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4-15-2020

### Looking Out For #1 in a Time of Coronavirus?

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# Looking Out for #1 in a Time of Coronavirus?

*facilitated by*

Jason Diaz, PhD, Integrated Science, Business, and Technology

Christen Rexing, PhD, MPH, Urban Public Health & Nutrition

Wednesday, April 15<sup>th</sup>

3:30 – 4:30 p.m.

*Supported by the De La Salle  
Institute for Advanced Teaching and Learning*



# > Explorer Café at the Speed of ZOOM

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- Please keep your microphone muted unless called upon
- You are encouraged to share video, but do not feel pressured to do so
- Please use the “raise hand” feature to indicate a desire to speak
- Please make use of the chat!



# ➤ Lasallian Guiding Principles

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- Teaching and learning
- Spirit of faith and zeal
- Service rooted in solidarity and justice
- Association



# ➤ Ethical Characteristics of Public Health

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- Public vs Individuals' rights
- Scarcity of resources
- Socio-political factors
  - Poverty, illiteracy, minorities, vulnerability
  - Abuse of power
- Socio-cultural factors
  - Local beliefs vs “international guidelines”
  - Role of families and community leaders
- Urgency to contain public health threats
- Inequities (national and international)





# COVID19 UPDATE

- Current status
  - Numbers, recommendations
  - Therapy and vaccine progress
- Breaking the Chain
- Prevention measures
  - Community
  - Individual
- Moving forward: Policies & Guidance



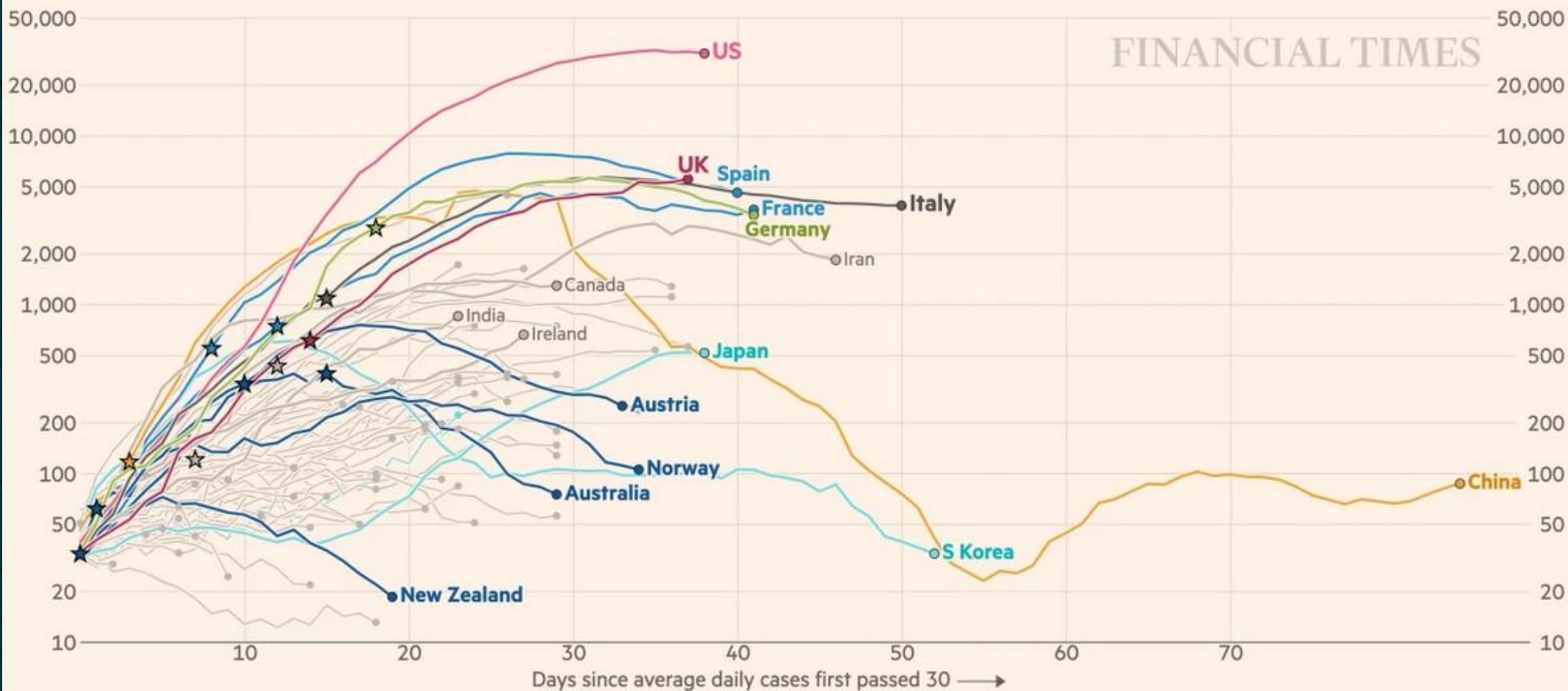
# CURRENT STATUS





# WE ARE JUST BEGINNING TO FLATTEN THE CURVE

Daily confirmed cases (7-day rolling average), by number of days since 30 daily cases first recorded  
Stars represent national lockdowns ★



FT graphic: John Burn-Murdoch / @jburnmurdoch  
Source: FT analysis of European Centre for Disease Prevention and Control; FT research. Data updated April 14, 19:00 GMT  
© FT



COVID-19 is a top cause of daily death in the USA today.



*Explorers are Never Lost*

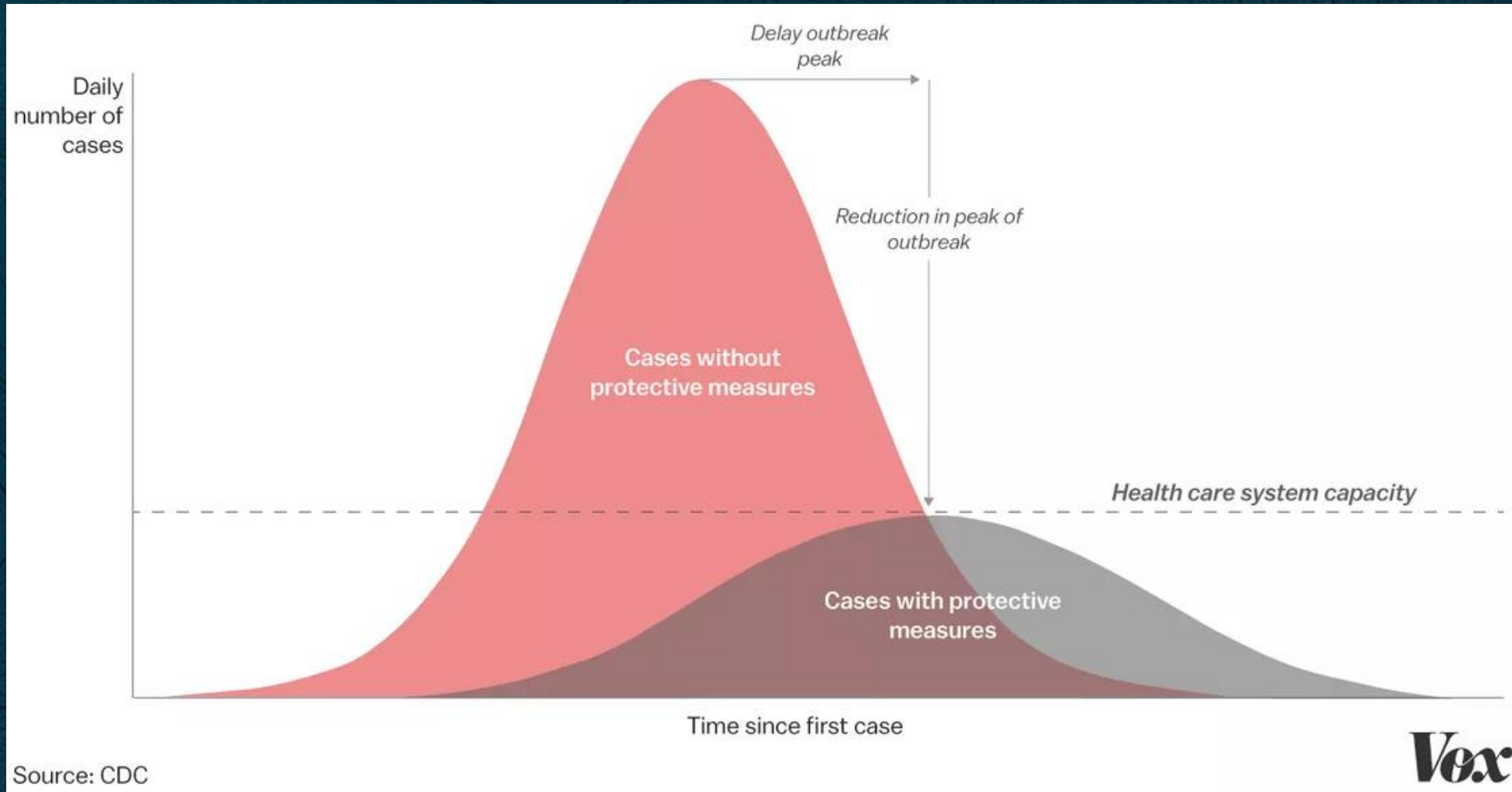
# BREAKING THE CHAIN

*...and flattening the curve*



*Explorers are Never Lost*

# FLATTENING THE CURVE

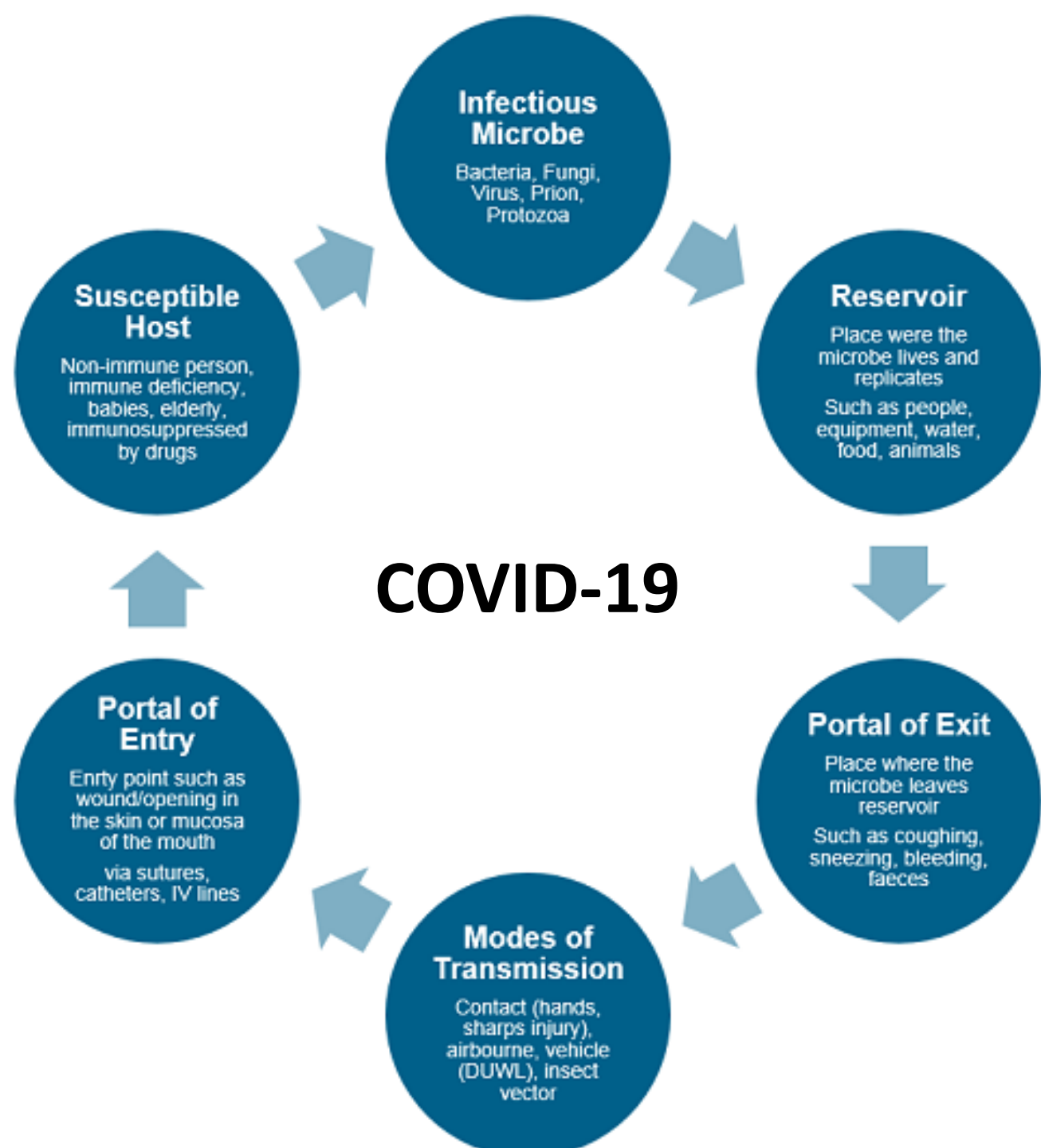


Source: CDC

**Vox**

# > The Chain of Infection

Public health officials use the following model to think about how to prevent disease spread.

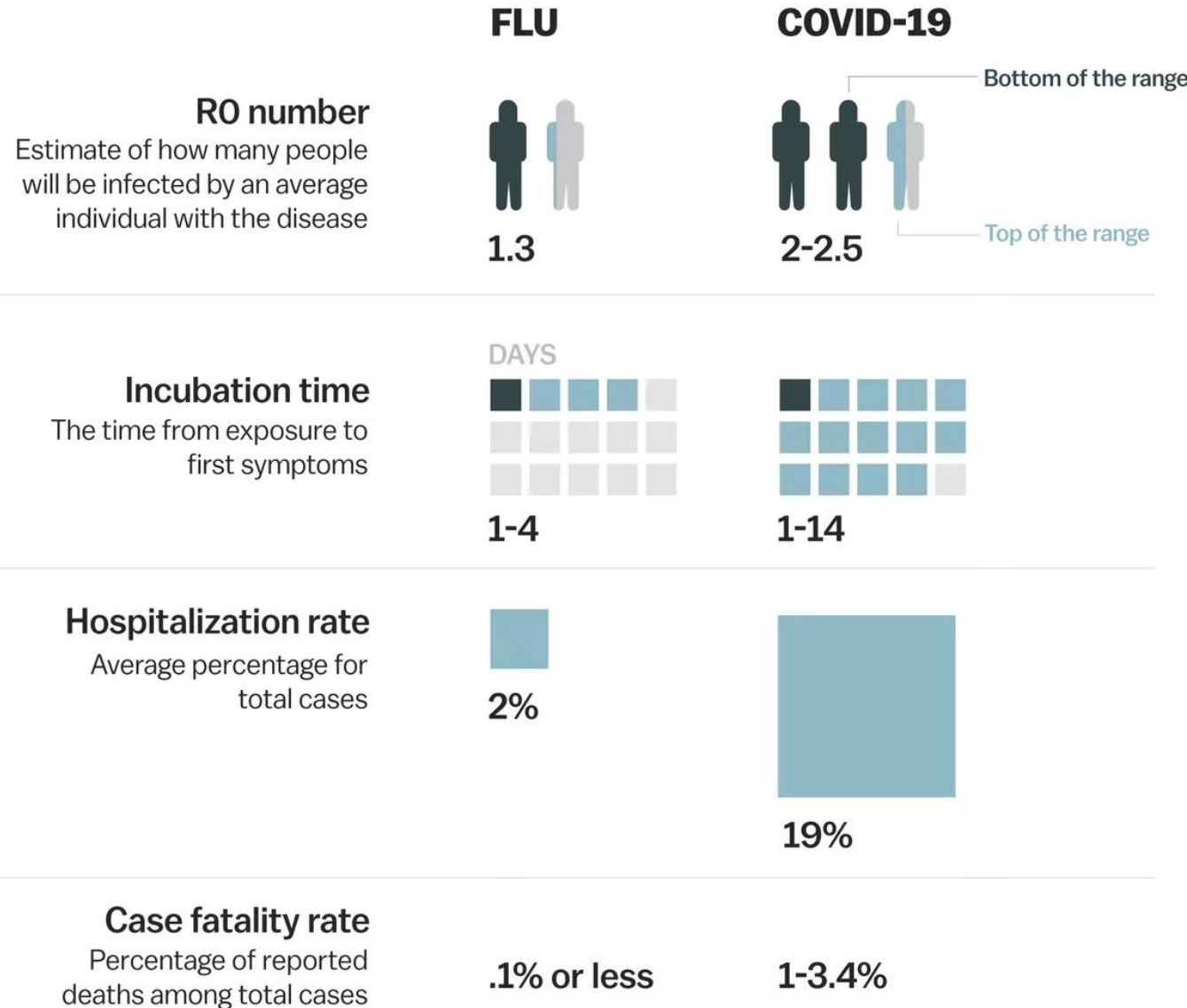


# ➤ COVID-19 is not the Flu

- Infectious Agent: virus “SARS-CoV-2”
- Transmission: droplet & airborne
- Asymptomatic transmission
- NO VACCINE, NO CURE
- Symptoms: fever, cough, shortness of breath, loss of the sense of smell



## How seasonal flu and Covid-19 compare



Sources: CDC, WHO, NCBI

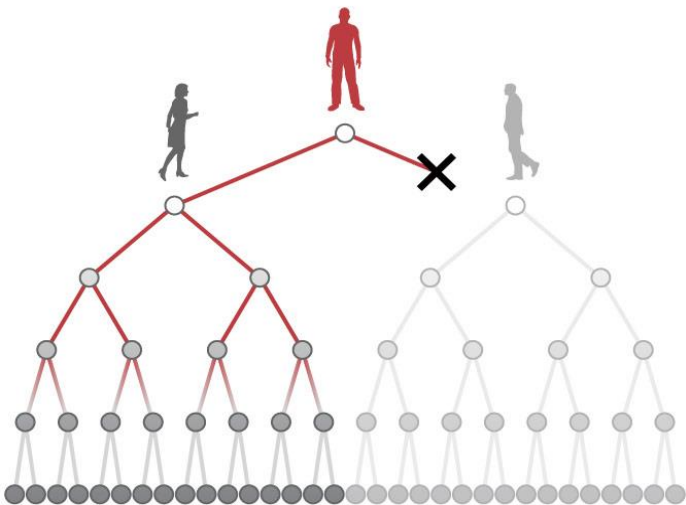
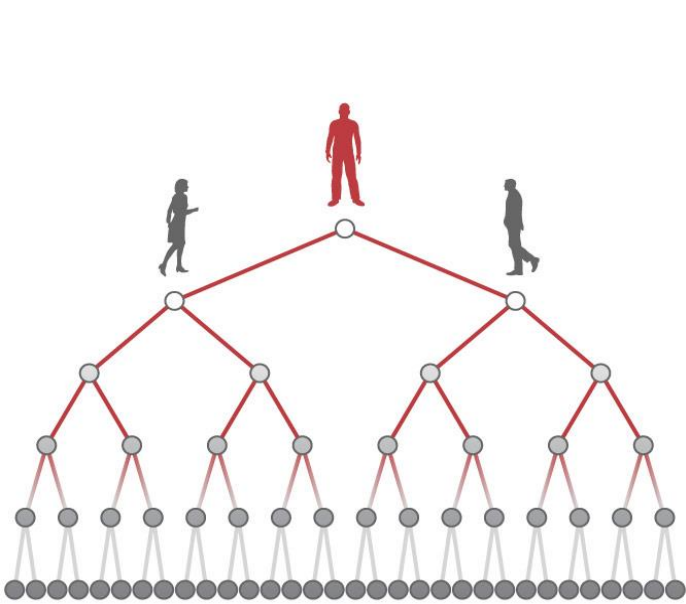
# THERAPIES AND VACCINES

- Currently no proven therapy
  - Some clinical trials for certain drugs
  - Plasma transfer is being investigated
- No current vaccine
  - Many are in progress
  - Probably won't have a vaccine for another 18 months





# > WHAT CAN YOU DO TO BREAK THE CHAIN?



- Wash hands, surfaces, etc.
- Limit exposure (Social distancing)
- Aggressively self-isolate
- To mask, or not to mask
- Don't assume you are non-infectious

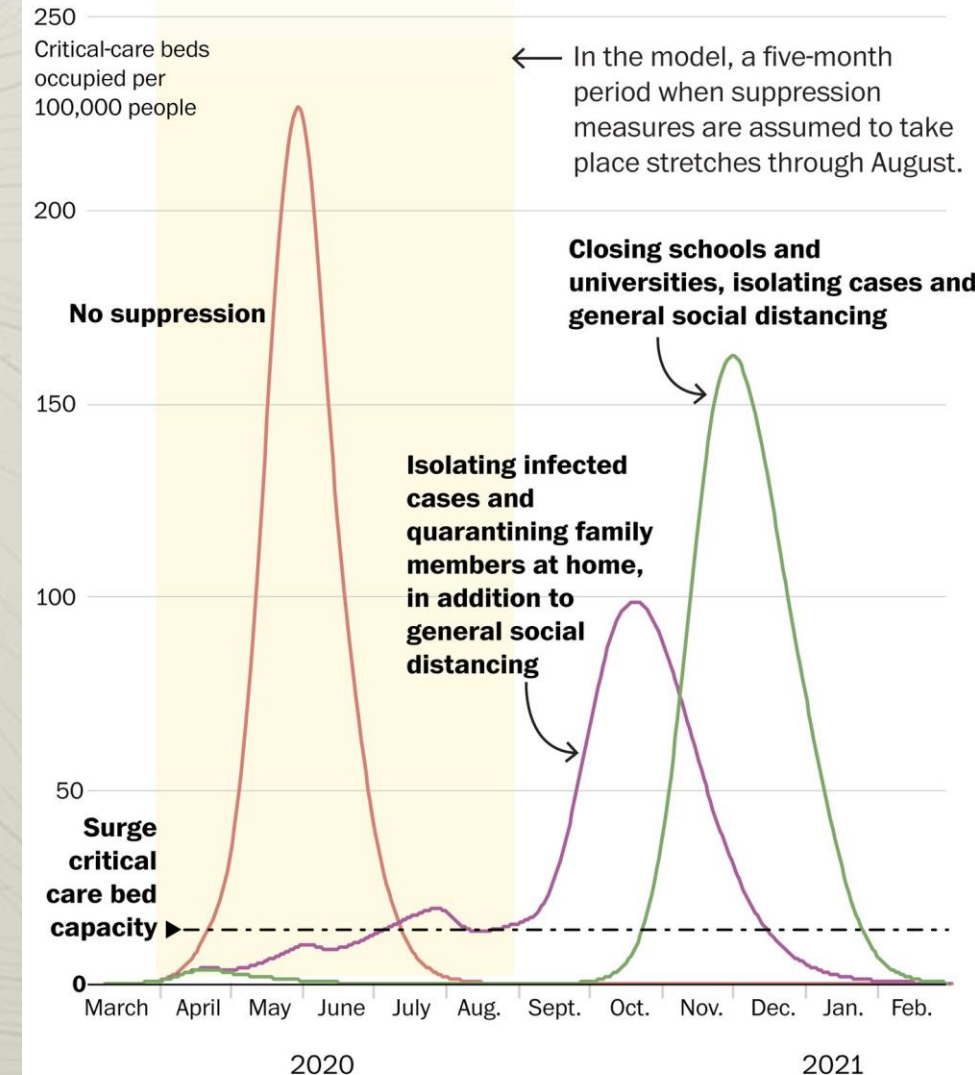
# PREDICTIONS & THE FUTURE

- Imperial College London has best prediction model, two takeaways:
  - Doing nothing will be catastrophic
  - We are in this for 12-18 months



## Suppression scenarios

Models from researchers at Imperial College London suggest that wide adoption of measures to reduce the transmission of the novel coronavirus can reduce the demand for critical health-care services, in part by spreading the demand over a longer period. The major challenge is that those measures will need to be maintained until a vaccine becomes available, or transmission will quickly rebound.



Source: Imperial College London

TIM MEKO/THE WASHINGTON POST

# > WHO ARE YOU PROTECTING?

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- Elders and the middle aged
- The immunocompromised
- Those with respiratory disease
- Those with diabetes, high blood pressure, etc.
- Economically & racially vulnerable populations



# WHAT IS THE COUNTRY DOING?



# CURRENT RECOMMENDATIONS

- Essential vs non-essential
  - Essential workers must be supported and protected
  - Non-essential workers must stay home
- Limits on social gatherings
- Travel advisories
- Testing and reporting of cases

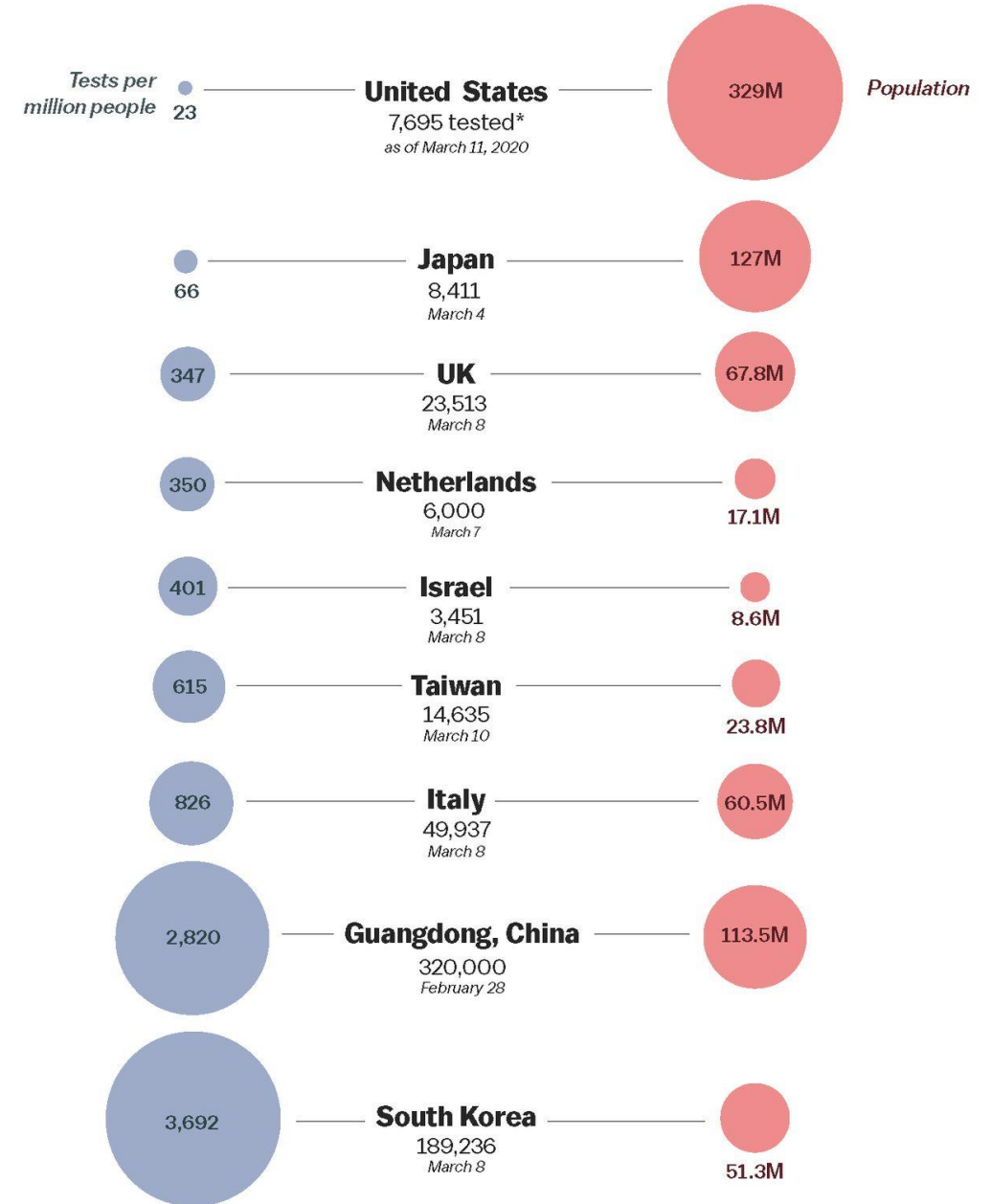


# > TESTING

We are far behind  
the world in testing



## A snapshot of early Covid-19 testing per capita



\*Test counts do not include full reporting from all US labs

Source: Covid Tracking Project, Business Insider, the Atlantic, Taiwan CDC

# > THE COST OF SOCIAL DISTANCING

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- Disruptions to work, schools, etc.
- Unemployment (and loss of healthcare)
- Extra burdens on those with extra needs
- Mental health challenges
- Serious economic repercussions



HOW DO WE BALANCE THE NEEDS  
OF THE INDIVIDUAL AGAINST THE  
NEEDS OF THE GROUP?

ARE THE COSTS OF SOCIAL  
DISTANCING WORTH IT?



# BREAKOUT SESSION #1 GUIDELINES

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- You will be sorted randomly into groups of 6-7
- The prompt will be shared in the chat. Jot it down in case you don't have access to chat during the Breakouts.
- Please accept the invitation to join a Breakout Room
- Discuss the prompt with your group.
- Decide on one person to report for your group
- You will have 15 minutes to discuss
- You will automatically be returned to the main call
- After the breakout session is over, have your group reporter "raise hand"

HOW DO WE BALANCE THE NEEDS  
OF THE INDIVIDUAL AGAINST THE  
NEEDS OF THE GROUP?

ARE THE COSTS OF SOCIAL  
DISTANCING WORTH IT?

# > TWO ETHICAL FRAMEWORKS TO CONSIDER

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## Bioethics vs Public Health Ethics



# ➤ Ethical Characteristics of Public Health

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  - Abuse of power
- Socio-cultural factors
  - Local beliefs vs “international guidelines”
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- Urgency to contain public health threats
- Inequities (national and international)



# BREAKOUT SESSION #2 GUIDELINES

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- You will be sorted randomly into groups of 6-7
- The prompt will be shared in the chat. Jot it down in case you don't have access to chat during the Breakouts.
- Please accept the invitation to join a Breakout Room
- Discuss the prompt with your group.
- Decide on one person to report for your group
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- After the breakout session is over, have your group reporter "raise hand"

WHAT ARE WAYS THAT WE CAN  
SUPPORT OURSELVES AND OUR  
COMMUNITY AT LARGE?

WHAT ARE WAYS THAT WE CAN  
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COMMUNITY AT LARGE?

Please share, via “Raise Hand”

# EXPONENTIAL DYNAMICS; SMALL CHANGES HAVE BIG EFFECTS



@SIOUXSIEW @XTOTL thespinoff.co.nz

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# WHAT CAN WE DO?

- Personal Health
  - Go outside (six-foot distance)
  - Sleep and eat well
  - Find creative ways to connect
    - Provide support to those who are most vulnerable
- Community Health
  - Stay home if able
  - Get involved in politics



# SOURCES WE TRUST

- World Health Organization (WHO)
- Centers for Disease Control (CDC)
- State & Local Health Departments
- Johns Hopkins Daily Update ([coronavirus.jhu.edu](https://coronavirus.jhu.edu))
- News Sources: National Public Radio (NPR), New York Times, Washington Post