# Securing the Medical Supply Chain Forum: 10/15/19

**CENTER OF EXCELLENCE**
**HOMELAND SECURITY-EMERGENCY MANAGEMENT**

**Securing the Medical Supply Chain Forum: "Are We Ready? What Can We Do to Prepare?"**

## Background

The Centers of Excellence for Allied Health, Global Trade & Supply Chain Management and Homeland Security Emergency Management collaborated to conduct a Forum around the educational and business sector of the Medical Supply Chain industry. This year's Forum was the sixth collaboration between Global Trade & Supply Chain Management and Homeland Security Emergency Management and the first with Allied Health. It was also the first time the Forum was held in Seattle at South Seattle College – Georgetown Campus.

The purpose of the Forum was to provide broad overview of the medical supply chain, discuss vulnerabilities and risks associated with security, transportation, availability of raw materials and challenges experienced by suppliers, distributors, and receivers. It was also important for speakers and attendees to have the opportunity to discuss the impacts of supply and demand expectations on the availability of medical supplies, and equipment during a significant event (natural and intentional). While also talking about how operational, communications, and planning requirements can be impacted during a disaster and hinder the support of critical healthcare functions during an emergency. The Forum also allowed attendees to help identify best practices and applications that would be required by the industry and program faculty to address the knowledge, skills, and abilities students will need in order to gain employment.

We had a wide range of attendees representing different industry sectors:

- 25% government – local, state, federal, and tribal
- 25% Healthcare
- 25% Education – Colleges (CTC) and Skills Center
- 15% Private Sector
- 10% Non-profit

## Overview

Onora Lien (pictured right), Executive Director, Northwest Healthcare Response Network, was our Welcome morning keynote at the Forum. She talked about how Washington State has a complex and vital healthcare delivery system. The State has more than 7,000 healthcare delivery organizations and approximately 430,000 licensed healthcare

providers. Healthcare supply chain under normal operations will include manufacturers, distributors, providers, and patients.

- **Manufacturers**: Plants for production and research, labs, biologists, and vaccinologist. Its role within the supply chain is to research and develop new products, create and manufacture medical products (e.g. branded and generic pharmaceuticals, medical and surgical supplies), monitor and respond to shortages, produce disposable and durable products, medications, electrolytes, dialysis, IV fluids, etc.

- **Distributors**: Wholesale distributors and logistic partners (including third party logistics). The role of distributors in supply chain include delivering medications and supplies from manufacturers to providers and healthcare facilities. Distributors handle Ninety-two percent of prescription drug sales.

- **Providers**: Hospitals, pharmacies, emergency medical services agencies, dialysis centers, urgent care facilities, assisted living facilities, and long-term care facilities. Role in supply is the receive medications and products from distributors, prescribe and disperse medications and products to patients, and use products in hospitals/healthcare facilities.

- **Patients**: Consumers, patients, and communities. Role in supply chain will include unique medical needs that require specific procedures, influence the demands for medications and products, and care for and use products according to direction/labeling (e.g. refrigerate).

To view Onora's PowerPoint Presentation: Setting the Stage - Onora Lien

Our luncheon keynote speaker was Curry Mayer (pictured left), Emergency Management Director for City of Bellevue. Curry's presentation was about emergency management relates to the medical supply chain. She went on to explain how an earthquake, tsunami, and power outage can have disastrous affects to the supply chain. All three could occur at the same time, which can result in long-term recovery and major critical infrastructure damage.

To view Curry's PowerPoint Presentation: Securing the Medical Supply Chain - Curry Mayer

**Supply chain mapping**

- Documents the source of materials, storage, transportation and distribution of products.
- Enables transparency throughout the supply chain
- Provides insights into vulnerabilities, potential risks
- Allows for development and implementation of proactive mitigation strategies.
- Collaborate across sector lines

- Combine preparedness & mitigation efforts

## Key Findings

### Day-to-Day Supply Chain Challenges

- **Industrial**: E.g., work stoppages, fluctuating transportation costs, fuel supply issues, geopolitical events, market forces, technological failures, etc. These are especially impactful to production and manufacturing
- **Operational**: production or supply problems such as lack of raw materials, or machine parts, regulatory actions (includes product recall), manufacturing timeframes, product liability challenges, just in time ordering processes, disparate product cycles, data silos between suppliers and providers
- **Just in time or low unit of measure programs:** Frequently relied on by healthcare from their distributors; help reduce costs but lead to fragile supply-demand relationships
- **Consumer or provider brand (or product) preferences for medications, equipment; consumer distrust in novel medications/vaccines**

### Supply Chain Hazards, Threats, Vulnerabilities

- **Healthcare Supply Chain relies on many variables**: raw material availability, machinery, parts, workforce, standards compliance, regulatory requirements, contracts, critical infrastructure (power, water, telecommunications, multi-modal transportation, etc.)

Many hazards can create or exacerbate these vulnerabilities globally and locally:

- **Natural Disasters**: hurricanes, snowstorms, wildfires, floods, earthquakes
- **Human Caused Disasters**: e.g. cyber-attacks, acts of terrorism, oil-spills, transportation incidents, etc.
- **Public Health Threats**: e.g. biological threats naturally occurring and intentional attacks

### Key Vulnerabilities

**Manufactures:** Raw materials/production disruption, spike in demand outpaces production, limited number of vendors fro needed products, damage to factor/utilities, overseas production vulnerability.

**Distributors:** Access and re-entry to disaster-affected areas/facilities, secure transportation need, spikes in customer orders, road damage/infrastructure damage, product shortage(s), and impacts to labor force and transportation.

**Providers:** Lack of redundancy in vendors and suppliers, limited substitutes, product shortages that can affect just-in-time inventory, medical surge, pharmacy/healthcare infrastructure impacts, inadequate supplies for demand, which can lead to hoarding.

**Patients:** Difficulty finding options to meet patient's needs, insurance issues, cost/limited ability to stockpile medicines and medical products, utilities failures, access delivery/transportation issues.

**Building Resilience Locally**

- Statewide healthcare and supply chain workgroup
- Information sharing and situational awareness
- Strategies for resource conservation, adaptation, substitution, etc. for key supplies
- Disaster formularies
- Statewide and locally planning for logistics, critical infrastructure recovery, transportation access, credentialing, etc. post disaster

## Takeaways from Attendees

Eric Holdeman, one of our Forum attendees, said it was the best one he attended. Others commented that it was an overall great session and that we provided good basic information on how fragile the medical supply chain can be. One attendee said that the afternoon panel, which was moderated by Linda Crerar, was the best part of the program. Curry Mayer's presentation was praised as informative, well paced, and engaging. One of our attendees wrote that Curry "was an excellent complement to an abundant lunch." Another said, "Curry Mayer was excellent. Her thought process of being disruptor to get others engaged to change and prepare is easy and impactful to remember as I take back to my team."

Comments and concerns from attendees:

- How does the federal, state, county/city plan on getting supplies to hospitals. I am from a small critical access hospital and will be cut off from all but air and water supply routes?
- Provide some options for supply chain training and education.
- It was informative to present the varied perspectives of all aspects/sides of the medical supply chain in the context of emergency management. We can sometimes get tunnel vision for our piece of the system and this is admonition to look up and around.
- I would like to hear more about what panelists want/need to see in future emergency management professionals. I think we would also benefit from seeing more generational diversity amongst panelists such as those in the beginning of his or her careers who also have much to offer.
- More mention of mentorships in the medical supply chain.
- Need relationship building education.
- Workforce needs awareness and training.

- Our workforce needs to be ready and practiced to work without technology.
- Make it fun to practice
- Build relationships with other colleges and collaborate.

## Conclusion

This year's Forum was successful in helping to achieve our work plan activity objectives. There will be video segments of the Forum uploaded to the Center of Excellence – Homeland Security Emergency Management's YouTube page and will be shared with attendees and speakers, along with out stakeholders.

We want to thank Michael Loehr, Chief of Emergency Preparedness and Response at Washington State Department of Health and Shane Moore, Emergency Planning Program Coordinator at Washington State Emergency Management Division for being on our workgroup for the Forum. It was because of their help, insight, and input in our Forum goals and objectives that we were able provide our attendees and stakeholders an eventful and impactful day of learning about the medical supply chain.