

Public Health Insight into the COVID-19 Pandemic

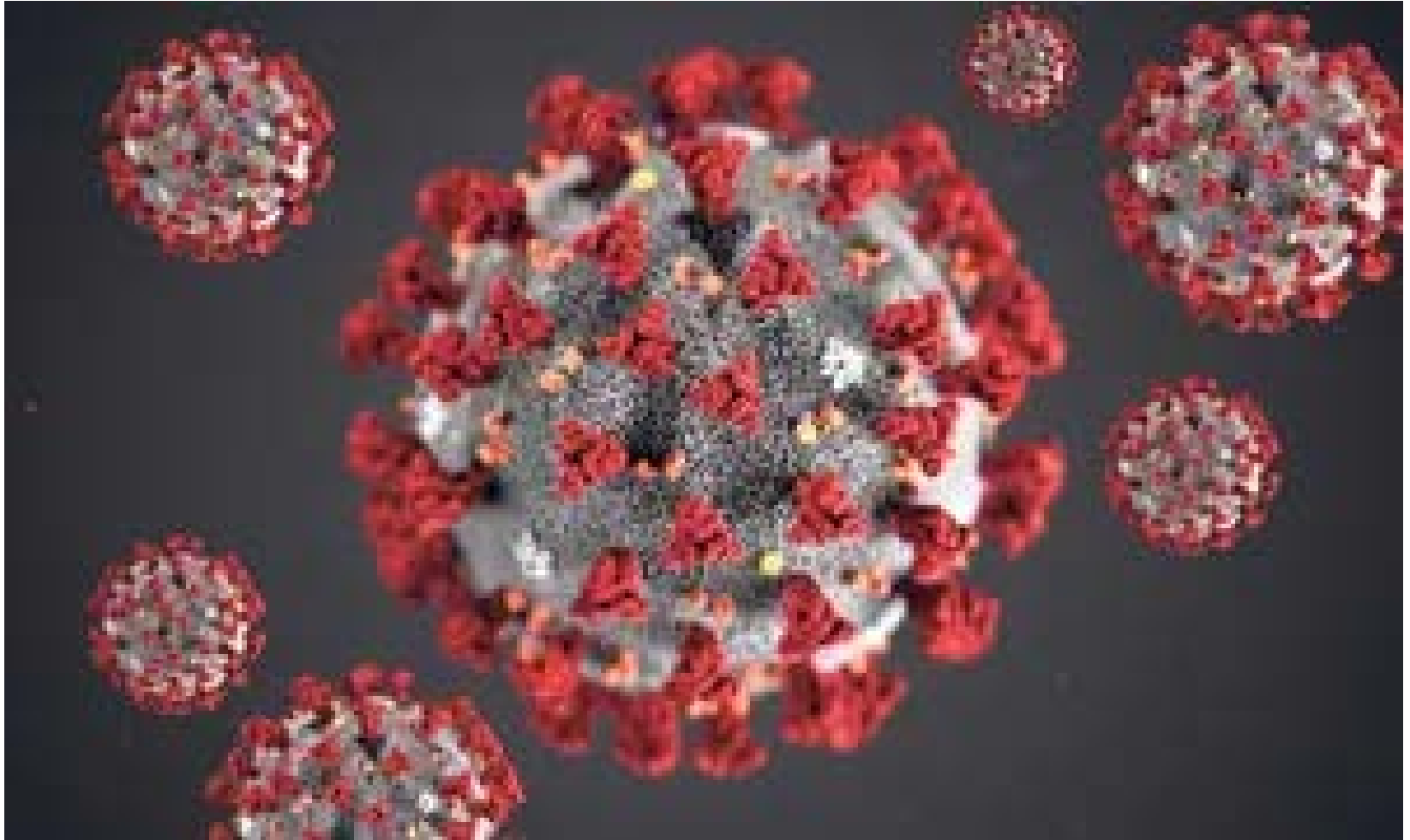
National Association of State Mental Health Program Directors

July 21, 2020

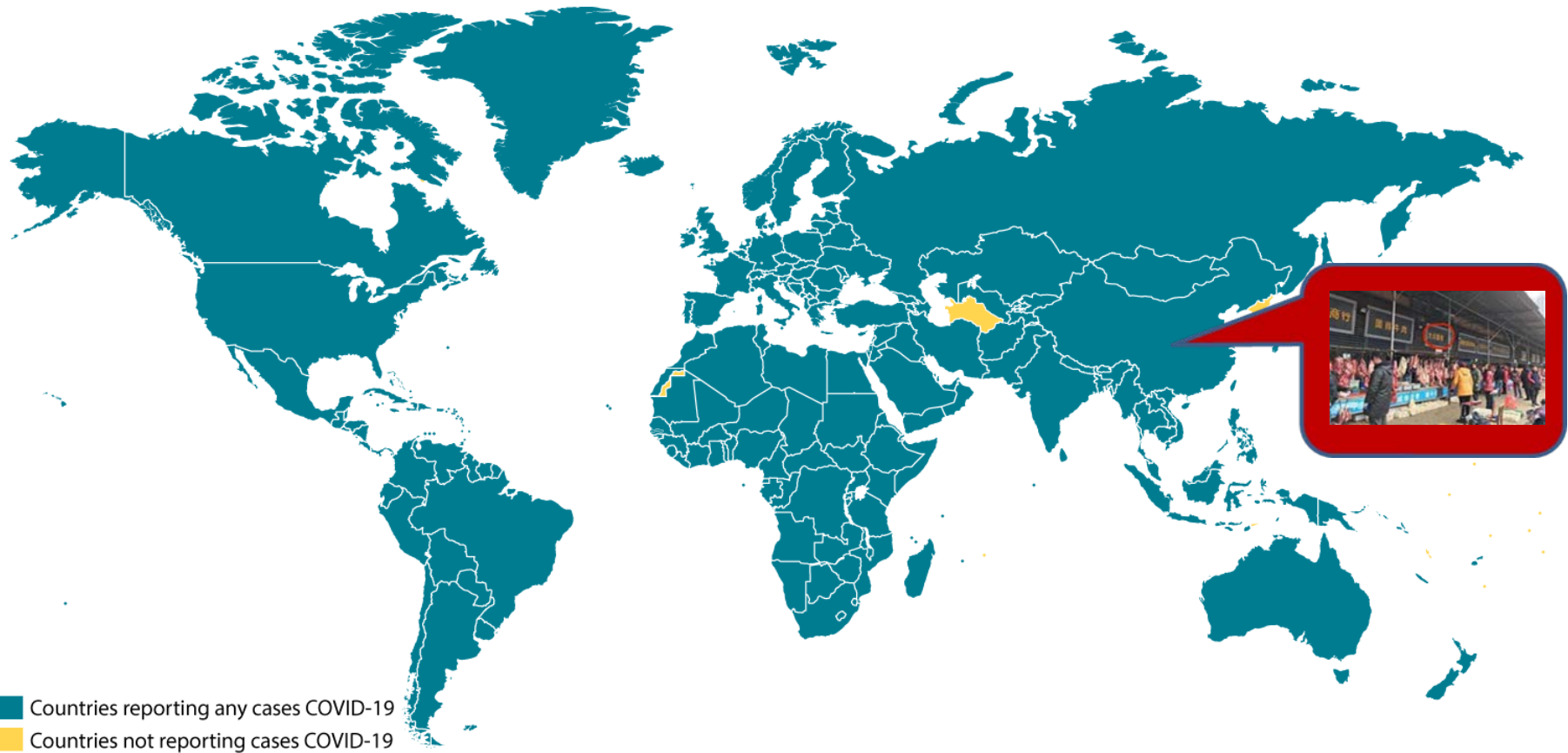
Georges C. Benjamin, MD, MACP, FACEP(E), FNAPA
Executive Director
Secretary, Executive Board



COVID-19/NOVEL CORONAVIRUS



COVID-19/NOVEL CORONAVIRUS



World Pandemic

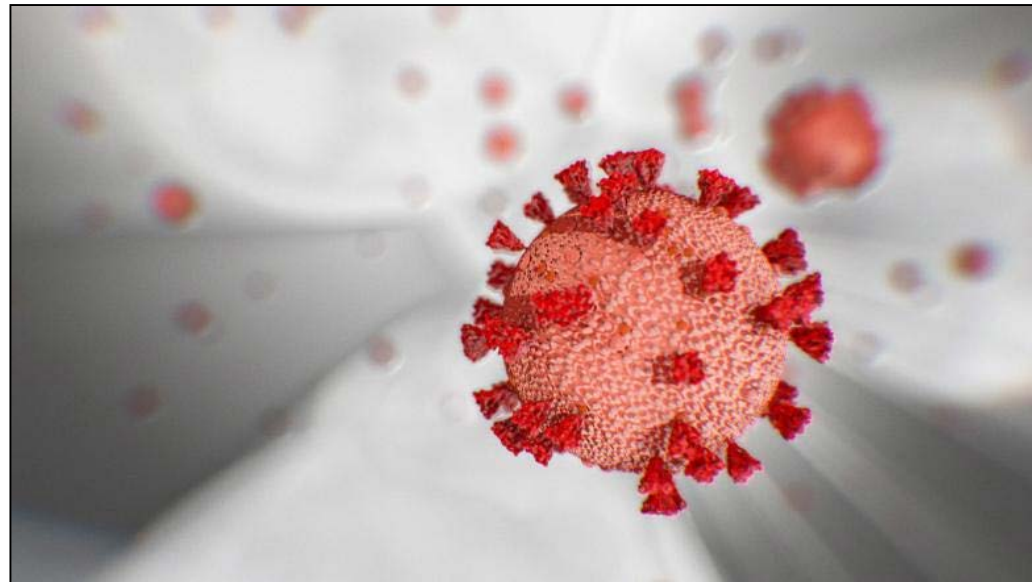
As of 12:00 p.m. ET June 16, 2020



U.S. Experience To Date

3,712,604 million cases
140,129 deaths

7/19/2020 Johns Hopkins COVID-19 tracking



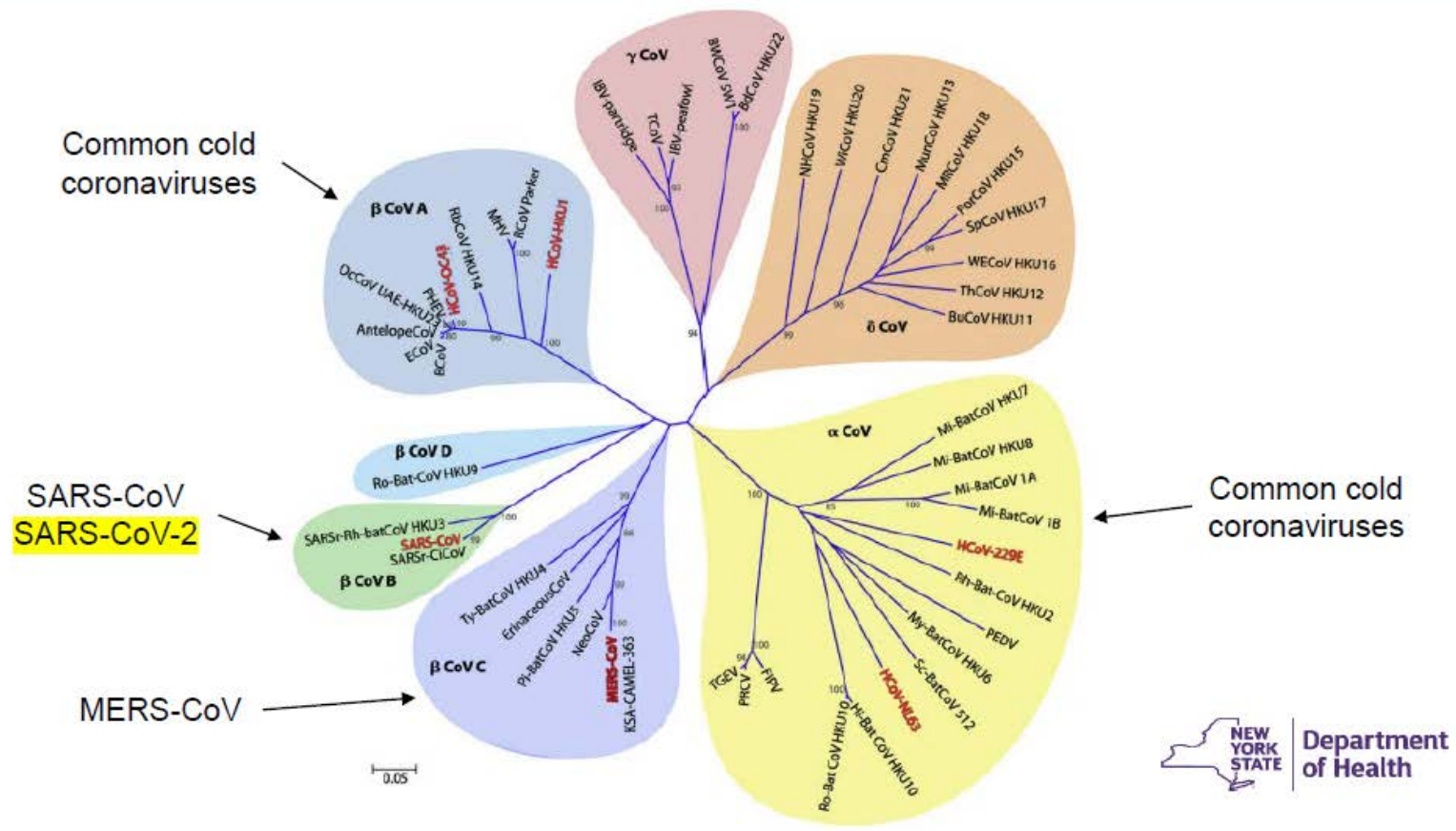
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There Are 3 Epidemics

- **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

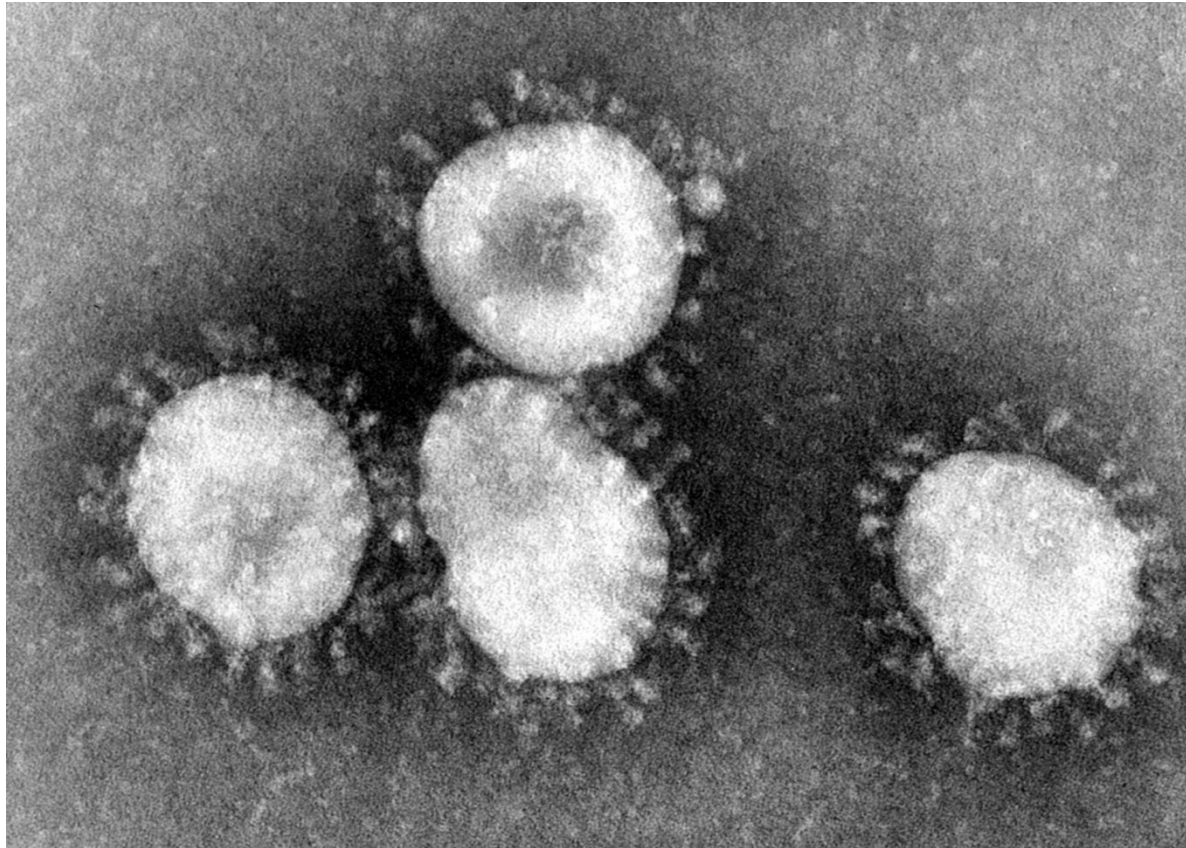
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Family of Coronavirus













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RNA Virus With Membrane Coat



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How long the new coronavirus can live on surfaces*

SURFACE	LIFESPAN OF COVID-19
 Air	3 hours 
 Copper	4 hours 
 Cardboard	24 hours 
 Stainless Steel	2–3 days 
 Polypropylene plastic	3 days 

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

Source: New England Journal of Medicine

BUSINESS INSIDER

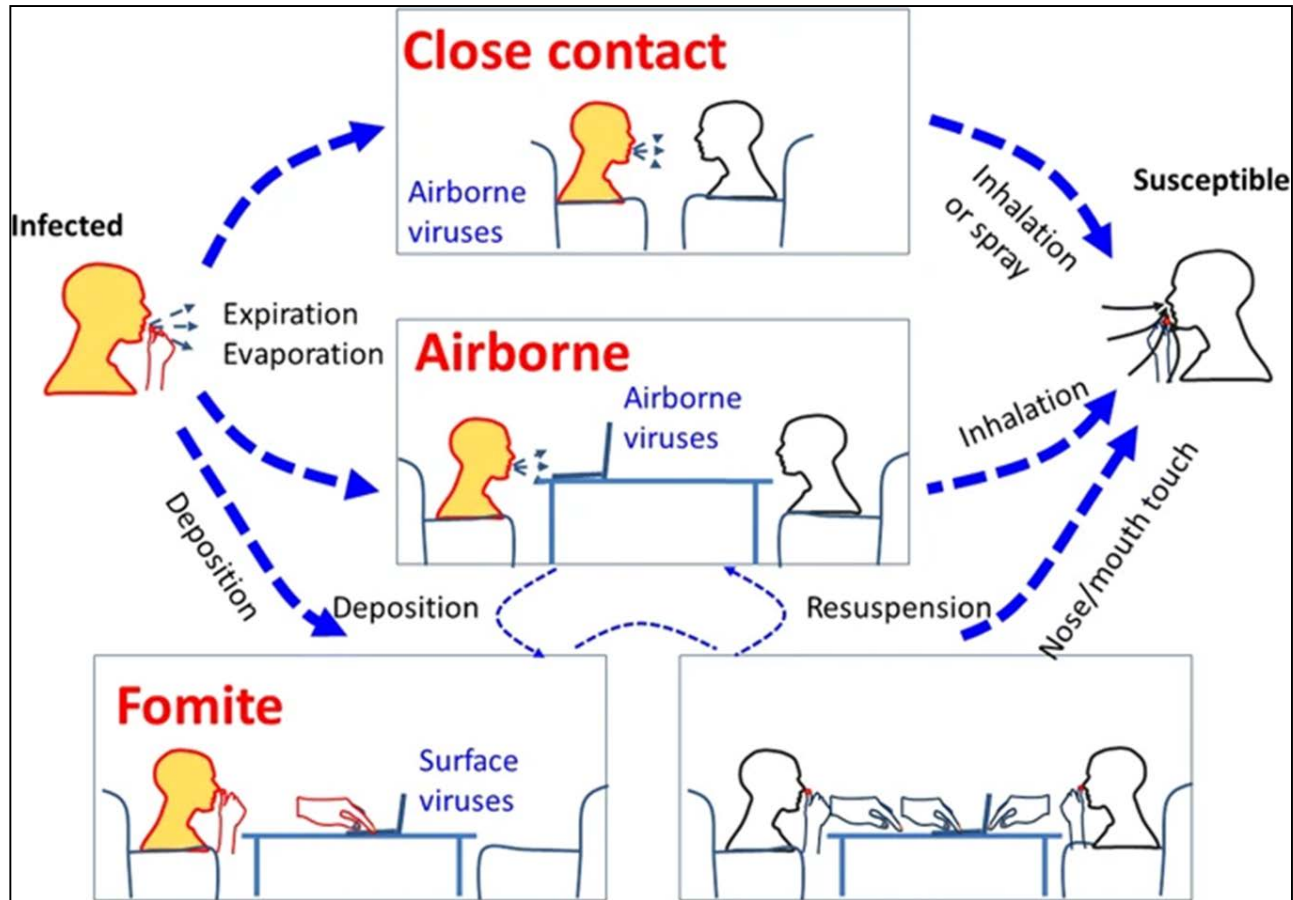
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Epidemiological To Date

- 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%

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How Is It Transmitted



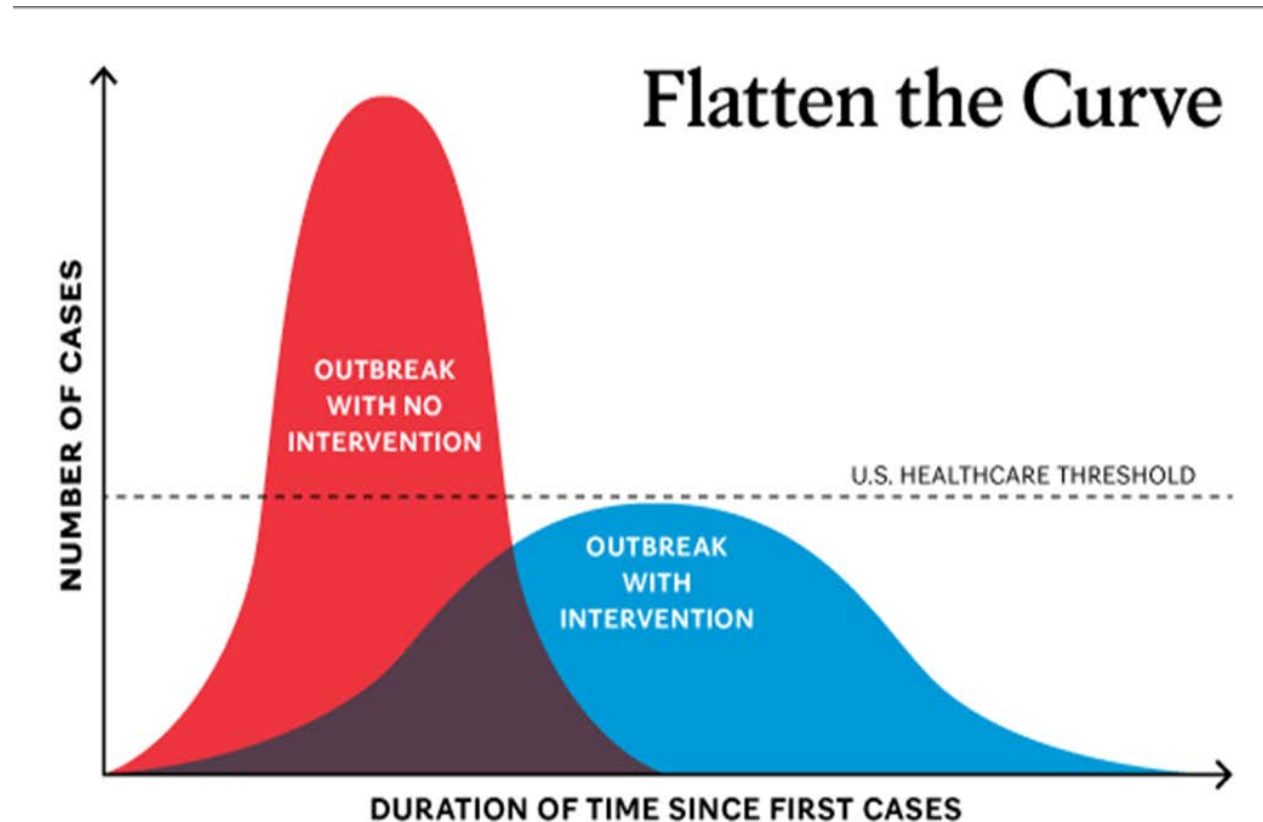
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Nonpharmacological Interventions (NPI)

- 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)

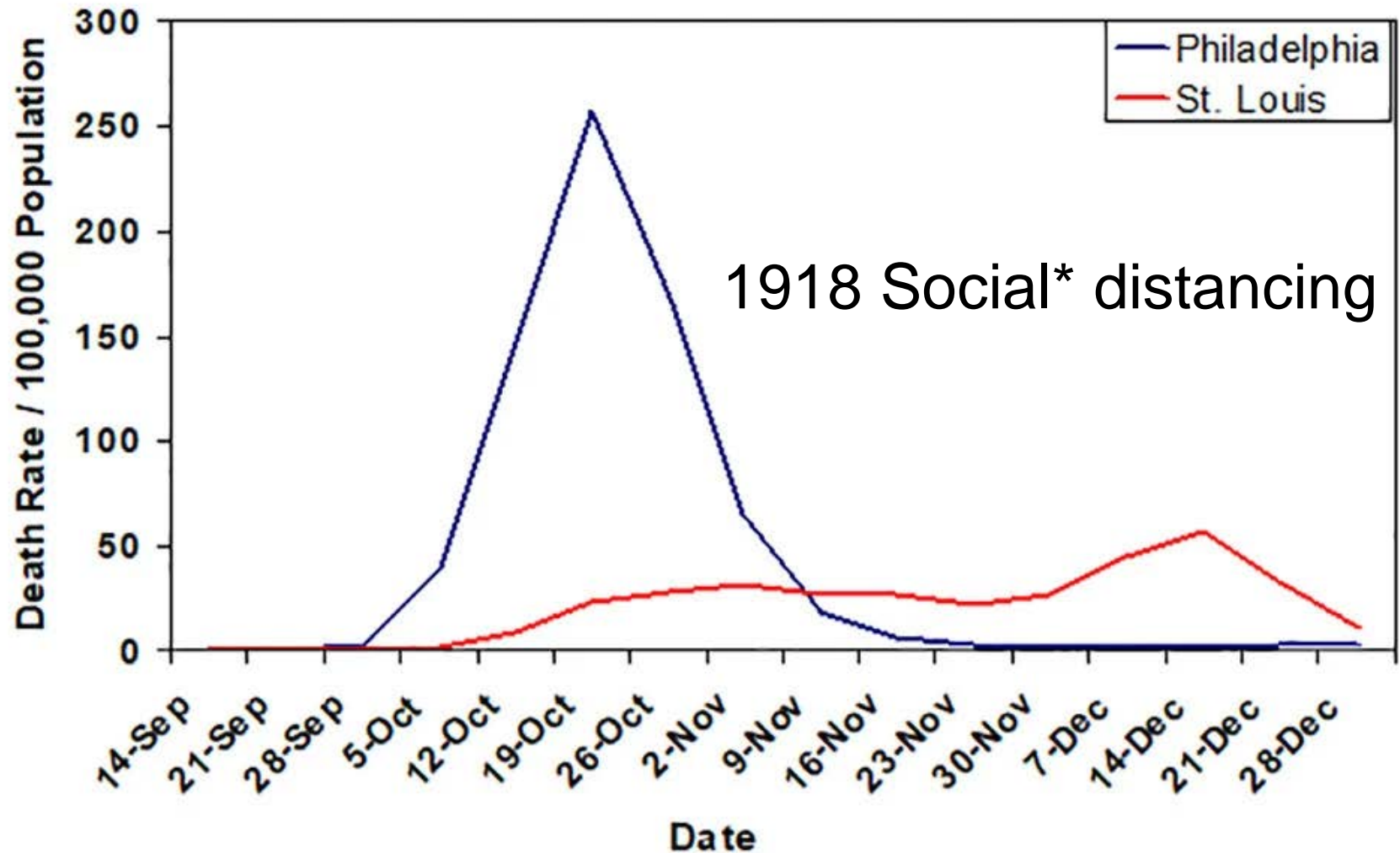
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Nonpharmacological Interventions (NPI)



Adapted from CDC

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* Now physical

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Healthcare Provider Mask



N95 Mask

Surgical Mask



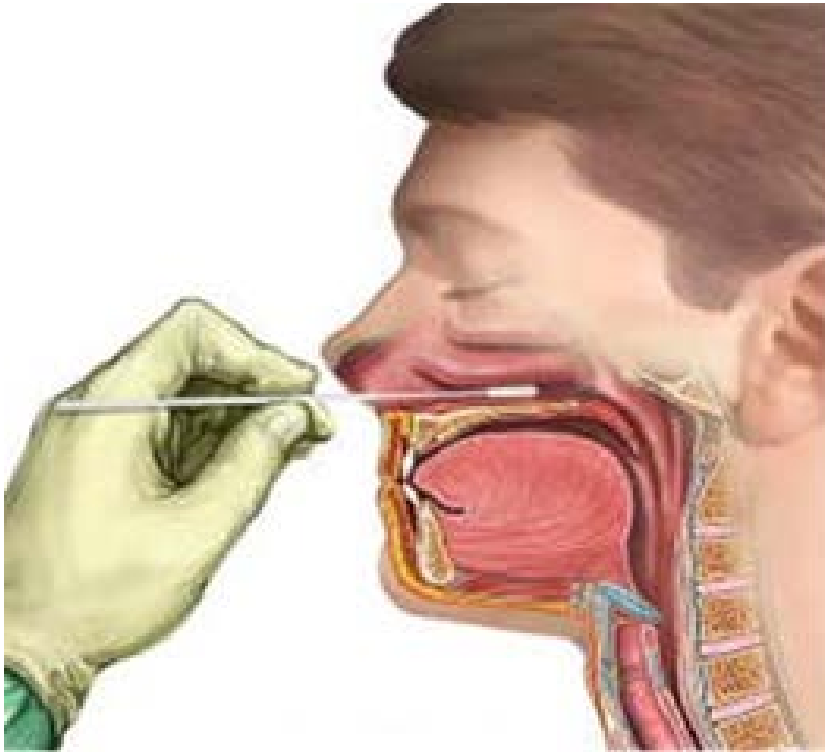
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Cotton Mask



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Role Of COVID-19 Testing



- Nasal or oral swabs done
 - Tests for presence of virus genetic structure
 - Correlates 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

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Therapeutic Interventions

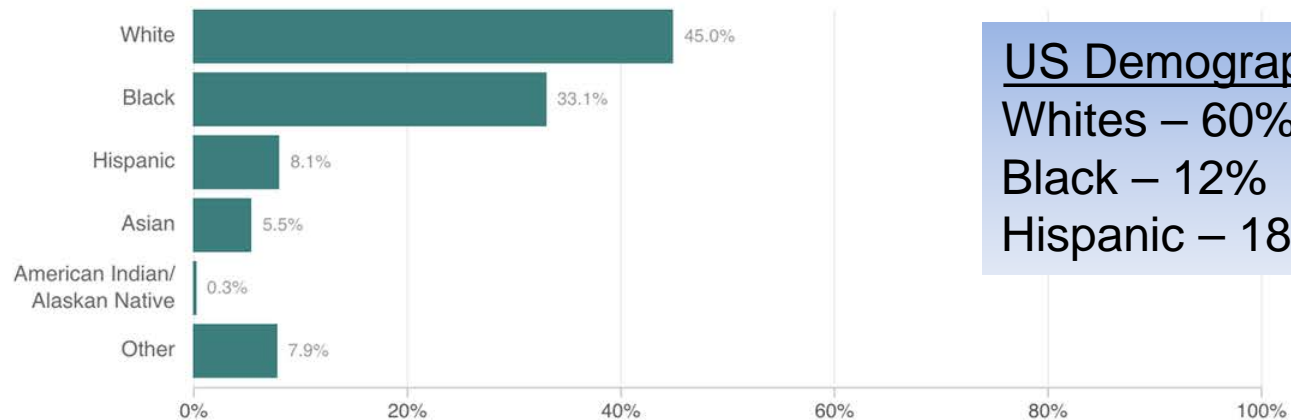
- General supportive care
- Vaccines – In development
- Antiviral agents – Randomized control trails underway
- Antibody-rich plasma – Experimental use
- Others??



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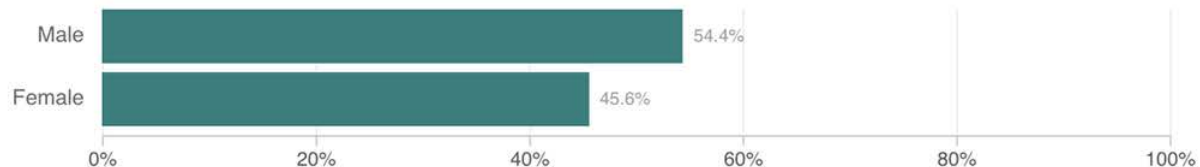
COVID-19 Health Disparities

RACE (FROM 580 PATIENTS)



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

GENDER (FROM 1,482 PATIENTS)



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Causes of COVID-19 Health Inequities

- Higher exposure because of public facing jobs
- Higher susceptibility – Chronic disease disparities
- Social determinates of health

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NPI for Infodemic & Fear

- Get the facts
- Frequent communication
- Correct disinformation
- Address misinformation
- Build trust

DISINFORMATION

WHAT TO DO IF YOU GET COVID-19

Visit your local mosque!
Muslims have higher sanitary standards than the average person and are far safer to be around during flu season.

Visit your local synagogue!
The Jewish community has pledged to assist with the COVID-19 outbreak and will provide complimentary meals to anyone who attends synagogue as of March 3, 2020.

Spend time in diverse neighborhoods!
Increased exposure to diversity is clinically proven to provide short-term and long-term benefits to immune system function.

Spend the day on public transport!
Modern public transport vehicles are made with antibacterial materials, meaning they are safer to use and reduce risk of re-infection.

CDC Centers for Disease Control and Prevention **World Health Organization**

1 Photo and illustration © iStock - 187631026/1234567891011121314
2 Coronavirus COVID-19 Information and Response - <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
3 Current Health System Situation - <https://www.cdc.gov/media/releases/2020/s0414-covid-19.html>
4 Decentralized Ministry of Human and Biomedical Diversity with City-Scale Management - <https://www.ncbi.nlm.nih.gov/pubmed/32154522>

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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



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When / How To Remove Physical Distancing



“The Virus drives the decision” Dr. Anthony Fauci

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Original Plan

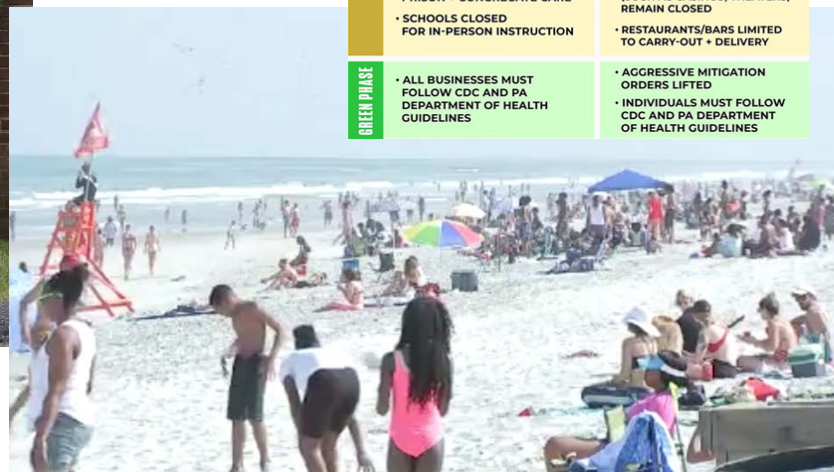
- Close societal interactions to protect health
- Measured and phased reopening
 - New infections are inevitable with reopening
 - Managing severe morbidity and mortality will get better over time with better clinical management and therapeutics
- Herd immunity achieved: infections & vaccination 70%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

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

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U. S. Now Reopening



COVID-19 REOPENING PHASES		
	WORK & CONGREGATE SETTINGS	SOCIAL SETTINGS
RED PHASE	<ul style="list-style-type: none"> LIFE-SUSTAINING BUSINESSES ONLY RESTRICTIONS IN PLACE FOR PRISON + CONGREGATE CARE SCHOOLS CLOSED FOR IN-PERSON INSTRUCTION MOST CHILD CARE CLOSED 	<ul style="list-style-type: none"> STAY AT HOME ORDERED LARGE GATHERINGS PROHIBITED RESTAURANTS/BARS LIMITED TO CARRY-OUT + DELIVERY ONLY TRAVEL FOR LIFE-SUSTAINING PURPOSES
YELLOW PHASE	<ul style="list-style-type: none"> TELEWORK MUST CONTINUE WHERE FEASIBLE BUSINESSES WITH IN-PERSON OPERATIONS MUST FOLLOW SAFETY ORDERS CHILD CARE OPEN WITH WORKER + BUILDING SAFETY ORDERS RESTRICTIONS IN PLACE FOR PRISON + CONGREGATE CARE SCHOOLS CLOSED FOR IN-PERSON INSTRUCTION 	<ul style="list-style-type: none"> STAY AT HOME RESTRICTIONS LIFTED IN FAVOR OF AGGRESSIVE MITIGATION LARGE GATHERINGS PROHIBITED IN-PERSON RETAIL ALLOWED CURBSIDE/DELIVERY PREFERRED INDOOR RECREATION, HEALTH AND WELLNESS FACILITIES (SUCH AS GYMS, SPAS), AND ALL ENTERTAINMENT (SUCH AS CASINOS, THEATERS) REMAIN CLOSED RESTAURANTS/BARS LIMITED TO CARRY-OUT + DELIVERY
GREEN PHASE	<ul style="list-style-type: none"> ALL BUSINESSES MUST FOLLOW CDC AND PA DEPARTMENT OF HEALTH GUIDELINES 	<ul style="list-style-type: none"> AGGRESSIVE MITIGATION ORDERS LIFTED INDIVIDUALS MUST FOLLOW CDC AND PA DEPARTMENT OF HEALTH GUIDELINES

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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**

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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

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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)



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Personally Mediated Racism Masking While Black



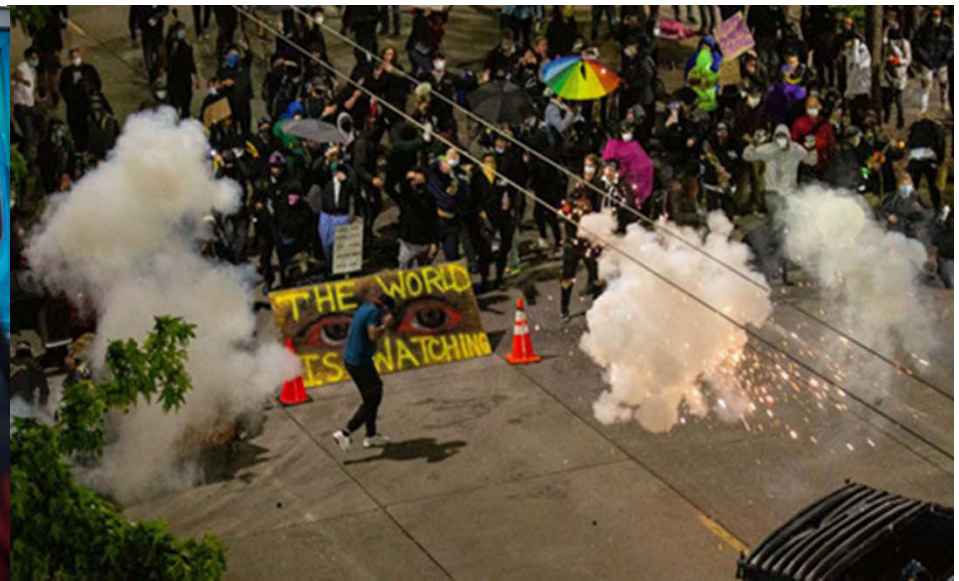
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Internalized Racism To COVID-19 Testing

- 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



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National Protest Increase Disease Exposures Risks



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

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COVID-19 & Protest Concerns

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



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



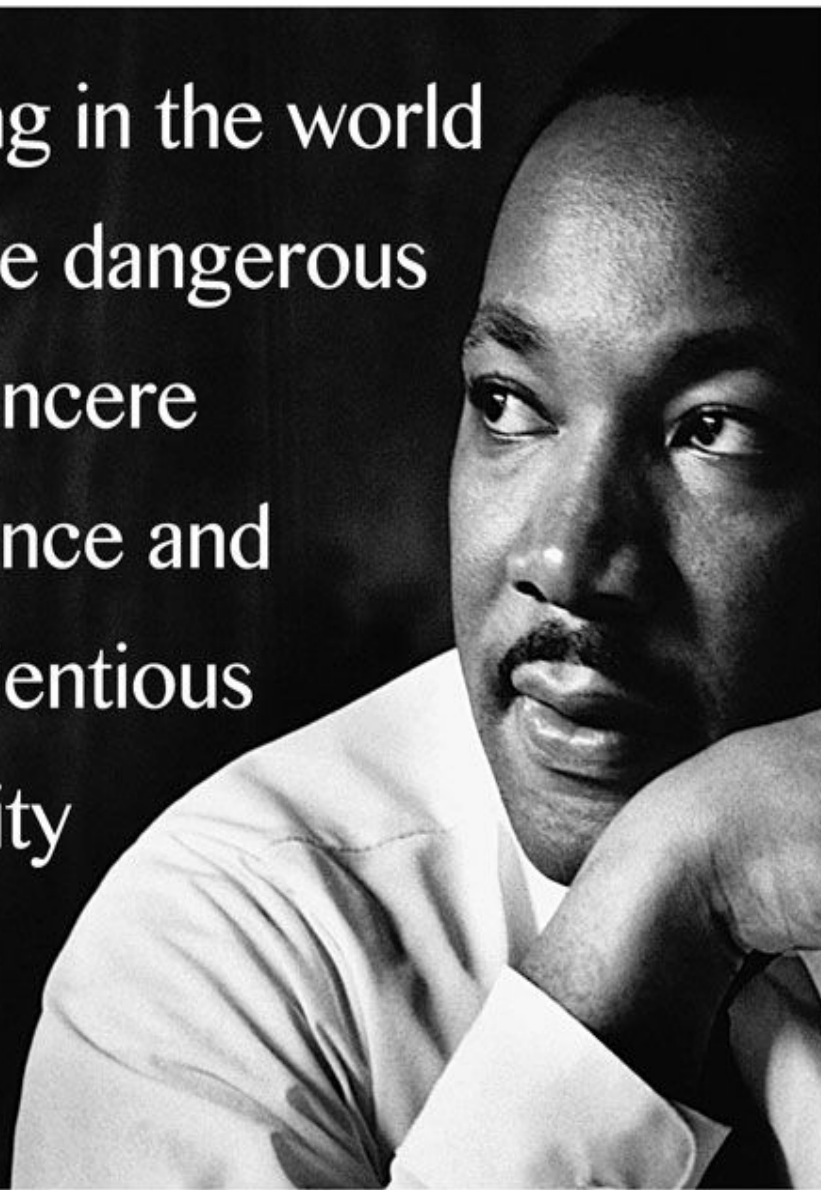
Test Equity Solutions

- 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



:SumAdvice.com

Martin Luther King



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Resources

- [APHA.org](https://www.apha.org)
- [CDC.gov](https://www.cdc.gov)
- [WHO.int](https://www.who.int)



Discussion



About APHA

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

