



# Emergency Preparedness Plan (EPP) Series 5: Business Continuity Planning and Supply Chain Management

Jason Belden, Director of Emergency Preparedness and Physical Plant Services,  
California Association of Health Facilities

Eugene Schneller, Ph.D., Dean's Council of 100 Distinguished Scholar  
Department of Supply Chain Management, Arizona State University

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# Agenda

- A CAHF Ask
- Business Continuity Planning
- Supply Chain Management
- Q&A

# A CAHF Ask

- CAHF Needs You! Our Statewide Disaster Advisory Council needs Administrators, Facility Directors, Clinical staff, to join an advisory council to advise the State on issues specific to LTCFs in disasters.
- This is a voluntary commitment to do quarterly calls and provide feedback—Each council member will be recognized publicly as a committee member on our website
- Please email Dr. Mary Story [mstory@cahf.org](mailto:mstory@cahf.org) if you want to learn more.



# Business Continuity: Essential Functions for Continuity of Care



Presented by CAHF's Disaster Preparedness Program  
June 21, 2023

# How Does Business Continuity and Emergency Preparedness Overlap?

- The BCOOP works together with your Emergency Operations Plan and is a part of your Emergency Preparedness Program.
- Where the EOP deals with carrying out specific actions, such as search/rescue for residents and staff, the BCOOP/COOP/BCP is for maintaining essential business functions and personnel during and after an event.
- Prepared staff = available staff. Encouraging personal preparedness and having a method of emergency communication with staff is crucial.
- An employee most likely will NOT return to work if they or their family is affected by a disaster!

# Eight Components of COOP

- Essential Functions and Operations
- Essential Personnel
- Delegation of Authority and Lines of Succession
- Critical Resources – Key Vendors/Suppliers
- Alternate Care Sites
- Vital Systems and Equipment
- Vital Records
- Communication Systems Supporting Essential Functions
- Restoration and Recovery

# Component #1

## Essential Functions And Operations

- Essential functions are those that must be maintained in order to fulfill the mission statement of the organization and the specific operations of each program.
- Essential functions are those that provide vital services and sustain your organization's economic base.
- FEMA defines essential functions as “those functions that cannot be interrupted for more than 12 hours/must be resumed within 30 days”.
- Given the health status of residents in long term care facilities, most of your essential services will have a lower threshold.
- In considering your most essential and time sensitive functions, take into account what is required to care for your residents and to run your facility. The essential functions you list should encompass the key activities which your organization fulfills on a day-to-day basis.

# Examples Of Essential Functions And Operations

- **Administration**—Financial management, legal/compliance, personnel management, Quality, resident/client engagement, coordinate care
- **Medical Services**—Type of care you provide, could include everything you are licensed to provide; coordination of care with telehealth or outside medical vendors
- **Client/Resident Services**—Would include all services you traditionally provide, care coordination to other settings, activities, screening, visitation, volunteer coordination, etc...
- **Facility Operations**—essential functions in this category list out all of the physical components required for your physical plant needs to maintain safe operations; HVAC, Generators, Life Safety Systems, Utilities, Water, etc...
- **Dietary Services**—essential functions listed here should incorporate everything needed to provide normal licensure requirements and meet storage requirements for emergencies and disasters
- **Business Operations**—Health Informatics, IT, HR, Payroll, Timekeeping, Claims, Training Programs, etc...



## ESSENTIAL PROGRAMS/SERVICES RESTORATION PRIORITIES

Priority	Description	Restoration Timeframe
<b>A</b>	Critical Impact on Health and Safety, Business Operations or Client Services	These programs or services must be restored within 0-5 hours
<b>B</b>	High Impact on Health and Safety, Business Operations or Client Services	These programs or services must be restored within 5-24 hours
<b>C</b>	Moderate Impact on Health and Safety, Business Operations or Client Services	These programs and services must be restored within 24- 72 hours
<b>D</b>	Low Impact on Health and Safety, Business Operations or Client Services	These programs or services can be restored within 72 hours to 2 weeks

# Documenting Essential Functions Worksheet

ESSENTIAL FUNCTIONS WORKSHEET PRIORITY PROGRAMS AND SERVICES	Priority A, B, C, or D
<b>ADMINISTRATION</b>	
<b>MEDICAL SERVICES</b>	
<b>CLIENT/RESIDENT SERVICES</b>	
<b>FACILITY OPERATIONS</b>	
<b>DIETARY SERVICES</b>	
<b>BUSINESS OPERATIONS</b>	
<b>(INSERT DEPARTMENT)</b>	

# Documenting Essential Personnel Worksheet (cont.)

ESSENTIAL PERSONNEL			
ESSENTIAL FUNCTION	PRIORITY A, B, C, or, D	KEY POSITION (Job Title)	BEST ALTERNATE(S) (Job Title)
<b>ADMINISTRATION</b>			
<i>Ex. Oversee Facility Operations</i>	A	Director/Administrator	1. Assistant Director/Assistant Administrator 2. Director of Nursing 3.
			1. 2. 3.
<b>MEDICAL SERVICES</b>			
			1. 2. 3.
			1. 2. 3.
<b>CLIENT / RESIDENT SERVICES</b>			
			1. 2. 3.
			1. 2. 3.

# Identifying Essential Functions And Personnel

- Once you've identified systems, equipment, personnel necessary for the continued operations of critical processes or services you will determine Priority of Restoration Timeframe.
- The most effective plans are those that are developed collaboratively with input from all leaders in the facility, as well as in consultation with local emergency management professionals.
- Resources, services, vendors, suppliers, need to have back-ups identified and documented.

<https://www.cahfdisasterprep.com/bcoop>

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# Healthcare Resilience Strategies for Access to Critical Supplies: An Eco-System Perspective

## Act Like a Commoner!



**HSCx**

Healthcare  
Supply Chain  
eXcellence

Mikaella Polyviou  
Jim Eckler  
Gene Schneller



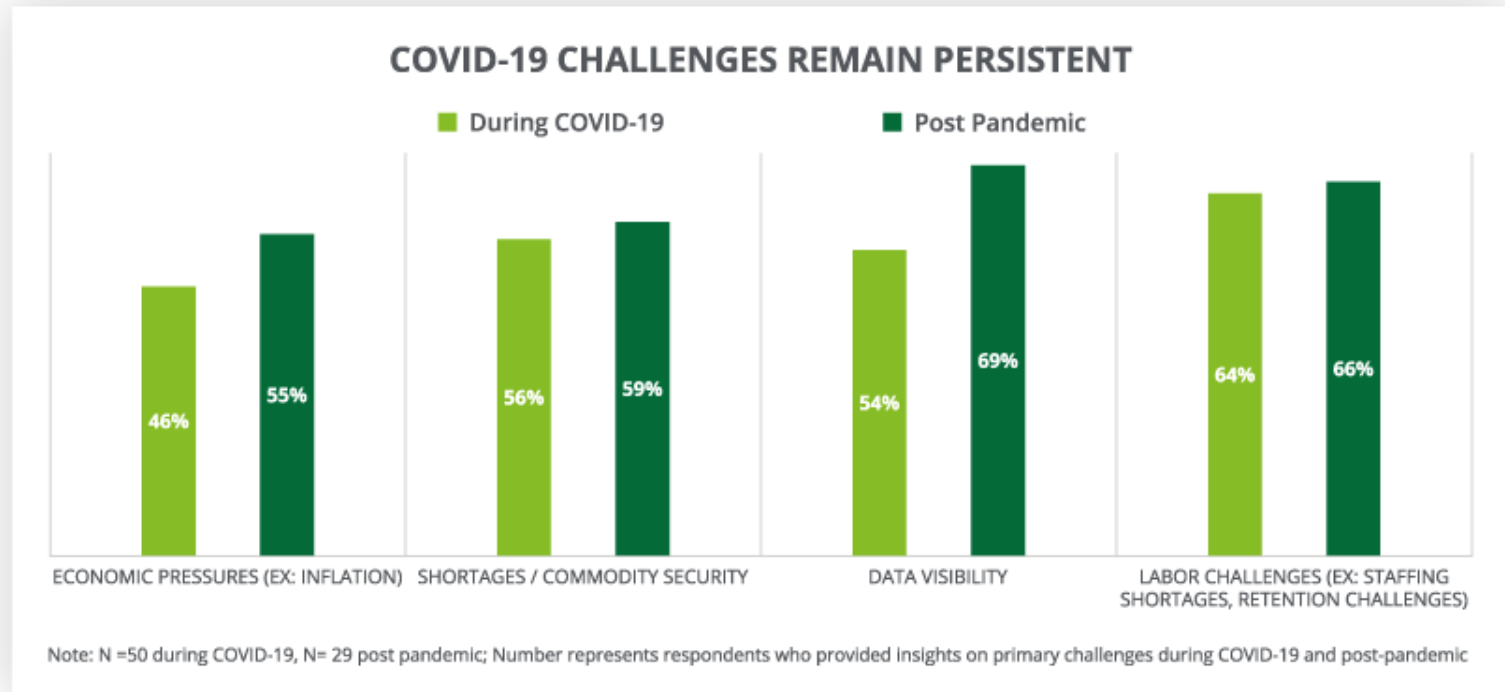
For further information contact: [gene.Schneller@asu.edu](mailto:gene.Schneller@asu.edu)

# How Does A Commoner Act?

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- Our fates are interdependent
- There is value in co-investment
- The unknown is unknown
- Our governance structure is my best insurance policy
- The long game and short games are truly different
- Local solidarity is critical to resilience
- Resilience is not without cost and commitment
- ROI is not apparent – and frequently difficult to calculate – externalities are many
- Commoners know where transparency is important and how to assure it
- Commoners tolerance of non-commoners is important and must be taken into account.
- Commoners act to protect the eco-system of providers
- Commoners act to protect the eco-system of suppliers

# June 2023 Deloitte Survey



# Examples of Critical Supply Chain Disruptions to Health Care Since Declaration of COVID-19 Public Health Emergency\*

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- Semiconductor Shortage: January 2020–ongoing
- Factory Shutdowns and Labor Shortages: January 2020–ongoing
- Aluminum Shortage: July 2020–ongoing
- Texas Deep Freeze: February 2021
- Suez Canal Blockage: March 2021
- Plastics Shortage: March 2021–ongoing
- Hurricane Ida: August 2021
- American Port congestion: October 2021–January 2023
- Russia Invades Ukraine: February 2022–ongoing
- Helium shortage: October 2022–present

Source: Deloitte Survey 2023



# Attention To These Issues Is Growing ... Words Of The Decade: *Supply Chain + COVID + Resilience + SNS*

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- Supply Chain COVID – 272 M Hits
- Supply Chain Failure – 147 M Hits
- Supply Chain Resilience – 150 M Hits
- Manufacturing Resilience – 134 M Hits
- Strategic National Stockpile – 4.5 M Hits

***“Houston, we have a problem”***

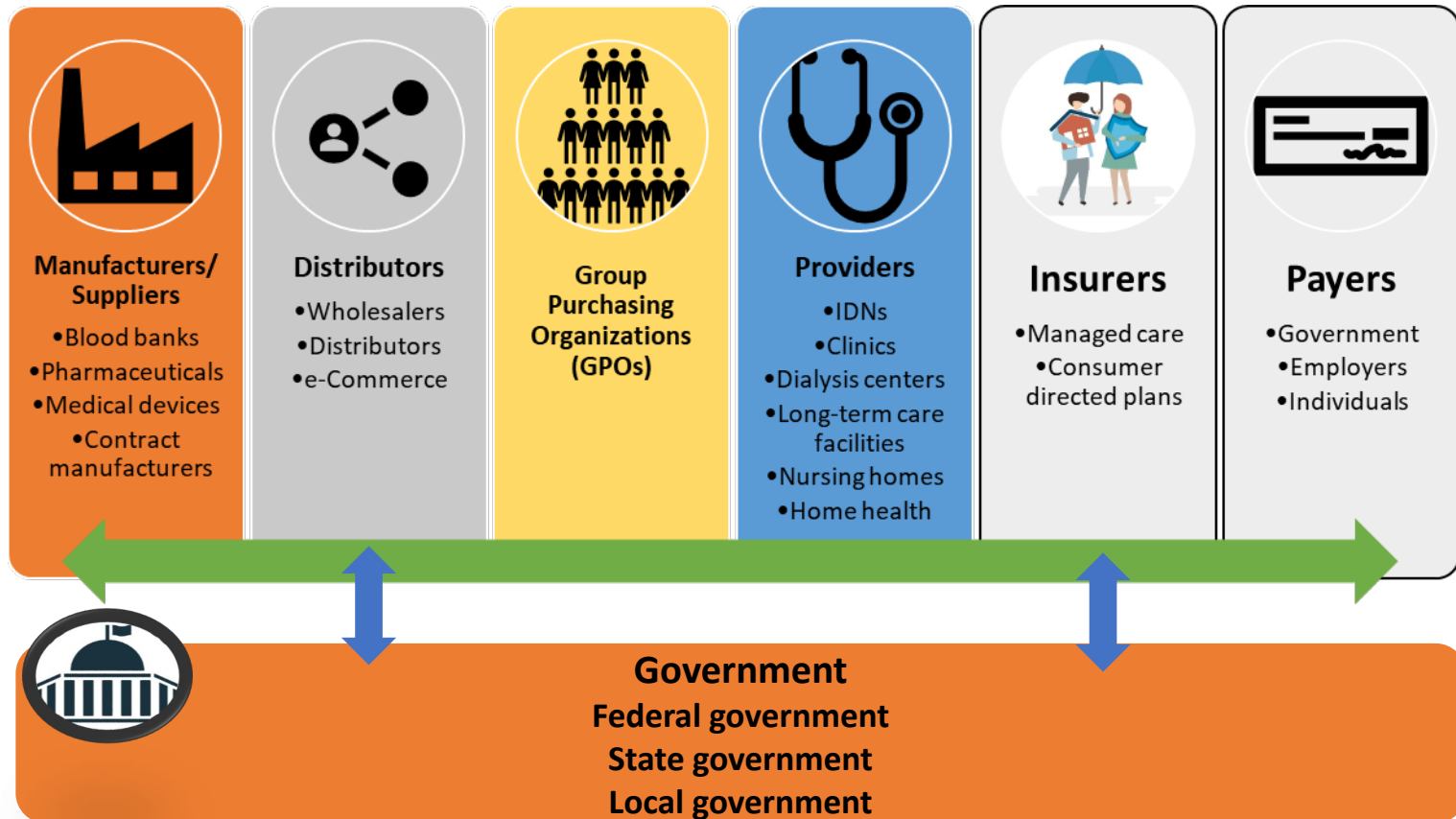
# Some Goals For This Talk

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1. Understand the situation facing emergency managers for supply chain excellence
2. A description of the supply chain from an eco-system perspective
3. A supply chain perspective of disruption risks and vulnerabilities
4. Insights into the continuing supply chain challenges
5. Recommendations for ongoing mitigation strategies
6. Consider alternatives to undertake yourselves or with others

# A Complex and Unorganized Eco-System of Entities

“A group of interacting organizations and institutions that impact the healthcare provider’s supplies and ability to provide effective care”



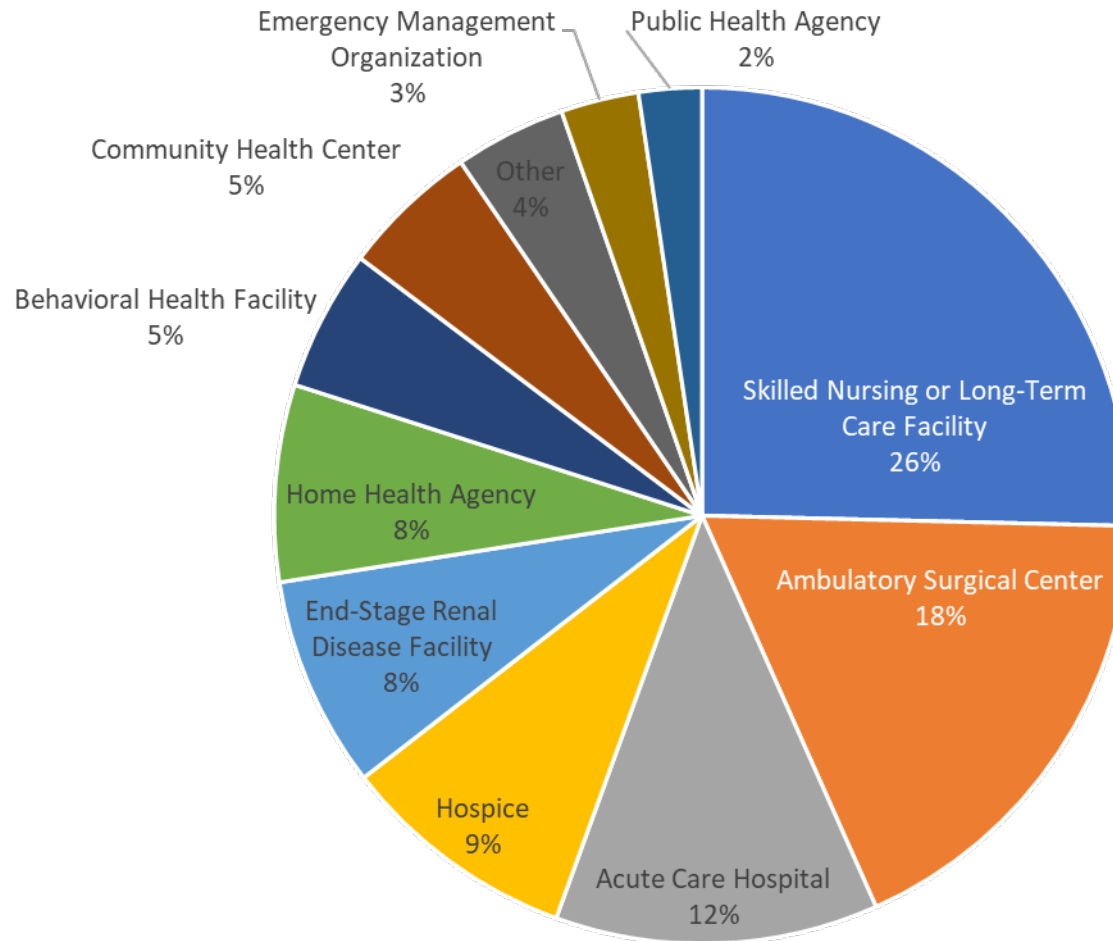
# Government Has Stepped In With Lofty Goals

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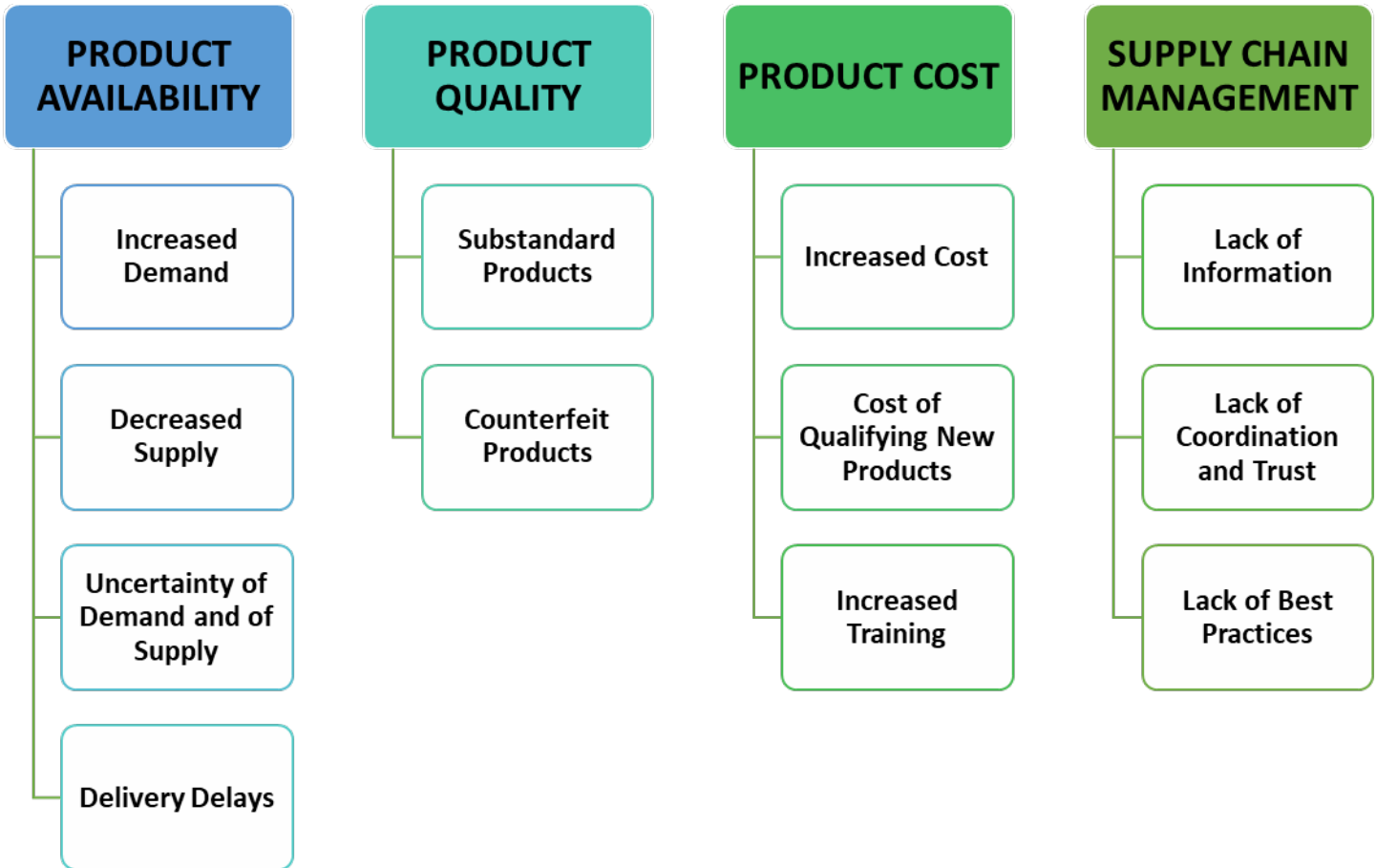
- Build the Strategic National Stockpile
- Strengthen the supply chain for likelihood of success
- Fill gaps
- Understand inventory
- Improve responsiveness & predictability
- Reduce dependency & increase accessibility
- Buy American – Increase and support domestic manufacturing
- Assure visibility/transparency
- Develop common metrics
- Bring supplies to challenged populations
- Advance innovation

***“Houston, we STILL have a problem”***

# A Complex and Heterogeneous Eco-System of Providers



# We Identified 12 Drivers Of Supply Chain Disruptions...



# Products Are Also Heterogeneous And Some Products Vulnerable To Disruptions Than Others

SUSCEPTIBILITY TO DISRUPTIONS BY PRODUCT CATEGORY	SUPPLY CHAIN DISRUPTIONS											
	PRODUCT AVAILABILITY				PRODUCT QUALITY		PRODUCT COST		SUPPLY CHAIN MANAGEMENT			
CATEGORY	Increased demand	Decreased supply	Uncertainty of demand and supply	Delivery delays	Substandard products in the market	Counterfeit products	Increased cost for healthcare products	Increased cost for training	Cost of qualifying new products	Lack of supply chain management best practices	Lack of coordination and trust	Lack of information
Blood	●	●	●	●	◐	○	●	●	◐	○	○	○
Disposables	●	●	●	●	●	●	●	●	●	●	●	●
Fuel	●	●	●	●	○	○	◐	◐	◐	○	○	○
Hazmat	●	○	●	●	○	○	◐	◐	◐	○	○	○
Leasing	●	●	●	●	◐	○	●	●	◐	●	●	●
Medical Gas	●	●	●	●	○	○	◐	○	○	○	○	○
Pharma/Nutritional	●	●	●	●	●	●	●	●	●	●	●	●

<b>KEY</b>	● High Likelihood	◐ Medium Likelihood	○ Low Likelihood
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# What Happened To The Supply Chain?

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- Failure to Recognize the Nature of Supply Chains
  - Simple yet complex
  - Stable when in equilibrium
  - Require careful management to avoid disruption
- COVID: A Disruption Unlike Others
  - Uncertainty regarding Depth
  - Uncertainty regarding Breadth
  - Uncertainty regarding Recovery Trajectory
- Full Eco-system Caught by Surprise; Despite Warnings
  - Providers needed supplies to protect patients and workers
  - Suppliers needed assurance regarding their supplies
  - Highly decentralized and disjointed healthcare systems failed to communicate and collaborate
  - Inadequate business interruption plans

***... and how do we fix it?***



# Principal Vulnerabilities/Challenges COVID and Beyond

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- Reliance Strategic National Stockpile
- Reliance on Global Market
- Failure to Manage Global Market
- Management Strategies
  - Lean, JIT, etc.
- Sole Sourcing
- Lack of Visibility and Transparency Suppliers
- Lack of Communication Channels
- Lack of Trust
- Allocation

# Supply Chain Managers And Policy Planners Have a Range Of Options

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Options	OUTCOME	RATIONALE
Do nothing	Let the current supply chain systems deal with it.	<ul style="list-style-type: none"> <li>Fragmented system unlikely to respond quick enough to reduce mortality rate.</li> <li>COVID-19 illustrated this frailty.</li> </ul>
Rely on government	HHS, SNS, CDC, & Public Health to come to the rescue.	<ul style="list-style-type: none"> <li>Government itself acknowledges that they are not good at operating services.</li> <li>Centralized control and governance not available to enable this.</li> </ul>
Build asset based organization	Operated by regional healthcare consortiums	<ul style="list-style-type: none"> <li>Provides scale and coordination to manage the needs of a region.</li> <li>Creates a relatively unproductive and expensive overhead solution for relatively infrequent events.</li> </ul>
Build non-asset based organization	Operated by regional healthcare consortiums	<ul style="list-style-type: none"> <li>Establishes a coordination and governance tool leverage scale of multiple systems.</li> <li>Using virtual inventory management together with third party exchange solutions, investment and operating costs kept low.</li> </ul>

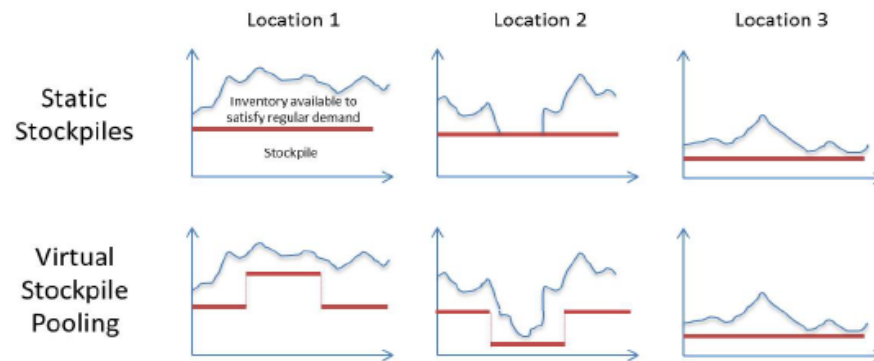
# Commons Is About Rethinking The Nature Of Goods And Ownership.

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- Common goods are necessary for the resilience of an ecosystem
- We generally think of common goods as what we as a people control such as the public airwaves, the public lands, waterways
- Private goods and public goods have been kept quite distinct except in the background—when government has amassed private goods for a public purpose.
- The definition of the public purpose for common goods necessary for ecosystem sustainability failed us to a great extent during COVID-19

# Virtual Inventory Management (VIM) Is a Form of Virtual Stockpile Pooling (VSP) ...

- VSP\* dynamically allocates an integrated set of static stockpiles amongst multiple locations. It is based on a simple observation:
  - One location can go below its red-line by a certain amount if another location can cover them by increasing their red-line by an equal amount.
- Consequently, the stockpile can be leveraged to execute a type of virtual transshipment of inventory from one location to another.



\* Liu, Song, and Tong – Building Supply Chain Resilience through Virtual Stockpile Pooling, Springer Science, 2016.

# Use of a virtual inventory management solution within a CPRO could meet the needs of Maricopa providers ...

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- Investment low overhead, non-invasive and operating costs are minimal
- Limited to select non-strategic products at first
- Managed by a third party exchange service such as GHX
- Requirements:
  - Share purchase quantities – note: already done by many providers
  - Share consumption quantities – can be done using similar tools as purchase quantities
  - Establish a shared VIM algorithm managed by third party or provider consortium
  - Establish product sharing governance principles

**CPRO provides a tool for higher performance.**

# The Idea of a Common Pool Resource Organization

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- Collaboration with systems
- Collaboration with local systems
  - Florida's Lee County EMS has mitigated supply issues by entering a collaboration with LeeSar, a hospital partnership group and healthcare supply chain management service, which also helps track medication use.
  - LeeSar handles supply of both pharmacy and logistical products for hospitals; Lee County EMS approached the company about transitioning their supply to them, and LeeSar in turn created a new channel for their products.
  - The collaboration put Lee County EMS on par with hospitals in terms of prioritization. Typically, hospitals receive medications first, meaning in times of short supply, EMS services might struggle to meet demand. “We essentially became partners with LeeSar and were treated as if we were a hospital,” says Johnson. LeeSar also sources from multiple vendors, making it less vulnerable to supply changes.

(Source – EMS World Jan 2022)

# Combining The Eco-system View With A Supply Chain Risk Management Focus Provided Insights Into Vulnerabilities And Their Mitigation ...

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- **TRIGGER** – A trigger is a natural or man-made event that can adversely affect the normal flow of materials, services, information, and financial assets in a supply chain.
- **VULNERABILITY** – The susceptibility of exposed assets to damage or impact from a trigger.
- **RESILIENCE** – The ability of organizations to anticipate and prepare for disruptions, restore their operations after a disruption, and adapt and transform their operations in response to disruptions to ensure continuity of operations and service to their customers.

***Organizations must balance their vulnerabilities and capabilities to ensure Balanced Resilience.***

# A Framework For Managing Different Kinds Of Uncertainties

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- Characteristics of disruptions - Uncertainties differ by
  - Depth – how much the impact within a population
  - Breadth – how dispersed is the impact
  - Recovery – what is the lifecycle of the disruption (recovery time)
- Characteristics of provider systems
  - Level of centralization/integration
  - Culture of collaboration
  - Community is the ultimate client
- Characteristics of the ecosystem
  - Number of unaffiliated providers
  - Geographic dispersion
- Culture
  - Collaborative vs independent
  - Shared social responsibility
  - Commitment to removing disparities



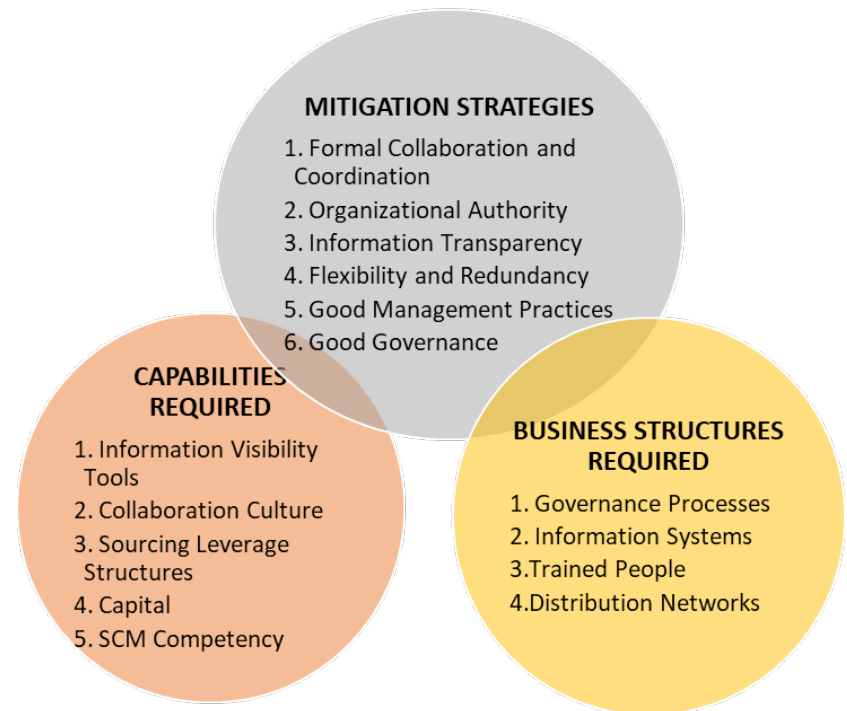
# Stickiness Needed For Resilience And Preparedness

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- Mission & Governance
  - Not Included in statements
  - Not part of the CQO focus
  - Not board attractive
- Management & Managers
  - Trained for the short game of every-day performance
    - Love the challenge
    - Stretches the imagination
    - Little uncertainty
    - Metrics are clear
    - Tradeoffs are clear
  - Believe someone else “has my back”
- Memory is Short – No top-of-mind responsiveness to wake-up calls
  - Hurricane Maria – not a wake-up call
  - SNS subject to administration priorities
  - Agencies not responsive to criticism
- Funding & Accountability
  - Few metrics to measure Resilience & Preparedness
  - Not a category or line item
  - Manage and measure what we fund
- Lack of institutions focused on the long-term unknowns

# A CPRO Can Ensure Stickiness ...

- An organization characterized by:
  - Authority
  - Responsibility
  - Accountability
- Owned and managed for the ecosystem of providers
  - To secure the sustainability of a population
  - Based on items most vulnerable within vulnerable product categories
  - Managed at the community level via common good management practices
  - Public/Private Partnerships
  - Free from pressures of self-fulfilling motives



# SUMMARY – Going Forward – Down the Road

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- Manage for Resilience – *Balance Just-in-Time and Just-in-Case*
  - Collaborate to avert supplier/small-business failure
  - Recalibrate global sourcing
  - Manage safety stock for disruptions
- Governance for the Public Interest and Trust
  - Federal vs. Regional vs. Local Pools
  - Public Health Agency alignment with eco-system
  - Integrated IT to assure transparency and avoid hoarding
- Education and Research for Resiliency Management
  - Learn from other industries
  - Learn from past disruptions

# What A CPRO Accomplishes?

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stickiness

# Three Things to Do to Get Started

- Determine your centers essential functions – what is most important to your organization’s operations, preparedness, and resilience?
- Identify essential key positions and resources who will support the center’s essential functions.
- Reach out to your Health Care Coalition (HCC) and send a center representative to the next HCC meeting. Ask about a cross-organizational approach for supplies.

# Questions?





# Thank you!

Jason Belden | [jbelden@cahf.org](mailto:jbelden@cahf.org)

Gene Schneller | [gene.schneller@asu.edu](mailto:gene.schneller@asu.edu)

Karen Schindler | [kschindler@hsag.com](mailto:kschindler@hsag.com)



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