## WHEN WILL THE NEXT PANDEMIC OCCUR?

#### Any Time.

Infectious disease outbreaks now occur 3 times more often than 40 years ago.

# WHAT IS MOST LIKELY TO CAUSE THE NEXT PANDEMIC THREAT?

We don't know. But, of about 2 dozen viral families capable of infecting humans, 6 families (Adenoviridae, Coronaviridae, Orthomyxoviridae, Paramyxoviridae, Picornaviridae, and Poxviridae) have these traits that will likely cause the next pandemic.



No immunity – No preexisting immunity in the world's population

Airborne – Spread via respiratory transmission

Silent –



Transmissible by infected people who have no symptoms

Harmful – No existing, effective therapeutics or vaccines

#### ARE WE PREPARED TO MAKE VACCINES, ANTIVIRALS, AND TESTS EVEN FASTER DURING THE NEXT PANDEMIC?

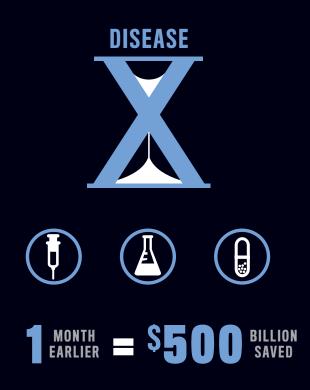
No. Currently there is \$0 sustained federal funding dedicated to developing medical countermeasures for unknown viral threats.



Developing the COVID-19 vaccines in 1 year was only possible because of 15 years of prior coronavirus research + a \$12 billion federal investment.

### HOW CAN WE MAKE MEDICAL COUNTERMEASURES WITHOUT KNOWING WHICH DISEASE ("DISEASE X") WILL STRIKE NEXT?

By focusing medical countermeasure development efforts on the viral **families** most likely to cause pandemics, rather than on a specific virus that may or may not present a future threat.



The United States should fund a new dedicated Disease X Medical Countermeasure Program that leverages technologies and vaccine platforms most suitable to the viral families that are likely to cause future catastrophic disease outbreaks.

Medical countermeasures against 1 member of a viral family could easily be adapted to another member quickly when the next threat emerges.

With this flexible approach, private–public partnerships could develop vaccines, antivirals, and tests for a range of unknown potential pandemic pathogens in months, not years.

Stopping the next COVID-19-type pandemic a month earlier in the United States would save approximately \$500 billion.





#### centerforhealthsecurity.org/disease-x