



RAND NATIONAL SECURITY SUPPLY CHAIN INSTITUTE

The RAND National Security Supply Chain Institute is an initiative meant to help understand and mitigate risks to U.S. lives and national security introduced by the complexity in the globalized supply chain. The Institute supports research in an area with no natural sponsors.

UNPRECEDENTED INTERDEPENDENCE

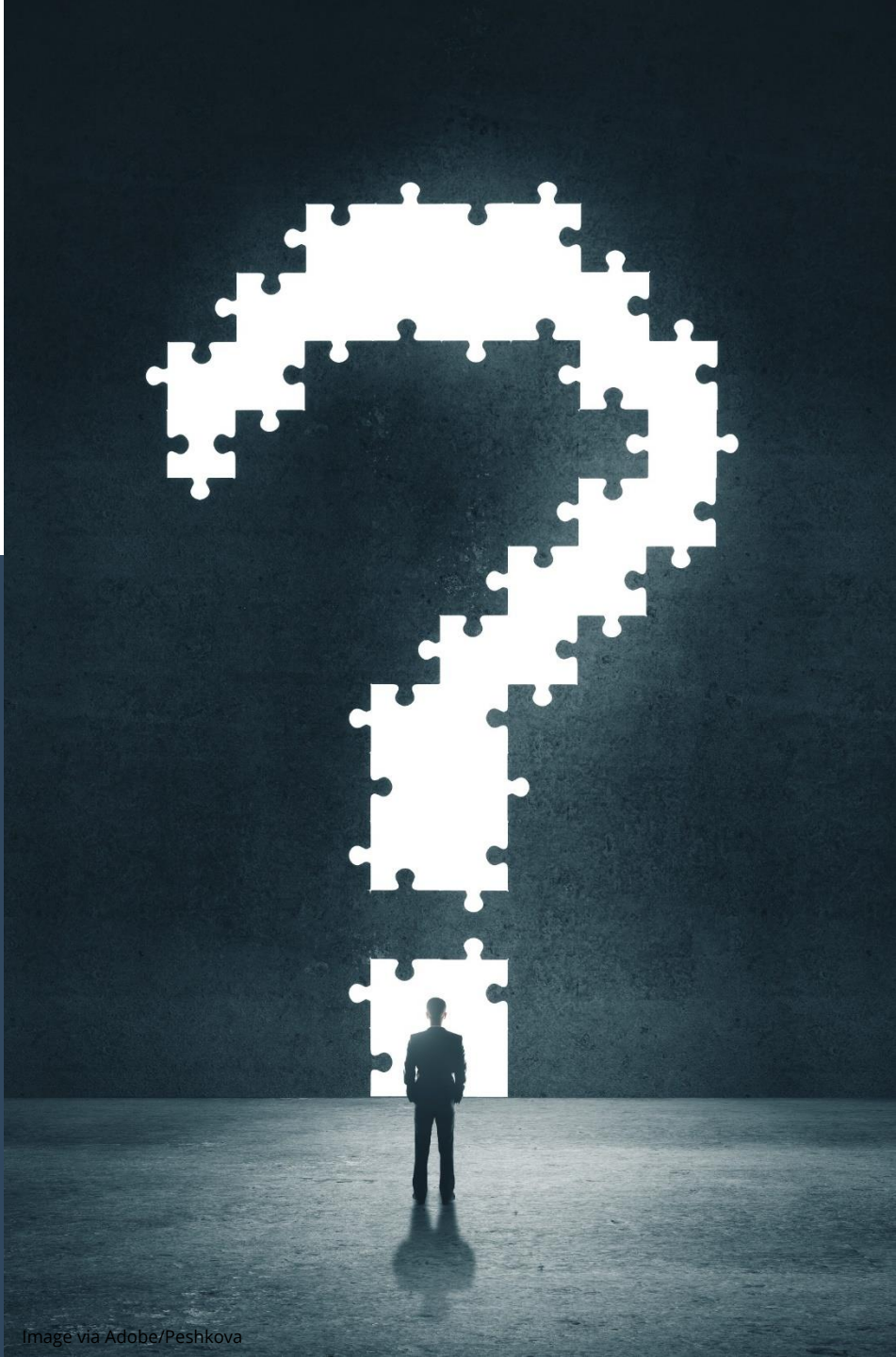
- China is the world's largest trading nation.
- But goods flow in and out of China throughout the production process.
- Almost every U.S. industry depends in important ways on external materials.



NO SINGLE AGENCY IS CLEARLY RESPONSIBLE FOR OVERALL RESPONSE

The issue has many different interested parties, but under the current structure, nobody owns the overall problem.

Independent analytic efforts are needed to make policymakers aware of the entire analytic challenge.



Leading questions (example: pharmaceuticals/medical supplies)

- What are the greatest vulnerabilities in terms of medical and pharmaceutical supplies?
- To what extent are these subject to geopolitical events? Does geopolitical/military/security planning attempt to take account of these vulnerabilities?
- Are there mitigations?
- Which agencies/industries/Congressional staffs are responsible for addressing vulnerabilities and mitigations? Do they know?

ANOTHER INITIAL COVID-19 SPIKE: NEED FOR VENTILATORS

↑ 500 to 700% ↑
increase nation-wide
March 2020



THERE WERE **NOT ENOUGH** TO MEET DEMAND

Hospitals had not stockpiled ventilators beyond normal demand.

In response, the White House invoked the Defense Production Act to repurpose U.S. factories to produce them.

But factory capacity was **not** the major issue

NATIONAL SECURITY

THE PROBLEM WAS THE **LACK OF COMPONENTS** NEEDED TO ASSEMBLE THEM



Necessary components needed to be procured from **14+ different countries**

This **slowed** down assembly & likely exposed the U.S. to **risk**

CARES Act – 2020

- Expanded drug shortage reporting requirements;
- Required certain drug manufacturers to draw up risk management plans;
- Required the U.S. Food and Drug Administration (FDA) to maintain a public list of medical devices that are determined to be in shortage; and
- Directed the National Academies of Science, Engineering, and Medicine to conduct a study of pharmaceutical supply chain security

Status - 2023

- Pharmaceutical industry believes it survived the COVID pandemic in good shape (based on subjective assessment from Milliken Institute roundtable)
- National Academy of Sciences formed an “ad hoc committee”
 - [Building Resilience into the Nation's Medical Product Supply Chains | The National Academies Press](#) made several recommendations, largely with recommendations to FDA and the industry
 - Also recommended a “plurilateral treaty” that would forbid imposition of export controls
- Conflict with the PRC would almost certainly disrupt major supply chains for medical supplies and antibiotics