COVID-19
What it is, what we know, and what we don’t know
April 28, 2020
What makes some pandemics worse than others?

How easily it spreads*

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

How deadly it is*

Source: Popular Science

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

![Graph showing fatality rates and transmission numbers for various infectious diseases, with COVID-19 highlighted as more deadly and spreading faster than others.]

**New coronavirus**
Most estimates put the fatality rate below 3%, and the number of transmissions between 2 and 4.

Who is (currently) getting sicker than others?

![Rates of Hospitalization for COVID-19 Increase with Age](chart)

Everyone, especially older adults, should:
- Stay home
- Use face coverings in public settings
- Wash hands frequently

[CDC.gov](https://www.cdc.gov)
[MMWR_COVIDNET](https://bit.ly/MMWR_COVIDNET)
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

- Airborne droplets (d₀ ≤ 10 μm)
- Large droplets (d₀ > 100 μm)
- 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
  • Not for children under 2 or those who can’t remove their mask w/out assistance

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 changes 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

Cautionary Tales

1918 Flu Pandemic – 3 waves
(source CDC: https://www.cdc.gov/flu/pandemic-resources/1918-commemoration/three-waves.htm)
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

Impacts in NYC

80% of all NYC residents report a reduction in their ability to access the food they need.

To what extent has the coronavirus and its response reduced your household’s ability to get the food you need?

- Reduced a lot: 22%
- Reduced somewhat: 30%
- Reduced only a little: 28%
- No reduced ability: 8%
- Made it easier: 13%

CUNY Graduate School of Public Health and Health Policy Tracking Survey March 20-22, 2020, MM, n=1,000, +/-3%

57% of households received some form of COVID-19 relief.

Nearly 90% went to lower and middle income households.

- $-50K: 53%
- $50-100K: 36%
- $100K+: 10%

* Reported benefits received by NYC residents since the beginning of the epidemic

- 42% Getting a stimulus check
- 20% Receiving unemployment benefits
- 14% Other financial assistance (family/friends)
- 13% Deferment of debt or mortgage
- 18% Deferment of rent
- 13% Received food from expanded school meal program
- 16% Received food from other city, nonprofit, and religious organizations
- 16% Began receiving SNAP food stamps

Source: [https://sph.cuny.edu/research/covid-19-tracking-survey/week-7/](https://sph.cuny.edu/research/covid-19-tracking-survey/week-7/)

29% of NYC households report at least one person lost their job.

The demographic sectors hit the hardest by job loss:

- 41% of the Latinx/Hispanic community
- 34% of those making <$50,000 in annual income
- 32% of those who do not have a college degree

CUNY Graduate School of Public Health and Health Policy Tracking Survey March 20-22, 2020, MM, n=1,000, +/-3%

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

COVID-19 DAILY SCHEDULE

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 9:00am</td>
<td>Wake up</td>
</tr>
<tr>
<td>9:00-10:00</td>
<td>Morning walk</td>
</tr>
<tr>
<td>10:00-11:00</td>
<td>Academic time</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td>Creative time</td>
</tr>
<tr>
<td>12:00</td>
<td>Lunch</td>
</tr>
<tr>
<td>12:00-1:00</td>
<td>Chore time</td>
</tr>
<tr>
<td>1:00-2:30</td>
<td>Quiet time</td>
</tr>
<tr>
<td>2:00-4:00</td>
<td>Academic time</td>
</tr>
<tr>
<td>4:00-5:00</td>
<td>Afternoon fresh air</td>
</tr>
<tr>
<td>5:00-6:00</td>
<td>Dinner</td>
</tr>
<tr>
<td>6:00-8:00</td>
<td>Free TV time</td>
</tr>
<tr>
<td>8:00</td>
<td>Bedtime</td>
</tr>
<tr>
<td>9:00PM</td>
<td>Bedtime</td>
</tr>
</tbody>
</table>

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National Center for Disaster Preparedness
EARTH INSTITUTE | COLUMBIA UNIVERSITY
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
• The most vulnerable at greatest risk of negative impacts from mitigation and containment efforts
• Maintaining social ties and professional networks is critical to remain adaptive to uncertainty
Questions?

• Thank you!