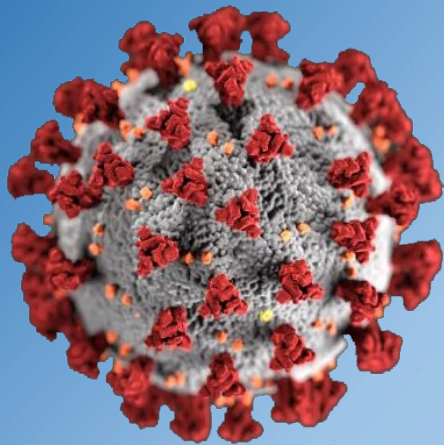


# The Need for the Public to Embrace Public Health

## KRHA Conference



**Kevin T. Kavanagh, MD, MS**  
**Health Watch USA**  
November 12, 2020

# **Public Health Acceptance**

## **Barriers to Overcome**

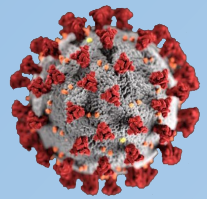


- 1. The Holding of Personal “Rights” Over The Welfare of “Society”.**
- 2. Mistrust of Science and Governmental Agencies.**
- 3. Mixed Messaging of COVID-19 Information.**
- 4. Organized COVID-19 Misinformation.**

**BARRIER I: The Holding of  
Personal “Rights” Over The  
Welfare of “Society”.**

# Public Health Acceptance

## Personal “Rights” Vs. Good For “Society”



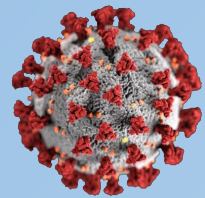
"I told him as an expert in the field I strongly recommend wearing it, but he just kept bringing up his 'rights'."

Dr Hunter Maguire, President of the American Medical Association stated:  
“... that one of the most important questions of the hour was quarantine ....  
**A difficulty in dealing with infectious diseases in America was the rooted dislike to the curtailment of the personal liberty of the citizen for the benefit of the people at large.** ... all patriots, representing every shade of political opinion, should unite in demanding of Congress the passage of a law.... that will enable the Government to properly protect its citizens against disease .... There is as much reason why the power of the Federal Government should be invoked to aid in repelling the advent of pestilence as to aid in repelling the advent of a hostile fleet or army.”



# Public Health Acceptance

## Personal “Rights” Vs. Good For “Society”



### THE AMERICAN MEDICAL ASSOCIATION.

#### PRESIDENT'S ADDRESS.

THE forty-fourth annual meeting of the American Medical Association was held at Milwaukee on June 6th, 7th, 8th, and 9th. After the Association had been welcomed by the Governor of Wisconsin, the President of the Association (Dr. HUNTER MAGUIRE) delivered his address, a large part of which dealt with the aim and organisation of the Association. The object of the Association was to study the origin of disease, its nature and its course, to learn how to prevent it and how it might be cured. Much yet remained to be learned with regard to the endemic diseases of the various sections of the country. In particular many problems remained to be solved in connection with malarious disease. The police regulation of small-pox was a matter involving grave considerations for the general Government and for the several States in the Union. Notwithstanding the dissemination by antivaccination societies, of all sorts of misrepresentations, vaccination had been growing in favour, and now the great majority of the educated classes have become convinced of its importance. Compulsory laws have been put in force in the larger number of European countries, and especially in the German Empire, where not only the army but also the people at large are compelled to submit to vaccination at stated intervals—once every third year being the rule for the army. He said that one of the most important questions of the hour was quarantine, and in connection with this he sketched briefly the spread of cholera during last year and the occurrence of yellow fever in the Southern States at various times. A difficulty in dealing with infectious diseases in America was the rooted dislike to the curtailment of the personal liberty of the citizen for the benefit of the people at large. A further difficulty in the way of the enactment of general quarantine laws was the complex character of the maritime and railroad commerce and travel of the United States. Fully recognising the difficulties thus created, he yet held that all patriots, representing every shade of political opinion, should unite in demanding of Congress the passage of a law, strong, concise, and yet comprehensive, that will enable the Government to properly protect its citizens against disease whenever, in the discretion of its officers, the emergency may have arisen. There is as much reason why the power of the Federal Government should be invoked to aid in repelling the advent of pestilence as to aid in repelling the advent of a hostile fleet or army. He then touched upon the need for the organisation for a National Board of Health, and concluded by a reference to the progress which had been made by the *Journal* of the American Medical Association.

MR. ERNEST HART was then introduced, and in a short speech stated that he brought a greeting to the American Medical Association from the British Medical Association.

Much of the time of the general meeting on this and the following days was occupied by the reception and discussion of various reports of committees.

Unfortunately, this was in 1893.  
Things still have not changed

The American Medical Association.  
British Medical Journal, July 1,  
1893:19.

# **BARRIER II: Mistrust of Science and Governmental Agencies.**

# Public Health Acceptance

## Mistrust of Science & Government Agencies



SCIENTIFIC  
AMERICAN®



## A Plan to Defend against the War on Science

The challenge of creating a public able to parse evidence-free “facts” rests with the press, educators and other thought leaders

By [Shawn Otto](#) on October 9, 2016 <https://www.scientificamerican.com/article/a-plan-to-defend-against-the-war-on-science/>

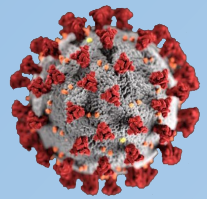
*The Atlantic*

Fox News, Sean Hannity, March 9, 2020, “They’re scaring the living hell out of people. And I see them again as like, ‘Oh, okay, let’s bludgeon Trump with this new hoax.’” In mid-March, the network changed its editorial narrative to take the virus seriously.

<https://www.theatlantic.com/ideas/archive/2020/06/this-is-trumps-plague-now/613633/>

# Public Health Acceptance

## Mistrust of Science & Government Agencies



### **Doctors: Trump is wrong to accuse medical professionals of profiting from diagnosing COVID-19**

*Trump's baseless insinuations and defiance of science hurt our response to COVID-19 and health care workers.*

Insinuated Doctors Were Diagnosing Patients who Were Dying From Heart Disease & Cancer

<https://www.usatoday.com/story/opinion/2020/10/27/donald-trump-doctors-profit-coronavirus-covid-diagnosis/6041826002/>

Here's the truth: We label patients with COVID-19 because accurate identification of this disease is essential so we can track cases to take the quick action necessary to prevent further spread. If a patient has a history of heart disease or other medical problems, and dies in the hospital with COVID-19, we know that coronavirus exacerbated that underlying condition — and their demise. It is accurate and in line with public health principles to list it as a cause of death.



# Public Health Acceptance

## Mistrust of Science & Government Agencies



thebmj

### Risk of hospital admission with coronavirus disease 2019 in healthcare workers and their households: nationwide linkage cohort study

*BMJ* 2020 ; 371 doi: <https://doi.org/10.1136/bmj.m3582> (Published 28 October 2020)

Cite this as: *BMJ* 2020;371:m3582

**Conclusions** Healthcare workers and their households contributed a sixth of covid-19 cases admitted to hospital. Although the absolute risk of admission was low overall, patient facing healthcare workers and their household members had threefold and twofold increased risks of admission with covid-19.

<https://www.bmj.com/content/371/bmj.m3582>



# Public Health Acceptance

## Mistrust of Science & Government Agencies



### Here are the facts:

- The payment for COVID-19 which is based upon diagnosis is applicable only to hospital billing. This data is entered by a hospital coder and billed to Medicare or insurance companies. This billing data is NOT used to track the incidence of COVID.
- Physicians are paid by services rendered. They do not get extra money for diagnosing COVID-19. They report deaths, and deaths are then investigated by the health department.
- COVID-19 is as much a heart than lung disease. In fact I have written an article advocating that its primary effect is on the heart. It commonly causes a myocarditis or heart inflammation along with hypercoagulation of blood which causes heart attacks.
- If one has cancer you still can die of COVID-19. Yes, some will say you would die anyways. But imagine an airline company doing a news release after a fatal airline crash which killed 300 people, that they were only going to count 200 people as dead in the crash because the rest were old or had cancer.

# **BARRIER III: Mixed Messaging Regarding COVID-19.**

# **Public Health Acceptance**

## **Mistrust of Science & Government Agencies**



### **Mixed Messaging FDA**

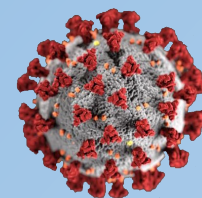
- Hydroxychloroquine.**
- Remdesivir.**
- Convalescent Serum (Plasma).**

### **Mixed Messaging CDC**

- The Use of Face Masks.**
- Aerosolization of SARS-CoV-2.**
- Testing for Asymptomatic Carriers.**

# Mistrust of Science & Government Agencies

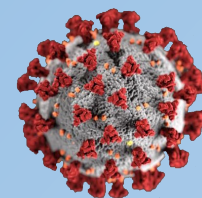
## EUA – Hydroxychloroquine. 9 Neg. RCT



- Borba, et al. (Brazil) – **RCT. Double Blinded. Hospitalized with severe COVID-19.** The lethality in the high dose group was more than twice that of the low dose control. The study was discontinued. April 24, 2020.  
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2765270>
- Boulware, et al. (USA) – **RCT. Double Blinded. Post high or moderate risk exposure prophylaxis within 4 days** “...did not prevent illness after exposure.” NEJM. June 3, 2020. <https://www.nejm.org/doi/full/10.1056/NEJMoa2016638>
- Oxford RECOVERY Study: (UK) – **RCT. Hospitalized Patients.** “There was no significant difference in the primary endpoint of 28-day mortality... There was also no evidence of beneficial effects on hospital stay duration or other outcomes.” The Trial was halted because of lack of efficacy. June 5, 2020. <https://www.ox.ac.uk/news/2020-06-05-no-clinical-benefit-use-hydroxychloroquine-hospitalised-patients-covid-19>
- Skipper, et al. (USA & Canada) – **RCT. Double Blind. Non-Hospitalized Patients.** “Hydroxychloroquine did not substantially reduce symptom severity in outpatients with early, mild COVID-19.” Annals of Internal Medicine. July 16, 2020.  
<https://www.acpjournals.org/doi/10.7326/M20-4207>

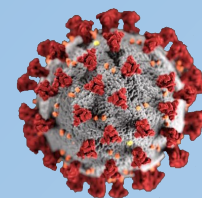
# Mistrust of Science & Government Agencies

## EUA – Hydroxychloroquine. 9 Neg. RCT



- Cavalcanti, et al. (Brazil) – **RCT. Hospitalized Patients.** “Among patients **hospitalized with mild-to-moderate Covid-19**, the use of hydroxychloroquine, alone or with azithromycin, did not improve clinical status at 15 days as compared with standard care.” New England Journal of Medicine. July 23, 2020.  
<https://www.nejm.org/doi/full/10.1056/NEJMoa2019014>
- Abella, et al. (USA) **RCT. Double Blind.** Efficacy and Safety of Hydroxychloroquine vs Placebo for Pre-exposure SARS-CoV-2 Prophylaxis Among Health Care Workers. **Prophylaxis.** Benefit not demonstrated.  
<https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2771265>
- Rajasingham, et al. (United States) – **RCT. Double Blind. Prophylaxis** of Healthcare Workers. ... did not significantly reduce laboratory-confirmed Covid-19 or Covid-19-compatible illness among healthcare workers.  
<https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciaa1571/5929230>
- Self, et al (United States) --- **RCT. Double Blind. Adult Hospitalized** Patients with Respiratory Illness. The trial was stopped at the fourth interim analysis for futility with a sample size of 479 patients. ...did not significantly improve clinical status at day 14. <https://jamanetwork.com/journals/jama/fullarticle/2772922>





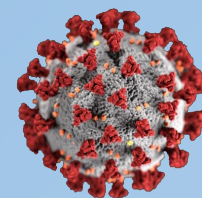
## **New Study: Hydroxychloroquine Works in Monkeys, Not Humans**

- HCQ mechanism of action is to viral cell entry. Viral entry requires a helper enzyme. In the Vero E6 Monkey cell line, this enzyme is cathepsin L which HCQ blocks. In the human lung cell line, the helping enzyme is TMPRSS2 which HCQ does not effectively block.
- Scientific resources would have been better spent on more promising treatment modalities, such as studying Camostat mesilate or nafamostat mesylate therapy for COVID-19, a compound which has been shown to block TMPRSS2.

<https://www.infectioncontrolday.com/view/new-study-hydroxychloroquine-works-in-monkeys-not-humans>

# Mistrust of Science & Government Agencies

## EUA – Hydroxychloroquine. 9 Neg. RCT



### Zelenko Protocol - Hydroxychloroquine + Azithromycin + Zinc

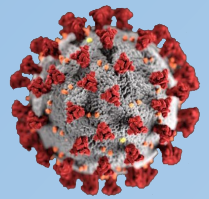
#### This is a TOXIC Mix:

- COVID-19 Commonly Attacks the Heart and Causes Myocarditis.
- Hydroxychloroquine Prolongs the Heart's QT interval Which Can Cause Dangerous Heart Arrhythmias, Especially in an Inflamed Heart.
- Azithromycin Also Prolongs the Heart's QT interval Which Can Potentiate the Chances To Develop Dangerous Heart Arrhythmias.

Thus, a toxic mix.

# Mistrust of Science & Government Agencies

## EUA – Remdesivir. 1 Neg 2 Minimal Pos. RCT



### Recent Studies Finding Disappointing Effectiveness.

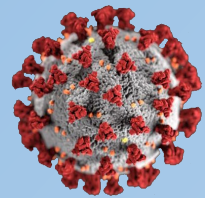
“Hospitalized patients with moderate COVID-19 randomized to a 5-day course of remdesivir had a statistically significantly better clinical status compared with those randomized to standard care at 11 days after initiation of treatment, **but the difference was of uncertain clinical importance.**” Aug. 21, 2020. JAMA Network: <https://jamanetwork.com/journals/jama/fullarticle/2769871>

Repurposed antiviral drugs for COVID-19 –interim WHO SOLIDARITY trial results: These Remdesivir, Hydroxychloroquine, Lopinavir and Interferon regimens appeared to have **little or no effect on hospitalized COVID-19, as indicated by overall mortality, initiation of ventilation and duration of hospital stay.** The mortality findings contain most of the randomized evidence on Remdesivir and Interferon, and are consistent with meta-analyses of mortality in all major trials. Oct. 15, 2020. medRxiv.

<https://www.medrxiv.org/content/10.1101/2020.10.15.20209817v1>

# Mistrust of Science & Government Agencies

## EUA – Convalescent Plasma (Serum)



## FDA chief apologizes for overstating plasma effect on virus

*Food and Drug Administration Commissioner Stephen Hahn is apologizing for overstating the life-saving benefits of using convalescent plasma to treat COVID-19 patients*

By **MATTHEW PERRONE** and **DEB RIECHMANN** Associated Press

August 25, 2020, 1:58 PM • 5 min read



<https://abcnews.go.com/Health/wireStory/fda-commissioner-overstated-effects-virus-therapy-72595122>

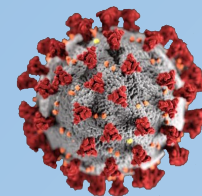
## Recent Studies Finding Disappointing Effectiveness.

Convalescent plasma in the management of moderate covid-19 in hospitalized adults in India: Convalescent plasma was not associated with a reduction in progression to severe covid-19 or all cause mortality. Oct. 12, 2020. BMJ.

<https://www.bmj.com/content/371/bmj.m3939>

# Mistrust of Science & Government Agencies

## CDC – Importance of Masks



**U.S. Surgeon General**  @Surgeon\_General · Feb 29

Seriously people- STOP BUYING MASKS!

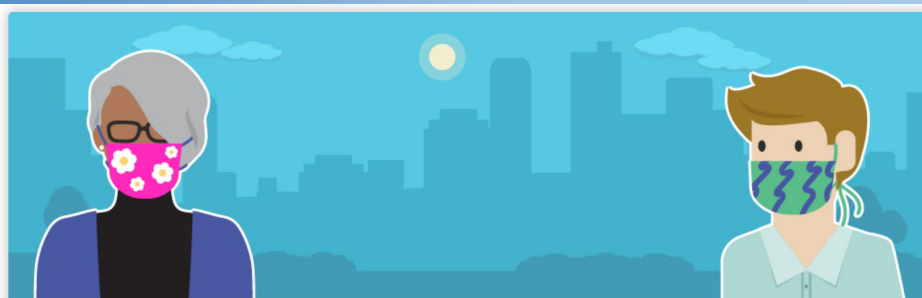
They are NOT effective in preventing general public from catching #Coronavirus, but if healthcare providers can't get them to care for sick patients, it puts them and our communities at risk!

[bit.ly/37Ay6Cm](https://bit.ly/37Ay6Cm)



Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives, Protecting People™

**April 3, 2020**



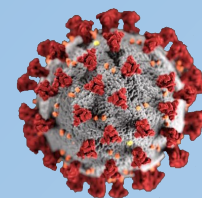
Your cloth face covering may protect them. Their cloth face covering may protect you.

<https://www.nbcnews.com/news/us-news/u-s-expected-recommend-masks-americans-coronavirus-hotspots-n1175596>



# Mistrust of Science & Government Agencies

## CDC – Importance of Masks



**The Washington Post**

*Democracy Dies in Darkness*

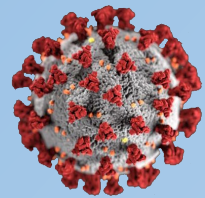
**CDC urges organizers of large gatherings to “strongly encourage” use of face masks**

A similar recommendation to use cloth face coverings in settings that involve shouting, chanting, or singing, including choirs, was removed from the agency’s [guidance for reopening houses of worship](#) two weeks ago after weeks of debate between the White House and the CDC.

<https://www.washingtonpost.com/health/2020/06/12/cdc-masks-protests-rallies/>

# Mistrust of Science & Government Agencies

## CDC – Importance of Masks



April 3, 2020

### CDC recommends people wear cloth masks in public – but Trump says he won't

President Trump stating, "The CDC is advising the use of nonmedical cloth face covering as a voluntary health measure".

<https://www.nbcnews.com/news/us-news/u-s-expected-recommend-masks-americans-coronavirus-hotspots-n1175596>



October 20, 2020

The U.S. Centers for Disease Control and Prevention (CDC) issued new guidance on Monday saying it "strongly recommends appropriate masks be worn by all passengers and by all personnel" operating public transport across the country, including in stations, terminals and airports, to help slow [spiralng coronavirus infections](#).

The Trump administration has thus far declined to issue any national mandate on face coverings, opting to leave such rules to state and local leaders to determine.

<https://www.cbsnews.com/news/covid-face-masks-cdc-strongly-recommends-public-transit-hubs/>

# Mistrust of Science & Government Agencies

## CDC – Importance of Aerosols



Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives, Protecting People™

Posted on Sept 18, 2020

### COVID-19 most commonly spreads

- Between people who are in close contact with one another (within about 6 feet).
- Through respiratory droplets or small particles, such as those in aerosols, produced when an infected person coughs, sneezes, sings, talks, or breathes.
  - These particles can be inhaled into the nose, mouth, airways, and lungs and cause infection. This is thought to be the main way the virus spreads.
  - Droplets can also land on surfaces and objects and be transferred by touch. A person may get COVID-19 by touching the surface or object that has the virus on it and then touching their own mouth, nose, or eyes. Spread from touching surfaces is not thought to be the main way the virus spreads.
- It is possible that COVID-19 may spread through the droplets and airborne particles that are formed when a person who has COVID-19 coughs, sneezes, sings, talks, or breathes. There is growing evidence that droplets and airborne particles can remain suspended in the air and be breathed in by others, and travel distances beyond 6 feet (for example, during choir practice, in restaurants, or in fitness classes). In general, indoor environments without good ventilation increase this risk.



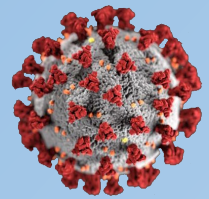
Withdrawn on Sept 21, 2020

## CDC Publishes — Then Withdraws — Guidance On Aerosol Spread Of Coronavirus

September 21, 2020 · 4:08 PM ET

# Mistrust of Science & Government Agencies

## CDC – Importance of Aerosols



Posted on Oct. 5, 2020 -- CDC: SARS-CoV-2 and Potential Airborne Transmission

### Airborne transmission of SARS-CoV-2 can occur under special circumstances

Enough virus was present in the space to cause infections in people who were more than 6 feet away or who passed through that space soon after the infectious person had left. Circumstances under which airborne transmission of SARS-CoV-2 appears to have occurred include:

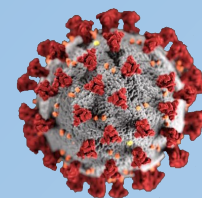
- **Enclosed spaces** within which an infectious person either exposed susceptible people at the same time or to which susceptible people were exposed shortly after the infectious person had left the space.
- **Prolonged exposure to respiratory particles**, often generated with expiratory exertion (e.g., **shouting, singing, exercising**) that increased the concentration of suspended respiratory droplets in the air space.
- **Inadequate ventilation or air handling** that allowed a build-up of suspended small respiratory droplets and particles.

<https://www.cdc.gov/coronavirus/2019-ncov/more/scientific-brief-sars-cov-2.html>



# Mistrust of Science & Government Agencies

## CDC – Testing for Asymptomatic Carriers



**MarketWatch**

Aug. 24, 2020

### Coronavirus update: Health experts express alarm at CDC change in testing guidelines that exclude asymptomatic patients

Published: Aug. 26, 2020 at 2:56 p.m. ET

<https://www.marketwatch.com/story/coronavirus-update-health-experts-express-alarm-at-cdc-change-in-testing-guidelines-that-exclude-asymptomatic-patients-2020-08-26>



Sept. 18, 2020

### CDC now recommends all people exposed to COVID-19 get tested, reversing earlier controversial guidance

**Grace Hauck** USA TODAY

Published 2:38 p.m. ET Sep. 18, 2020 | Updated 10:00 a.m. ET Sep. 22, 2020

<https://www.usatoday.com/story/news/health/2020/09/18/covid-testing-cdc-reverses-guidelines-asymptomatic-spread/5827365002/>



# **BARRIER IV: Organized COVID-19 Disinformation.**

# Public Health Acceptance Disinformation



## Researchers: Nearly Half Of Accounts Tweeting About Coronavirus Are Likely Bots

"We do know that it looks like it's a propaganda machine, and it definitely matches the Russian and Chinese playbooks, but it would take a tremendous amount of resources to substantiate that," said Kathleen Carley, a professor of computer science at Carnegie Mellon University

Allyn B. Researchers: Nearly Half of Accounts Tweeting About Coronavirus are Likely Bots. NPR. May 20, 2020.

<https://www.npr.org/sections/coronavirus-live-updates/2020/05/20/859814085/researchers-nearly-half-of-accounts-tweeting-about-coronavirus-are-likely-bots>

# Public Health Acceptance Disinformation

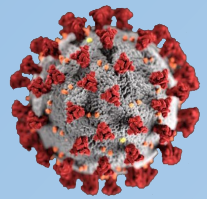


## Russia deploying coronavirus disinformation to sow panic in West, EU document says

The EU document said the Russian campaign, pushing fake news online in English, Spanish, Italian, German and French, uses contradictory, confusing and malicious reports to make it harder for the EU to communicate its response to the pandemic.

Emmott R. Researchers: Russia deploying coronavirus disinformation to sow panic in West, EU document says. Reuters. March 18, 2020. <https://www.reuters.com/article/us-health-coronavirus-disinformation/russia-deploying-coronavirus-disinformation-to-sow-panic-in-west-eu-document-says-idUSKBN21518F>

# Public Health Acceptance Disinformation



**The Washington Post**

*Democracy Dies in Darkness*

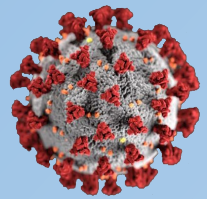
## Study shows Trump is a super-spreader – of coronavirus misinformation

Cornell University finds 38 percent of media stories including misinformation referenced the president in that context

The study says that out of 1.1 million articles from traditional media outlets containing some kind of misinformation, 37.9 percent included a mention of Trump in the context of the misinformation. Although many of those articles also contained other subjects, included in that number are the many times in which Trump was the only subject mentioned: 10.3 percent of all articles containing misinformation.

Blake A. Washington Post Oct 1, 2020. <https://www.washingtonpost.com/politics/2020/10/01/study-shows-trump-is-super-spreader-coronavirus-misinformation/>

# Public Health Acceptance Disinformation



## According to a Oct. 20, 2020 poll by IPSOS

- 6% of the public believed a vaccine would be present by election day
- 19% of the public believed herd immunity can be reached with few additional deaths.
- 28% believed hydroxychloroquine is effective.

<https://www.ipsos.com/en-us/news-polls/axios-ipsos-coronavirus-index>



# Examples of Misinformation

- Herd Immunity Will Work.
- Children Do Not Get Sick.
- The Pandemic is Like the Flu.
- Masks do not work.
- Only 6% of COVID-19 Deaths Actually Die of COVID-19.
- Cases are Up, because Testing is Up.

# Public Health Acceptance

## Disinformation – Herd Immunity

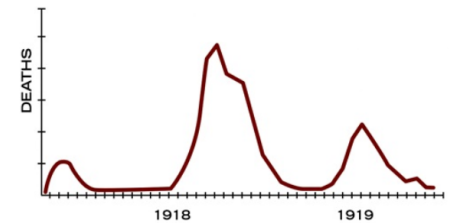


### Too Infectious and Would Take Too Long.

- COVID-19 has an  $R_0$  of 5.7. It would take over 80% of the population to be immune before herd immunity would even start to have an effect.

[https://wwwnc.cdc.gov/eid/article/26/7/20-0282\\_article](https://wwwnc.cdc.gov/eid/article/26/7/20-0282_article)  
<https://www.pbs.org/wgbh/nova/article/herd-immunity/>

- Flu is not as infectious ( $R_0$  of 1.3) and the 1918 flu required 2 years for it to burn out.



There were 3 different waves of illness during the pandemic, starting in March 1918 and subsiding by summer of 1919. The pandemic peaked in the U.S. during the second wave, in the fall of 1918. This highly fatal second wave was responsible for most of the U.S. deaths attributed to the pandemic.

<https://www.cdc.gov/flu/pandemic-resources/1918-commemoration/three-waves.htm>

# Public Health Acceptance

## Disinformation – Herd Immunity

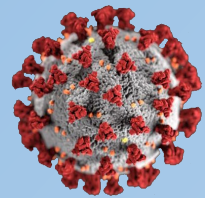


### Immunity Will Probably Not Last

- Immunity is not long lasting to Coronavirus Infections, only one to two years.
- SARS-CoV-2 immunity may not be long lasting. Six studies have found antibodies to be falling or even absent 2 to 3 months after infection, especially in patients who are mildly symptomatic or asymptomatic.

# Public Health Acceptance

## Disinformation – Herd Immunity



## Impossible to Shelter Those At Risk and Keep the Economy Running.

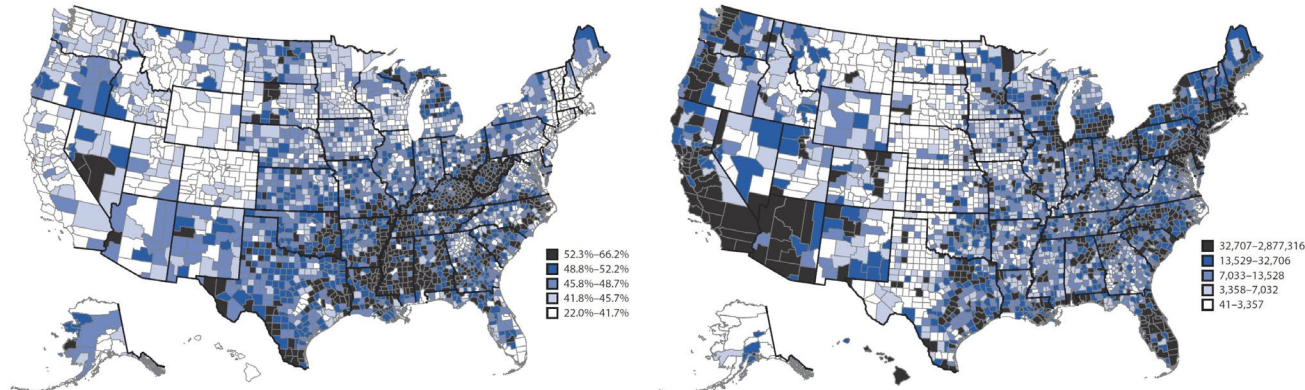
- Approximately 50% of the adult population is at risk for severe COVID-19.

### COVID-19 in High-Risk Groups

Estimated County-Level Adult Prevalence of Selected Underlying Medical Conditions\*  
Associated with Increased Risk for Severe COVID-19 Illness — U.S., 2018

Prevalence: 41% nationally

Number: median 9,642/county



\* BMI  $\geq 30$  kg/m<sup>2</sup> (31%), diabetes (11%), COPD (7%), heart disease (7%), chronic kidney disease (3%).

Does not include cancer, immunocompromise, or sickle cell disease.

Razzaghi 2020, *MMWR*: 69(29):945-50.



Valid as of October 15, 2020



# Public Health Acceptance

## Disinformation – Herd Immunity



**Health Watch USA** @healthwatchusa · Now

The first dog to test positive for coronavirus in the U.S. has died via [@natgeo](#)



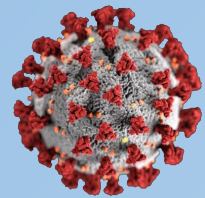
Exclusive: Buddy, first dog to test positive for COVID-19 in the U.S., has ...  
Even though the German shepherd likely had cancer, his health records  
show how little we know about animals and the coronavirus.

[nationalgeographic.com](#)



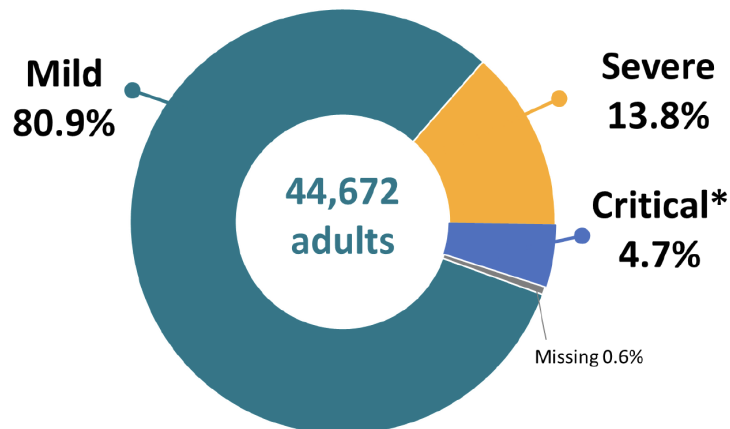
# Disinformation

## Children Do Not Get Sick



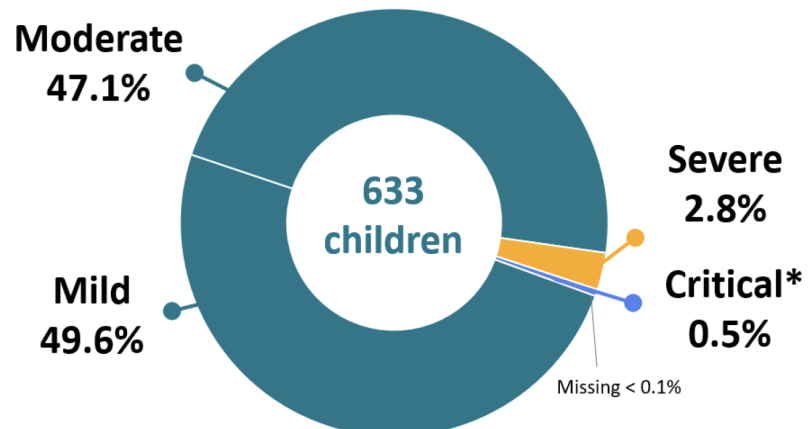
### Illness Severity in Adults and Children with COVID-19, China

Severity of Illness, Adult COVID-19  
(N = 44,672 confirmed cases)



\* 1,023 (49%) deaths among 2,087 critically ill adults

Severity of Illness, Pediatric COVID-19  
(N = 633 confirmed cases)



\* 1 deaths among critically ill children

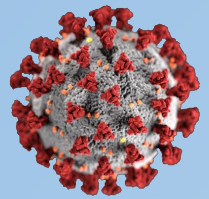


adapted from Zhang 2020, [China CDC Weekly Report](#); 2(8):113-122 and Dong 2020, [Pediatrics](#); doi 10.1542/peds.2020-0702. (symptomatic cases only)

Valid as of October 15, 2020

# Disinformation

## This Pandemic Is Just The Flu



According to the Centers for Disease Control and Prevention, more than 18 million Americans became sick with the flu, more than 410,000 were hospitalized and more than 24,000 flu-related deaths were reported during the 2019-2020 flu season.

<https://chfs.ky.gov/agencies/dph/dehp/Pages/influenza.aspx>

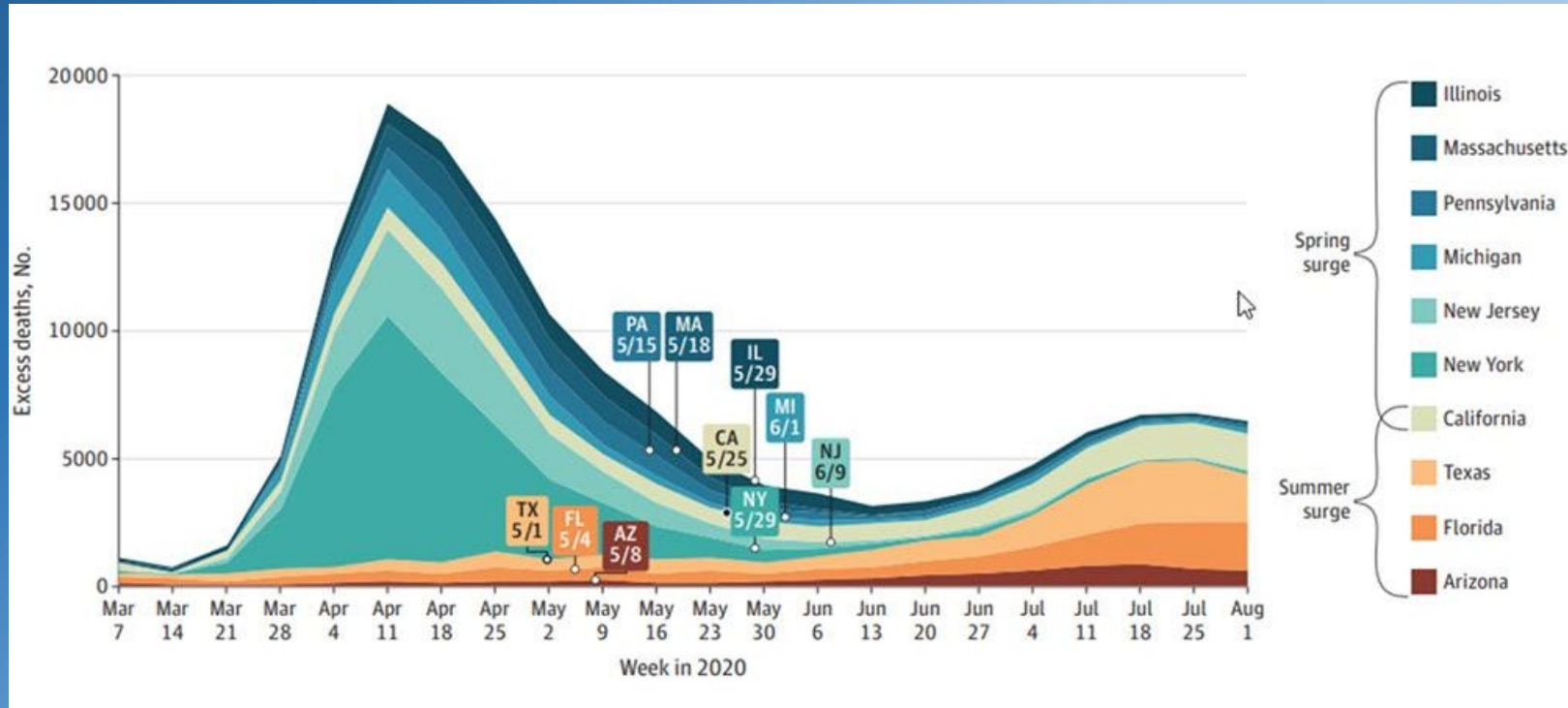
Fatality of an epidemic is a function of the pathogen's infectivity and case fatality rate. This is the chance you have of dying if you go shopping at a store. The case fatality rate will vary depending upon the definition of the denominator, but increasing the denominator (decreases the CFR) will also increase the infectivity of the disease. With multiple studies showing rapidly decreasing antibodies in asymptomatic individuals, it makes little sense to count them as infected and immune.

# Disinformation

## This Pandemic Is Just The Flu



200,000 excess deaths in the United States as of Aug 1, 2020.



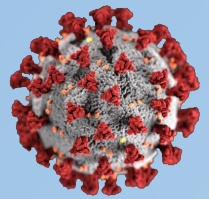
JAMA. 2020; 324(15):1562-1564. <https://jamanetwork.com/journals/jama/fullarticle/2771761>

299,000 excess deaths in the United States as of Oct. 3, 2020.

MMWR / October 23, 2020 / 69(42):1522–1527 <https://www.cdc.gov/mmwr/volumes/69/wr/mm6942e2.htm>

# Disinformation

## This Pandemic Is Just The Flu



During the period March 1 to June 6, 2020, 205 639 people had a laboratory-confirmed infection with SARS-CoV-2 and 21 447 confirmed and probable COVID-19-related deaths occurred among residents of New York City. We estimated an overall infection-fatality risk of 1.39%

[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30769-6/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30769-6/fulltext)

### COVID-19 Vs Influenza Like Illness

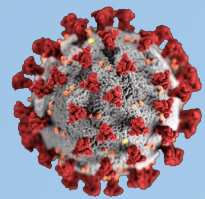
- Hospital LOS: 8.7 days to 5.1 days.
- ICU Mortality: 38% vs 13%.
- Non-ICU Mortality: 10.9% vs 1.8% A six-fold difference.
- ICU Admissions: 24% vs 17%.

Kalvin Yu, MD, Medical Director, Becton Dickinson & Co., Presidential Advisory Council on Combating Antibiotic-Resistant Bacteria. Sept, 9 & 10, 2020.



# Disinformation

## This Pandemic Is Just The Flu



### COVID-19 Affects Every Organ of The Body – It is Comparable to Polio

#### R0 (R Naught)

Polio: R0 of 5 to 7    COVID-19: R0 of 5.7

#### Asymptomatic Cases

Polio: 72%    COVID-19: 40%-45%

#### Severe Cases:

Polio: 1% (weakness)    COVID-19: 5% - 11% (ICU)

#### Deaths:

Polio: 0.02% - 0.1%    COVID-19: 0.5% to 1.5%

<https://www.cdc.gov/polio/what-is-polio/hcp.html>

<https://www.cdc.gov/mmwr/volumes/69/wr/mm6912e2.htm>

[https://wwwnc.cdc.gov/eid/article/26/7/20-0282\\_article](https://wwwnc.cdc.gov/eid/article/26/7/20-0282_article)

Illustration: Anna & Elena Balbusso

<https://www.ucsf.edu/magazine/covid-body>



# Disinformation

## This Pandemic Is Just The Flu



### ➤ Feb. 7, 2020 – Woodward Trump Tapes

“It goes through air Bob. That is always tougher than the touch... The air you just breath, the air and that is how its passed.

It is also more deadly than ... even your strenuous flus.”

“... This is more deadly, this is five percent versus one percent and less than 1%.” “This is deadly stuff.”

### ➤ Mar. 19, 2020

“Now it is turning out it is not just old people, .... Today and yesterday some startling facts came out .... plenty of young people...”

“To be honest with you .... I wanted always to play it down, I still like playing it down because I do not want to cause a panic.”

### ➤ Oct. 22, 2020 – Second Presidential Debate

President Trump stated in this debate that "N1H1 far less lethal" than COVID-19.

# Disinformation

## Masks Do Not Work



THE LANCET

ARTICLES | [VOLUME 395, ISSUE 10242, P1973-1987, JUNE 27, 2020](#)



PDF [1022 KB]

Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis

[Derek K Chu, MD](#) • [Prof Elie A Akl, MD](#) • [Stephanie Duda, MSc](#) • [Karla Solo, MSc](#) • [Sally Yaacoub, MPH](#) •

[Prof Holger J Schünemann, MD](#)   • [et al.](#) [Show all authors](#) • [Show footnotes](#)

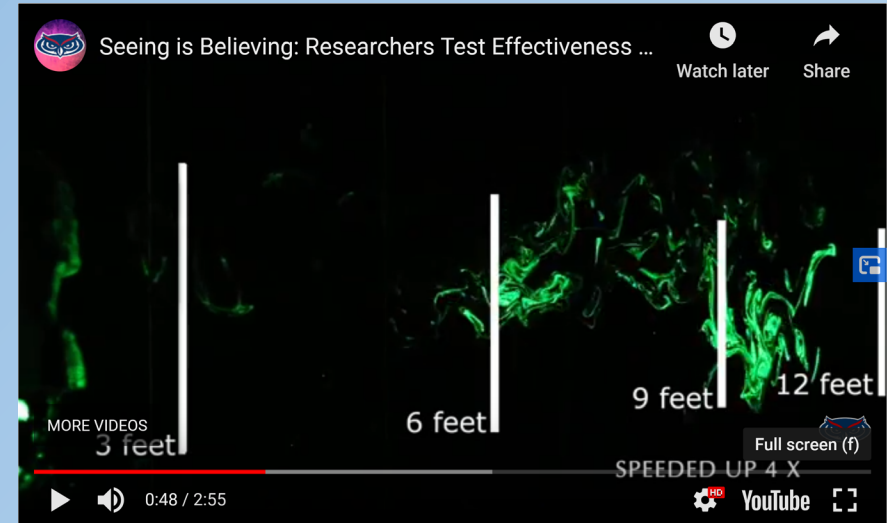
- **Physical distancing:** The chance of transmission:  
At less than 1 meter (3.3 feet) was 12.8%,  
At more than 1 meter (3.3 feet) was 2.6% (1.3% to 5.3%).
- **Face masks:** The chance of transmission without a mask was 17.4%,  
which fell to 3.1% (1.5% to 6.7%) with a mask or N95 respirator.
- **Eye protection:** The chance of transmission without eye protection  
was 16%, which fell to 5.5% (3.6% to 8.5%) with eye protection (face  
shield or goggles).

# Disinformation

## Masks Do Not Work



- Masks help to prevent spread to others from a wearer who is an unknowing asymptomatic carrier.
- Masks may help to prevent the wearer from getting infected by a factor of almost 6. They will also decrease the viral load, a factor which may result in a milder infection.
- To be safest, everyone should wear a mask plus social distance. Goggles can also help. They decrease the chance of infection by a factor of 3.

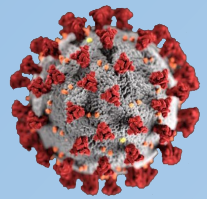


A HEAVY COUGH JET IS VIOLENT AND TURBULENT AND MAY  
CONTAIN TENS OF THOUSANDS OF DROPLETS

Florida Atlantic University  
<https://youtu.be/evATiHUEjxg>

# Disinformation

## Masks Do Not Work



- "124 Chinese households found that mask wearing at home by 1 or more family members before the onset of symptoms in the primary case was associated with a lower odds of secondary transmission (adjusted odds ratio, 0.21 [95% CI, 0.06-0.79]).)(1)
- "In a study at a US academic medical center, after the implementation of universal mask use for all health care workers and patients, the SARS-CoV-2 positivity rate among health care workers declined from 14.65% to 11.46."(2)

1) Wang Y, Tian H, Zhang L, et al. Reduction of secondary transmission of SARS-CoV-2 in households by face mask use, disinfection and social distancing: a cohort study in Beijing, China. *BMJ Glob Health*. 2020;5(5):e002794. doi:10.1136/bmjgh-2020-002794 PubMedGoogle Scholar

2) Wang X, Ferro EG, Zhou G, Hashimoto D, Bhatt DL. Association between universal masking in a health care system and SARS-CoV-2 positivity among health care workers. *JAMA*. 2020;324(7):703-704. doi:10.1001/jama.2020.12897

# Disinformation

## Masks Do Not Work



**The Washington Post**

*Democracy Dies in Darkness*

Business

## The outbreak that didn't happen: Masks credited with preventing coronavirus spread inside Missouri hair salon

Springfield, Mo., health officials braced for an outbreak. Now they say face coverings prevented one.

**Two Hair Stylists, 140 Clients and 200 to 300 other people inside their salon – There were no transmissions and no additional infections. All wore masks.**

<https://www.washingtonpost.com/business/2020/06/17/masks-salons-missouri/>



# Disinformation

## Only 6% Actually Died Of COVID-19



“The 6 percent number touted by Trump and QAnon comes from a [weekly CDC report](https://www.cdc.gov/media/releases/2020/s0514-covid-19-death-certificate.html) stating that in 6 percent of the coronavirus mortality cases it counted, COVID-19 was the only condition listed on the death certificate.” Aschwanden C – Scientific America

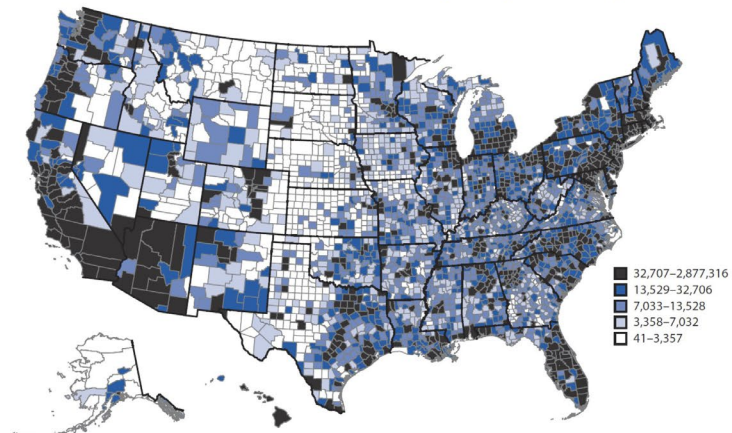
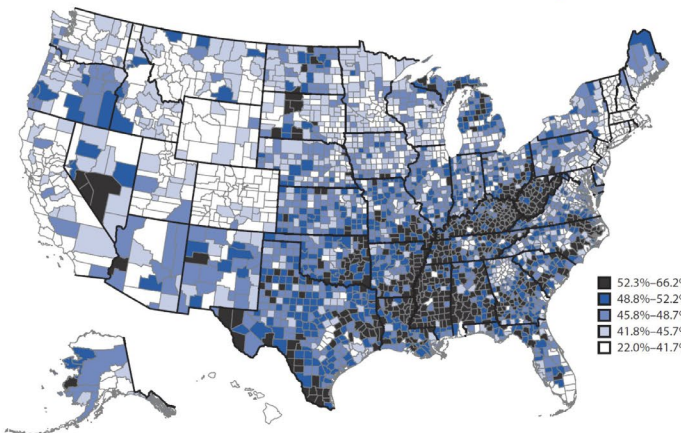
<https://www.scientificamerican.com/article/debunking-the-false-claim-that-covid-death-counts-are-inflated/>

### COVID-19 in High-Risk Groups

Estimated County-Level Adult Prevalence of Selected Underlying Medical Conditions\*  
Associated with Increased Risk for Severe COVID-19 Illness — U.S., 2018

Prevalence: 41% nationally

Number: median 9,642/county



\* BMI  $\geq 30$  kg/m<sup>2</sup> (31%), diabetes (11%), COPD (7%), heart disease (7%), chronic kidney disease (3%).

Does not include cancer, immunocompromise, or sickle cell disease.

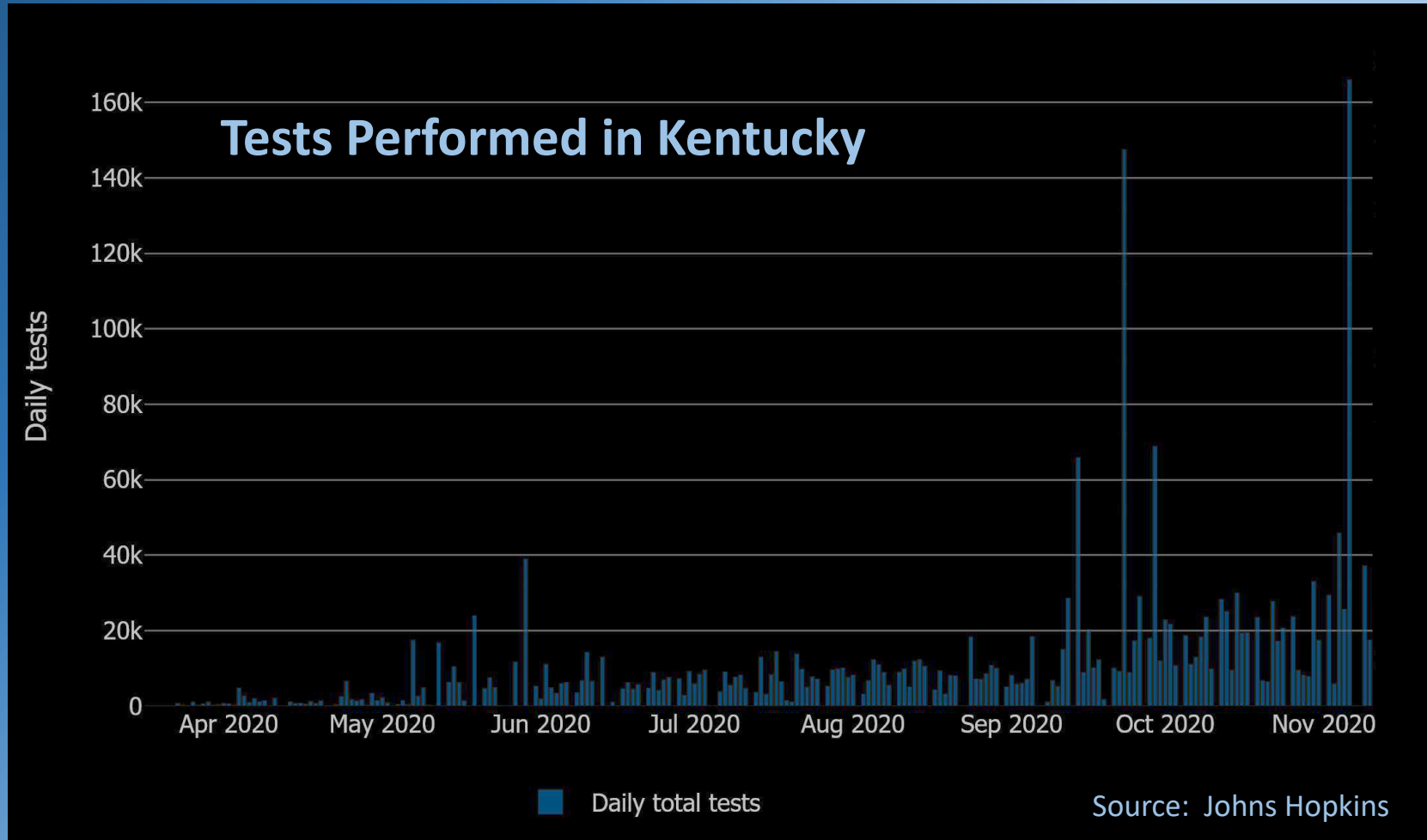


Razzaghi 2020, *MMWR*: 69(29):945-50.

Valid as of October 15, 2020

# Disinformation

## Cases Up Because of Testing

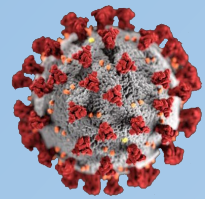


**Is an Increase in Cases due to an Increase in Tests**

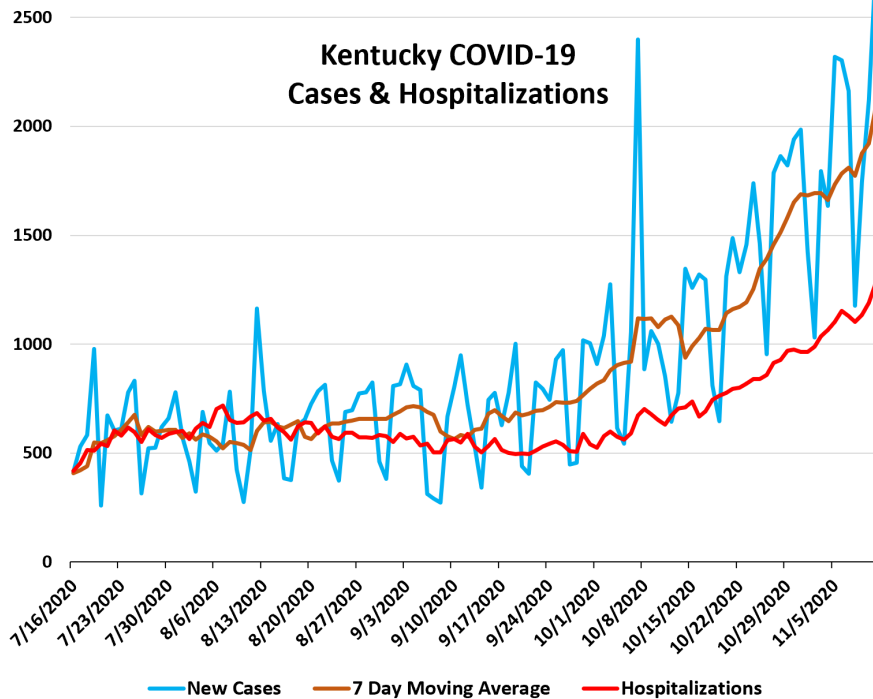
**Or is the Increase in Tests due to an Increase in Cases and Possible Exposure ??**

# Disinformation

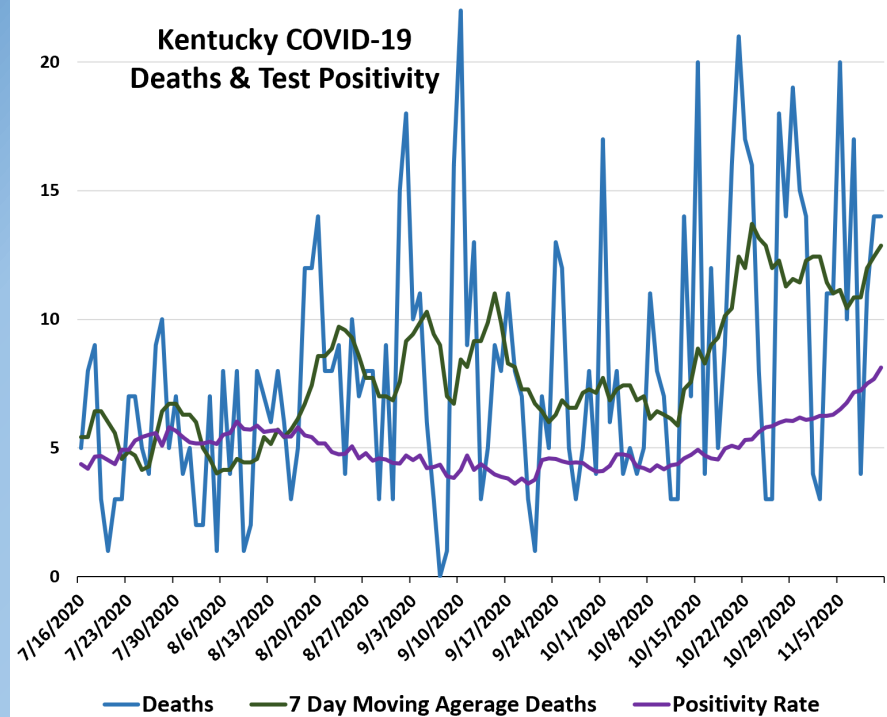
## Cases Up Because of Testing



Kentucky COVID-19  
Cases & Hospitalizations



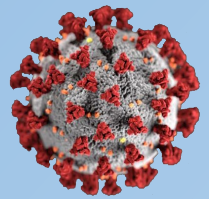
Kentucky COVID-19  
Deaths & Test Positivity



# Vaccine Hesitancy



# Polls for Getting A Vaccine



## IPSOS Poll. October 6, 2020.

- Two-thirds (65%) say they are likely to get a vaccine that has been proven safe and effective by public health officials, and 55% are likely to get one that has been on the market for a few months.
- In comparison, just 18% are very or somewhat likely to get a vaccine if it is released before next month's presidential election.

<https://www.ipsos.com/en-us/news-polls/axios-ipsos-coronavirus-index>

# Polls for Getting A Vaccine



Pfizer expects coronavirus vaccine trial results by end of October

**CBS NEWS**

**The Harris Poll**  
A STRICKLAND COMPANY

**CORONAVIRUS** THE RACE TO RESPOND

## WORRIED THAT VACCINE APPROVAL BEING DRIVEN MORE BY POLITICS THAN SCIENCE

AUGUST 25-27

**TOTAL**



**DEMOCRATS**



**REPUBLICANS**



**BREAKING NEWS**

AMERICANS FEAR VACCINE APPROVAL PROCESS IS DRIVEN BY POLITICS

**CBS EVENING NEWS** WITH NORAH O'DONNELL

Exit full screen (f)

1:03 / 2:30

Scroll for details



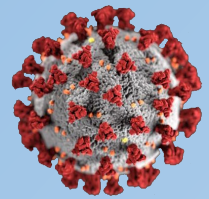
# Public Concerns - Vaccine



## U.S. Food and Drug Administration's Vaccines and Related Biological Products Advisory Committee – Oct. 22, 2020

- The rapid speed of the vaccine approval process.
- Distrust of Government and Government agencies, {such as the CDC, WHO has had changing guidance on masks, testing for asymptomatic carriers and viral aerosolization; and the FDA who has had questionable statements regarding the effectiveness of treatments granted EUAs such as hydroxychloroquine and convalescent serum.}
- Respondents wanted recommendations from a well-established reputable organization without ties to government and industry.
- Concerns about political and economic influences along with trying to get the vaccine out before the election.
- Fear the vaccine will not work. {Similar to the influenza vaccine, different dosages may need to be given to the elderly.}
- And a concern, that the vaccine is being tested on minorities, similar to the Tuskegee Experiments, at the benefit of the sheltered upper class.

# Public Concerns

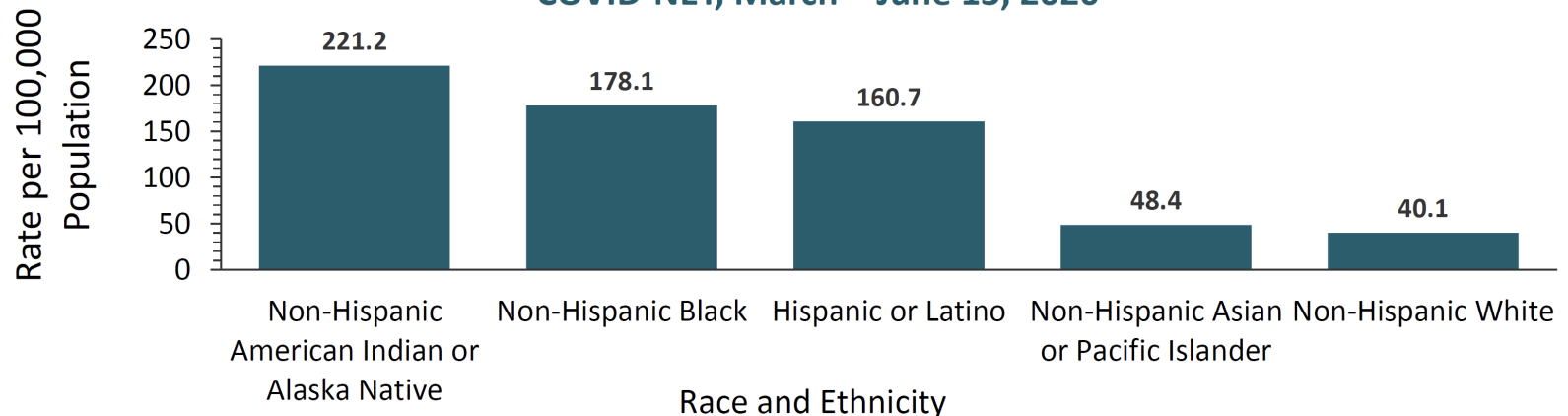


- That the vaccine is being tested on minorities, similar to the Tuskegee Experiments, at the benefit of the sheltered upper class.

## COVID-19 and Race and Ethnicity

- **Long-standing systemic health and social inequities** have put some members of racial and ethnic minority groups at increased risk

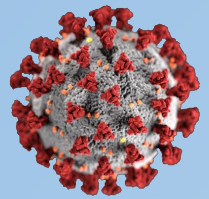
Age-adjusted COVID-19-associated hospitalization rates by race and ethnicity, COVID-NET, March – June 13, 2020





# How To Respond To Misinformation

# Public Concerns – How to Respond



## Four Keys in Responding to Misinformation

1. Clear statement the misinformation is not true.
2. Tell the Real Evidenced Based Facts.
3. Quote your source.
4. If able, tell why the “fake News” version is not factual.

## For Example: The Zelenko Protocol (Hydroxychloroquine, Azithromycin & Zink)

1. This protocol is not an effective treatment for COVID-19.
2. There are now 9 Randomized Controlled Trials which have not been able to demonstrate hydroxychloroquine’s (HCQ) effectiveness. These trials have studied prophylaxis, and use of HCQ in mild, moderate and severe cases.
3. These findings are published in prominent medical Journals including JAMA and the New England Journal of Medicine.
4. And that this protocol is not even safe. The heart is commonly attacked with COVID-19 making the cardiac arrhythmias caused by hydroxychloroquine even more dangerous. Azithromycin, has the same toxicity and will potentiate the dangers of a fatal cardiac arrhythmia. And in the laboratory, HCQ works in monkey cells not human lung cells.

# Public Concerns – How to Respond

## Four Keys in Responding to Misinformation

1. Clear statement the misinformation is not true.
2. Tell the Real Evidenced Based Facts.
3. Quote your source.
4. If able, tell why the “fake News” version is not factual.

## For Example: Masks

1. A clear statement needs to be given, that the misinformation that “masks are not effective” is NOT true. A Well Constructed and Fitted Cloth Mask is Effective in Preventing the Spread of COVID-19.
2. A mask will decrease the chances of the wearer getting COVID-19 by almost 6-fold. Masks will also reduce the viral load the wearer is exposed to and thus, may cause a milder illness. But if a mask wearer is an unknown asymptomatic carrier a mask will reduce spread to others.
3. There are abundant studies and recent references listed on the CDC website, along with a number of videos demonstrating how this virus is spread.
4. The public in the United States has a long history of not liking masks and feeling masks are anti-American. This existed long before COVID-19. However, we must adapt and change in order to fight this virus.

# Comments & Questions

Kevin T. Kavanagh, MD, MS  
Health Watch USA  
[Kavanagh.ent@gmail.com](mailto:Kavanagh.ent@gmail.com)  
[www.healthwatchusa.org](http://www.healthwatchusa.org)



A copy of the slides can be downloaded from [www.healthwatchusa.org](http://www.healthwatchusa.org). Just click on the **Continuing Education** screen button at the top of the page.

<http://www.healthwatchusa.org/COVID19-ContinuingEducation.htm>