



Statement for the Record

Matthew J. Rowan

President and CEO

Health Industry Distributors Association

On

“Confronting the Coronavirus: Perspectives on the COVID-19 Pandemic One Year Later”

Before

House Homeland Security Committee

February 24, 2021

Thank you for convening the House Homeland Security Committee hearing, “Confronting the Coronavirus: Perspectives on the COVID-19 Pandemic One Year Later.” This hearing can play an important role in identifying lessons learned from this pandemic, and how they can be applied to future public health crises.

To assist in these efforts, the Health Industry Distributors Association (HIDA) is attaching an infographic and our white paper, “Building A More Robust Supply Chain: A Public-Private Framework to Create A Pandemic Response Infrastructure,” that outlines steps to strengthen our medical products supply chain. We believe the public and private sectors must work together to:

1. Make the supply chain more robust, utilizing the nation’s 500 commercial distribution centers to forward deploy critical products
2. Diversify sourcing
3. Expand and support surge manufacturing capacity and
4. Prevent development of a fraudulent opportunistic marketplace.

The framework of this strategy was the basis for bipartisan legislation (H.R. 6531 and H.R. 7574) which was passed by the Energy and Commerce Committee and the House last year.

Securing affordable shipping to transport the critical products needed for the COVID-19 response has been a continuing challenge for healthcare distributors. In the fall of 2020, imports of containerized freight were 15% higher than the same period in 2019 due to general restocking, anticipated holiday orders, and pre-orders of PPE prior to the Lunar New Year holiday in Asia. This increased volume of imported goods has created ongoing shortages of shipping capacity by sea, air, and land. To address this problem, HIDA and its members are collaborating with federal partners on ways to prioritize PPE and other critical supply shipments at U.S. ports.

Throughout this pandemic, America’s medical products distributors have collaborated with the federal government as trusted partners. Every day, our distributors are using their existing infrastructure to reliably deliver essential medical supplies the last mile into the hands of providers. During the first three quarters of 2020, HIDA members distributed more than 90 billion units of pandemic-related supplies – including more than 39 billion units of PPE.

Our nation’s more than 200 medical products distribution companies provide logistics expertise essential to handling 650 million orders every year. Our vast distribution network reaches provider locations across all care settings. This includes 6,000 hospitals, 15,600 nursing homes, 28,900 assisted living facilities, 12,200 home health agencies, 267,000 laboratories, and 230,000 physician offices and clinics.

HIDA appreciates the important work being done in your committee, and we look forward to working with you on long-term policy solutions. If you have any questions or need additional information, please reach out to HIDA’s Vice President of Government Affairs, Linda Rouse O’Neill at [Rouse@HIDA.org](mailto:Rouse@HIDA.org).

Thank you for your leadership on these issues.

---

# Building A More Robust Supply Chain: A Public-Private Framework To Create A Pandemic Response Infrastructure

September 2020



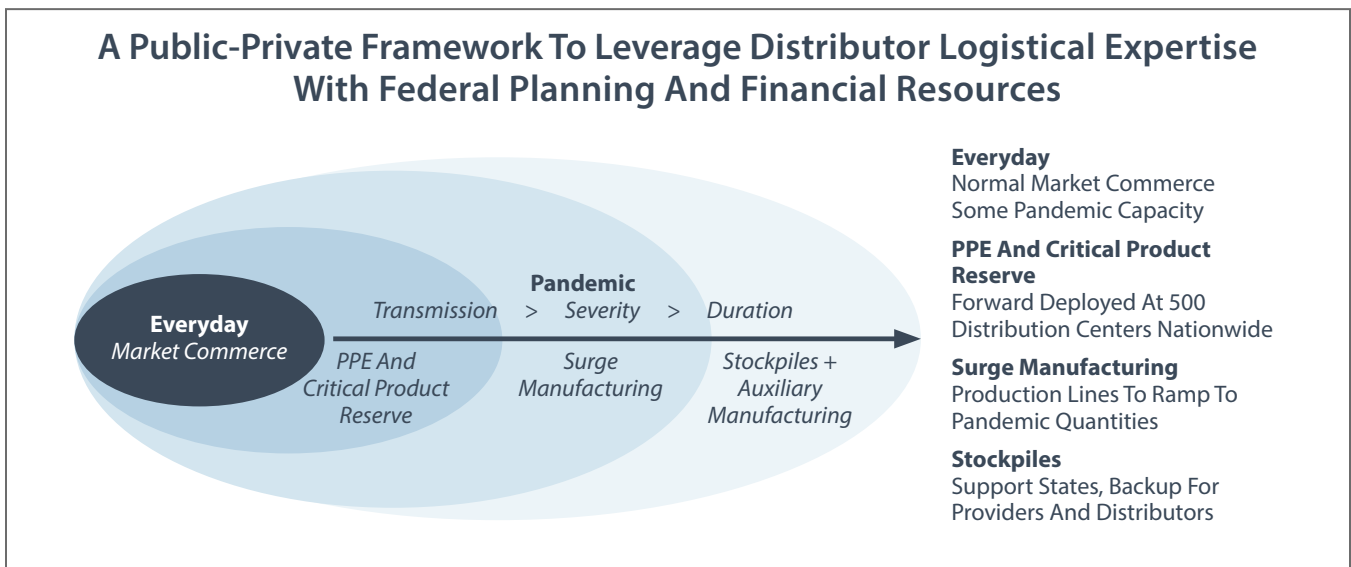
# Executive Summary

To prepare for the next pandemic event, the U.S. must strengthen its health industry supply chain by creating a pandemic response infrastructure that can both meet an initial, massive surge in demand for key medical products and ramp up quickly to replenish the supply chain continuously over a sustained period of time.

The U.S. healthcare supply chain is strong, but the COVID-19 pandemic demonstrated it needs to be more resilient. Policymakers, manufacturers, group purchasing organizations, and distributors have learned they need to work together to 1) make the supply chain more robust, 2) diversify sourcing, 3) expand and support surge manufacturing capacity, and 4) prevent development of a fraudulent opportunistic marketplace.

The foundation of the pandemic response infrastructure should be a public-private partnership built on four pillars:

- **Forward-Deployed Personal Protective Equipment (PPE) And Critical Product Reserve:** Create stocks of federally funded and controlled pandemic supplies using the 500 commercial distribution locations throughout the U.S., positioning inventory close to healthcare providers and designed to meet their “first-call” needs for 30-60 days until surge manufacturing capability can be mobilized
- **Diversified Surge Manufacturing Capability:** Significantly expand U.S. and nearshored manufacturing capacity to establish a more strategic blend of sources capable of surging to increase volume in 30-60 days to keep customers and stockpiles supplied during a pandemic
- **Sustainable And Replenished Stockpiles:** Require centralized stockpiles to be replenished by the surge manufacturing infrastructure to support state and local government needs during a crisis and serve as a backstop to the commercial supply chain
- **End-User Aligned Supply Chains:** Align distribution channels to categories of end users to avoid surge-driven competition for products that drives up prices and encourages profiteering brokers to enter the marketplace



Only the coordinated and combined efforts of manufacturers, distributors and policymakers can build and support the pandemic response infrastructure the U.S. needs.

# Lessons Learned

The U.S. healthcare supply chain is strong, but the COVID-19 pandemic demonstrated it needs to be more resilient to respond to a sudden and massive increase in demand for medical products. The country continues to battle a disease that has now stricken two million people and caused more than 180,000 deaths in the U.S. as of August 2020. But manufacturers, distributors, group purchasing organizations, healthcare providers and policymakers have already learned at least four valuable lessons:

- 1) The supply chain must be more robust
- 2) Sourcing must be more diversified
- 3) Surge manufacturing infrastructure must be expanded and supported
- 4) Supply chains must be aligned to end users

## The Supply Chain Must Be More Robust

**A Lean Supply Chain Delivery Model That Helps Bend The Cost Curve:** During the regular course of business, the U.S. health industry supply chain does an efficient job of sourcing, shipping, storing and delivering thousands of healthcare products for 300,000 hospitals, nursing homes, home health agencies and physician offices. It relies on a just-in-time delivery principles pioneered by Japanese automakers and uses lean supply chain principles to keep manufacturing and inventory costs low. This helps bend the cost curve for healthcare by closely matching supply with demand to drive high efficiency when shipping, storing and managing large amounts of inventory. The model has some excess capacity built in to accommodate fluctuations in demand for products and anticipated events such as seasonal influenza, but significant and sustained changes to either the supply of products or the demand for them can lead to large disruptions.

**Unprecedented Surge in Demand:** The COVID-19 outbreak created a simultaneous and unprecedented global surge in demand for healthcare supplies. The Pentagon estimates that the demand for N95 respirators soared to 140 million masks during the 90-day peak of the pandemic. That is nearly three times the normal annual consumption of 50 million masks in the U.S. and represented an 11-fold increase in normal three-month usage rates.

A survey conducted by the prominent group purchasing organization Premier at the beginning of the pandemic in March 2020 found that hospitals treating COVID-19 patients were using face shields at more than eight times their usual rate and consuming isolation gowns at five times the usual rate.

*The Pentagon estimates that the demand for N95 respirators soared to 140 million masks during the 90-day peak of the pandemic, an 11-fold increase.*

### Estimated Surge Usage of PPE At Hospitals Treating COVID-19

Supply	Surge Need	Inventory on Hand (Without COVID-19 Patients)	Inventory on Hand (With COVID-19 Patients)
Face Shields	8.6x	3.7 days	3.3 days
Viral Swabs	6x	10 days	9.3 days
Isolation Gowns	5x	4.5 days	2.7 days
Surgical Masks	3x	3.6 days	2 days

Source: <https://www.premierinc.com/newsroom/press-releases/premier-inc-survey-as-covid-19-spreads-to-new-hotspots-hospitals-should-prepare-for-up-to-a-17x-surge-in-supply-demand>

Typical shipping times for some supplies from an overseas manufacturer to a healthcare provider's doorstep via ocean freight are 30-40 days. This unprecedented surge in demand led to a rapid depletion of available inventory.

**Unanticipated Disruption In Supply:** At the same time COVID-19-related demand was surging, manufacturing facilities in China, the single largest source of PPE in the world, were being shut down due to the pandemic. Wuhan, the epicenter of the Chinese outbreak and a major source of PPE supplies, was dormant for nearly three months. Other Chinese manufacturing centers were also shuttered for weeks. The result was a significant reduction of supply from the country that produces a major share of the PPE imported by the U.S.

**The Need For Greater Reserves:** The twin stresses of increased demand and constricted supply demonstrated the need for distinct approaches to day-to-day demands versus those caused by an exceptional event. For everyday needs, the supply chain delivers a large number of products reliably, efficiently and cost-effectively. At the same time, the U.S. also needs a pandemic-oriented infrastructure that combines government planning with the commercial supply chain to create and maintain larger reserve inventories that can mitigate sizable disruptions in the supply chain.

## Sourcing Must Be More Diversified

**The Supply Chain Is Global:** The U.S. health industry supply chain globalized during the last forty years. It did so to take advantage of the development of highly specialized, lower-cost manufacturing expertise outside the U.S. to bend the healthcare cost curve. While the U.S. maintains manufacturing capacity for many types of PPE and medical supplies and, in fact, exports healthcare products to other countries, it also relies on overseas sources for large amounts of its own supplies. Building on long-term relationships with vetted foreign manufacturers, distributors help control costs for healthcare providers while delivering high-quality, FDA-approved supplies and equipment.

**Globalization Has Led To Concentrated Sourcing:** The globalization of the supply chain also resulted in concentration of the supply manufacturing in several countries. For example, China is the source of 72% of the surgical masks and 54% of the medical gowns imported to the U.S. But China is not the only example of concentration. Malaysia is the source of 65% of the world's medical gloves.

*Malaysia is the source of 65% of the world's medical gloves.*

**The Disadvantage Of Concentration:** As the outbreak of COVID-19 in China demonstrated, one disadvantage of concentration is that the local disruption of a manufacturing center's production capacity can have a global impact. Another disadvantage is that the reliance on transoceanic shipping leaves the U.S. health industry supply chain vulnerable to climate-related events and natural disasters such as hurricanes and earthquakes that can render key ports inoperable for lengthy recovery periods.

**The Need For Reshoring And Nearshoring To Provide A More Diversified Mix Of Sourcing:** Today's global supply chain exists because it enables healthcare providers to benefit from the economies of scale, specialized manufacturing processes and lower costs of overseas production. Many of the economic benefits of the global supply chain would be significantly diminished if all production were to be reshored to the U.S. or nearshored to the Americas. But the COVID-19 pandemic has demonstrated the logistical and strategic need to rebalance the dependence of the U.S. on distant sources and increase the share of sourcing done closer to home. Achieving this diversity in sourcing will require a significant expansion of U.S. and nearshore manufacturing capacity.

## Surge Manufacturing Infrastructure Must Be Expanded And Supported

**A Lean Supply Chain Means Limited Additional Manufacturing Capacity:** The efficiency of the health industry supply chain includes "flex" capability to meet a surge in demand, but production lines run at near capacity. Adding greater capacity involves a significant investment in new equipment and the time to build or expand existing facilities. It is difficult for manufacturers to invest in capacity knowing that demand quickly dissipates after a public health event. Developing greater manufacturing capacity is a key opportunity for the private and public sectors to partner.

**Overseas Sourcing Complicates Rapid Response:** Even without the COVID-19 related production shutdowns in China, the steep increase in demand for medical supplies would have significantly stressed the global supply chain due to the lengthy shipping times involved in moving products from manufacturing centers to the U.S. When equipment burn rates increase dramatically, 30-40 day shipping times make it difficult for the supply chain to keep pace.

**The Need To Create And Support Surge Capacity In The U.S.:** The overall lack of flex capacity in the global supply chain coupled with the complications created by 30-40 day shipping windows point to the strategic need for the U.S. to develop and support production infrastructure that it can ramp up quickly to meet its own surges in demand. The goal is to have surplus capacity that leaves the U.S. less vulnerable to supply disruptions or sudden increases in national and global demand.

*When equipment burn rates increase dramatically, 30-40 day shipping times make it difficult for the supply chain to keep pace.*

## Supply Chains Must Be Aligned To End Users

**Increased Demand, Decreased Supply Led To A “Wild West” Marketplace:** The combined impact of a drastic increase in demand and constricted supply led to a “Wild West” marketplace as healthcare providers sought far more supplies than usual. In addition, the pandemic brought in new, non-traditional customers for PPE: state governments, charities, and businesses such as grocery store chains and airlines who needed PPE just to provide essential services and stay afloat. All of them competed for the supplies that were available.

**Fly-By-Night Brokers Enter The Marketplace:** To complicate matters further, as distributors faced the challenge of securing supplies for their current customers, and trying to help additional customers find PPE, new fly-by-night brokers entered the marketplace. Although some of these brokers had noble intentions, most had no expertise or experience in healthcare supply chains. They sourced products of unknown quality from unknown vendors and auctioned those products to the highest bidder. In many cases, brokers did not physically deliver supplies to healthcare providers and, as numerous reports in the media have confirmed, sometimes the product they “sold” did not even exist.

**The Need For Supply Chains Aligned To End Users:** While there were many contributing factors to the opportunistic marketplace resulting from the pandemic, a recurring theme from providers and states was confusion as to where and how to access supplies. This frequently initiated counterproductive bidding wars among the federal government, state agencies, healthcare providers and other customers for the same supplies and was a major enticement to unqualified, opportunistic brokers to enter the market. A comprehensive preparedness system should align end users to specific supply chains so expectations and communication are clear.

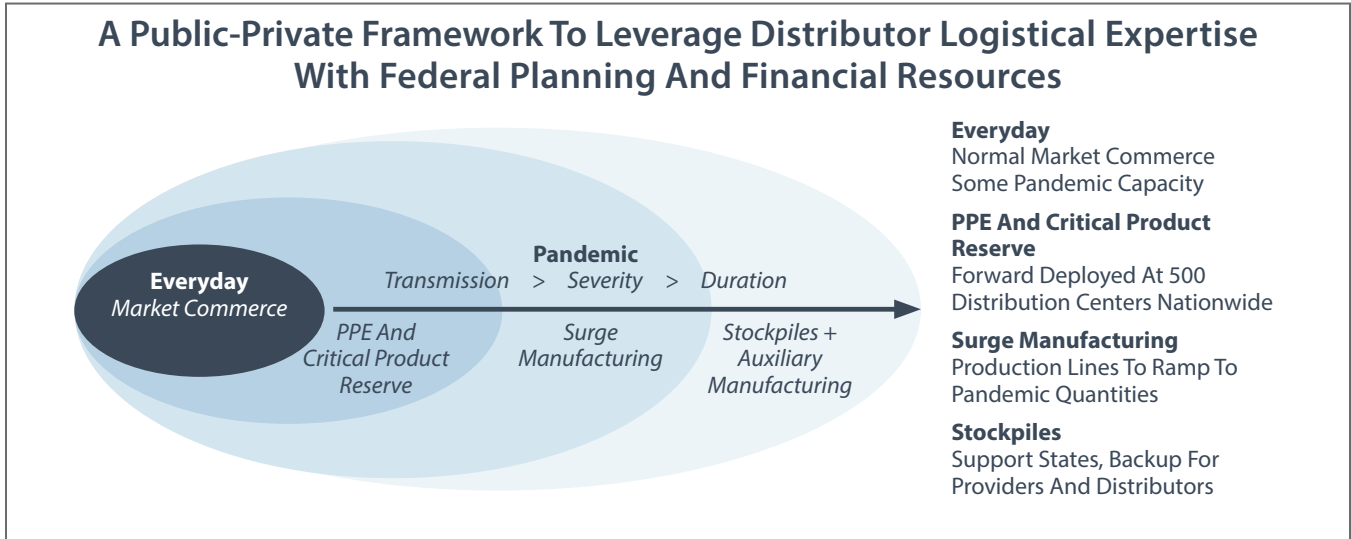
## The Response: A Public-Private Framework For U.S. Pandemic Preparedness And Response

The U.S. needs a national strategy that builds on the lessons learned from the COVID-19 pandemic. We must make available and continuously replenish medical products to satisfy massive, sustained demand from healthcare providers, consumers, first responders, states and essential workers.

This strategy must support, not supplant, the commercial supply chain. Planning should leverage private infrastructure to develop a “whole supply chain” effort. We must coordinate every global and domestic manufacturing source, medical distributor and distribution center in the U.S. to contribute in partnership with government agencies and planners before and during a pandemic.

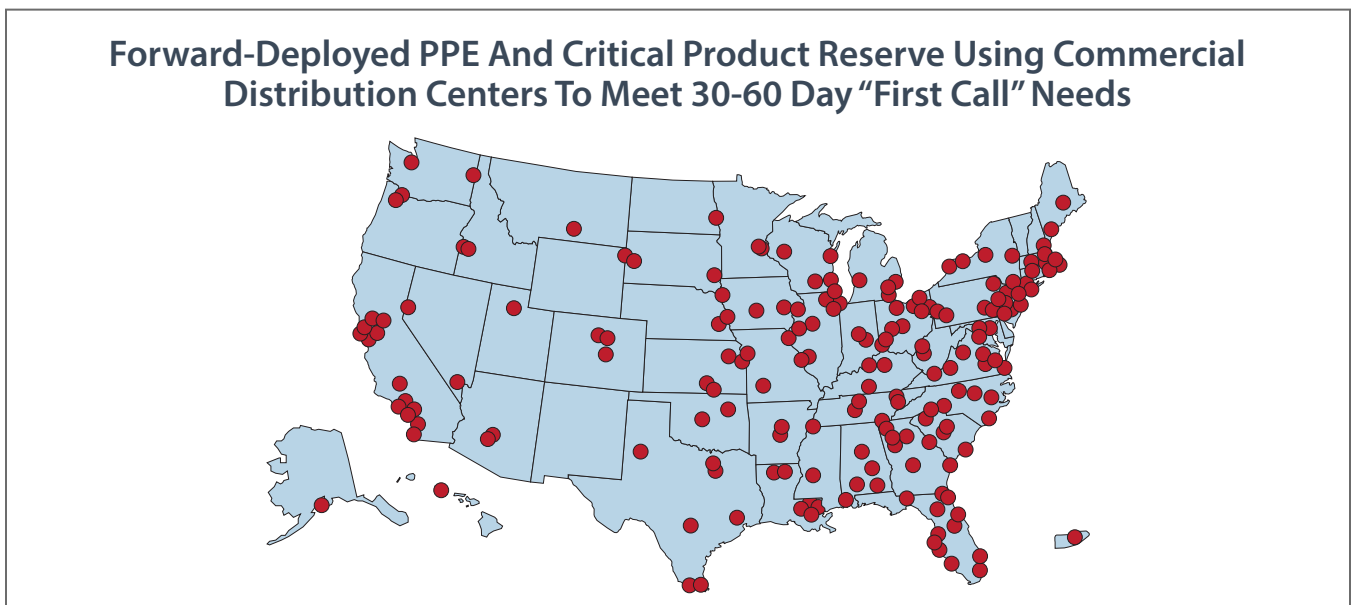
This infrastructure would feature four components:

- 1) A forward-deployed PPE and Critical Product Reserve
- 2) Diversified surge manufacturing capability
- 3) Sustainable and replenished stockpiles
- 4) End-user aligned supply chains



## Forward-Deployed PPE And Critical Product Reserve

**The First Line Of Defense:** The first line of defense against a future pandemic should include forward-deployed stocks of federally funded and controlled pandemic supplies in up to 500 commercial distribution locations throughout the U.S., positioning inventory close to every provider customer. Pandemic demand rises rapidly across the country and stresses the supply chain from the outset. By instinct and design, healthcare providers make their first calls for additional supplies to the distributors with whom they have long-term, proven relationships.





**A 30-60 Day Buffer:** The reserve would serve as an important buffer for Strategic National Stockpile supplies and allow sufficient time for surge manufacturing facilities (described below) to come online. While the exact amount and types of supplies would be determined by government planners in coordination with commercial market representatives, the goal would be to have 30-60 pandemic-level days of key supplies in the reserve. This would meet the most immediate needs of healthcare providers during a pandemic. Contract stipulations could include appropriate rotation to manage expiration dates, data linkages, and replenishment, among other terms, similar to the arrangements many states and healthcare providers currently have with distributors.

**Products In The Reserve:** While PPE would be at the core of the reserve, it should include all critical products needed during a pandemic response such as needles and syringes, infection prevention products, testing products, respiratory products, and IV solutions. During the current COVID-19 outbreak, distributors have identified 30-40 products for which demand spiked precipitously as the pandemic struck and lengthened.

**Reserves Should Meet Needs Of All Healthcare Providers:** A single distribution center serves dozens of very large customers and up to thousands of smaller to mid-sized healthcare providers such as physician offices, nursing homes and emergency medical services (EMS), among others. When determining the size of the forward-deployed reserves, planners should take into account that in the case of a pandemic, smaller, non-acute care providers will need PPE that they may not use during the normal operations.

## Diversified Surge Manufacturing Capability

**A Strategic Mix Of Domestic And Global Sources:** As discussed above, cost considerations, the ready supply of raw materials, economies of scale, and other factors have all contributed to the globalization of the supply chain. It would be impractical and cost-prohibitive to attempt to make the U.S. completely self-sufficient for all of its healthcare supply needs. Nevertheless, an important lesson of the COVID-19 pandemic is that the U.S. must certainly have more domestic manufacturing capacity of healthcare supplies to cope with disruptions of the normal supply chain. This requires developing a strategic blend of U.S. manufacturing capability that can surge to meet pandemic-level demand, coupled with the established low-cost, high-volume infrastructure of near-sourced and global sources.

*The U.S. must have more domestic manufacturing capacity of healthcare supplies.*

**Ramping Up Quickly:** The logistics, space requirements, and expense of storing much more than 60 days of supplies in a reserve are considerable. The surge production capability that is available, either domestically or overseas, must be able to ramp up production rapidly during the buffer period offered by a reserve. By definition, surge capability involves surplus production capacity either in the form of well-maintained but underutilized production lines or facilities that can be easily and quickly converted to produce high-demand products.

**New Incentives For Surge Production:** The development of surge production capacity will require programs that make it economically feasible for manufacturers to invest in and maintain physical plant that will be optimized only in times of crisis. This would require an array of government funding, grants and incentives that could include financing the expansion of existing U.S. plants, purchasing additional production equipment-and guaranteeing above-market production/source and raw materials to activate in a pandemic. In addition, capacity agreements between the Strategic National Stockpile and manufacturers can be the foundation for federal stockpiles, which would, in turn, create a higher level of production on a regular basis to support investment in additional production capacity.

**Supporting Sustainable Levels Of Production And Sourcing:** The strongest approach would be to procure and manage specified amounts of equipment while investing in manufacturing capacity (plants, machinery, raw materials) to ensure that these inventory levels can be continuously replenished during a pandemic. Planners should take into account both strategic and economic considerations when deciding where to invest and source products.

## Sustainable And Replenished Stockpiles

**The Disadvantages Of Static Stockpiles:** “Buy and hold” stockpile strategies, such as requiring providers to maintain 90 days’ worth of PPE inventory, risk falling short of the massive quantities of supplies required in a pandemic. These requirements are also logistically unworkable. For example, a 90-day supply of high priority products for of a moderately-sized community hospital of 350 beds would require the equivalent of 13-15 tractor trailers of space; there are more than 5,000 community hospitals in the U.S. In a future COVID-19-level event, any government stockpile needs to be replenished by a robust manufacturing/replenishment infrastructure.

*A 90-day supply of high-priority products for a 350-bed hospital would require 13-15 tractor trailers of space.*

**Creating Dynamic National Stockpiles:** In addition to the forward-deployed PPE and Critical Product Reserve, the federal government should continue to maintain and expand a select number of centralized stockpiles with the primary goal of supporting state and local government needs during a crisis and serving as a backstop to the commercial supply chain. Even under normal circumstances these stockpiles would be dynamic, with distributors assisting government managers in replenishing and managing products in order to make sure that inventory is up to date and properly handled. During a crisis, the stockpiles would then be replenished, as needed, by the surge manufacturing infrastructure. Stockpiles should include both finished goods and key raw materials to enable surge manufacturing.

## End-User Aligned Supply Chains

**Distribution Channels Need To Be Specified:** The surge-driven competition for products that drove up prices and encouraged profiteering brokers to enter the marketplace during the COVID-19 pandemic was the result, in part, of the entry of non-traditional customers, such as local governments, charities, retailers, restaurants, and grocery stores, into the traditional health industry supply chain. Government planners must strengthen communication and expectations between the Strategic National Stockpile, state agencies and local authorities, as well as with the commercial market. This can be accomplished through the establishment of specified distribution channels aligned by end user.

**Alignment By End User:** Aligning end users to a specified distribution channel establishes roles and expectations. It reduces confusion. It also allows for better forecasting of demand and allocations. In an emergency, end users should not have to rely on unfamiliar suppliers or processes to access supplies; they should have the ability to use the same source they use every day. Their primary suppliers need to be stocked to supply the first order received and replenished to satisfy future orders.

**The End User Matrix:** While the focus of HIDA is on its healthcare provider customers, the alignment of supply chains to end users would impact other types of consumers. Designing a pandemic response model in which each supply chain is clear will improve pre-pandemic planning as well as communications and logistics during a crisis. The matrix below provides an example of how supply chains could be classified according to end user type.

### Supply Chains Defined By End User

End User		Designated Supply Channel
Healthcare Providers	>>	Medical Products Distributors
Medical Laboratories	>>	Medical/Lab Distributors Scientific Distributors Manufacturers
Public Sector Essential Workers	>>	Government Procurement Healthcare Distributors

Supply Chains Defined By End User, *continued*

End User		Designated Supply Channel
States, Counties, Cities	>>	Government Procurement/Stockpiles Federal Stockpile
Private Sector Essential Workers	>>	General Office Suppliers Industrial Suppliers Healthcare Distributors Retail Suppliers
General Public	>>	Retail and Online

## Putting The Framework Into Action: National Legislation Building On The PAHPAI Model

This framework is a public-private partnership that draws on the respective strengths of the federal government and the private sector.

On the public side, before a crisis, the government can set priorities regarding which products to stockpile and where to source them. It can provide the resources for “flex” reserves that can be drawn upon when a crisis suddenly drives up demand. On the private side, distributors are equipped to do what the government is not: handling the logistics of managing and delivering billions of units of PPE and supplies to 300,000 healthcare sites during a time of crisis.

Fortunately, there is already a model for deploying this type of partnership: the Pandemic and All-Hazards Preparedness and Advancing Innovation Act of 2019 (PAHPAI).

### The PAHPAI Model

**Public-Private Partnership Under PAHPAI:** PAHPAI addresses all aspects of pandemic preparedness. It establishes a public-private partnership to assist the Assistant Secretary for Preparedness and Response (ASPR) in the Department of Health and Human Services in the development of various preparedness response programs. PAHPAI governs important national response infrastructure such as the Strategic National Stockpile and the Hospital Preparedness Program. It also establishes programs to help hospitals, healthcare facilities, and other public and private sector entities to increase medical surge capacity before, during, and after public health emergencies. In the beginning of 2020, HHS was in the initial stages of pursuing the mandates set out in PAHPAI when the COVID-19 pandemic struck. It was already taking advantage of a productive partnership with HIDA and its members through various work groups.

**The Importance Of Work Groups:** A key feature of the public-private partnership established in PAHPAI is the creation of work groups. Experts from public and private partners analyze current market volume, capacity, and viable product substitutions/alternatives for specific products. For example, the exchange of information in the work group on needles and syringes provided the Strategic National Stockpile additional insight that the types of needles needed for prevention (mass public health vaccination campaign), are also needed for treatment in hospitals as well as for everyday patient therapies, such as treating diabetes. As a result, HIDA’s secured, web-based Mapping Tool provides federal partners with commercial market information on medical distribution centers’ aggregated inventory levels of critical products such as needles and IV Solutions.

*Work groups bring together experts from public and private partners to analyze market volume, capacity, and viable substitute products.*

## New Legislation Building On The PAHPAI Model Needed

**A More Robust Partnership To Build A More Robust Supply Chain:** This framework would require a more comprehensive public-private partnership than is currently provided by PAHPAI. The establishment of a forward-deployed PPE and Critical Product Reserve, maintenance of dynamic national stockpiles and development of surge manufacturing capacity are interconnected issues that would require a commitment of resources and planning time over a multi-year horizon.

**The Role Of The Public-Private Partnership:** Using the work group model, an ongoing public-private partnership would assist the ASPR and the Strategic National Stockpile to identify 1) how much of which products to have in the distributor-managed reserve, 2) which products and quantities should be in Strategic National Stockpile and 3) how to work with manufacturers to develop additional capacity and production diversification. In addition to identifying specific products to be held in a pandemic response inventory, the work groups would analyze the market capacity for identified products, their impact on patient care, and the complexity involved in developing reserves of each product, such as the availability of raw materials, shelf life, manufacturing complexity and capacity, size of product and lead times.

**The Medical Supplies For Pandemics Act Of 2020:** H.R. 6531, the Medical Supplies for Pandemics Act of 2020, and its companion in the Senate, S. 3827, provide for the establishment of the public-private framework described in this paper. Both bills were introduced with bi-partisan sponsors and support and HIDA and its members are working for their passage.

## The Role Of HIDA

**Uniquely Positioned:** HIDA is uniquely positioned to assist in the public-private partnership from a data and insights perspective. HIDA represents 100 distribution companies operating 500 medical distribution centers across the country. Additionally, the HIDA Education Foundation has direct relationships with 130 manufacturers, group purchasing organizations, healthcare providers and other stakeholders. These companies make, source and contract for PPE including those that make PPE, testing supplies, diagnostics, infection prevention products such as hand sanitizer, respiratory treatment products as well as other key products needed to deliver vaccines and medical countermeasures.

**Experienced Partners:** HIDA members are established partners with ASPR and Strategic National Stockpile on pandemic initiatives providing subject matter expertise from our PPE Council and market-based councils to provide deeper insights into market dynamics in end-user segments such as hospitals, labs, physician offices and nursing homes. HIDA has a 20-year history of aggregating distributor sales data for use by industry partners. We also have a best-in-class healthcare informatics partner and deep knowledge of the products and markets. Our ability to ingest, aggregate and report insights from data that can inform ASPR and the managers of the Strategic National Stockpile is proven and unparalleled.

For further information about this report: [HIDA@hida.org](mailto:HIDA@hida.org)



310 Montgomery Street  
Alexandria, VA 22314

# Shipping Challenges Causing PPE Delivery Delays, Cost Increases

In the fall of 2020, imports of containerized freight were 15% higher than the same period in 2019 due to general restocking, anticipated holiday orders, and pre-orders of PPE prior to the Lunar New Year holiday in Asia.<sup>1</sup>  
The increased volume of goods is creating strains on shipping capacity by sea, air, and land.

## Sea Container Imbalance Adding Weeks To Shipping Times

U.S. imports are growing faster than exports, creating an imbalance of shipping containers in Asia.

**2-3 week backlog** in Chinese ports due to container shortage<sup>2</sup>



The U.S. is currently receiving twice as many containers as it is sending back to Asia.<sup>2</sup>



**4-5 day unloading delay** in U.S. ports working with 1/3 fewer workers due to social distancing<sup>3</sup>

## Air Air Freight Capacity Booked Through February, 2021

The drastic decline in commercial air travel has created a shortage of "belly space" for air freight.

Freight capacity on passenger flights **down 67%**<sup>4</sup>



Total global air freight capacity **down 25%**<sup>5</sup>



Cargo flights already booked to capacity **through February, 2021**<sup>6</sup>



## Land Driver Shortage Limiting Delivery Capacity

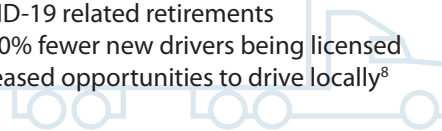
A dramatic increase in e-commerce is exacerbating the shortage of commercial drivers.

**30% increase** in e-commerce<sup>7</sup>



**Tens of thousands fewer truck drivers** due to:

- COVID-19 related retirements
- 30-40% fewer new drivers being licensed
- Increased opportunities to drive locally<sup>8</sup>



Commercial carriers 5% over capacity during holiday season anticipating **7 million late deliveries per day**<sup>9</sup>



1. Supply Chain Dive. Equipment Prices Quadruple As Transpacific Volume Surge Creates Asia Container Shortage. October 15, 2020  
2. Container News. Only Slowing Demand Will Sort Asian Container Backlog. November 3, 2020  
3. Pacific Merchant Shipping Association. Container Dwell Time in September Among the Highest Ever Reported. October 23, 2020  
4. Supply Chain Dive. Capacity Constraints Limit Air Cargo's Ability To Bounce Back. September 30, 2020  
5. Supply Chain Dive. Airfreight Rates Climb As Peak Nears. November 9, 2020

6. Wall Street Journal. Covid-19 Vaccine Delivery Will Present Tough Challenge to Cargo Airlines. October 5, 2020  
7. Supply Chain Dive. Delays, Surcharges And Returns: Holiday Shipping Headaches Have Just Begun. November 9, 2020  
8. Transport Topics. Trucker Pay Increasing As Driver Shortage Grows, Industry Capacity Tightening. October 7, 2020  
9. NBC News. FedEx, UPS Face 'Shipageddon' With Potential Shortfall Of 7 Million Packages A Day Over Holiday Season. October 20, 2020