Public Health Insight into the COVID-19 Pandemic

National Association of State Mental Health Program Directors

July 21, 2020

Georges C. Benjamin, MD, MACP, FACEP(E), FNAPA
Executive Director
Secretary, Executive Board
COVID-19/NOVEL CORONAVIRUS

As of 12:00 p.m. ET June 16, 2020

World Pandemic

Countries reporting any cases COVID-19
Countries not reporting cases COVID-19
U.S. Experience To Date

3,712,604 million cases
140,129 deaths

7/19/2020 Johns Hopkins COVID-19 tracking
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

RNA Virus With Membrane Coat
## 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 around 25% - 40%
COVID-19/NOVEL CORONAVIRUS

How Is It Transmitted
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 coverings (Masks)
COVID-19/NOVEL CORONAVIRUS

Nonpharmacological Interventions (NPI)

Flatten the Curve

OUTBREAK WITH NO INTERVENTION

OUTBREAK WITH INTERVENTION

NUMBER OF CASES

DURATION OF TIME SINCE FIRST CASES

U.S. HEALTHCARE THRESHOLD

Adapted from CDC
COVID-19/NOVEL CORONAVIRUS

1918 Social* distancing

* Now physical
COVID-19/NOVEL CORONAVIRUS

Healthcare Provider Mask

N95 Mask

Surgical Mask
COVID-19/NOVEL CORONAVIRUS

Cotton Mask
COVID-19/NOVEL CORONAVIRUS

Role Of COVID-19 Testing

• Nasal or oral swabs done
  – Tests for presence of virus genetic structure
  – Collates with viral shedding and presumed infection
  – Takes 4-6 hours manually
  – 15 min - 1 hour automated

• Some problems with test access
  – Immunity presumed for now
  – No reinfection presumed for now

• Antibody tests
  – Identify prior infection
  – Presumes immunity
  – Variability in quality & accuracy
Testing Has Been Unequal

Reasons for Inequalities

• Access to testing
• Differences in quality of test
• Behavioral differences in ones view on testing
• Social determinants that impact testing
Contract Tracing Equity Issues

• Ability to find individuals
  – Mistrust in contact tracing / Mis-disinformation
  – Cultural competent interaction
  – Confidentiality concerns
  – Don’t know community
  – Phone access & other contact issues

• Tracers not linked to existing health department program
• Inability to isolate or quarantine
• Poor access to health care
• Social determinants that limit finding individuals in 2-3 days
COVID-19/NOVEL CORONAVIRUS

Therapeutic Interventions

- General supportive care
- Vaccines – In development
- Antiviral agents – Randomized control trails underway
- Antibody-rich plasma – Experimental use
- Others??
COVID-19/NOVEL CORONAVIRUS

COVID-19 Health Disparities

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

**Race (from 580 patients)**
- White: 45.0%
- Black: 33.1%
- Hispanic: 8.1%
- Asian: 5.5%
- American Indian/Alaskan Native: 0.3%
- Other: 7.9%

**Gender (from 1,482 patients)**
- Male: 54.4%
- Female: 45.6%
Causes of COVID-19 Health Inequities

- Higher exposure because of public facing jobs
- Higher susceptibility – Chronic disease disparities
- Social determinates of health
COVID-19/NOVEL CORONAVIRUS

NPI for Infodemic & Fear

- Get the facts
- Frequent communication
- Correct disinformation
- Address misinformation
- Build trust
COVID-19/NOVEL CORONAVIRUS

Some Things We Don’t Yet Know

- True mortality rate
- Occurrence pattern - Seasonal vs episodic
- Will it become endemic
- All the ways it is spread
- Effects on pregnant women and fetus
- Why children have lower morbidity overall
- Role of children as carriers
Multiple Systems Failures to Date

- Poor & confused federal leadership
- Under resourced systems at all three levels
- Technical failure with testing
- Understaffed public health departments
- Under practiced for emergency response
- Plans & reports that sat on the shelf without action
- Antiquated, slow and non-interoperable data systems
- Fractured healthcare delivery system
- An underinsured and uninsured population
COVID-19/NOVEL CORONAVIRUS

When / How To Remove Physical Distancing

“The Virus drives the decision” Dr. Anthony Fauci
COVID-19/NOVEL CORONAVIRUS

Original Plan

• Close societal interactions to protect health
• Measured and phased reopening
  – New infections are inevitable with reopening
  – Managing severe morbidity and mortality will get better over time with better clinical management and therapeutics
• Herd immunity achieved: infections & vaccination 70%
• Viral ecological pattern remains unclear - 3 options
  – Intermittent spikes
  – Slow roll
  – Big wave in the fall / winter
COVID-19/NOVEL CORONAVIRUS

Safe Reopening Requires

- Reduction in clinical parameters (Hospital & Deaths)
- Health system capacity to manage all hospital & outpatient cases
- Robust testing infrastructure (Infections & post exposure (<5% positive))
- Adequate contact tracing
- Ability to isolate & quarantine
COVID-19/NOVEL CORONAVIRUS

U. S. Now Reopening

<table>
<thead>
<tr>
<th>COVID-19 REOPENING PHASES</th>
<th>WORK &amp; CONGREGATE SETTINGS</th>
<th>SOCIAL SETTINGS</th>
</tr>
</thead>
</table>
| RED PHASE                 | • Life-sustaining businesses only  
                           | • Restrictions in place for prison + congregate care  
                           | • Schools closed for in-person instruction  
                           | • Most child care closed  | • Stay at home ordered  
                           | • Large gatherings prohibited  
                           | • Restaurants/bars limited to carry-out + delivery  
                           | • Only travel for life-sustaining purposes  |
| YELLOW PHASE              | • Telework must continue where feasible  
                           | • Businesses with in-person operations must follow safety orders  
                           | • Child care open with workers + building safety orders  
                           | • Restrictions in place for prison + congregate care  
                           | • Schools closed for in-person instruction  | • Stay at home restrictions lifted in favor of aggressive mitigation  
                           | • Large gatherings prohibited  
                           | • In-person retail allowed  
                           | • Indoor recreation, health and wellness facilities such as gyms, spas, and all entertainment such as casinos, theaters  
                           | • Rhinoplasty closed  
                           | • Restaurants/bars limited to carry-out + delivery  |
| GREEN PHASE               | • All businesses must follow CDC and PA department of health guidelines  | • Aggressive mitigation orders lifted  
                           |                           | • Individuals must follow CDC and PA department of health guidelines  |
COVID-19/NOVEL CORONAVIRUS

Reopening In Challenging Operating Environment

• Quarantine fatigue
• Politicization of COVID response
• Managing tradeoffs: COVID versus the economy and other health & societal concerns
• Explosive public anger and growing distrust
• **Current outcomes & events by race expose racism for its systemic roots**
Race & Racism Defined

- **Race** - A social construct based on physical characteristics
  - We as a species share 99.9% of our DNA with each other

- **Racism** – The false belief in the superiority of one group of people over another based on race
  - Unfairly disadvantages some individuals and communities
  - Unfairly advantages other individuals and communities
  - Saps strength of the whole society by wasting human resources
Types of Racism

- Structural racism – Differential access to goods, services and opportunities by race
- Personally mediated racism – Prejudice and discrimination based on assumptions about capabilities, motives and intent
- Internalized racism – Acceptance by the stigmatized “races” of negative messages about ones own abilities and intrinsic worth
Structural Racism: In COVID-19 Testing

- Access to testing
  - Location & mode of test facility
    - Location not located in minority communities
    - Drive through vs walk up
    - Long lines
  - Messaging on the need for a gateway provider
    - Call your doctor or health care provider
  - Cost of testing (Federal coverage for now)
  - Cost for care (Uninsured or underinsured)
COVID-19/NOVEL CORONAVIRUS

Personally Mediated Racism
Masking While Black
Internalized Racism To COVID-19 Testing

- Fear of discovery
- Fear of stigma: Black disease
- Lack of trust in “system”
- Lack of clear understanding of benefits of test or what results mean
Police Violence
COVID-19/NOVEL CORONAVIRUS

National Protest Increase Disease Exposures Risks
COVID-19/NOVEL CORONAVIRUS

The Health Risk Paradox

• People making a risk based & ethical decision to protest
• Balancing risk of Racism’s health impact to the risk of COVID’s health impact
• Police violence, profiling, verbal harassment driven by racism are the manifestations of public concern
• COVID has presented unevenly around the country and has had a disparate health impact for minorities
COVID-19 & Protest Concerns

- Mass gatherings
- Tear gas & Pepper Spray – Prompts coughing & removal of face masks
- Corralling and detainments risk disease spread
- Rubber bullets & beanbag round injury
- Disease spikes from protesters & response personnel inevitable
- Disproportionate health outcomes
COVID-19/NOVEL CORONAVIRUS

Recommendations

• Depoliticize the COVID-19 response
• Demilitarize response to protest
• Promote NPI as risk reduction for all
  – Mask
  – Physical distancing
  – Hand hygiene
• Phased reopening
  – Data must drive decisions
  – Plan for pauses & reversals
• Equitable testing & contact tracing
• Culturally competent health education
Test Equity Solutions

- Plan testing access with underserved in mind
  - Location
  - Cost issues (Tests are free but not treatment)
- Ensure you use an approved test. Understand the reliability and parameters of the tests used
- Address testing education and communications in a culturally competent manner
- Use trusted messengers
- Address social determinants to make testing easier
Equity Contact Tracing Solutions

- Develop & maintain trust – **ESSENTIAL!**
- Build on existing health department Infrastructure
- Cultural competency required
- Assure confidentiality of information: Used only for contact tracing **and** enabling services as appropriate
- Ensure capacity to isolate or quarantine
- Assure access to health care
Nothing in the world is more dangerous than sincere ignorance and conscientious stupidity.
COVID-19/NOVEL CORONAVIRUS

Resources

• APHA.org
• CDC.gov
• WHO.int
Discussion
The American Public Health Association champions the health of all people and all communities. We are the only organization that combines a nearly 150-year perspective, a broad-based member community and the ability to influence federal policy to improve the public’s health. Learn more at www.apha.org.

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