Summary of *Viral Families and Disease X: A Framework for U.S. Pandemic Preparedness Policy*

Families of viral pathogens of pandemic potential share pandemic-causing characteristics and are likely to yield the next pandemic virus. However, the United States falls short across many factors in the lifecycle of preparedness—which include basic and applied research, development, approval, and production of therapies. By recognizing and prioritizing research and development in these families, the United States can better anticipate future threats and develop broad-reaching medical countermeasures.

CSET identified gaps in the medical countermeasure (MCM) pipeline for viral pathogens of pandemic potential (VPPPs):

- **The United States is not prepared to counteract a pandemic due to a lack of MCMs and vulnerabilities in the U.S. manufacturing supply chain.** Of only 43 MCMs for VPPPs, 30% have no U.S. domestic manufacturing and 51% are only manufactured at a single site.

- **The level of R&D in the United States provides an inadequate foundation for pandemic preparedness and represents a system that reacts to—rather than prepares for—major outbreaks.** VPPP basic research plateaus over time and represents only 14% of all virus research. VPPP basic research and clinical trials also peak after major outbreaks.

Recommendations:

The U.S. government should incentivize the development of a resilient pandemic preparedness pipeline. The following actions will advance national and economic security, though they may not align with traditional market forces:

- Include VPPP viral families in pandemic preparedness strategies.
- Proactively prioritize R&D for VPPPs in government-funding mechanisms.
- Create a market for novel MCMs to incentivize drug development.
- Reshore MCM manufacturing.
- Build redundancy into the MCM supply.

For more information:

- Download the report: https://cset.georgetown.edu/publication/viral-families-and-disease-x-a-framework-for-u-s-pandemic-preparedness-policy
- Contact: Caroline Schuerger (cs2004@georgetown.edu), Steph Batalis (sb2132@georgetown.edu), and Anna Puglisi (ap1703@georgetown.edu).