

COVID-19 in the US:

A confluence of healthcare insecurity,
an inadequate social safety net
and feckless leadership

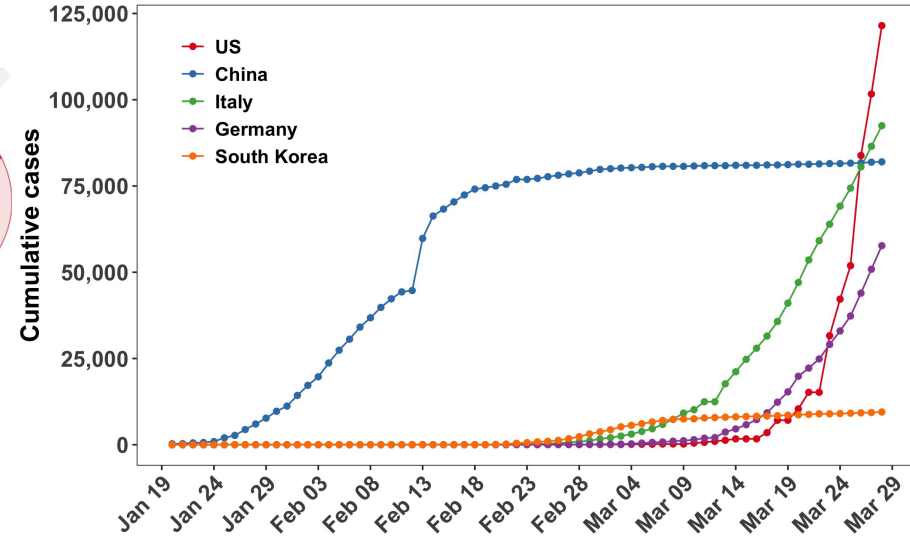
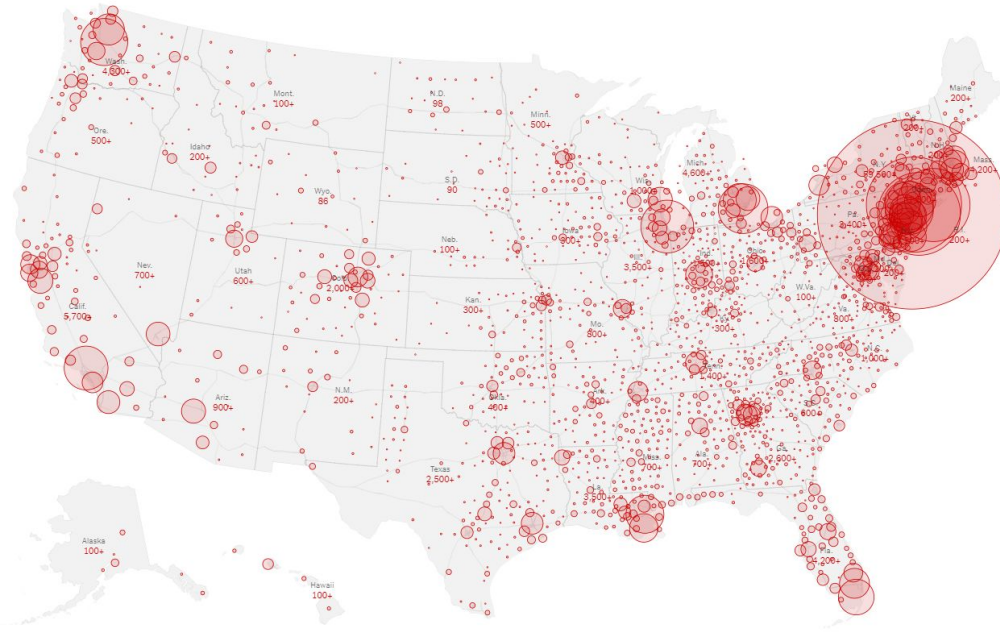
Center for Infectious Disease Modeling and Analysis
(CIDMA), Yale School of Public Health



@Alison_Galvani and @YCIDMA



The COVID-19 outbreak in the US is growing steeply and spreading widely



Source: Coronavirus in the U.S.: Latest Map and Case Count, Mitch Smith, Karen Yourish, Sarah Almukhtar, Keith Collins, Danielle Ivory, Allison McCann, Jin Wu and Amy Harmon; NY Times; <https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html>

Delays in diagnostic capacity hindered containment

January 7 - A cluster of atypical pneumonia in Wuhan, China was reported to the World Health Organization.

January 21 - Multiple teams announced diagnostic protocols. First case was diagnosed in the US. The Seattle case had visited family in Wuhan.

Feb 5 - Batches of test kits distributed by the CDC were faulty.

Feb 26 - Community transmission was confirmed in Washington and Oregon

Feb 28 - “It’s going to disappear. One day it’s like a miracle - it will disappear”

Feb 29 - FDA approved clinical tests by facilities beyond the CDC

March 13 - Large-scale companies started producing COVID19 test kits



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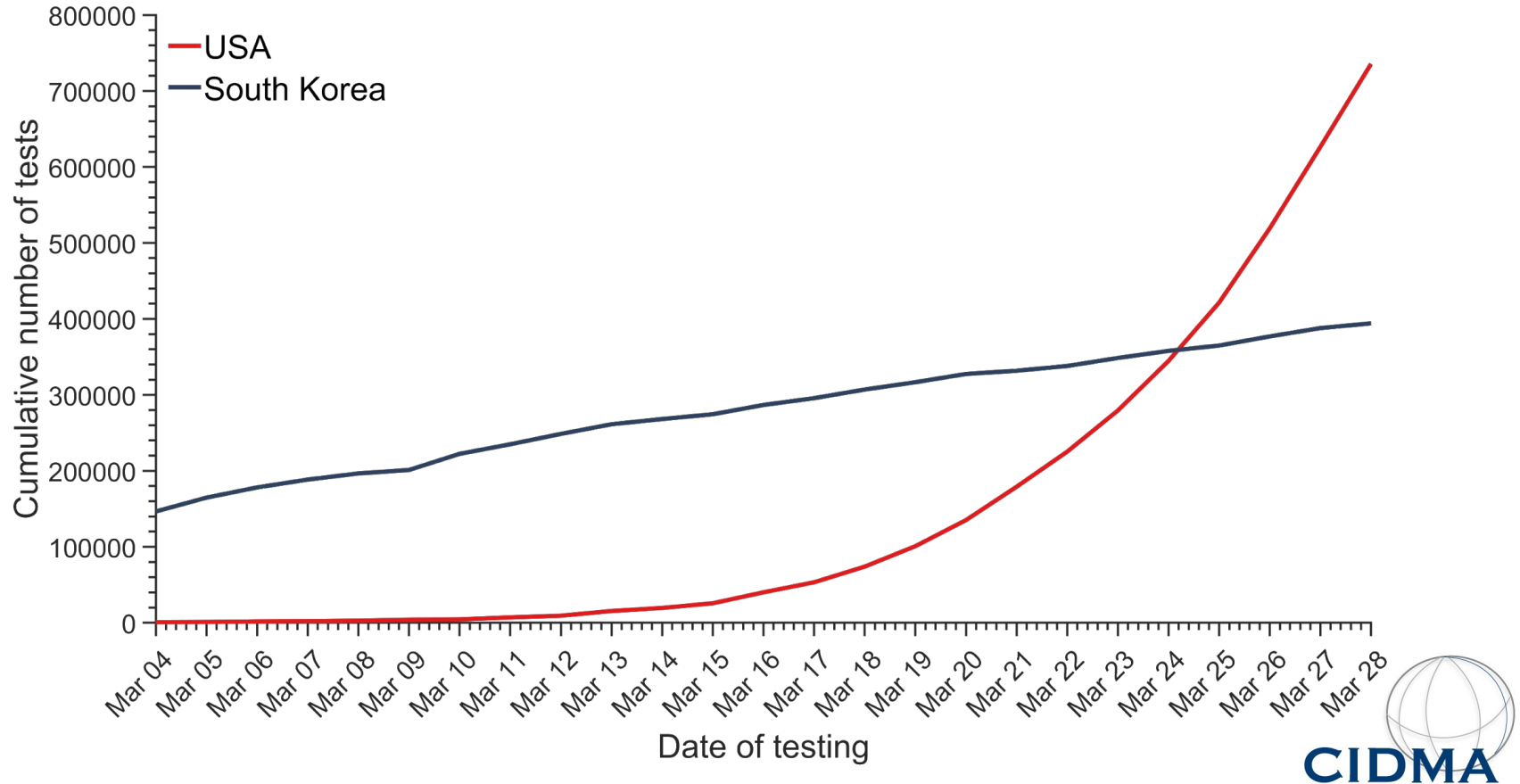
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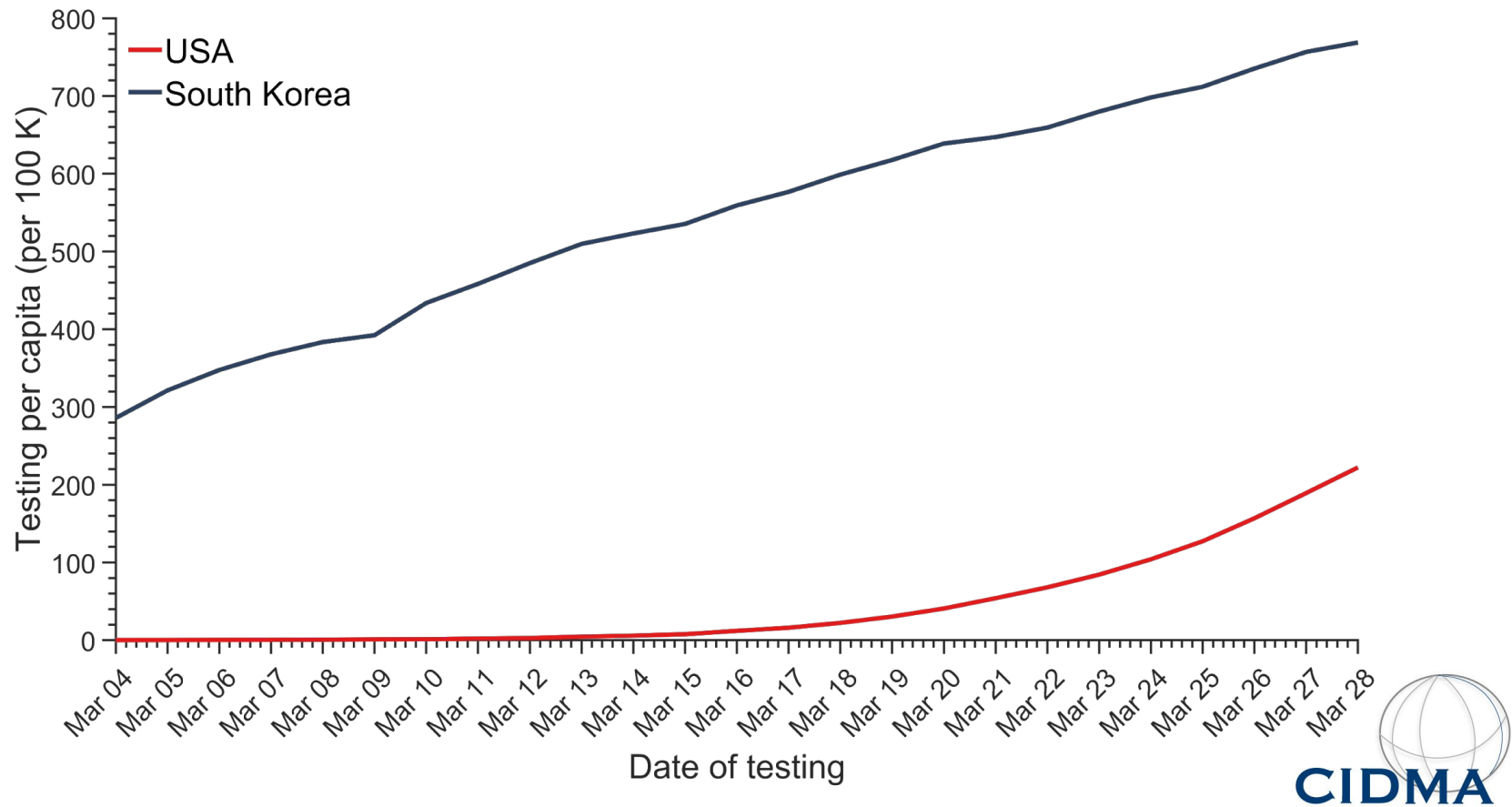
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Number of tests administered for COVID-19



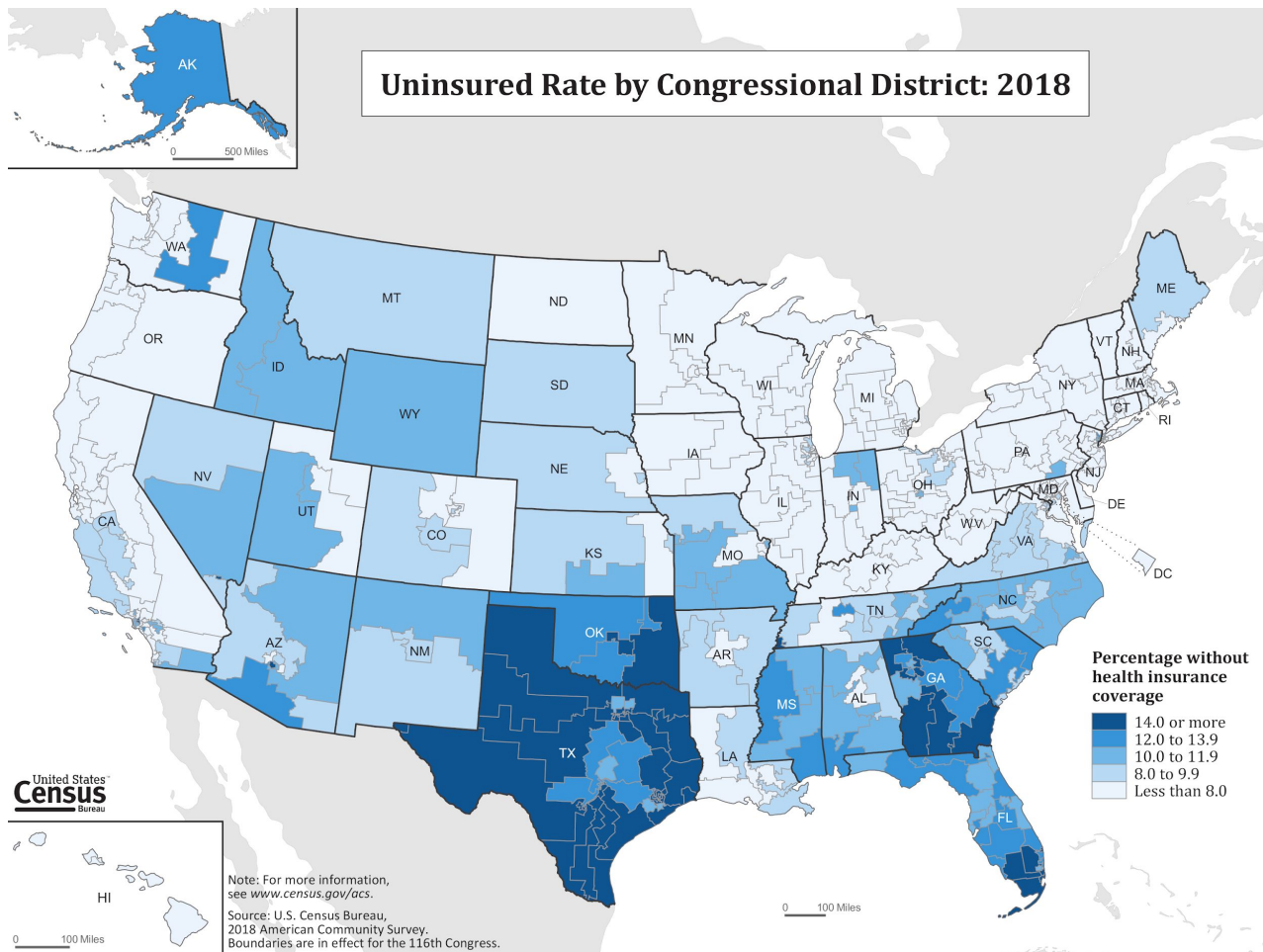
Source: Korea Centers for Disease Control and Prevention (<https://www.cdc.go.kr/board/board.es?mid=&bid=0030>); The COVID Tracking Project (<https://covidtracking.com/data/>)

Per capita comparisons of testing are even more stark

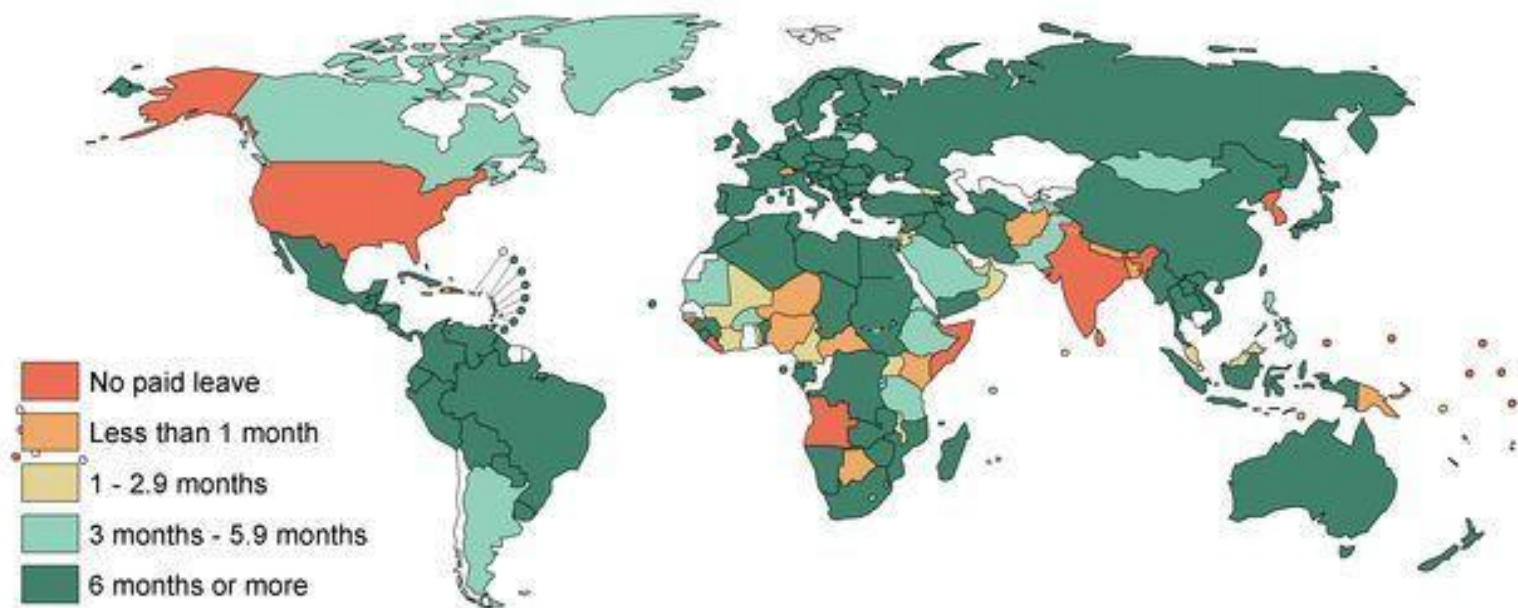


Source: Korea Centers for Disease Control and Prevention (<https://www.cdc.go.kr/board/board.es?mid=&bid=0030>); The COVID Tracking Project (<https://covidtracking.com/data/>)

Healthcare insecurity exacerbated diagnostic delays



If you get seriously ill: How much paid leave can you take for treatment and recovery?



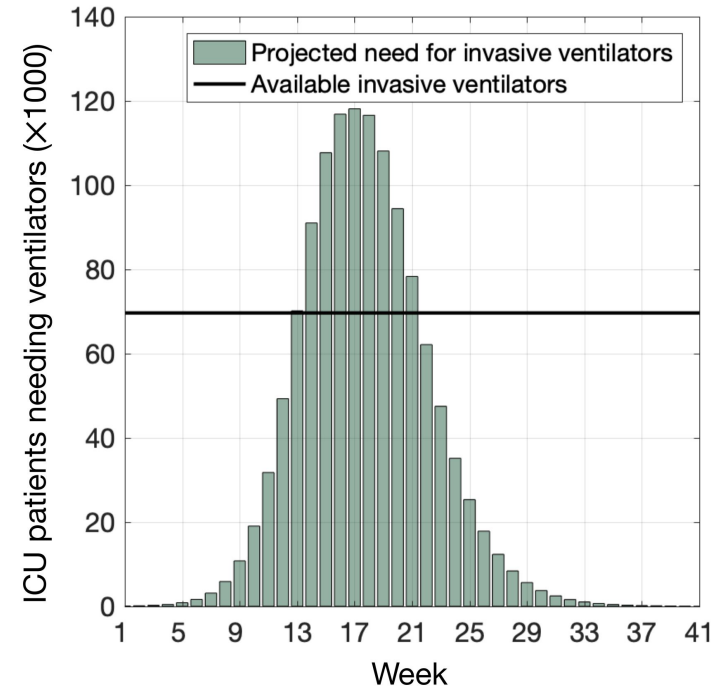
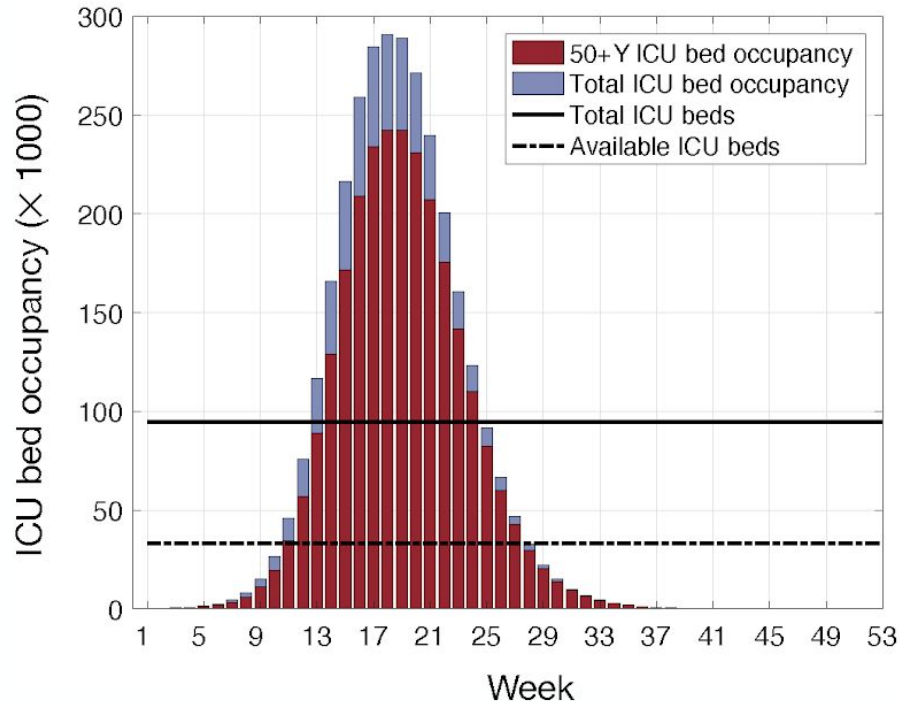
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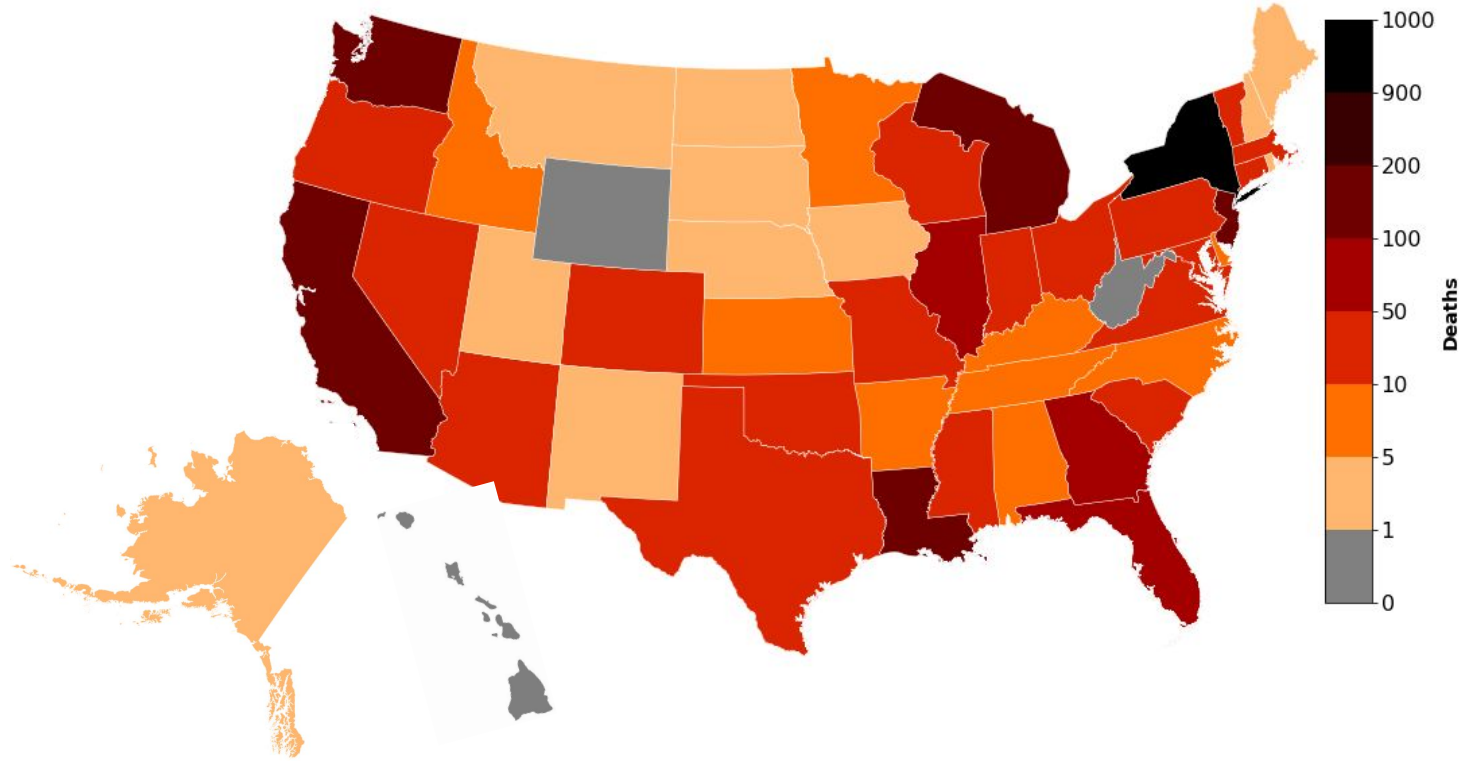
Projected need for ICU beds and ventilators



Moghadas, Shoukat, Fitzpatrick, Wells, Sah, Pandey, Sachs, Wang, Meyers, Singer & Galvani
Projecting hospital utilization during the COVID-19 outbreaks in the United States. In press PNAS



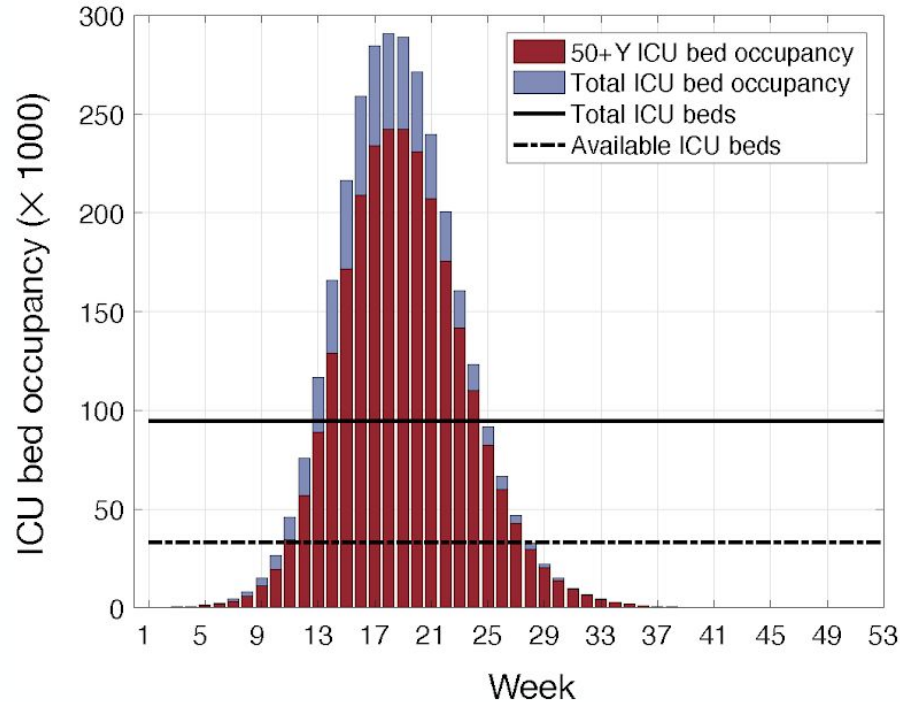
Mortality



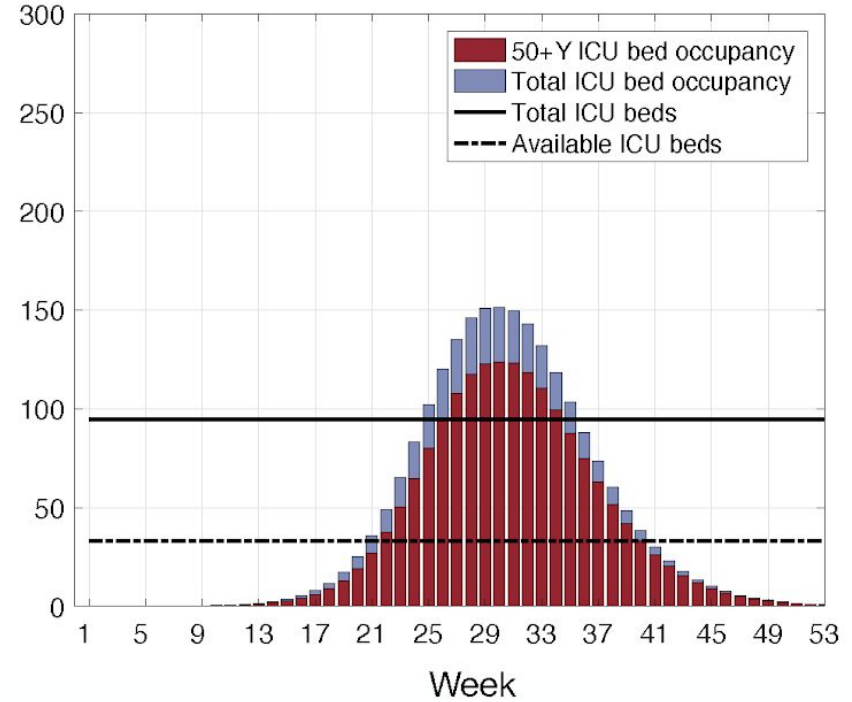
Source: Data from New York Times, Updated March 29, 2020, 2:30 P.M. E.T.

Self-isolation eases the burden on the healthcare system

Absence of self-isolation



Moderate self-isolation



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Where do we go from here?

- Evidence-based decision making
- Accurate communication with the public
- Federal coordination of the production and distribution of PPE and ventilators
- Pharmaceutical research and development
- Universal healthcare which will be most cost-effectively achieved by a single-payer system (eg Medicare for All)

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Thank you