

COVID-19 Region 7 Webinar for Critical Access Hospitals and Outpatient Facilities

Presented by Nebraska Medicine and the University of Nebraska Medical Center in collaboration with the Centers for Disease Control (CDC) through NICS (National Infection Control Strengthening for Small and Rural Hospitals)

University of Nebraska
Medical Center



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Today's topic:

Guidance and responses were provided based on information known on 10/27/2020 and may become out of date. Guidance is being updated rapidly, so users should look to CDC and jurisdictional guidance for updates.

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Today's presentation is produced in cooperation with Nebraska ICAP (Infection Control Assessment and Promotion Program)



When This is Over, and We are Back to Normal. . . It Won't be Normal

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Tele-ICAR- COVID-19

- Infection Control Assessment and Response Program (ICAR)
 - Voluntary program for acute care facilities in Nebraska (outpatient option coming soon!)
 - Assesses facility response to and preparation for different elements related to COVID-19
 - Performed Remotely via Zoom: approximately 90-120 minutes
 - Feedback/recommendations will be provided in narrative form and through a follow-up meeting
 - Scheduling begins today
 - Contact: NebraskaICAP@nebraskamed.com or 402-552-2881 to schedule an assessment
 - Participants understand and agree that project findings will be shared with the CDC and others in a de-identified and aggregate format



Question and Answer session

Use the QA box in the webinar platform to type a question. Questions will be read aloud by the moderator; in the order they are received. A transcript of the discussion will be made available on the ICAP website

COVID-19 WEBINARS

Home / COVID-19 Webinars

Nebraska DHHS in association with the Nebraska ICAP team is hosting webinars on COVID-19 to address situation updates and essential information on COVID-19.

+	COVID-19 LTCF Webinar Slides
+	COVID-19 LTCF Webinar Recordings
+	COVID-19 Outpatient Webinar Slides
+	COVID-19 Outpatient Webinar Recordings
+	COVID-19 Update for Outpatient and Small & Rural Hospitals Webinar Slides
+	COVID-19 Update for Outpatient and Small & Rural Hospitals Webinar Recordings

COVID-19 RESOURCES –
HEALTHCARE FACILITIES

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SCHOOLS & BEHAVIORAL HEALTH

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Infection Prevention and Control Office Hours

Monday – Friday

8:00 AM – 10:00 AM Central Time

2:00 PM -4:00 PM Central Time

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When This is All Over, and We Are Back to Normal...

Mark E Rupp, MD
Professor & Chief, Division of Infectious Diseases
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**When This is All Over, and
We Are Back to Normal...**

It Won't Be Normal

**Lessons learned from the
COVID19 pandemic**



Or

**Rambling rant from a
tired and overworked
hospital epidemiologist**



Disclosures

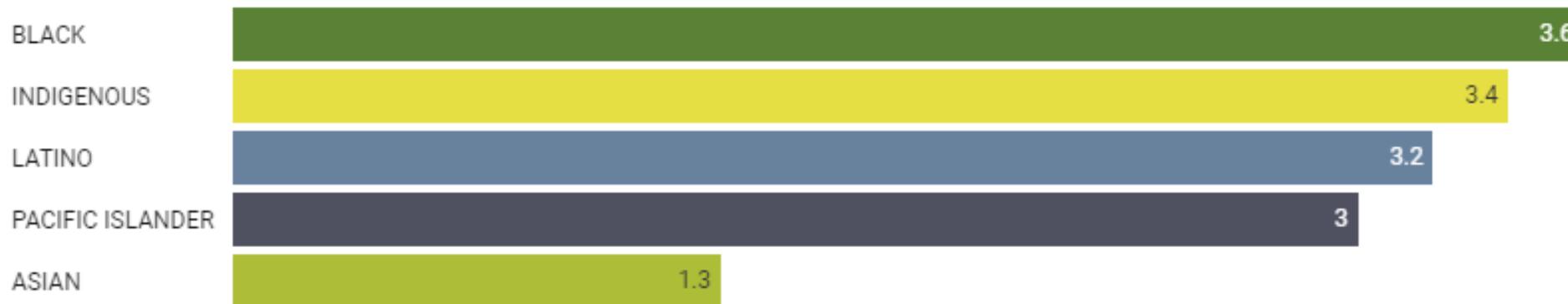
Dr Rupp has no potential conflicts of interest with material in this presentation



1. The COVID19 Pandemic has Emphasized (Again) That There Are Fundamental Inequities in the United States

Adjusted for age, other racial groups are this many times more likely to have died of COVID-19 than White Americans

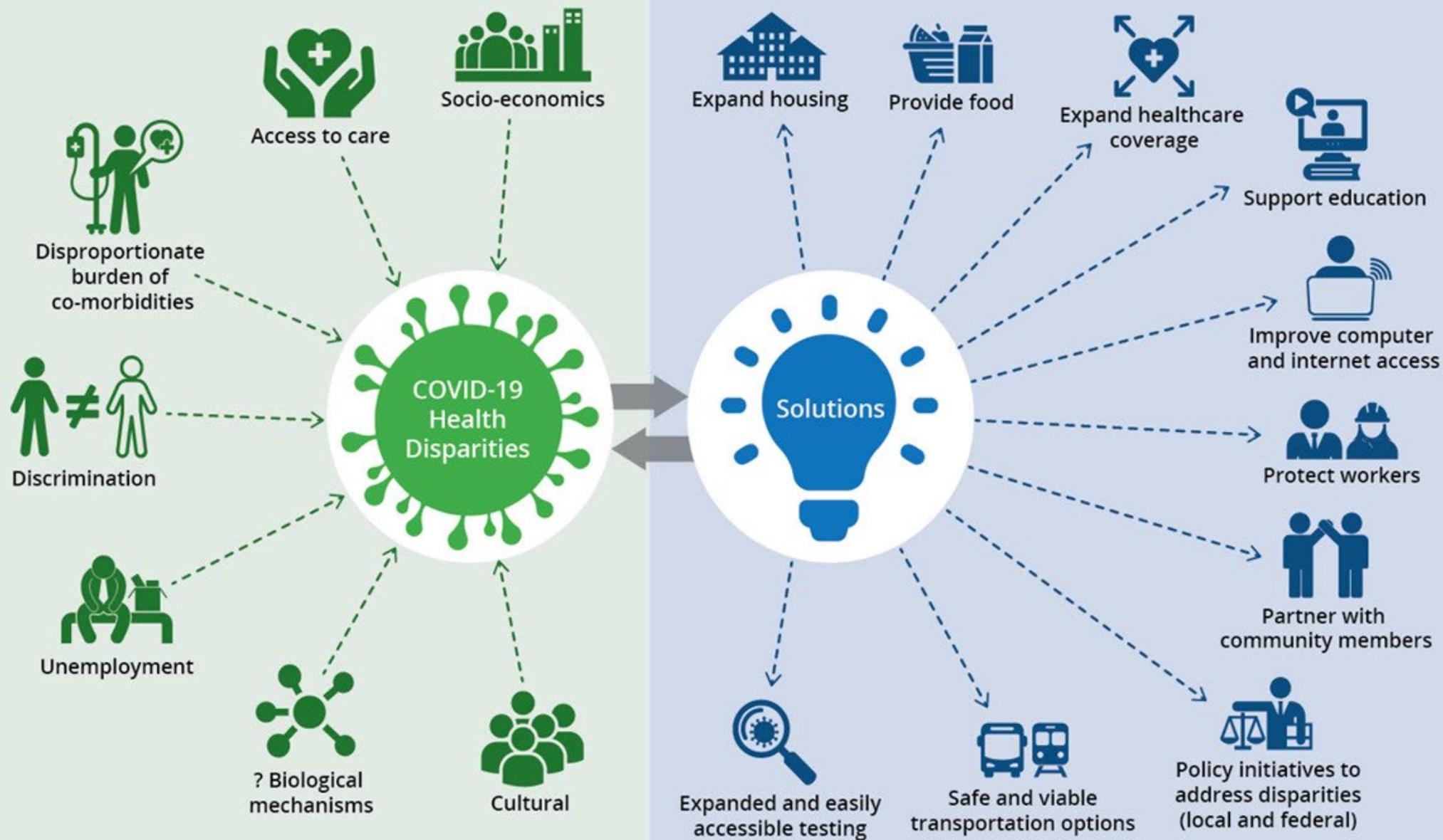
Reflects mortality rates calculated through Aug. 18.



Source: APM Research Lab. The color of Coronavirus
<https://www.apmresearchlab.org/covid/deaths-by-race>



Coronavirus (COVID-19) Health Disparities and Solutions



What Hospital Epidemiologists Should Do About Disparities

1. Make a personal commitment to become better informed about health disparities, racial injustice, and unconscious bias.
2. Use the tools of epidemiology (that we are so familiar with) to examine practice and outcomes in our hospitals, clinics, and communities.
3. Now is not the time to stay quiet. Make your voice heard – but do it safely.
4. Vote



2. Everyone is Not an Expert



Nature (and the media) abhors a vacuum

- 1) Not everyone is an ID doc, epidemiologist, aerosol scientist, public health official, immunologist, or clinical microbiologist.
- 2) Not every professional society and agency should be allowed to set infection prevention guidance and policy



What Hospital Epidemiologists Should Do About “Non-expert” Experts

1. Defer to the person with the greatest amount of pertinent experience (premise of a highly reliable organization).
2. In crisis communications: state what you know, be clear about what you don't know, and it is OK to make an educated guess (as long as you label it as such).
3. Truthful and transparent information does not cause panic.
4. Media training for ID Fellows and Hospital Epidemiologists.
5. SHEA & IDSA should energetically exercise their voice of rationality and science



Additional Tips for Communication and Changing Behavior



Brossard et al. Societal Experts Action Network. Nat Acad Sci Eng Med. July 2020

Science of persuasion:

- Simply explaining data will not suffice
- Understand audience and their fear and reservations
- Make change easy to start, easy to repeat, tied to a existing behavior, and rewarding
- Showcase good behavior and rewards (promote social norm)
- Message should be clear, consistent, evidence-based. OK to transition if guidance is “based upon our current knowledge...”
- Avoid repeating misinformation – even when refuting it.



3. Social Media is a Double-Edged Sword



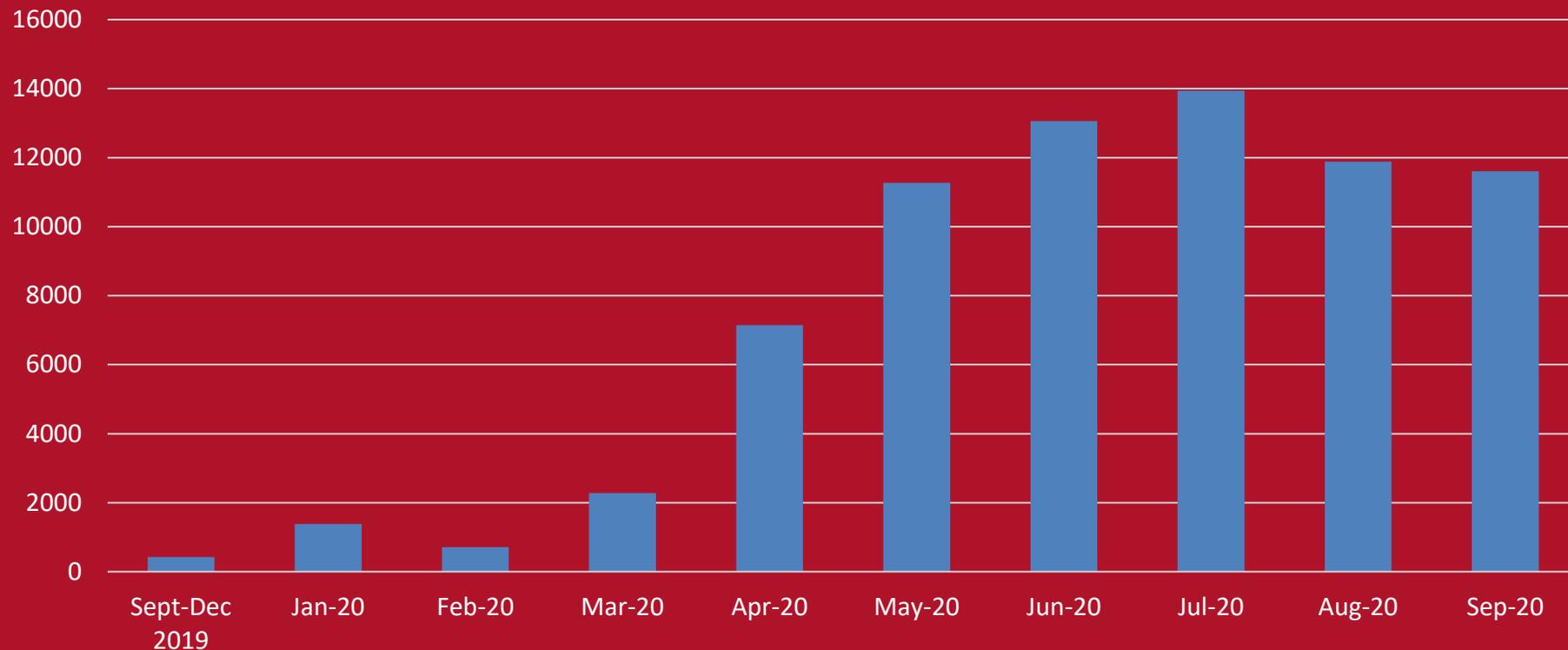
Provides access for ID specialists and epidemiologists to reach a broad population that may not pay attention to main stream media vs every crackpot is an expert with a megaphone

What should the hospital epidemiologist do?

- Use social media as a tool (UNMC ID model)
- Employ respected (local) people to serve as spokespersons
- Improved use of social media by professional societies
- Demand better of social media platforms



4. Epidemic of Information (COVID Infodemic)



Pubmed search: "Coronavirus or COVID or SARS" Sept 2019 - Sept 2020



Rush to Publication Can Be Counter-Productive

Hydroxychloroquine and azithromycin as a treatment of COVID-19: results of an open-label non-randomized clinical trial[☆]

Philippe Gautret^{a,b,\$}, Jean-Christophe Lagier^{a,c,\$}, Philippe Parola^{a,b}, Van Thuan Hoang^{a,b,d}, Line Meddeb^a, Morgane Mailhe^a, Barbara Doudier^a, Johan Courjon^{e,f,g}, Valérie Giordanengo^h, Vera Esteves Vieira^a, Hervé Tissot Dupont^{a,c}, Stéphane Honoré^{ij}, Philippe Colson^{a,c}, Eric Chabrière^{a,c}, Bernard La Scola^{a,c}, Jean-Marc Rolain^{a,c}, Philippe Brouqui^{a,c}, Didier Raoult^{a,c,*}

Particularly if inappropriately hyped by politicians and media:

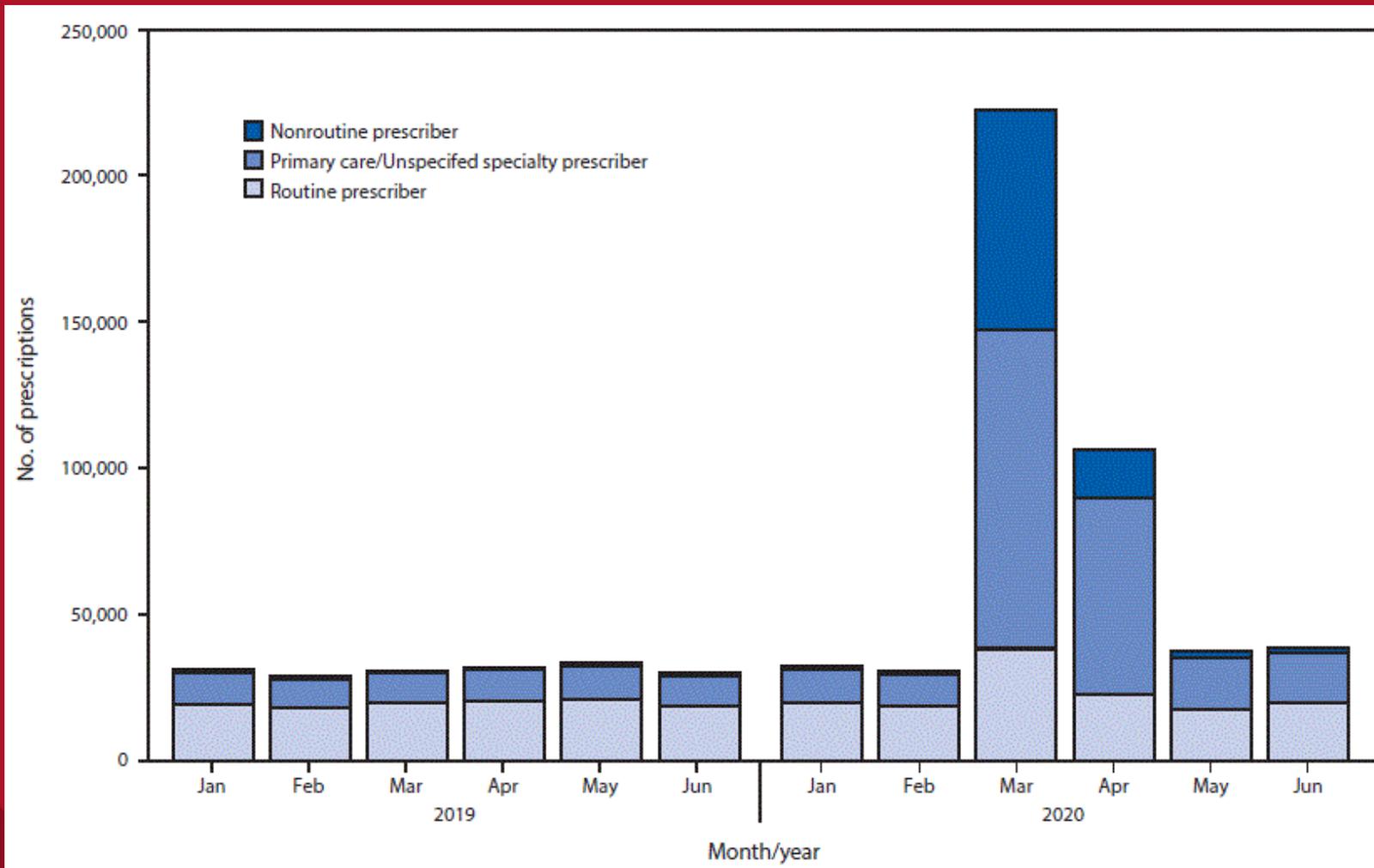


Donald J. Trump  @realDonaldTrump · Mar 21, 2020 

HYDROXYCHLOROQUINE & AZITHROMYCIN, taken together, have a real chance to be one of the biggest game changers in the history of medicine. The FDA has moved mountains - Thank You! Hopefully they will BOTH (H works better with A, International Journal of Antimicrobial Agents).....



Hydroxychloroquine Prescriptions in the US



MMWR 39:35;
1210-14, 2020.



Lack of Benefit and Patient Harms Associated with HCQ +/- Azi

Increased mortality, QTc prolongation, cardiac arrest, ventricular arrhythmia, liver enzyme elevation, & minor side effects (nausea, diarrhea, abdominal discomfort)

Selected studies revealing excess patient harm:

Borba et al. JAMA network Open. April 24, 2020

Rosenberg et al. JAMA. May 11, 2020

~~Mehra et al. Lancet. May 22, 2020. (Retracted)~~

Boulware et al. NEJM. June 3, 2020.

Cavalcanti et al. NEJM. July 23, 2020.

- Treatment or prophylaxis
- Well designed studies: large, multi-center, randomized, placebo-controlled, double-blind trial



Well Designed RCTs Remain the Best Path Forward (Even in a Pandemic)



Remdesivir for the Treatment of Covid-19 — Preliminary Report

J.H. Beigel, K.M. Tomashek, L.E. Dodd, A.K. Mehta, B.S. Zingman, A.C. Kalil, E. Hohmann, H.Y. Chu, A. Luetkemeyer, S. Kline, D. Lopez de Castilla, R.W. Finberg, K. Dierberg, V. Tapson, L. Hsieh, T.F. Patterson, R. Paredes, D.A. Sweeney, W.R. Short, G. Touloumi, D.C. Lye, N. Ohmagari, M. Oh, G.M. Ruiz-Palacios, T. Benfield, G. Fätkenheuer, M.G. Kortepeter, R.L. Atmar, C.B. Creech, J. Lundgren, A.G. Babiker, S. Pett, J.D. Neaton, T.H. Burgess, T. Bonnett, M. Green, M. Makowski, A. Osinusi, S. Nayak, and H.C. Lane, for the ACTT-1 Study Group Members*

VS

Effect of Convalescent Plasma on Mortality among Hospitalized Patients with COVID-19: Initial Three-Month Experience

Michael J Joyner, Jonathon W Senefeld, Stephen A Klassen, John R Mills, Patrick W Johnson, Elitza S Theel, Chad C Wiggins, Katelyn A Bruno, Allan M Klompas, Elizabeth R Lesser, Katie L Kunze, Matthew A Sexton, Juan C Diaz Soto, Sarah E Baker, John R.A. Shepherd, Noud van Helmond, Camille M van Buskirk, Jeffrey L Winters, James R Stubbs, Robert F Rea, David O Hodge, Vitaly Herasevich, Emily R Whelan, Andrew J Clayburn, Kathryn F Larson, Juan G Ripoll, Kylie J Andersen, Matthew R Buras, Matthew N.P.Vogt, Joshua J Dennis, Riley J Regimbal, Philippe R Bauer, Janis E Blair, Nigel S Paneth, DeLisa Fairweather, R. Scott Wright, Rickey E Carter, Arturo Casadevall

doi: <https://doi.org/10.1101/2020.08.12.20169359>

ACTT: Clear evidence of efficacy with randomized, double-blind, placebo-controlled trial in 1063 subjects

Unclear effect despite >35,000 subjects



What Should Hospital Epidemiologists Do?

- 1) Serve as experts to media regarding study design and strength of evidence
- 2) Dampen unsupported therapeutic enthusiasm
- 3) Serve as peer reviewers
- 4) Demand better of our journal editors



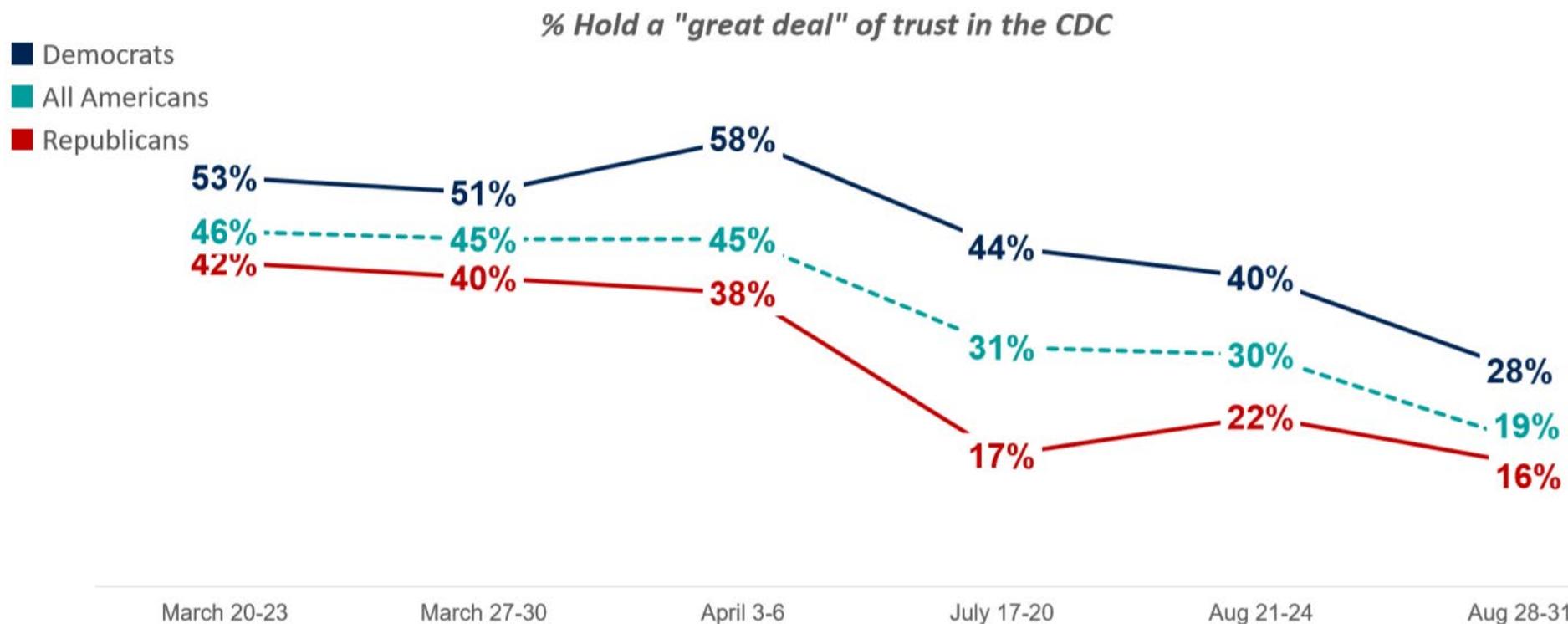
5. Politicization of Public Health

- Politicization of public health is nothing new and is inherent in translating public health science into policy
- Politicization of public health and science has risen to unprecedented and dangerous heights
 - Interfering with critical core function of the CDC, FDA, NIH
 - Undermining public trust
 - Inflammatory rhetoric has resulted in threats of violence, resignations of officials, and wasted energy/effort in combatting misinformation
 - Resulted in a dysfunctional pandemic response that has costed livelihoods and lives



Trust in CDC falling

Q. How much trust do you have in the Centers for Disease Control, or CDC, to provide you with accurate information about coronavirus or COVID-19?



Source: Axios-Ipsos Coronavirus Index



What Should Hospital Epidemiologists Do?

- Stay true to the science – it is self correcting and will eventually win the day
- Speak up in support and defense of public health
- Support prosecution to the fullest extent allowed by law for threats of violence against our public health colleagues

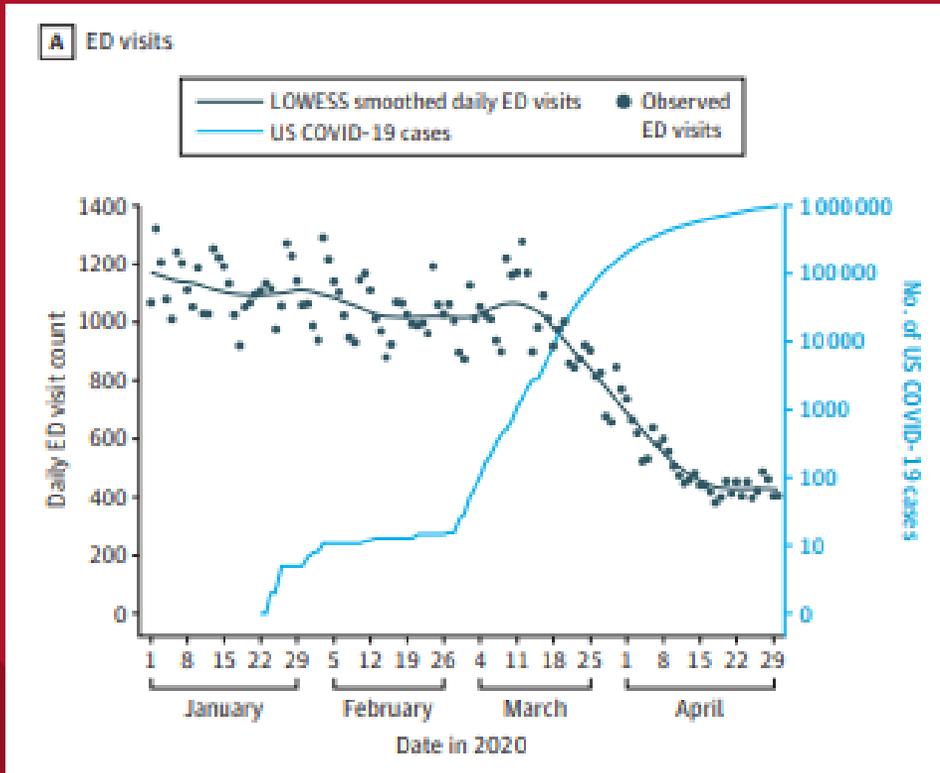


6. Other Infection Prevention & Healthcare Issues Did Not Take a Vacation Because of COVID-19

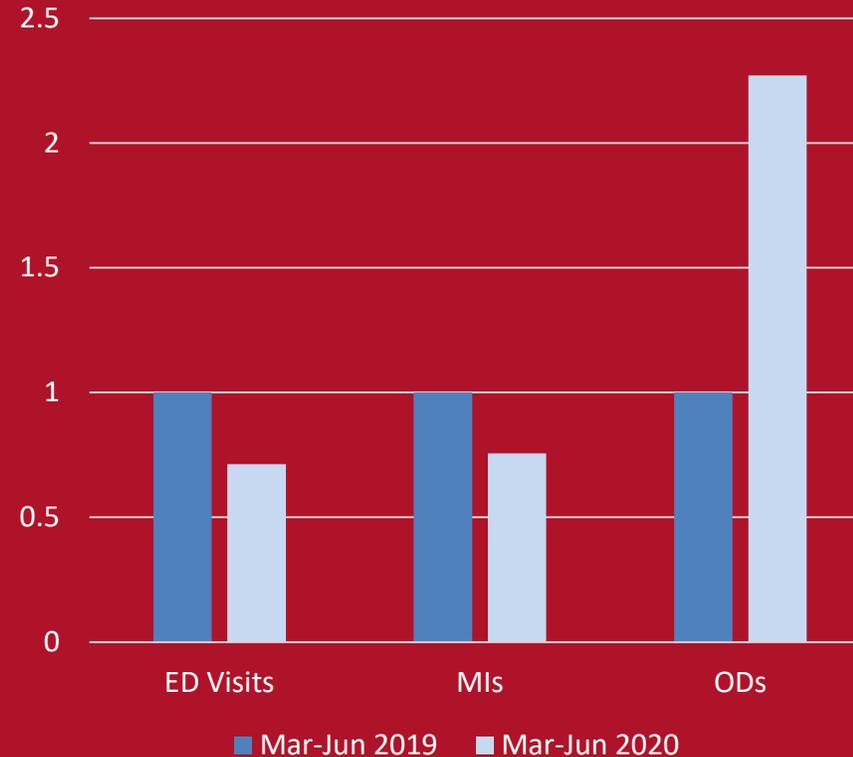
- Decrease ED visits for serious conditions
- Decrease childhood vaccination
- Increase in HAI
- Increase in indiscriminant abx use
- Increase in alcohol use, substance abuse, and drug overdose
- Delay in cancer diagnosis and treatment



Delay or Avoidance of Medical Care Due to COVID-19



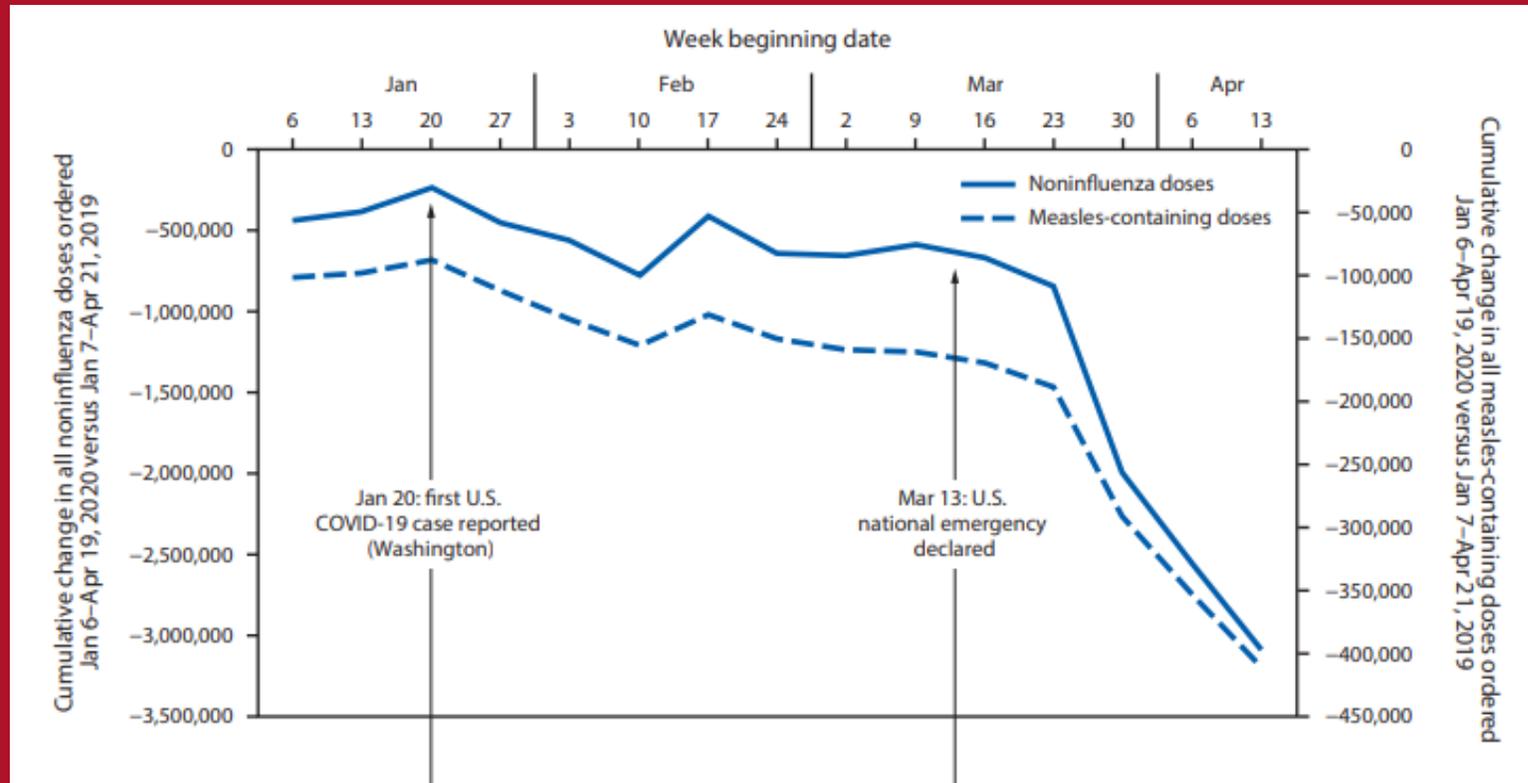
NY ED visits (Mount Sinai) vs US COVID cases. Jeffrey et al. JAMA Int Med. 2020.



ED visits decreased 29%, MI Dx decreased 24%, nonfatal OD increased 2.27 fold @ VCU. Ochalek et al. JAMA 2020.



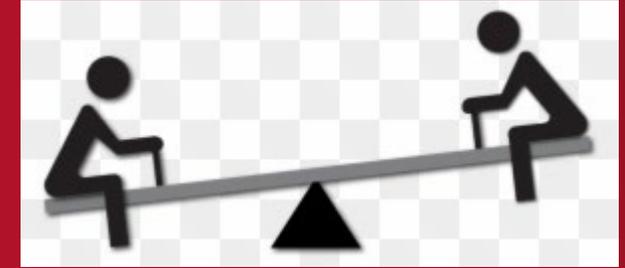
Effect of COVID-19 on Childhood Vaccination



Precipitous decline in childhood vaccination associated with onset of COVID-19 Pandemic in US. Santoli et al. MMWR. 2020.



Effect of COVID-19 on HAIs



Increase in HAI:

- Diversion of resources and neglect of traditional IP
- Avoidance of patients due to fear or required isolation
- Need for CVC and mechanical ventilation for COVID-19 patients

Decrease in HAI

- Increased compliance with hand hygiene, universal mask use, etc may decrease risk of HAI

- ~ 80% of IP community (N=220) reported that >75% of effort was COVID-19 related. (Stevens et al. ICHE. 2020)
- 2 hospitals reported (McMullen & Smith. AJIC. 2020):
 - 327% - 420% increase in CLABSI
 - 57% - 179% increase in CAUTI
 - 45% - 51% decrease in CDI
- Wuhan experience: 31% VAP in COVID pts on mechanical ventilation. (Zhou et al. Lancet. 2020)
- UK reported 18-fold increase in GNR BSIs per 1000 pt days in COVID ICU (Sturdy et al. J Hosp Infect. 2020)



7. COVID-19 Testing

“Every system is perfectly designed to get the results it gets”



The lack of a national strategy and plan has been a dumpster fire



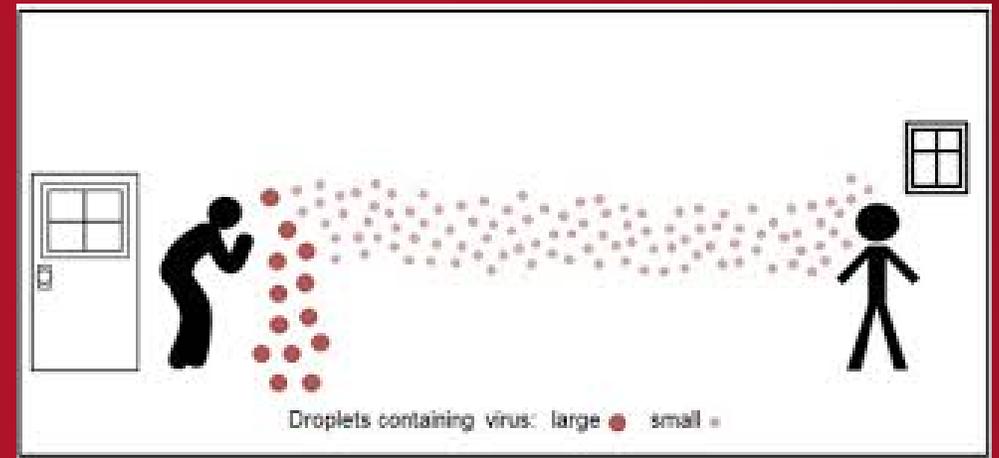
8. Personal Protective Equipment (PPE)

1. Supply Chain Issues
2. Inadequacy of PPE Stockpile
3. Need for “better” PPE
 1. N95 (FFP) respirators that are more comfortable and are designed for decontamination
 2. Other (better) forms of respiratory protection – elastomeric, PAPR
 3. Reusable gowns that work and can be easily and safely donned and doffed

(Nebraska Medical Center
decontamination of N95s with UVGI)



9. Aerosol vs Droplet



- Gee, is it maybe just possible that SARS CoV-2 spreads via both routes (as does influenza and other respiratory viruses)?
- What does this mean for preventing transmission and for protecting healthcare providers?
 - Need practical approach to minimize risk
 - Need better data
- Change in design of buildings and air handling



10. Aerosol Generating Procedure (AGP)

- What is an AGP? Are they all the same? What is the risk?
- Need better characterization of AGPs and how to best mitigate risk!



(Is a Zoom Meeting an AGP? – it seems that everything else is)



11. I Knew Sports Were Important to Many People ...I Just Didn't Know How Important.



Nebraska football players file lawsuit seeking reversal of Big Ten decision to cancel fall season

Erick Smith USA TODAY

Published 4:31 p.m. ET Aug. 27, 2020 | Updated 4:52 p.m. ET Aug. 27, 2020

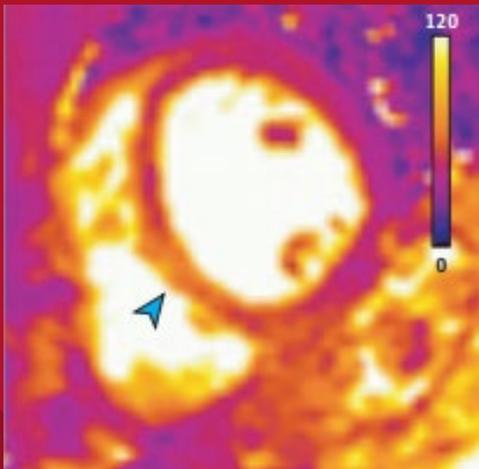


Ohio County businesses, parents file lawsuit against Gov. Justice over COVID-19 restrictions

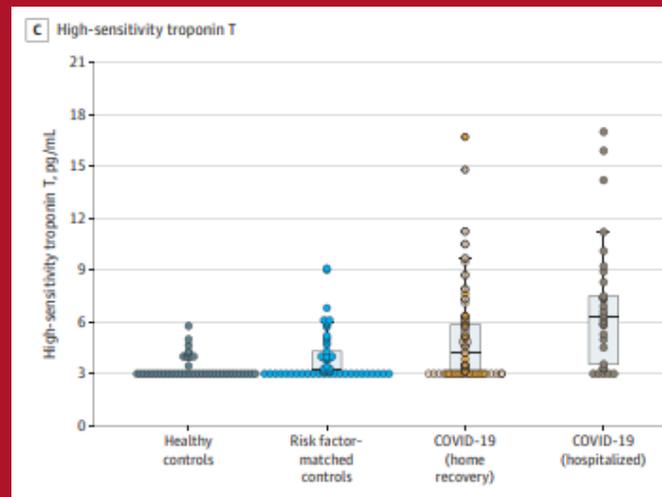


Cardiovascular and Pulmonary Complications of COVID-19

Clear evidence of cardiac and pulmonary dysfunction weeks to months following even mild or asymptomatic COVID-19 infection.



T2 map showing myocardial edema in competitive college athlete recovering from COVID-19 (Rajpal et al. JAMA Cardiology)



Elevated high sensitivity troponin in patients recovered from COVID-19 (Puntmann et al. JAMA Cardiology)

Additional studies: Huang et al. JACC; Zhao et al. EclinicalMedicine; Fraser BMJ.



Is It Worth It?

- Are amateur team sports at the college or high school level worth risking long term disability or death?
- Should wealthy privileged professional athletes and college sports teams be tested for COVID19 daily when there are not enough tests to go around for healthcare providers and essential workers?
- Should hundreds of millions of dollars be spent on isolation/protective bubbles for sports teams?
- Wouldn't we be better served as a society if some of the resources that have been pumped into professional sports (stadiums, salaries, advertising, etc) were directed into public health?



12. Infection Prevention Community



- Importance of IP community, networking, healthcare provider wellbeing, and individual resiliency has never more real.
- The need and value of IP and public health for the community has never been better demonstrated.



**When This is All Over, and We
Are Back to “Normal”...**

It Won't Be Normal.

**Together, we will get through this. However,
SARS CoV-2 will remain with us. We need to
learn our lessons and be better prepared for
the next pandemic.**



Thank you!

- **SHEA**
- **UNMC ID Division**
- **Nebraska Medicine Dept Infection Control & Epidemiology**
- **ID Fellows and Trainees**
- **Hospital Epidemiology Community**

- **Wife and Family**

