

**Lessons Learned: A Global Perspective**



# Lessons Learned From the United States



**Kevin T. Kavanagh, MD, MS**

Health Watch USA<sup>sm</sup> June 15, 2021



LESSONS LEARNED: A GLOBAL PERSPECTIVE

**COVID-19**

# Lessons Learned

## Lessons Learned

- Surveillance for community spread is key to addressing the pandemic
- Early recognition of how pathogens spread is of utmost importance.
- Preparation, manufacturing capabilities are key to an effective response.
- Universal healthcare is of utmost importance, since those without access to care can easily infect whole communities.
- Grief and loss can be incapacitating, not only for the individual but also for the entire nation. How grief is approached and alleviated is one of the keys to successfully stopping a pandemic.

# Kübler-Ross Model - Stages of Grief

Individuals Can Go Through These Stages But So Can Communities & Entire Societies

**Denial** – The Pandemic is a Hoax, COVID-19 is no Worse than a Cold.

**Anger** – Exemplified by the Politicization and Polarization of our Society.

**Bargaining** – Misinformation Regarding Effective Treatments, Pressure on Public Health Officials and Policymakers to change their advisements.

**Depression** – Increases in Psychiatric Illness, Some Even Directly Caused by COVID-19.

**Acceptance** – We will have reached this stage when we accept that COVID-19 is endemic, and we will return to the new, not old normal.

# Denial

*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/>

SSRN

## The Effects of Large Group Meetings on the Spread of COVID-19: The Case of Trump Rallies

**Dec. 18, 2020:** “Extrapolating this figure to the entire sample, we conclude that these eighteen rallies ultimately resulted in more than 30,000 incremental confirmed cases of COVID-19. Applying county-specific post-event death rates, we conclude that the rallies likely led to more than 700 deaths (not necessarily among attendees).” Bernheim BDc Buchmann N, Freitas-Groff Z, Otero S,

<http://dx.doi.org/10.2139/ssrn.3722299>

# Anger



## **Some public health officials are resigning amid threats during the Covid-19 pandemic**

By Cheri Mossburg, Theresa Waldrop and Naomi Thomas, CNN

🕒 Updated 8:55 AM ET, Tue June 23, 2020

“The backlash has taken its toll: At least 24 public health officials have either resigned, retired or been fired from the positions during the Covid-19 pandemic, the National Association of City and County Health Officials (NACCHO) said Monday. “What has typically been just pure public health advice coming from a trusted source in the community, the local health department, is being politicized and made to seem like the public health advice is something that is restricting people's rights, their freedoms to move about,” Lori Freeman, CEO of NACCHO, told CNN.”

<https://www.cnn.com/2020/06/22/us/health-officials-threats-coronavirus/index.html>

# Anger



UNDERFUNDED AND UNDER THREAT

## Public Health Officials Face Wave Of Threats, Pressure Amid Coronavirus Response

By Lauren Weber and Anna Maria Barry-Jester and Michelle R. Smith, The Associated Press • JUNE 12, 2020

“On Thursday, Ohio’s state health director, who had armed protesters come to her house, resigned. The health officer for Orange County, California, [quit Monday](#) after weeks of criticism and personal threats from residents and other public officials over an order requiring face coverings in public.”

“After polling local health directors across the state (Colorado) at a meeting last month, Anselmo found about 80% said they or their personal property had been threatened since the pandemic began. About 80% also said they’d encountered threats to pull funding from their department or other forms of political pressure.”

<https://khn.org/news/public-health-officials-face-wave-of-threats-pressure-amid-coronavirus-response>

# Anger



## **Crowd yells 'Fire Fauci' at rally, Trump says wait until after election**

By Cheri Mossburg, Theresa Waldrop and N

<https://news.yahoo.com/crowd-yells-fire-fauci-rally-141227832.html>



## **Republicans propose bill to fire Fauci amid growing discontent with top Biden medical officials**

<https://www.foxnews.com/politics/republican-bill-fire-fauci-biden-medical-officials-covid>

# Bargaining

**I feel this stage of grief was most evident in the delayed recognition that Aerosolization is probably the major mode of spread of SARS-CoV-2 – The Virus is Airborne!**

Many Early Indications that SARS-CoV-2 was Aerosolized:

1. Early research found an average  $R_0$  of 5.2. Much Greater Than The Average Seasonal Flu  $R_0$  of 1.3 . [https://wwwnc.cdc.gov/eid/article/26/7/20-0282\\_article](https://wwwnc.cdc.gov/eid/article/26/7/20-0282_article)
2. Reports of Spread in Choirs and Restaurants Where Social Distancing Took Place.
3. Massive and Fast Spread Around the World.
4. A July 6, 2020, Letter Published in Clinical Infectious Disease from Hundreds of Scientists encouraging public health organizations including the WHO to recognize Aerosolization of SARS-CoV-2. <https://academic.oup.com/cid/article/71/9/2311/5867798>



# Bargaining

## *Aerosolization – The Virus is Airborne! But To Stop Spread Many Will Incur Significant Costs.*

1. Need for N-95 masks for all Frontline Workers – USA did not wish to evoke the Defense Production Act.
2. Buildings and indoor retail establishments need to be made safe with upgrades to heating and ventilation systems.
3. Large Indoor rallies of any kind should be canceled.
4. Presumptive Worker's Compensation & Disability for Workers, Since No One Could be Made Truly Safe.

The 20-fold increase in safety afforded by being outdoors is due to the rapid dissipation of aerosols, within 6 feet droplet spread can still occur. Nowhere is it safe indoors in a poorly ventilated building.

# Bargaining

## *Political Pressure & Bargaining by Parents, Teachers, Students and Employers to Open Schools*

July 5, 2020: Strategies to Prevent Droplet NOT Airborne Spread Were Adopted. These were less costly, and compliance could be expedited.

**yahoo!**finance

### **Schools buy miles of plexiglass ahead of potential reopenings amid coronavirus pandemic**



**Aarthi Swaminathan** • Reporter

July 5, 2020 · 5 min read

<https://finance.yahoo.com/news/schools-reopening-amid-coronavirus-pandemic-205923992.html>



(PHOTO: REUTERS/Piroschka van de Wouw)

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# Bargaining

## *Political Pressure & Bargaining by Parents, Teachers, Students and Employers to Open Schools*

*But these shields did little good to protect one from an aerosolized virus. Upgrades to the building ventilation was desperately needed.*

**yahoo!**finance

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(PHOTO: REUTERS/Piroschka van de Wouw)

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# Bargaining

## The Washington Post

### **On May 6, 2021: The CDC acknowledges airborne transmission**

"The Centers for Disease Control and Prevention advised that airborne transmission is one of several ways the virus can spread, adding that people more than six feet away from others indoors can become infected, according to the agency's website." <https://www.washingtonpost.com/nation/2021/05/07/coronavirus-covid-live-updates-us/>

## The Washington Post CDC director says mask turnaround based solely on science

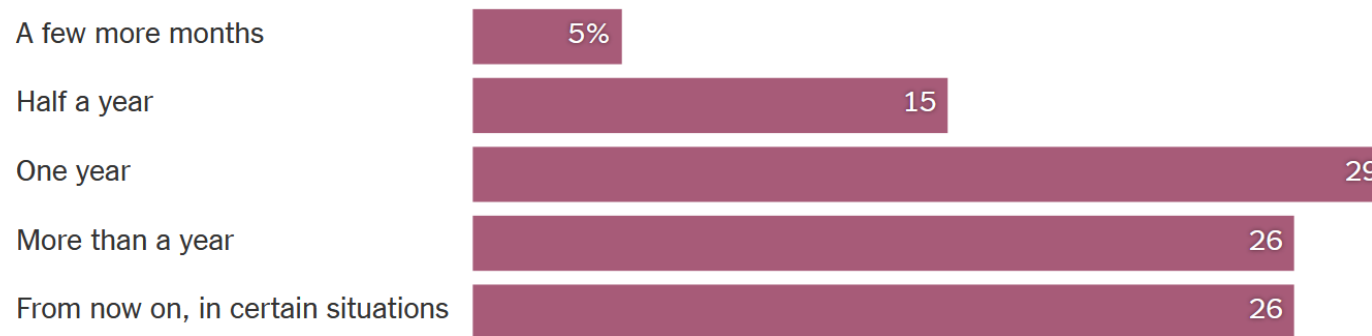
**May 14, 2021 CDC Revises Mask Guidance:** "The head of the Centers for Disease Control and Prevention on Sunday defended the decision to ease mask-wearing guidance for fully vaccinated people, stressing that increasing political pressure had nothing to do with the abrupt shift in guidelines.....Under the new guidelines released last week, fully vaccinated people — those who are two weeks past their final dose of a COVID-19 vaccine — can quit wearing masks outdoors in crowds and in most indoor settings and give up social distancing."

[https://www.washingtonpost.com/national/cdc-director-defends-decision-to-ditch-masks/2021/05/16/a87757dc-b667-11eb-bc4a-62849cf6cca9\\_story.html](https://www.washingtonpost.com/national/cdc-director-defends-decision-to-ditch-masks/2021/05/16/a87757dc-b667-11eb-bc4a-62849cf6cca9_story.html)

# Bargaining

## Epidemiologists on How Long They Thought We'd Be Wearing Masks Indoors

If you had to predict, how long will Americans need to wear masks when indoors with people whose vaccination status they don't know?



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Based on responses by 570 academic and applied epidemiologists. The informal survey was conducted from April 28 to May 10.

## Hundreds of Epidemiologists Expected Mask-Wearing in Public for at Least a Year

“ In the informal survey, 80 percent said they thought Americans would need to wear masks in public indoor places for at least another year..... In large crowds outdoors, like at a concert or protest, 88 percent of the epidemiologists said it was necessary even for fully vaccinated people to wear masks.”

<https://www.nytimes.com/2021/05/13/upshot/epidemiologists-coronavirus-masks.html>

# Bargaining



Morbidity and Mortality Weekly Report (*MMWR*)

## **Modeling of Future COVID-19 Cases, Hospitalizations, and Deaths, by Vaccination Rates and Nonpharmaceutical Intervention Scenarios — United States, April–September 2021**

*May 5, 2021:* “Among the four scenarios, an accelerated decline in NPI (public health policies, such as physical distancing and masking) adherence (which encapsulates NPI mandates and population behavior) was shown to undermine vaccination-related gains over the subsequent 2–3 months and, in combination with increased transmissibility of new variants, could lead to surges in cases, hospitalizations, and deaths.”

May 5 2021: <https://www.cdc.gov/mmwr/volumes/70/wr/mm7019e3.htm>



# Bargaining

Many feel the recognition of aerosolization of SARS-CoV-2 was delayed, which mitigated the necessity of upgrading our buildings and protective gear for our frontline workers.

The lifting of the mask mandate for vaccinated individuals in the United States was also viewed by many as unwise, since we are unable to tell who has and who has not received a vaccine and far too many are not fully vaccinated.

## Vaccinations in the United States As Of June 4, 2021

People Vaccinated	At Least One Dose	Fully Vaccinated
Total	169,735,441	137,455,367
% of Total Population	51.1%	41.4%

<https://covid.cdc.gov/covid-data-tracker/#vaccinations>

# Bargaining For Treatments

## 1. Hydroxychloroquine – Not demonstrated to be effective in at least seven randomized control trials.

- Borba, et al. (Brazil) – RCT. Double Blinded. Hospitalized with severe COVID-19. The study was discontinued. April 24, 2020. <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2765270>
- Boulware, et al. (USA) – RCT. Double Blinded. Prophylaxis post exposure NEJM. June 3, 2020. <https://www.nejm.org/doi/full/10.1056/NEJMoa2016638>
- Oxford RECOVERY Study: (UK) – RCT. Hospitalized Patients. The Trial was halted. 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. Annals of Internal Medicine. July 16, 2020. <https://www.acpjournals.org/doi/10.7326/M20-4207>
- Cavalcanti, et al. (Brazil) – RCT. Hospitalized Patients. NEJM. July 23, 2020. <https://www.nejm.org/doi/full/10.1056/NEJMoa2019014>
- Abella, et al. (USA) RCT. Double Blind Prophylaxis. JAMA Network. Sept. 30, 2020. <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2771265>
- WHO SOLIDARITY Trail, Pan, et. al. (WHO). RCT. Adult Hospitalized Patients. Benefit not demonstrated. NEJM. Feb. 11, 2021. <https://www.nejm.org/doi/10.1056/NEJMoa2023184>



# Bargaining For Treatments

2. Ivermectin – NIH “Insufficient Data to Recommend”

<https://www.covid19treatmentguidelines.nih.gov/antiviral-therapy/ivermectin/>

3. Steroids: Recovery Collaborative Group: Steroid only found beneficial when given in severe disease, in patients who require respiratory support.

<https://www.nejm.org/doi/full/10.1056/NEJMoa2021436>

4. Remdesivir: Was not shown to be effective by the WHO Solidarity trial results. <https://www.medrxiv.org/content/10.1101/2020.10.15.20209817v1>

5. Anticoagulation: Therapeutic Level Anticoagulation Offers No Benefit Over Prophylactic in Prevention of Thromboembolism.

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)01203-4/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01203-4/fulltext)

# Bargaining For Treatments

6. Convalescent Plasma: Convalescent plasma was not associated with a reduction in progression to severe covid-19 or all cause mortality.

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

7. Monoclonal Antibodies were shown to be effective when used early in mild COVID-19 or when given as a prophylaxis. But when given late or when the patient is in the hospital, they have little effect on outcomes. For best results: They need to be given within 3 days of diagnosis and high levels of antibodies.

<https://newsnetwork.mayoclinic.org/discussion/convalescent-plasma-associated-with-reduced-covid-19-mortality-in-35000-plus-hospitalized-patients/>

# Depression

## COVID-19 Patients More Likely to Develop Depression, Anxiety and Dementia

1 in 3 patients with COVID-19 are diagnosed with a neuropsychiatric conditions within 6 months after diagnosis. About 1 in 8 patients were diagnosed the first time with these conditions. The most common were anxiety and depression. This was almost twice as high as patients with the flu.

Decline in Rates of Suicides with the COVID-19 Pandemic – Really not know why but this was also seen in the 1918 flu. “The decline to fewer than 45,000 suicides is the largest annual drop in at least 4 decades,” <https://www.healthline.com/health-news/why-suicides-have-decreased-during-the-covid-19-pandemic>

<https://covid.cdc.gov/covid-data-tracker/#vaccinations>

# Acceptance

**Acceptance will allow us to change the way we live for a better normal and prepare for the next pandemic. Specifically, we need to:**

1. Upgrade and enforce standards for indoor air ventilation and quality.
2. Build a better supply chain for tests and testing supplies; This includes PPE, especially N-95 masks; and we need to have manufacturing capabilities in the country where they are used.
3. Maintain adequate stockpiles of supplies: Including, therapeutics, tests and PPE.
4. Have a robust system of testing and reporting for dangerous pathogens, including genomic testing, which is of utmost importance to track viral variants.

# Acceptance

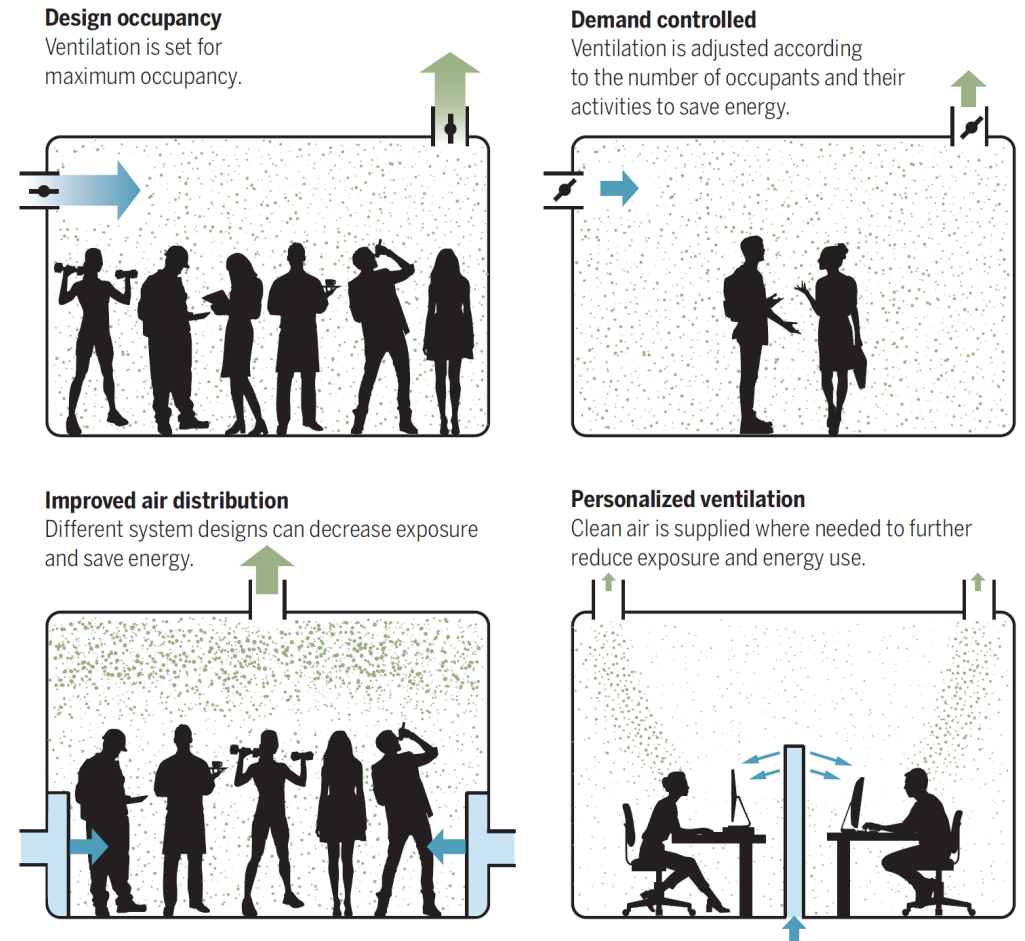
A Recent Policy Forum in Science Magazine “A paradigm shift to combat indoor respiratory infection” asserts that we need to pay as much attention to clean air as we do for clean water and surfaces.

*“A paradigm shift is needed on the scale that occurred when Chadwick’s Sanitary Report in 1842 led the British government to encourage cities to organize clean water supplies and centralized sewage systems. In the 21st century, we need to establish the foundations to ensure that the air in our buildings is clean with a substantially reduced pathogen count, contributing to the building occupants’ health, just as we expect for the water coming out of our taps.”*

Morawska L, Allen J, Bahnfleth W. et al. A paradigm shift to combat indoor respiratory infection. Science. 2021 May 14;372(6543):689-691. doi: 10.1126/science.abg2025. <https://pubmed.ncbi.nlm.nih.gov/33986171/>

## Flexible ventilation systems, dependent on the building’s purpose

Ventilation airflow rates must be controlled by the number of occupants in the space and their activity.



LESSONS LEARNED: A GLOBAL PERSPECTIVE

**COVID-19**

# Acceptance

***Aerosolization – The Virus is Airborne! This probably has been the major mode of spread.***

**Poor Air Circulation & Sanitization and Crowded Conditions in Schools are a Setup For a Disaster.**

Feb. 1998: “Half of the city's 1,000 school buildings were built before World War II, and many are suffering from years of neglect and deferred maintenance that began with the city's fiscal crisis of the mid-1970's.”

## **The New York Times**

### ***Many Schools, in Disrepair, Pose Hazards***

Feb. 2, 1998

**By Jacques Steinberg and John Sullivan**

<https://www.nytimes.com/1998/02/02/nyregion/many-schools-in-disrepair-pose-hazards.html>

June: 2020: “About half (an estimated 54 percent) of public school districts need to update or replace multiple building systems or features in their schools, according to GAO's national survey of school districts. For example, an estimated 41 percent of districts need to update or replace heating, ventilation, and air conditioning (HVAC) systems in at least half of their schools...”



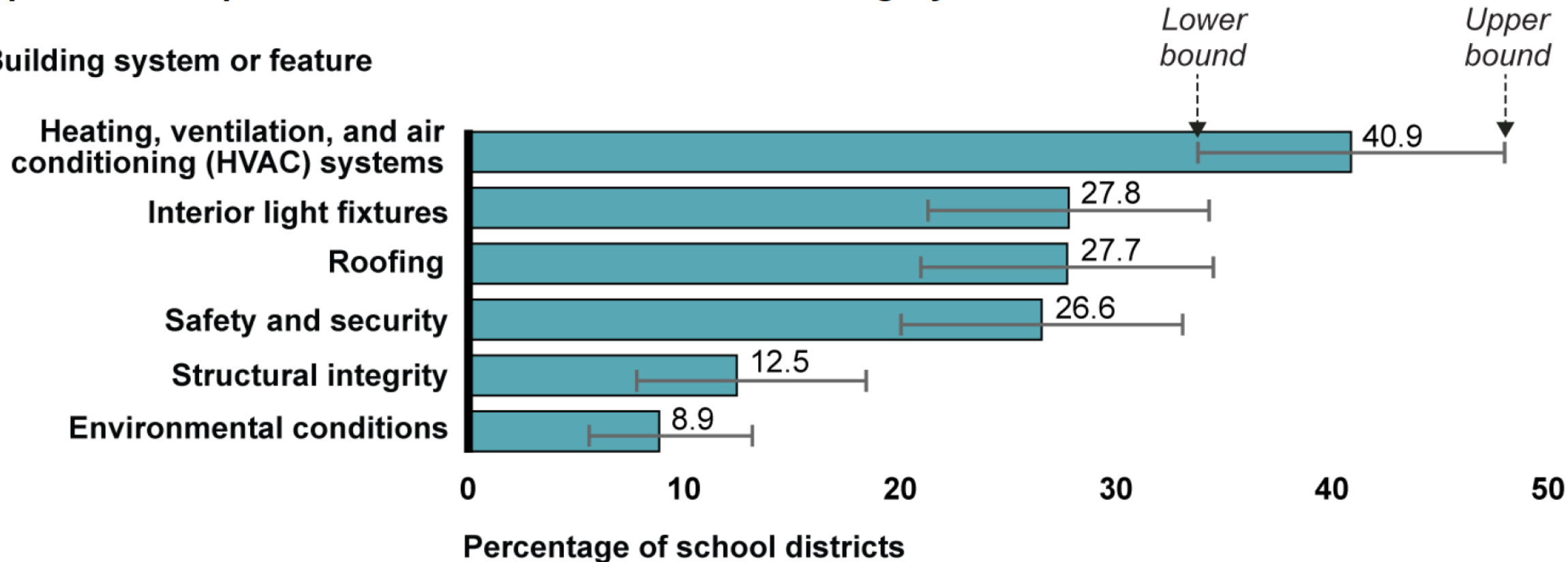
United States Government Accountability Office

Report to Congressional Addressees

<https://edlabor.house.gov/imo/media/doc/School%20Districts%20Frequently%20Identified%20Multiple%20Building%20Systems%20Needing%20Updates%20or%20Replacement1.pdf>

## Estimated Percentage of Public School Districts in Which at Least Half the Schools Need Updates or Replacements of Selected School Building Systems and Features

Building system or feature



Source: GAO analysis of school district survey data. | GAO-20-494

Note: GAO administered the survey from August to October 2019. Thin bars in the chart display the 95 percent confidence interval for each estimate.

# Forces Inhibiting Embracement of Acceptance

**Finally, on each step of the way we had misinformation produced by adversaries abroad and within promoting a narrative supporting the misconceptions and beliefs of a particular stage and inhibiting the nation's progression to final acceptance and preparation for the next pandemic.**



# Forces Inhibiting Embracement of Acceptance



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>

# Forces Inhibiting Embrace of Acceptance



REUTERS

**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>

# Forces Inhibiting Embrace of Acceptance



## U.S. says Russian-backed outlets spread COVID-19 vaccine 'disinformation'

WASHINGTON (Reuters) - The United States has identified three online publications directed by Russia's intelligence services that it says are seeking to undermine COVID-19 vaccines produced by Pfizer and Moderna, a State Department spokeswoman said on Sunday. The outlets "spread many types of disinformation, including about both the Pfizer and Moderna vaccines, as well as international organizations, military conflicts, protests, and any divisive issue that they can exploit," the spokeswoman said.

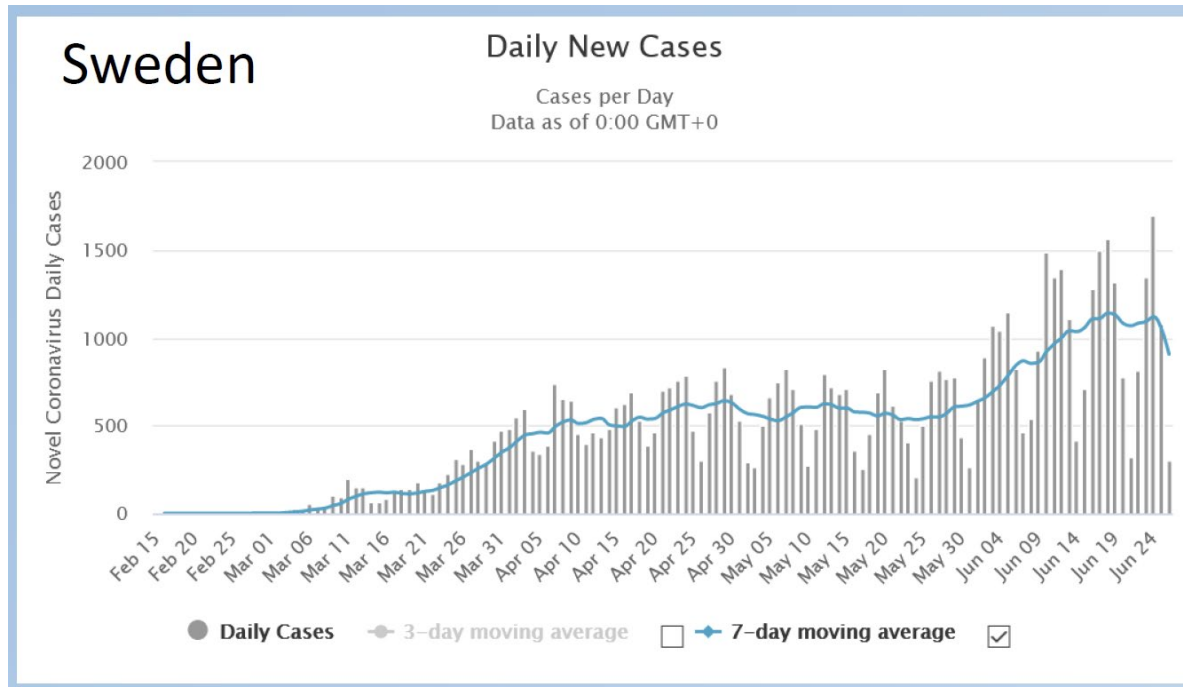
Lewis S. U.S. says Russian-backed outlets spread COVID-19 vaccine 'disinformation'. Reuters. Mar. 7, 2021.

<https://www.reuters.com/article/us-usa-russia-covid-disinformation/u-s-says-russian-backed-outlets-spread-covid-19-vaccine-disinformation-idUSKBN2B0016>

# Misinformation - Pandemic

## An August 2020 comment on Dr. Rodrigues-Bano's 2020 Presentation.

The comment came from a gentleman whose YouTube Account has one subscriber and no uploaded videos.



• 10 months ago

The Swedish curve is explained by a more than doubling of testing in mid June, since testing became free. So there never were any actual increase in cases.

It can also clearly be seen that as these curves are rising because of the increased testing, the number of ICU/ deaths are falling like a rock. So invalid conclusion here. Deaths are now lower than last year. (single digits or zero per day)

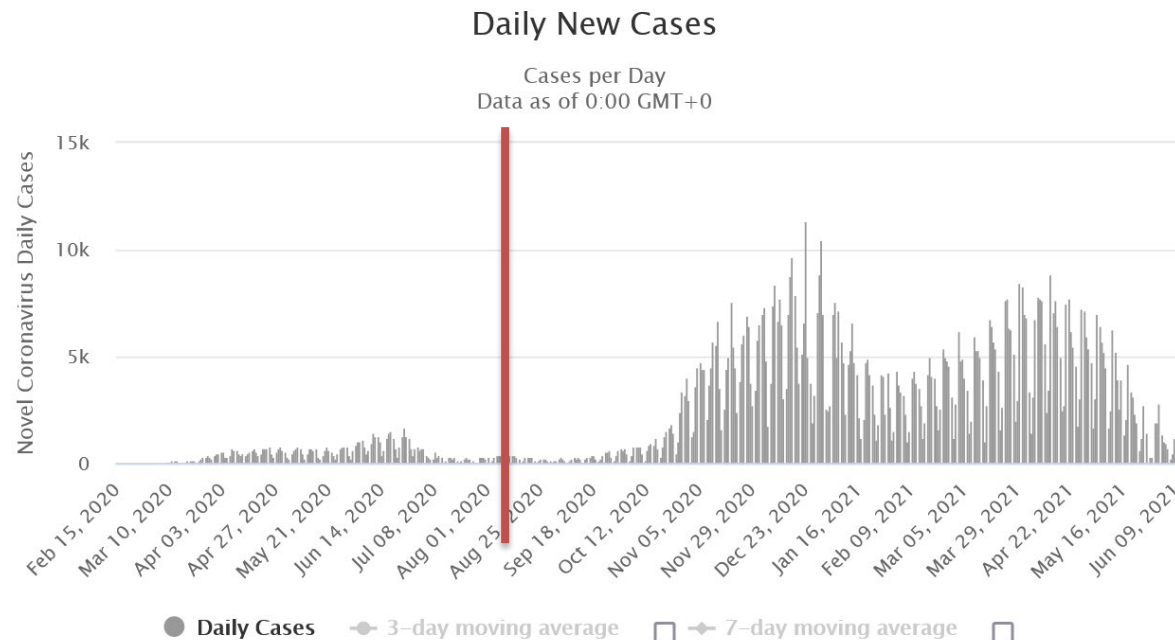
REPLY

12 replies ^

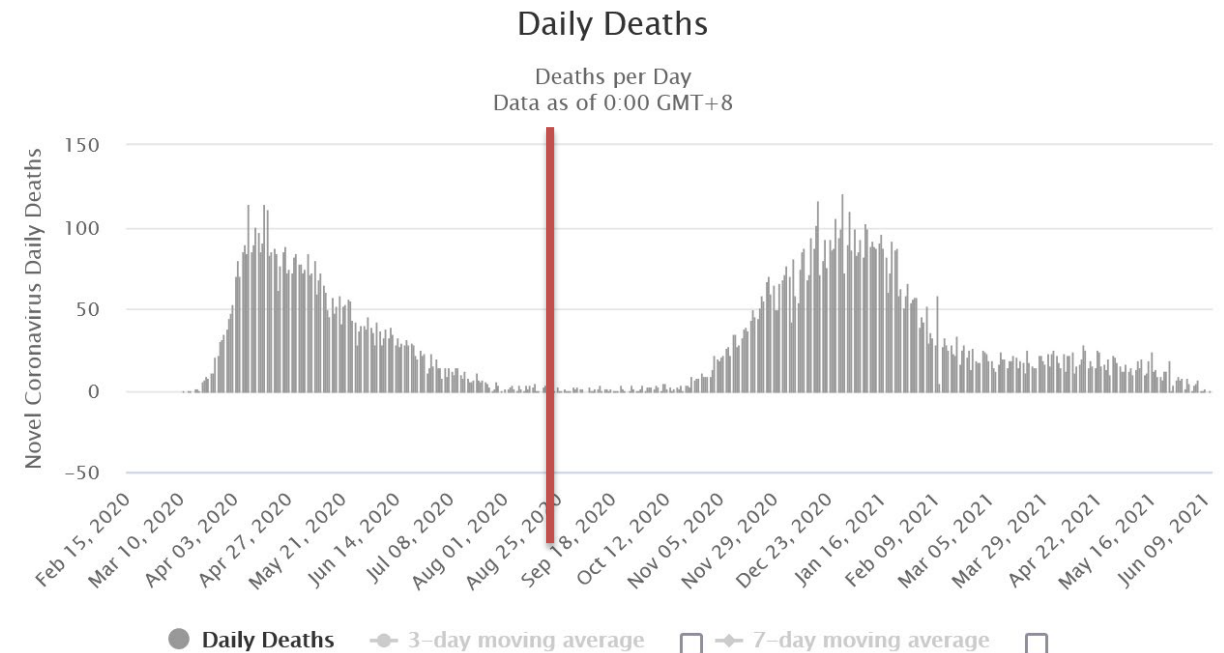


# Misinformation - Pandemic

Daily New Cases in Sweden



Daily New Deaths in Sweden



LESSONS LEARNED: A GLOBAL PERSPECTIVE

**COVID-19**

# Forces Inhibiting Embracement of Acceptance

**We cannot set the bar for public health standards at “survival”.**

- Prior to the pandemic restaurants were closed if they were a source of E.coli spread and diarrhea occurred in their patrons.**
- Many advocate, opening as long as individuals are not dying of COVID-19, largely ignoring the outcomes of long-COVID and lasting symptoms which are observed in 10% to 30% of mild to moderate cases.**



# Acceptance

***True acceptance will mean embracing a new normal:***

**For Example: We Need To:**

- **Enact strategies to mitigate spread of all airborne pathogens.**
- **To have food handlers and preparers wearing masks to prevent both airborne and droplet spread of disease.**
- **To expand online ordering and curbside pickup – It is more convenient and mitigates the spread of disease.**
- **We need to embrace vaccinations and the need for boosters in the future.**
- **And to have hybrid options for work and schools. For some businesses & schools this has resulted in increased productivity and decreased costs.**

# **USA failures can also be viewed through a different lens:**

## **In an upcoming book: *Uncontrolled Spread: Why COVID-19 Crushed Us and How We Can Defeat the Next Pandemic* -- Scott Gottlieb.**

“A system-wide failure across government institutions left the nation blind to the threat, and unable to mount an effective response. We’d prepared for the wrong virus. We failed to identify the contagion early enough and became overly reliant on costly and sometimes divisive tactics that couldn’t fully slow the spread. We never considered asymptomatic transmission and we assumed people would follow public health guidance. Key bureaucracies like the CDC were hidebound and outmatched. Weak leadership aggravated these woes. We didn’t view a public health disaster as a threat to our national security.”

Uncontrolled Spread: Why COVID-19 Crushed Us and How We Can Defeat the Next Pandemic  
Scott Gottlieb. (To be released Sept. 21, 2021)



# It is of Utmost Importance That We Prepare for the Next Pandemic.

