Building Resilience

Linking Covid-19 and Climate Change

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Covid-19, Climate Change, and the Challenges of a Slow Roll Crisis

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U.S. Experience To Date

1.9 Million cases
110,000 deaths
6/5/2020
COVID-19/NOVEL CORONAVIRUS

There Are 3 Epidemics

- COVID-19 – Emerging Infectious Disease
- Infodemic – Misinformation & Disinformation
- Epidemic of Fear
  - Fear of the unknown
  - Misstatements & poor risk communication
  - A rapidly moving communication environment
  - Mismanagement by some policy makers & loss of trust
COVID-19/NOVEL CORONAVIRUS

Family of Coronavirus

Common cold coronaviruses

SARS-CoV
SARS-CoV-2

MERS-CoV

Common cold coronaviruses
How long the new coronavirus can live on surfaces*

<table>
<thead>
<tr>
<th>SURFACE</th>
<th>LIFESPAN OF COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>3 hours</td>
</tr>
<tr>
<td>Copper</td>
<td>4 hours</td>
</tr>
<tr>
<td>Cardboard</td>
<td>24 hours</td>
</tr>
<tr>
<td>Stainless Steel</td>
<td>2–3 days</td>
</tr>
<tr>
<td>Polypropylene plastic</td>
<td>3 days</td>
</tr>
</tbody>
</table>

*At 69.8 to 73.4°F (21 to 23 °C) and 40% relative humidity

Source: New England Journal of Medicine
COVID-19/NOVEL CORONAVIRUS

Epidemiological To Date

• Each person can infect at least 2 other people
  – More infectious than most influenza strains
• 80% of cases have mild symptoms & 15-20% severe
• Case fatality rate 1.4% - 3.4%, but falling
• Lots of other complications other than pulmonary disease (Strokes, clots, immune dysfunction, etc.)
• Community transmission actively occurring in the U.S.
  – Asymptomatic transmission ~25%
COVID-19/NOVEL CORONAVIRUS

How Is It Transmitted

[Diagram showing the transmission of COVID-19 through close contact, airborne transmission, and fomite transmission.]
COVID-19 Health Disparities

US Demographics
Whites – 60%
Black – 12%
Hispanic – 18%

CDC, Hospitalized patients
COVID-19/NOVEL CORONAVIRUS

Nonpharmacological Interventions (NPI)

• Handwashing
• Respiratory etiquette
• Physical (Social) distancing
• Travel restrictions
• Selective closure of large events & gatherings, non-essential business, schools, places of worship
• The use of facial masks / coverings
COVID-19/NOVEL CORONAVIRUS

Nonpharmacological Interventions (NPI)

![Graph showing the impact of nonpharmacological interventions on the spread of COVID-19.](Image)

- **Delay epidemic peak**
- **Reduce height of peak**
- **Spread cases over a longer time period**

**Without intervention** vs. **With intervention**

**No. infections** vs. **Time since introduction of first case**
Co-Disaster Planning
Climate Change
Extreme Heat
Severe Storms: Hurricanes, Rain, Floods, & Tornadoes
Wildfires & Toxic Air
Infrastructure Failure

Michigan Edenville Dam Failure, May 19, 2020
Protest Spur Risk of Disease Spikes
New Planning Considerations

• NPI difficult to do in most disaster response scenarios
  – Physical distancing
  – Masking
  – Handwashing

• Competition for Resources

• Multiple health risks
  – Air quality changes exacerbate COVID-19 lung disease
  – Injury, contagion, mental health, water borne, etc.

• Communication
  – Infodemics undermine response communication
  – Mixed messaging

• National Capacity to manage multiple disasters
Shelters Not Designed For Physical Distancing
COVID-19/NOVEL CORONAVIRUS

Cotton Mask
Handwashing
Testing
Contact Tracing
Infodemic

Disinformation or misinformation?

**Know the difference!**

- **Disinformation** is false and intends to cause harm.
- **Misinformation** is false but not deliberately created to harm.
- **Mal-information** is based on reality but used to inflict harm.

*COUNTER THE COVID-19 “INFODEMIC”*

**APHA**
Managing Multiple Events

COVID-19

Climate Change Events

Others
Discussion
About APHA

APHA is a global community of public health professionals and the collective voice for the health of the public. APHA is the only organization that combines 140 years of perspective, a broad-based constituency and the ability to influence federal policy to advocate for and improve the public’s health.

- Founded – April 18, 1872
- 501C(3) & Nonpartisan
- Over 50,000 individual & affiliate members