BRIDGET McCREA | Contributor

Strengthening the Weakest Link in the COVID Vaccine Rollout

Healthcare Leadership Council and the Duke-Margolis Center for Health Policy identify the key gaps in the medical supply chain and tell what needs to happen to fix them.

With a massive effort to vaccinate the world's populations against COVID-19 underway, there are early signs that the supply chains behind these efforts are often the "weakest links" in these mobilizations. A new Healthcare Leadership Council (HLC) report backs up this claim while also examining what can be done now to improve response to future pandemics and other public health emergencies.

In "National Dialogue for Healthcare Innovation: Framework for Private-Public Collaboration on Disaster Preparedness and Response," HLC and the Duke-Margolis Center for Health Policy brought together expertise from across public and private sectors to highlight lessons learned, identify innovations that can be maintained or strengthened, and develop recommendations for how the public and private sectors can collaborate to better prepare and respond to the next emergency.

In their report, the organizations highlight three key steps to improving emergency preparedness, resilience and response: improve data and evidence generation; strengthen innovation and supply chain readiness; and develop more innovative approaches for care delivery.

Specific to the healthcare supply chain, they say that while the private sector has responded to the COVID-19 pandemic with "unprecedented efforts to meet medical product needs, from ramping up production to re-tooling assembly lines to developing new products," the pandemic also unveiled vulnerabilities in the nation's healthcare supply chain.

Those vulnerabilities have revealed themselves in the form of shortages, distribution bottlenecks, and conflicting or unclear regulatory guidance that delayed and hampered response efforts. "To develop a resilient, responsive, and robust supply chain for the next emergency," the organizations say, "it is imperative that the U.S. better leverage the unique capabilities of the private and public sectors."

4 Steps in the Right Direction

To develop a more coordinated, cohesive private-public response to disasters like the COVID-19 pandemic, the organizations say these key principles must be put in place at the supply chain level:

1. Improve communication and coordination. The organizations say that starts with creating a national strategy and roadmap for medical product innovation, rapid production and distribution chains with strong engagement from the private sector. It will also require improved coordination across federal, state and local agencies; expanded, robust private-public sector collaboration with systematic communications and data sharing; and the removal of regulatory barriers that impede rapid production and distribution of medical products during emergencies.

2. Strengthen stockpiles and prevent supply shocks. "Establish new approaches to supply chains to help prevent significant disruptions, such as using virtual stockpiles based on 'time to inventory' for selected products," they advise. Other action steps include using more geographically diversified product sourcing (including domestic

manufacturing for high-priority medical products); creating standards for what should be stored in stockpiles (including how much and how long in the stockpile); and regularly updating the standards based on the most recent science.

3. Enhance supply chain visibility. Organizations should develop mechanisms for collecting supply chain information (both upstream and downstream) to identify vulnerabilities, the groups advise, including building upon new authorities and learnings coming out of implementation of the CARES Act, "in a manner that protects confidential commercial information, trade secret information, and other information that is considered classified."

4. Grow supply chain capacity. Finally, ensure sustained funding to meet the nation's supply chain needs, identify needed ancillary supplies for important emergency purposes (i.e., nasal swabs for testing, syringes for vaccines and active pharmaceutical ingredients to quickly scale up drug production), provide strategic incentives to bolster supply chain resilience, and protect against gray and black-market vendors.

Getting Everyone on the Same Page

As part of their recommendations, the groups also tell private-public partners to identify additional strategies to strengthen the resilience of supply chain networks, including enhancing supply chain redundancies, investing in workforce development programs to support manufacturing needs, encouraging geographic diversification for critical medical products and improving critical medical product inventory (while meeting quality standards) during emergencies.

"Any public health emergency requires effective collaboration at all levels of government," Mark McClellan, M.D., Ph.D., founding director of the Duke-Margolis Center for Health Policy, said at a press conference, *MedPage Today* reports. "We need to complement each other rather than operate on separate tracks that are not well coordinated."