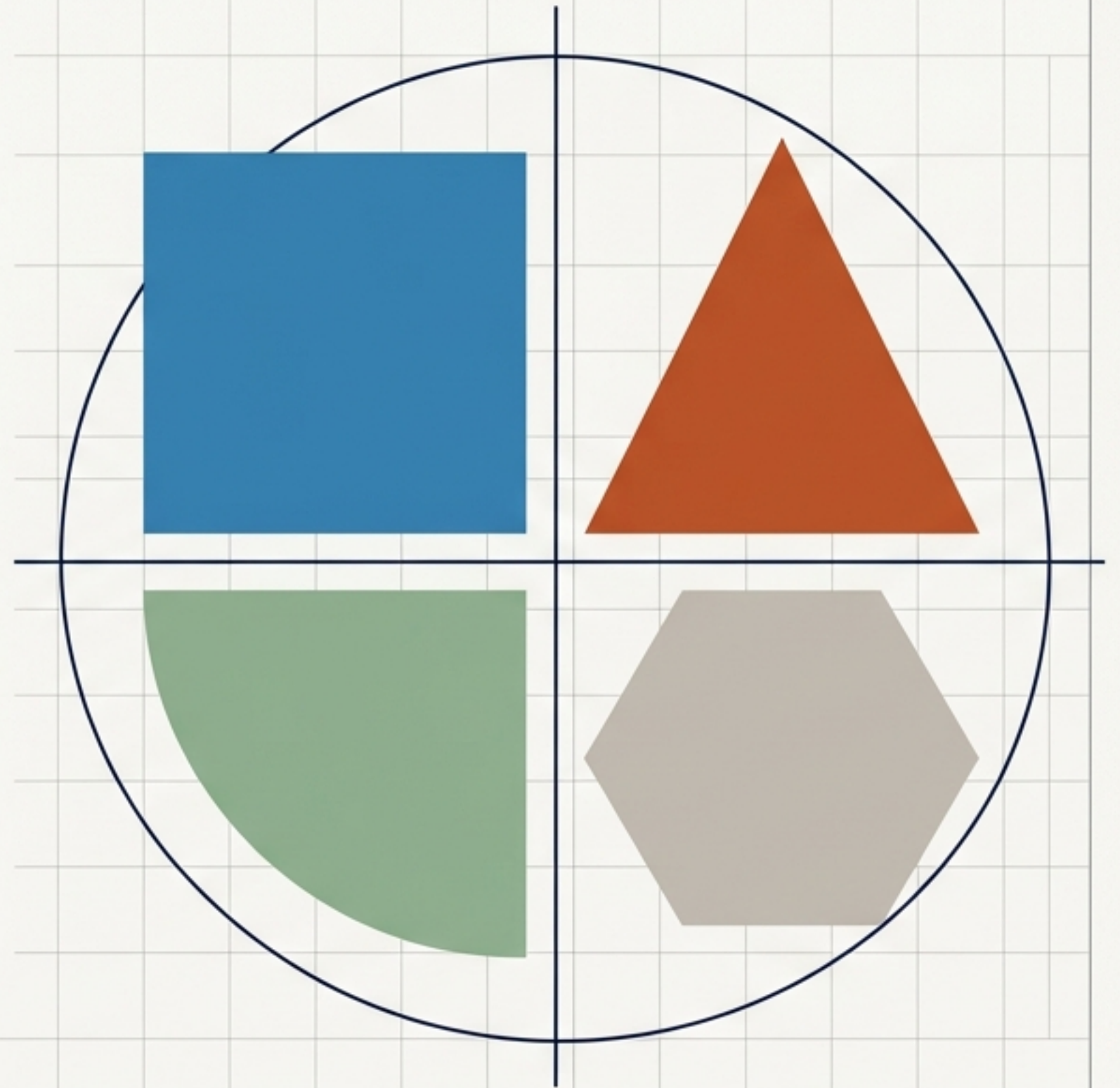


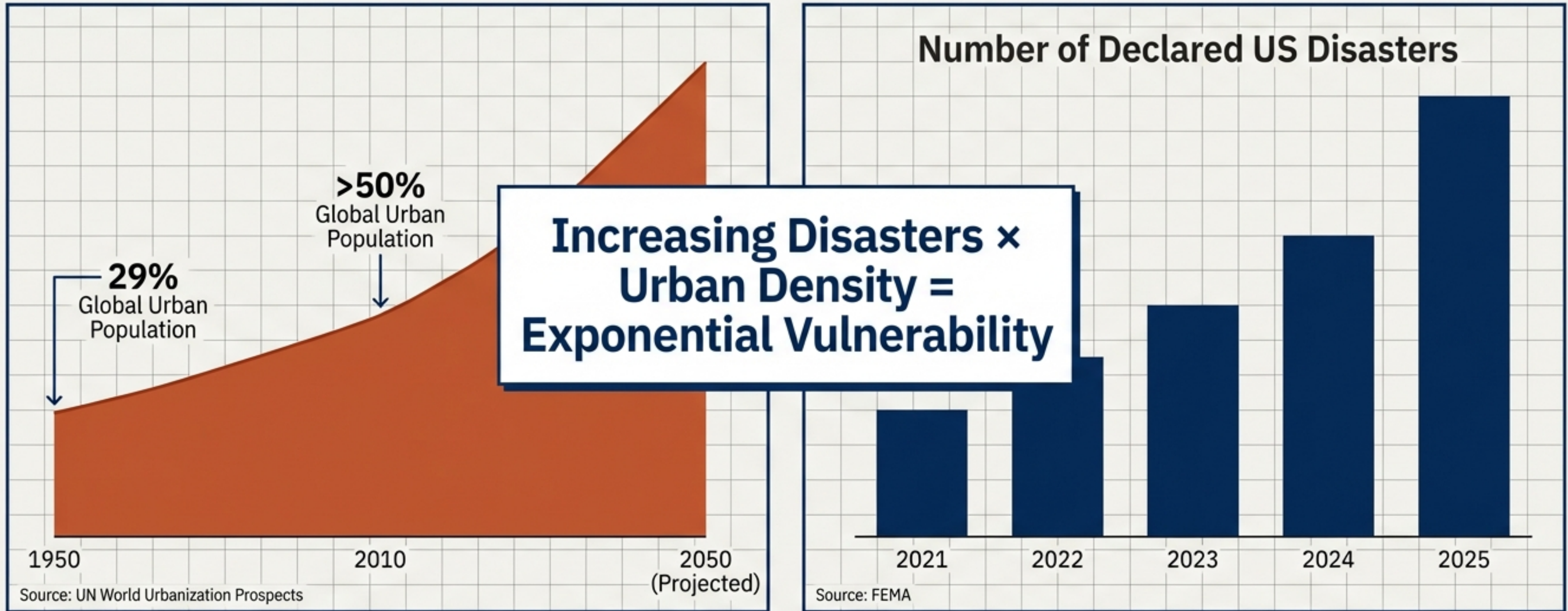
Public Health Security

Protecting Populations from Emergencies
Through Multi-Sector Integration

Bobby Kapur, MD, MPH

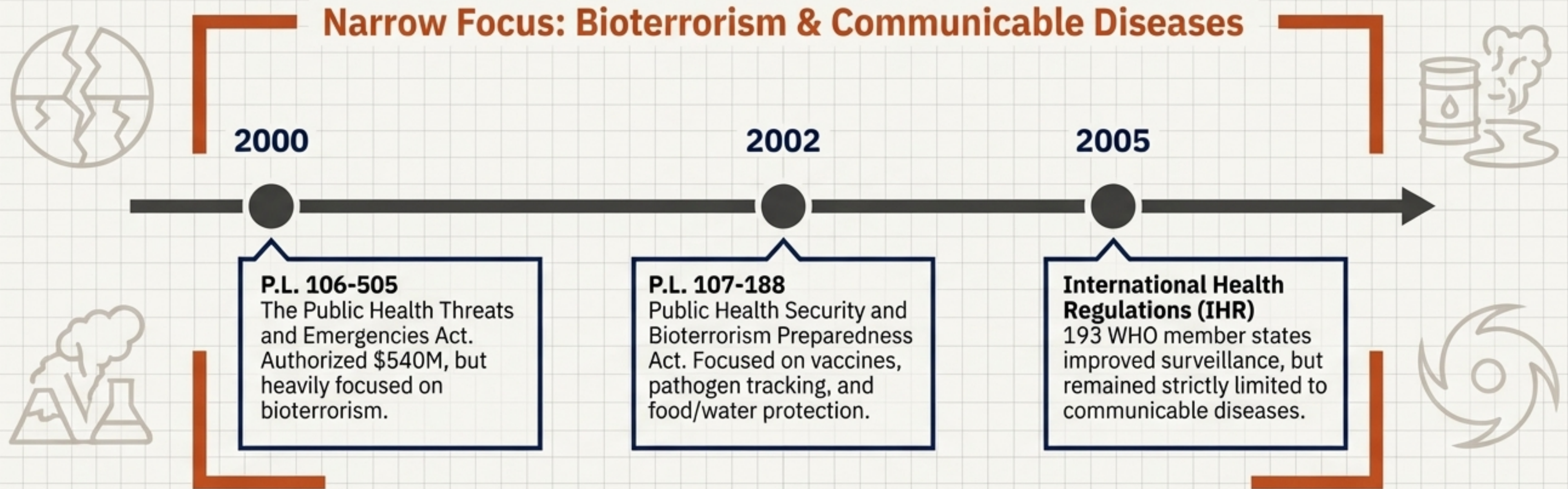


Rising disasters and urban density are creating an exponential threat multiplier.



Large-scale public health emergencies are no longer isolated events; they threaten the political and economic stability of densely populated megacities.

Historical paradigms remain dangerously narrow and hazard-specific.

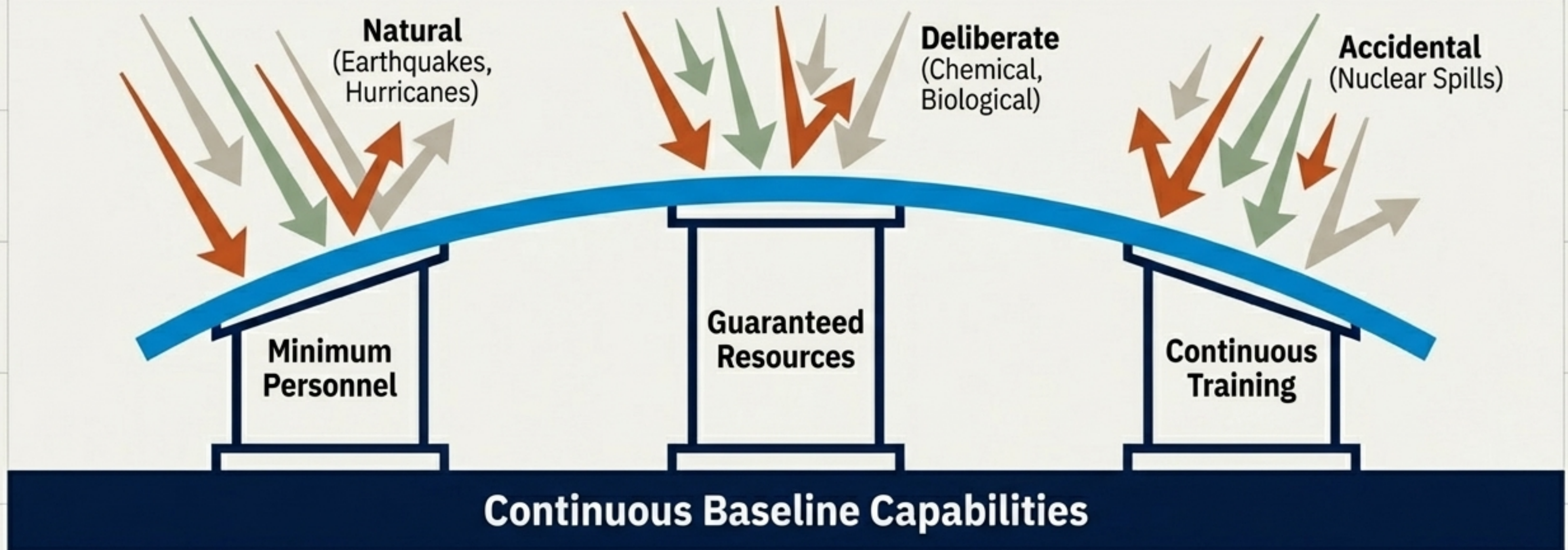


These vital but limited instruments fail to adopt the “all-hazards” approach required for modern, unpredictable crises.

The necessary shift from Disaster Medicine to Emergency Public Health

	Disaster Medicine (Old Paradigm)	Emergency Public Health (New Paradigm)
Focus	Management of specific, known hazards.	Application of diverse public health tools.
Scope	Hazard-specific, isolated operations.	Multi-sector resilience and rigorous systemization.
Responsibility	Relies entirely on Government resources.	Leverages Government, Private, NGO, and Civilian sectors.
Strategy	Reactive response to isolated threats.	Proactive protection against an unpredictable spectrum of events.

The 'All-Hazards' strategy relies on continuous baseline capabilities.



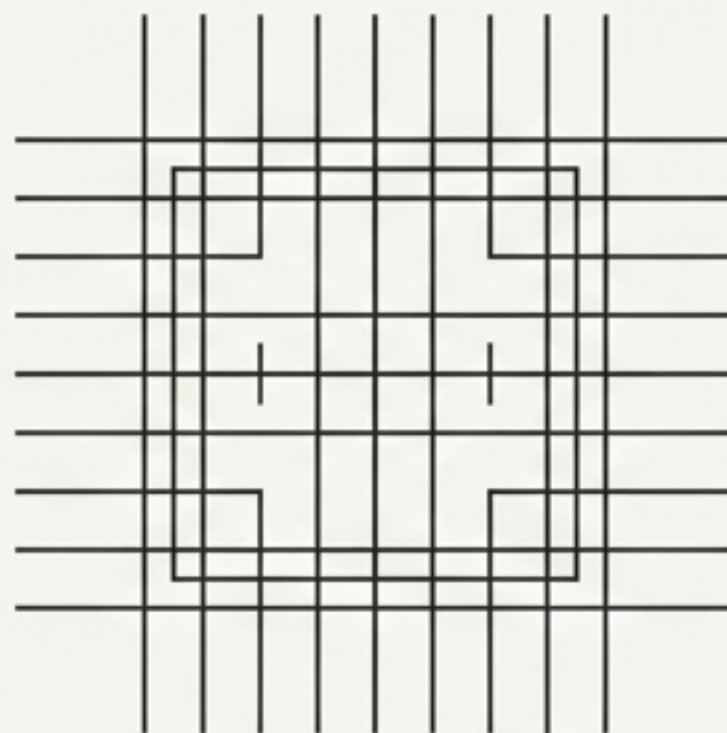
Communities cannot prepare for every specific scenario. Public health security requires a continuous minimum level of capability that can adapt to a broad scope of unpredictable hazards across preparedness, response, and mitigation.

True security requires more than just resources; it requires a systemic framework.



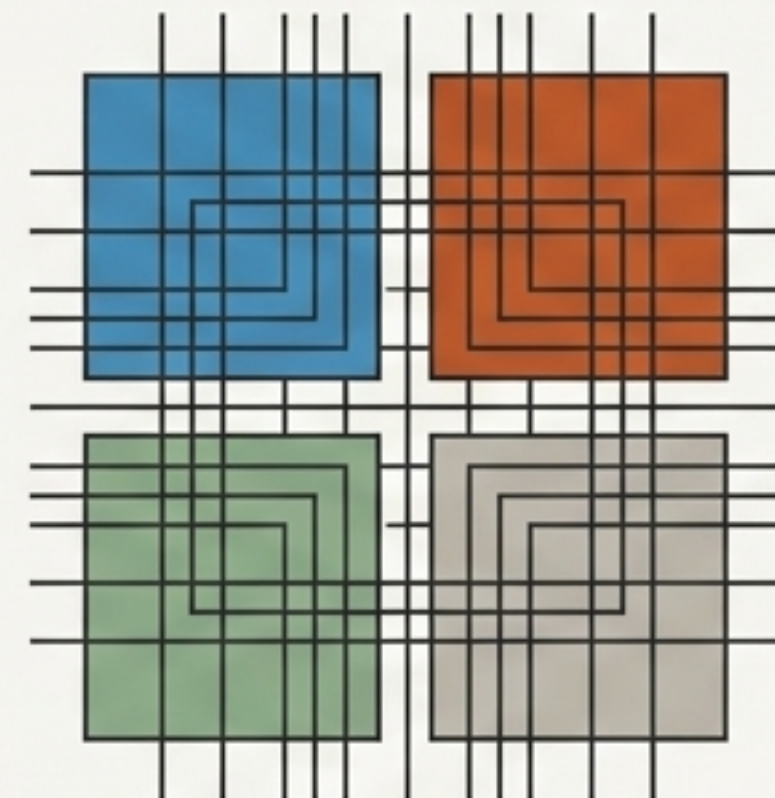
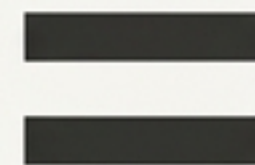
RESILIENCE

(Capacity and Actors)



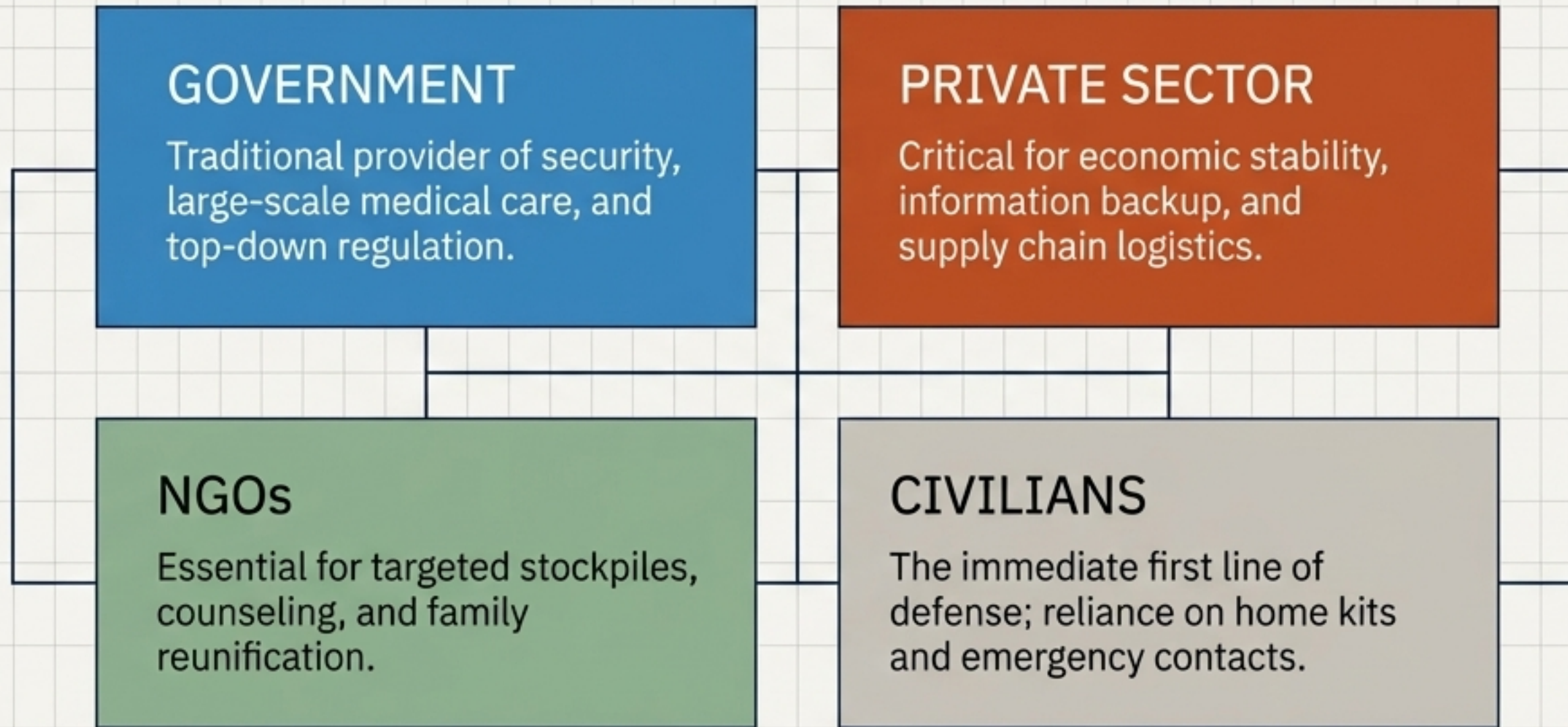
SYSTEMIZATION

(Connecting the Actors)







**PUBLIC HEALTH
SECURITY**

Resilience is not just a government responsibility; it is a multi-sector necessity.







Emerging evaluations reveal that without all four sectors actively contributing, communities risk total systemic collapse during an event.

Mapping the Resilience Matrix: Preparedness and Response

	Preparedness					Response				
 Government	Training	Plans	Drills	Surveillance	Stockpiles	Personnel	Supplies	Medical Care	Security	Needs Assessment
 Private Sector	Contingency ops	Info backup	First aid training			Evacuation	First aid	Supplies		
 NGOs	Training	Plans	Stockpiles			Personnel	Supplies	Counseling	Reunification	Food/Shelter
 Civilian	First aid training	Contacts	Home kits			Evacuation	First aid	Counseling	Food/ Shelter	

Mapping the Resilience Matrix: Mitigation

	Mitigation (Learning & Adaptation)				
 Government	Return to normal	Design improvements	Tech advancements	Standards & regulations	
 Private Sector	Return to normal	Design improvements	Tech advancements	Implementing standards	
	Return to normal	Design improvements		Tech advancements	Implementing standards
 NGOs	Targeted stockpiles	Increased training			
 Civilian	Return to normal	Housing modifications			

Mitigation requires applying lessons learned across ALL sectors to reduce vulnerability to future events

Resources and personnel alone cannot ensure public health security.

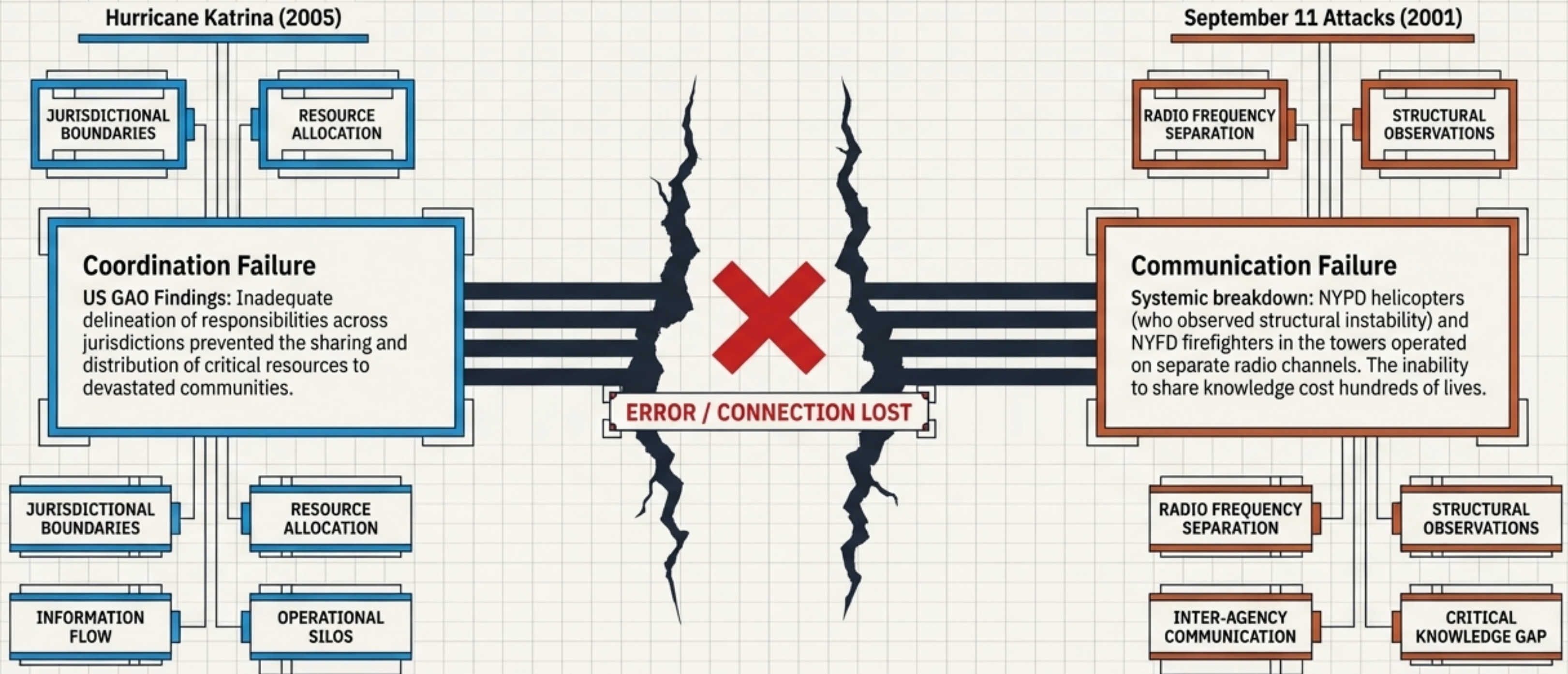


Multi-sector capabilities deployed before, during, and after a crisis are useless if they operate in silos.

Capacity must be quickly and effectively implemented through rigorous systems criteria.

Without a unifying architecture, the public health infrastructure breaks down.

The tragic cost of siloed efforts and fragmented communication.



Six pillars of Systemization act as the connective tissue between agencies.

Resource Distribution:
Efficient delivery of goods and services.

- Food/Shelter
- Stockpiles
- Medical Care
- Surveillance
- Drills
- Plans
- Troops

Unified Planning:
Inter-agency training prior to an event.

- Contingency ops
- Contingency ops
- Info backup
- Check and learning
- Design into attempts
- Teach administrators
- Implementing standards

Coordination:
Clear delineation of responsibilities.

- Training
- Plans
- Stockpiles
- Personnel
- Supplies
- Contacts
- Home kits
- Evacuation
- Counseling

Surveillance:
Systemized tracking of threats.

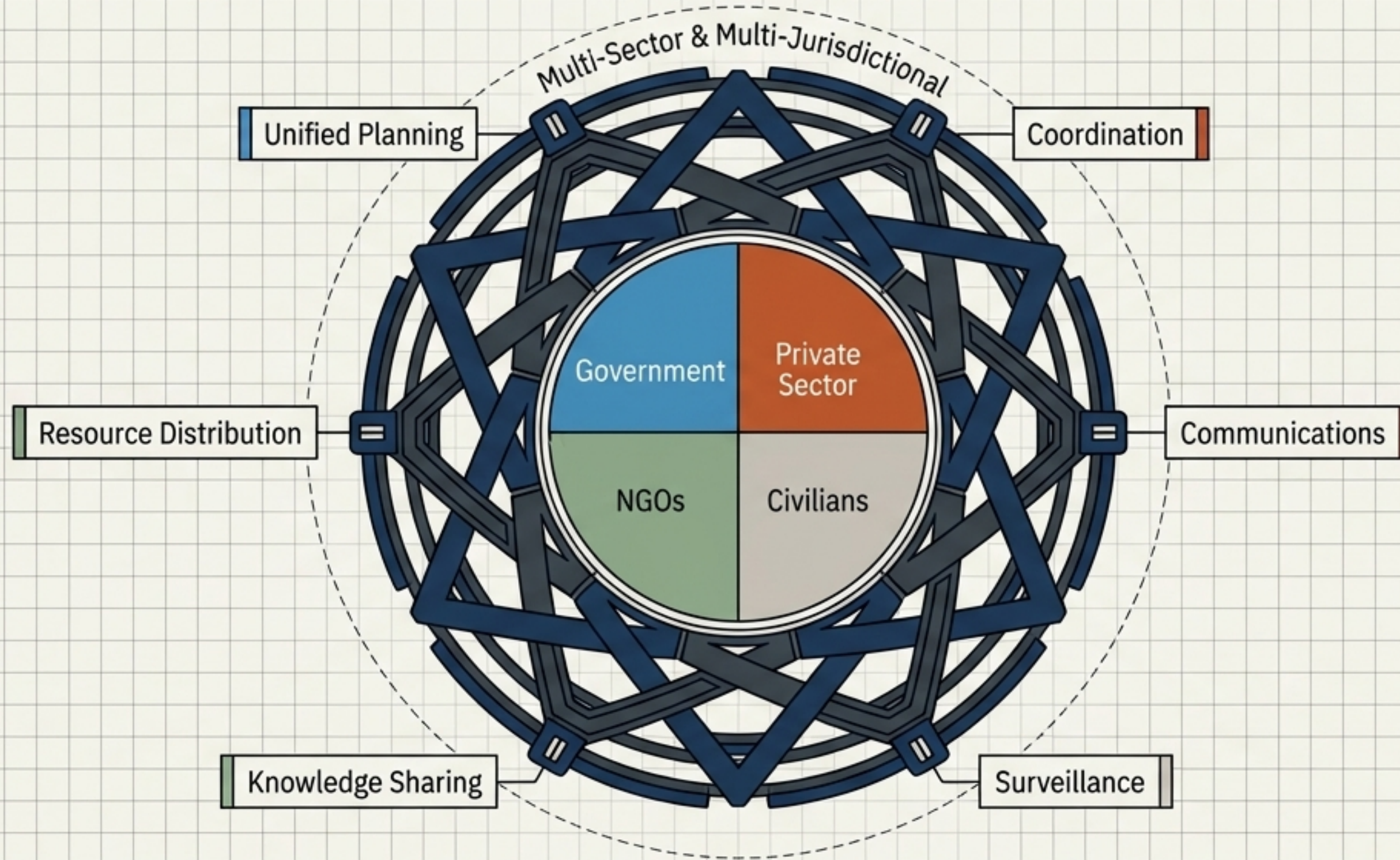
- Training
- Plans
- Drills
- Surveillance
- Stockpiles
- Medical Care
- Supplies
- Food/Shelter

Communications:
Shared, interoperable channels.

- Supplies
- Evacuation
- Home kits
- Contacts
- Info backup
- Plan and training

Knowledge Sharing: Equal access to critical information across sectors.

The Public Health Security Framework



True Public Health Security is achieved only when the multi-sector capacity of Resilience is fully bound by the rigorous connective tissue of Systemization.

Collective effort yields collective security.

As the global population urbanizes and hazards multiply, the **era of relying solely on reactive**, hazard-specific government disaster medicine is over.

The future of emergency management relies on building unified, multi-jurisdictional capacity before the crisis occurs.

