COVID-19

What it is, what we know, and what we don’t know

April 8, 2020
What makes some pandemics worse than others?

How easily it spreads*

* COVID-19 estimates are changing as more information is learned.

Source: Popular Science

How deadly it is*

Source: Cato Institute
There is a lot of uncertainty with COVID-19

What is a Coronavirus?

- Coronaviruses are common viruses, and regularly effect humans
  - Often mild illness
- Some infect animals, and can cross species to create new variants that infect people
  - MERS-CoV
  - SARS-CoV
  - SARS-CoV-2 (COVID-19)

Source: CDC [https://www.cdc.gov/coronavirus/types.html](https://www.cdc.gov/coronavirus/types.html)
Where did COVID-19 Come from (for real)?

• The first cases had contact with a seafood and live animal market in Wuhan China
  • Likely first exposures from animals to people

• Later cases were not linked to the market
  • Person-to-person spread likely began

Then it spreads...

Source: Johns Hopkins CSSE
https://www.arcgis.com/apps/opsdashboard/index.html#bda7594740fd40299423467b48e9ecf6
Who is (currently) getting sicker than others?

COVID-19 CASES AND DEATHS BY AGE
Percentage of cases by age and fatality rate within each age group
Data from 44,672 cases in mainland China

Source: China CDC, reported by ars technica
Younger people are having serious complications (*proportions of cases unknown*)

Source: CDC MMWR [https://www.cdc.gov/mmwr/volumes/69/wr/mm6912e2.htm](https://www.cdc.gov/mmwr/volumes/69/wr/mm6912e2.htm)
How COVID-19 is (likely) transmitted

Most likely modes of transmission

Possible mode (bigger concern to healthcare workers)

Close contact route

- Airborne droplets (d₀ ≤ 10 μm)
- Large droplets (d₀ > 100 μm)

Fomite route

- Respiratory droplets (d₀ > 10 μm and d₀ ≤ 100 μm)

https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0181558
How COVID-19 is (likely) transmitted
What can we do about it?

Prevention:

• Take care of ourselves
  • Wash hands
  • Cover cough and Sneezes
  • Stay home when we are sick
  • Disinfect surfaces
• Cloth Masks
  • May help prevent you from spreading the virus to others
  • You may be contagious even without symptoms
  • Continue to stay 6 feet from others
  • Clinical masks should be reserved for healthcare workers

Treatment:

• No current vaccine
  • Many in development
  • Best case is availability in 12-18 months
• No specific treatments
  • Many in development
  • Will be some time before widely available

Social Distancing

- Reduces chances for people to get each other sick
  - Cancelling events
  - Remote work
  - Cancelling or remote classes for school
  - Etc…

Adapted from CDC / The Economist
Social Distancing Takes Time to Show Up in the Data

Managing COVID-19 at Home

**General**
Stay home
- Monitor symptom
- Get rest and stay hydrated
- Cover cough and sneezes
- Wash hands often

**Medical**
- Notify medical personnel you may have COVID-19 (appointments, emergency services, etc)

**In the home**
- Disinfect all surfaces
- Stay away from other people (e.g. have a “sick room”)
- Avoid sharing items

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When to Seek Medical Attention

If you develop emergency warning signs for COVID-19 get **medical attention immediately**. Emergency warning signs include*:

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion or inability to arouse
- Bluish lips or face

*This list is not all inclusive. Please consult your medical provider for any other symptoms that are severe or concerning.

Social distancing has disadvantages

- Slowing down the virus also means slowing down the economy
  - More than 6 million declared unemployed, and there will be more
- Most small businesses cannot survive being closed for more than 5 days
- 40% of Americans have insufficient savings to cover an unexpected expense of $400

Federal Stimulus

Payments to individuals
• To individuals for up to $1,200, gradually for income over $75,000
• To married couples up to $2,400, gradually eliminating income of more than $150,000
• Additional $500 for each child

Unemployment benefits
• Extension of up to 13 weeks
• Additional unemployment benefits
• Open to workers in the “gig economy” (independent workers, independent contractors, etc.)

Other benefits
• Small Business Loans
• Expansion of food assistance programs
• Tolerance for student loans and other debts
• Direct encouragement to state and territorial governments
• Health system costs due to COVID-19

Fuente: Senator Coons Office  https://www.coons.senate.gov/services/coronavirus-faq
Meeting the needs of Children

- Child-serving organizations still play an important role!
  - Helping parents
  - Connecting with kids
- Re-establish routines
  - Adhere to schedules
  - Home school activities
- Sustain social bonds
  - Virtual connections
Resources from the Resilient Children / Resilient Communities Initiative

https://RCRCToolbox.org

• Children and the Coronavirus: A Guide for Families and Providers

• Continuity of Operations (COOP)
  • Plan template
  • COOP presentation template
  • COOP Facilitator's Guide
  • Practical Guide
  • Essential Functions Worksheet
  • Essential Function Table
  • COOP in the time of COVID-19 webinar with subtitles in Spanish

• More to come!
Key Conclusions

- There is still a lot of uncertainty about COVID-19 and its possible impacts
- Disruptions are already being experienced, with the most vulnerable at greatest risk of negative impacts from mitigation and containment efforts
- Maintaining community livelihoods and safety nets will be critical to helping the most vulnerable
Questions?

• Thank you!