

HHP/HPH COVID-19 Community Webinar Series

Monday, October 26, 2020
5:30pm – 6:30pm



Moderator – 10/26/20

Andy Lee, MD

Medical Director, *Hawai'i Health Partners*
Chief of Staff, *Pali Momi Medical Center*
Hawai'i Pacific Health

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- Specific areas may not pertain directly to your clinical practice area and/or may not be applicable to your practice based on your existing workflows, infrastructure, software (e.g. EHR), and communications processes.

Webinar Information

- You have been automatically muted. You cannot unmute yourself.
- You will be able to submit questions via the Q&A section.
 - Due to time constraints, any unanswered questions will be addressed this week and posted on the HHP website
- A recording of the meeting will be available tomorrow on the HHP website and intranet.

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1. Step 1: Confirm your attendance

- You should have completed a brief questionnaire before joining today's live webinar.

2. Step 2: HPH CME team will email you instructions

- Complete and submit evaluation survey that will be emailed to you within one week of the offering.
- Your CE certificate will be immediately available to you upon completion of your evaluation.
- Questions? Email hphcontinuingeduc@hawaiipacifichealth.org

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- The planners and presenters of this activity report no relationships with companies whose products or services (may) pertain to the subject matter of this meeting

COVID-19 Updates



Gerard Livaudais, MD, MPH
Executive Vice President,
Population Health and
Provider Networks
Hawai'i Pacific Health



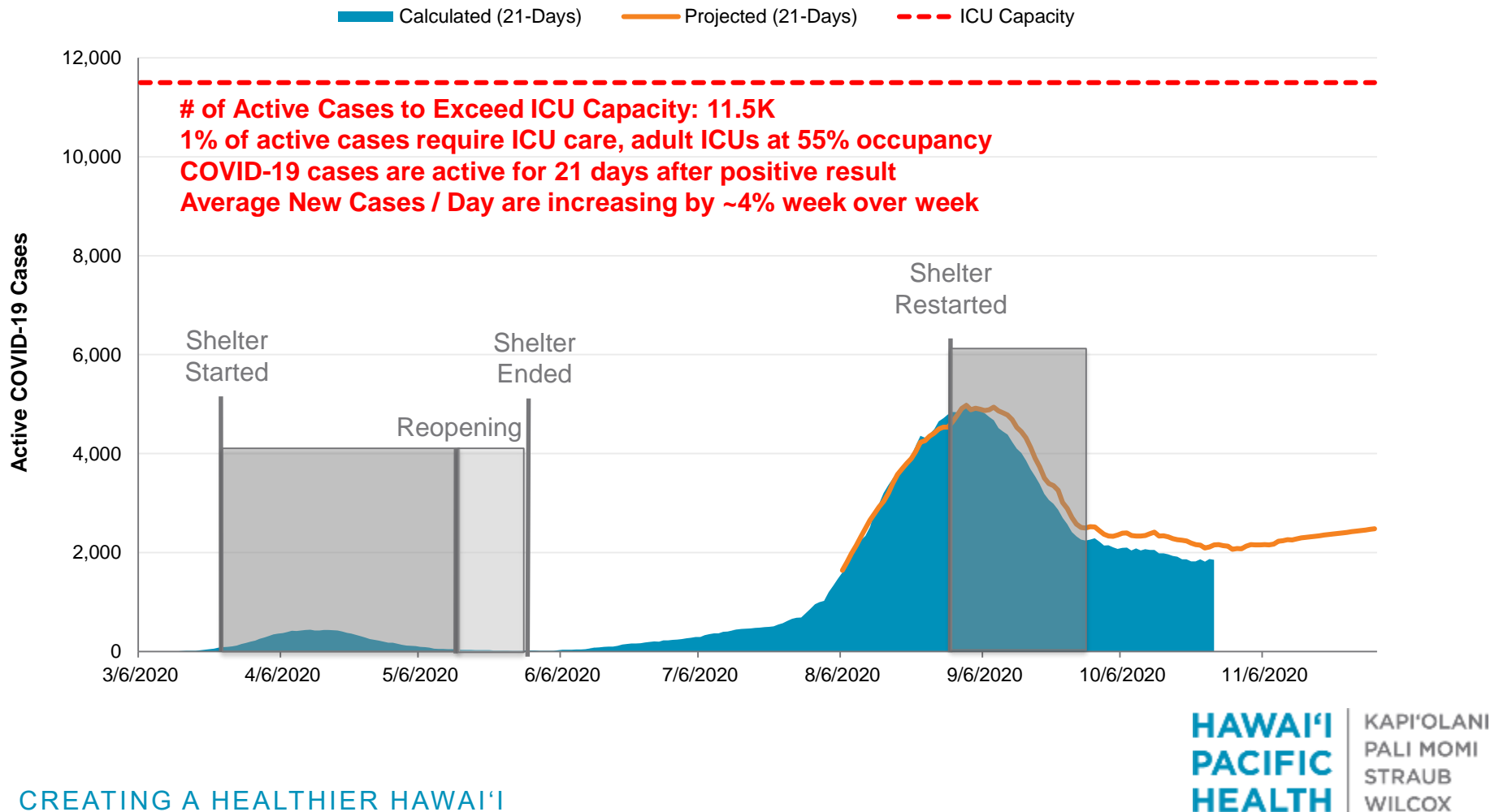
Douglas Kwock, MD
Vice President of
Medical Staff Affairs
Hawai'i Pacific Health



Wade Kyono, MD
Medical Director,
Hawai'i Pacific Health
Research Institute

Projected Active COVID-19 Cases

Hawaii Actual v. Projected Active COVID-19 Cases Updated 10/26/2020



As of 10/26/20	Total Census	ICU beds occupied	# Ventilators in use	# New Admissions w/ COVID-19 screening	# New Admissions w/ positive COVID-19	# Patients currently hospitalized w/ suspect or confirmed COVID-19	# Patients currently on a ventilator w/ suspect or confirmed COVID-19	# Patients currently in ICU w/ suspect or confirmed COVID-19
KMCWC	140	AICU: 0 NICU: 62 PICU: 8	AICU: 0 NICU: 18 PICU: 5 Wilcox: 0	1	0	S: 1 C: 0	S: 0 C: 0	S: 0 C: 0
PMMC	82	10	5	6	0	S: 3 C: 1	S: 3 C: 3	S: 1 C: 1
SMC	99	14	13	3	0	S: 0 C: 6	S: 4 C: 4	S: 4 C: 4
WMC	54	2	0	0	0	S: 1 C: 0	S: 0 C: 0	S: 0 C: 0

S = Suspected; C= Confirmed

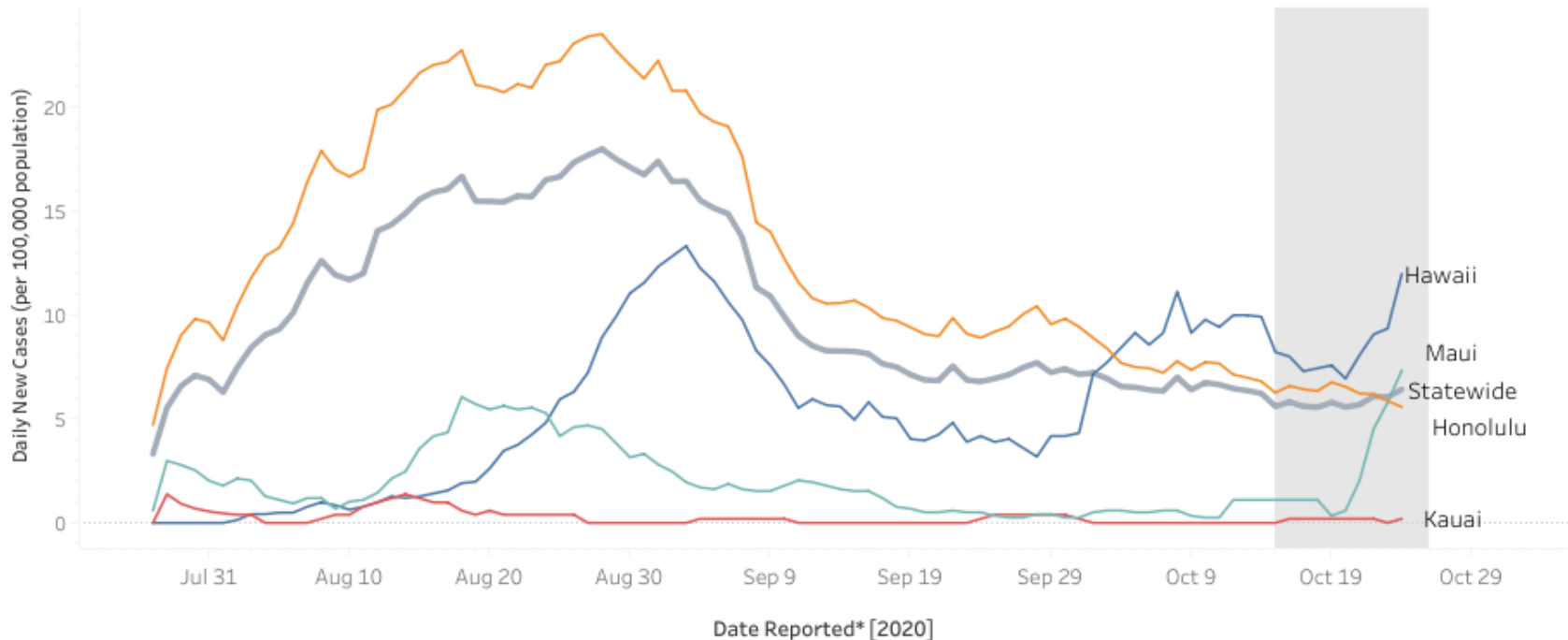
Daily New COVID-19 Cases*, Hawaii 2020

Updated October 25, 2020



Current 7-day Average Daily New Cases (per 100,000 population)

Hawaii	Honolulu	Kauai	Maui	Statewide
12.0	5.6	0.2	7.3	6.4



View Islands

Date Filter (use the slider to adjust the date range)

From 7/27/2020

* Illnesses that began in the previous 10 days may not yet have been reported; 7-day moving daily average cases per 100,000 population;

<https://health.hawaii.gov/coronavirusdisease2019/what-you-should-know/current-situation-in-hawaii/#countycurve>

CREATING A HEALTHIER HAWAII

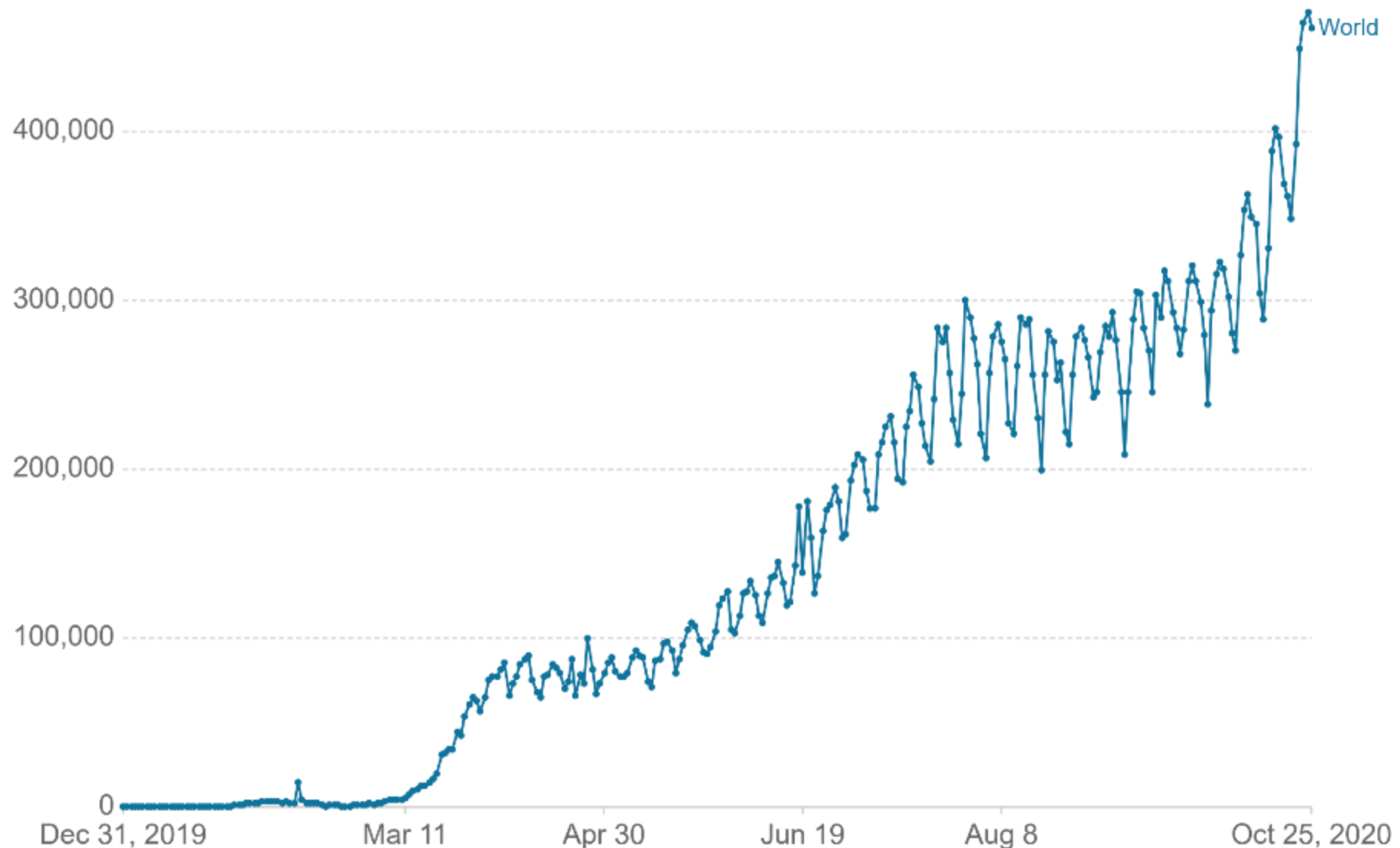
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Daily new confirmed COVID-19 cases

Our World
in Data

The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.



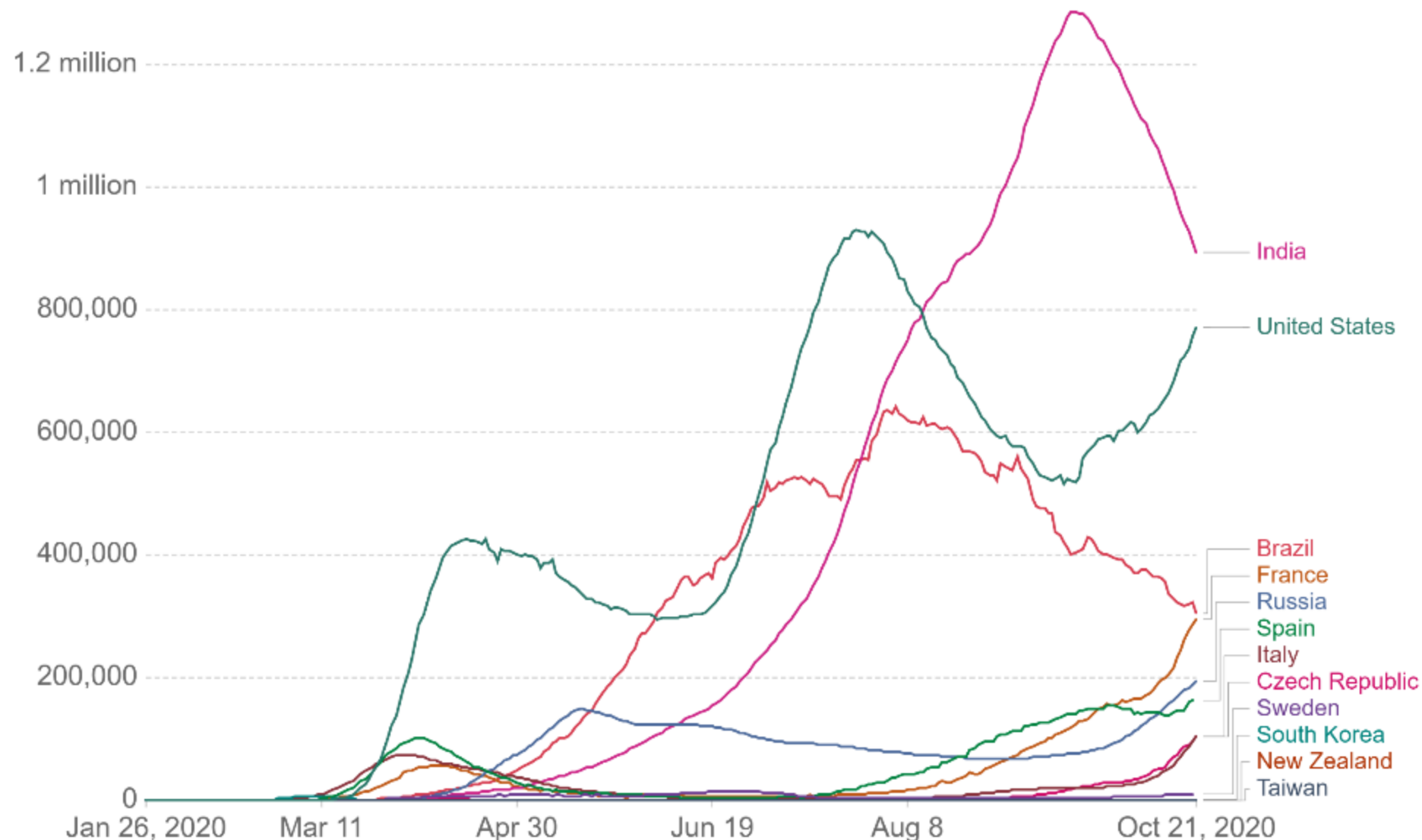
Source: European CDC – Situation Update Worldwide – Last updated 25 October, 15:30 (London time)

CC BY



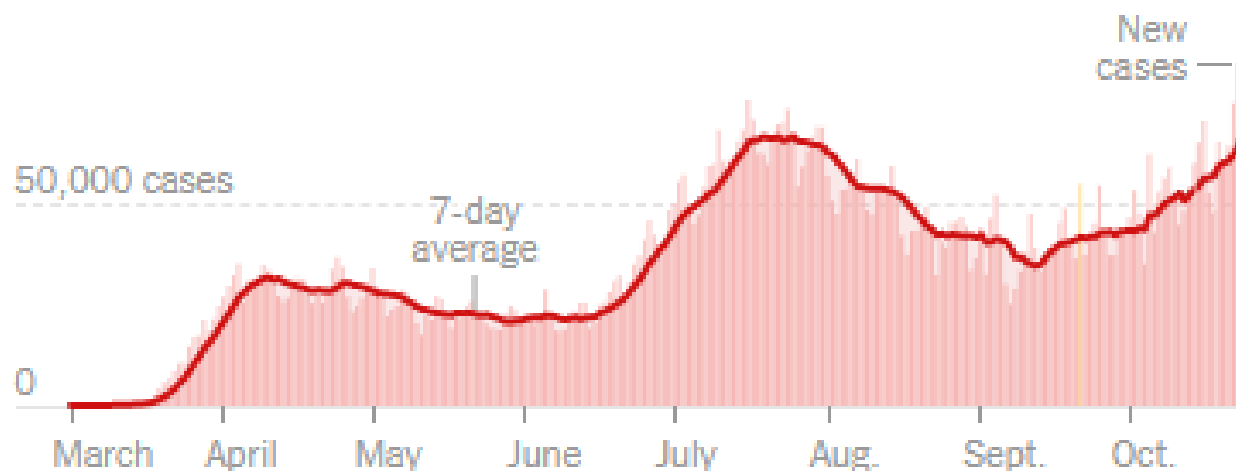
Biweekly confirmed COVID-19 cases, Jan 26, 2020 to Oct 21, 2020

Biweekly confirmed cases refer to the cumulative number of confirmed cases over the previous two weeks.



Source: European CDC – Situation Update Worldwide – Last updated 21 October, 11:34 (London time) OurWorldInData.org/coronavirus • CC BY

US Cases



	TOTAL REPORTED	ON OCT. 24	14-DAY CHANGE
Cases	8.6 million+	78,586	+32% →
Deaths	224,819	871	+15% →

■ Day with data reporting anomaly.

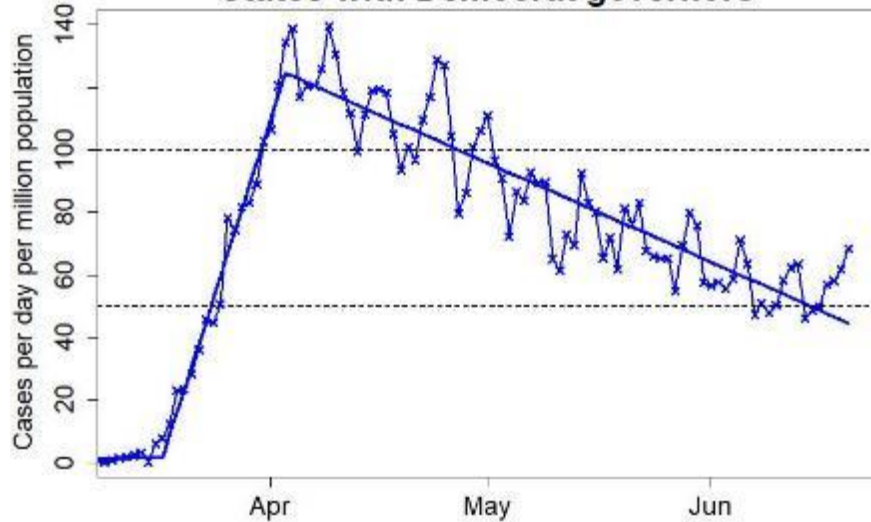
Includes confirmed and probable cases where available. 14-day change trends use 7-day averages.



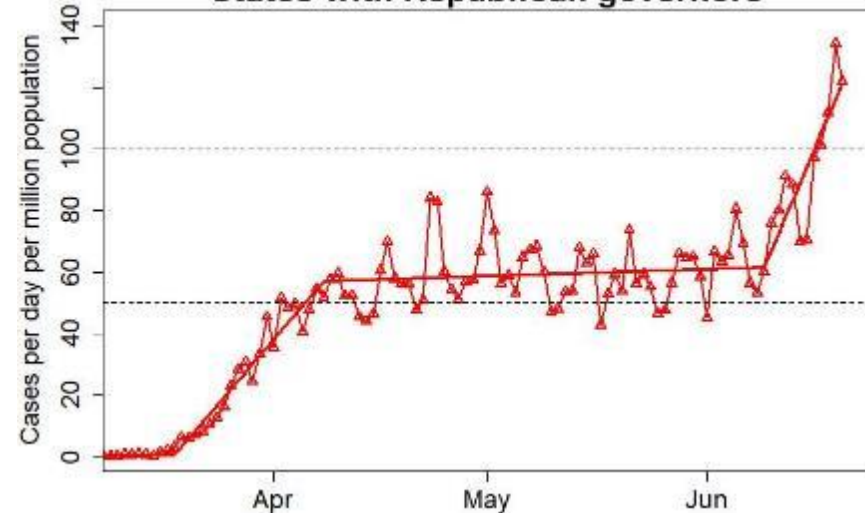
→ About this data

How do Politics show up?

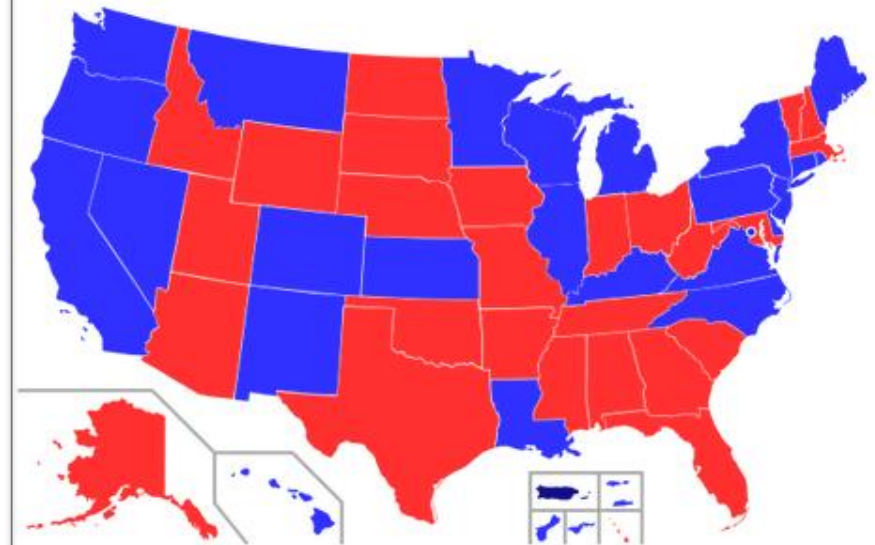
States with Democrat governors



States with Republican governors

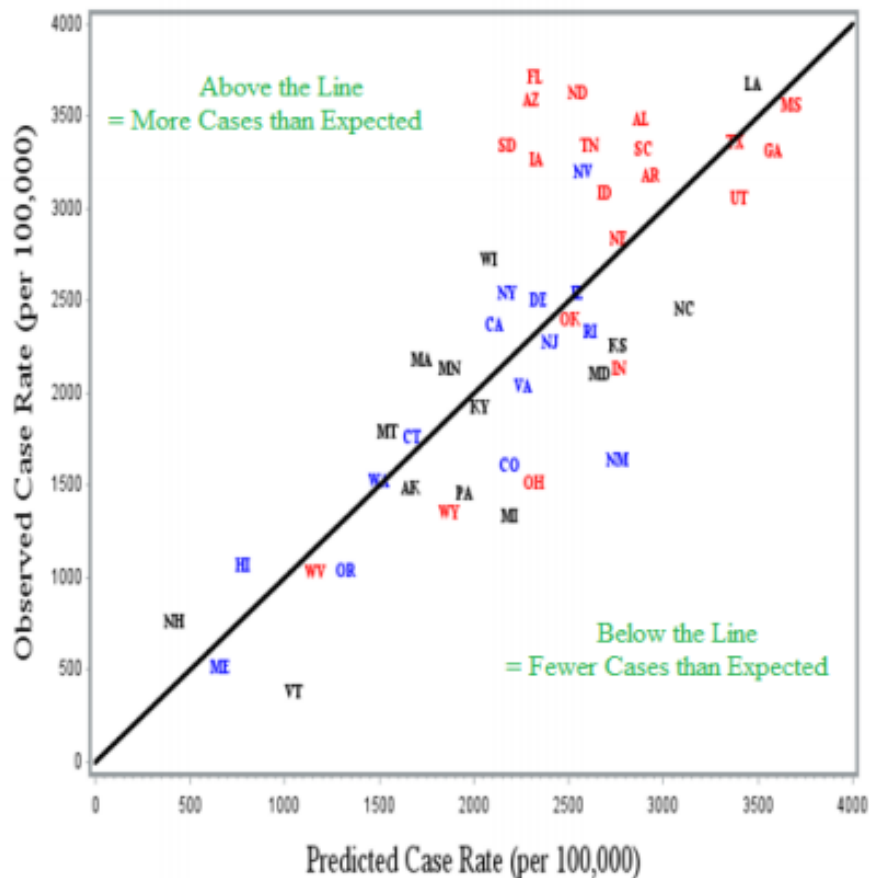


Red States/Blue States
(by Governor's Political Party)



Does Party in Power make a difference after controlling for multiple variables?

FIGURE 2: Observed versus Predicted* Cumulative Covid 19 Cases per 100,000 Population
Party in Power: Democratic=Blue, Republican = Red, Other = Black

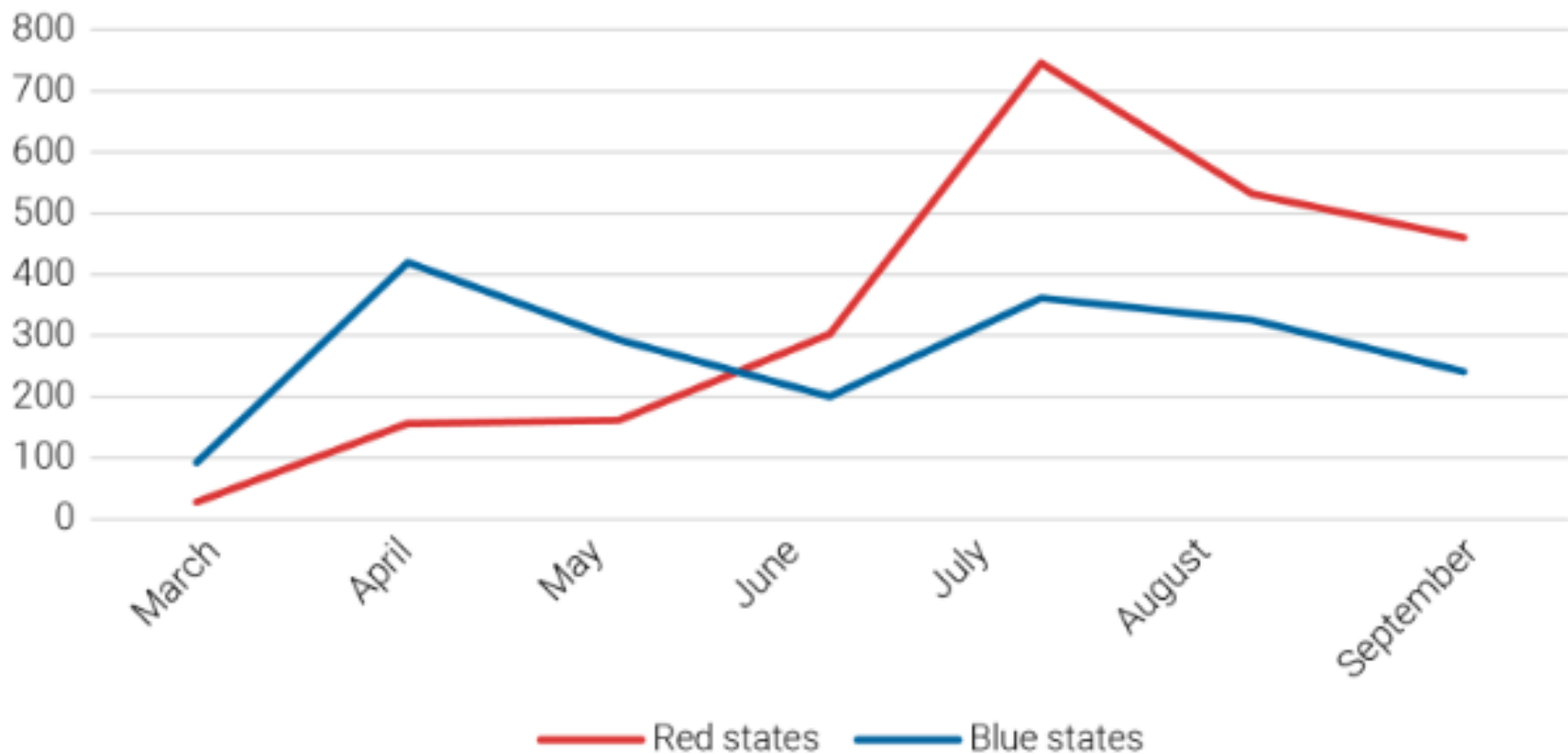


*Predicted from race/ethnicity, median age, median household income, population density, and residual of %Poverty.

- Multivariate model included
 - race/ethnicity
 - median age
 - median income
 - population density
 - residual percentage poverty
 - excess of observed percentage of poverty beyond that predicted by median income and the other state characteristics.
 - Party in Power (both Governor and both Chambers)
- Democratic-led states have a 583 cases per 100,000 lower case rate than Republican states ($p = 0.041$).
- Democratic and Mixed government states had ~20% lower case rates than Republican states.
- Mortality rates showed no statistical difference

Figure 1. New cases per 100,000 residents in red and blue states

March through September

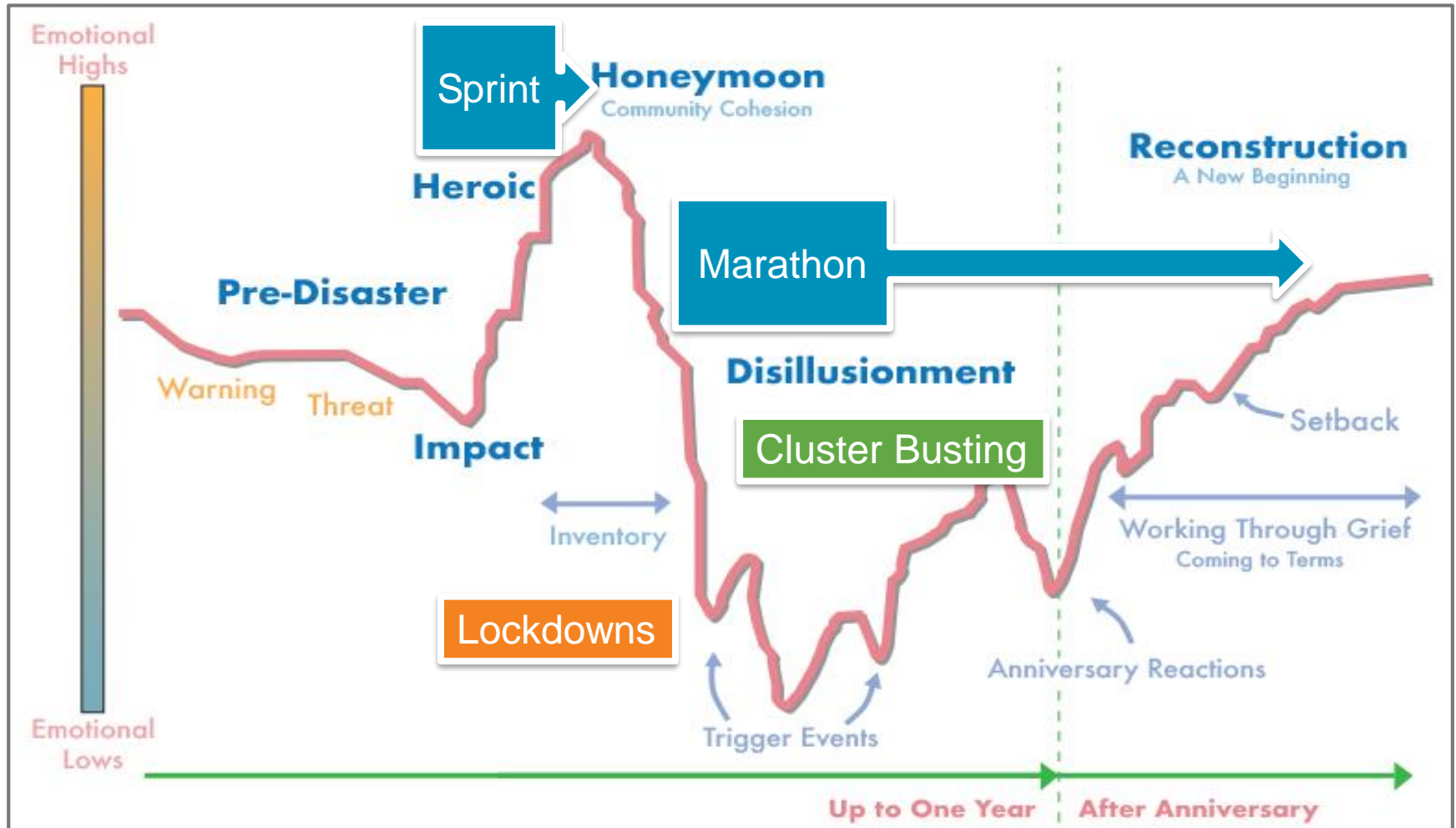


Source: William H. Frey analysis of New York Times data for confirmed COVID-19 cases, 2019 Census population estimates, red and blue states represent those voting Republican and Democratic in the 2016 presidential election.

B Metropolitan Policy Program
at BROOKINGS

<https://www.brookings.edu/blog/the-avenue/2020/10/08/as-election-day-nears-covid-19-spreads-further-into-red-america/>

Pandemic Fatigue



Adapted from Zunin & Myers as cited in DeWolfe, D. J., 2000, SAMHSA website

“Human beings are social creatures. Our connection to others enables us to survive and thrive.”

REDUCING RISK OF CORONAVIRUS TRANSMISSION



@JuliaLMarcus, @EpiEllie, + Jonah Saffran

<https://www.nia.nih.gov/news/social-isolation-loneliness-older-people-pose-health-risks>

Coronavirus Disease 2019 (COVID-19)


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YOUR HEALTH

Personal and Social Activities

Updated Oct. 22, 2020

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What you need to know


- Stay home if sick.
- Wear masks in public settings, like on public and mass transportation, at events and gatherings, and anywhere they will be around other people.
- Use social distancing (stay at least 6 feet away from others).
- Before you go, call and ask what extra prevention strategies they are using, like requiring staff to wear masks.
- Wash your hands with soap and water for at least 20 seconds when you get home.

On This Page

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Dining at a restaurant

MyCOVIDRisk



Center for
Digital Health

A partnership of Lifespan and the Warren Alpert Medical School of Brown University

MyCOVIDRisk

Created by emergency physicians to give you the information you need to
know your own COVID-19 risk

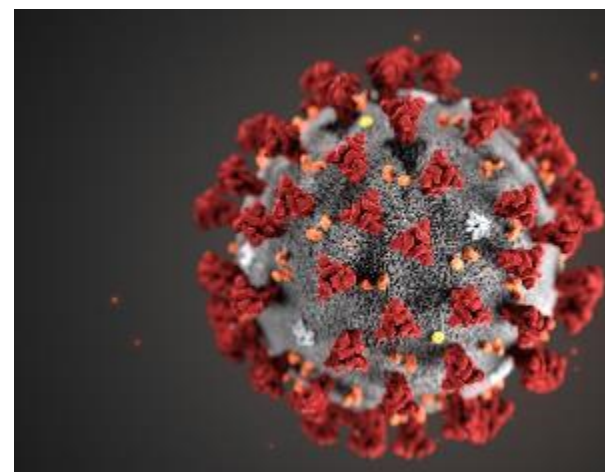
[Know my Risk](#)

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<https://mycovidrisk.app/>

Repurposing Old Drugs . . .

- Vitamin D
- Vitamin C
- Zinc
- Famotidine
- Melatonin
- ACE Inhibitors and ARBs
- Statins



COVID-19 Treatment Panel Guidelines

Figure 1. Recommendations for Pharmacologic Management of Patients with COVID-19 Based on Disease Severity

DISEASE SEVERITY

PANEL'S RECOMMENDATIONS

(Recommendations are listed in order of preference in each category below; however, all options are considered acceptable.)

Not Hospitalized
or
Hospitalized but Does Not Require
Supplemental Oxygen

No specific antiviral or immunomodulatory therapy recommended

The Panel **recommends against** the use of **dexamethasone (AI)**

See the Remdesivir section for a discussion of the data on using this drug in hospitalized patients with moderate COVID-19.^a

Hospitalized and Requires
Supplemental Oxygen

(but Does Not Require Oxygen Delivery
Through a High-Flow Device,
Noninvasive Ventilation, Invasive
Mechanical Ventilation, or ECMO)

Remdesivir 200 mg IV for one day, followed by remdesivir 100 mg IV once daily for 4 days or until hospital discharge, whichever comes first **(AI)^{b,c,d}**

or

Remdesivir (dose and duration as above) plus **dexamethasone^e** 6 mg IV or PO for up to 10 days or until hospital discharge, whichever comes first **(BIII)^f**

If **remdesivir** cannot be used, **dexamethasone^e** may be used instead **(BIII)**

Hospitalized and Requires Oxygen
Delivery Through a High-Flow Device
or Noninvasive Ventilation

Dexamethasone^{d,e} plus **remdesivir** at the doses and durations discussed above **(AIII)^f**

or

Dexamethasone^{d,e} at the dose and duration discussed above **(AI)**

Hospitalized and Requires Invasive
Mechanical Ventilation or ECMO

Dexamethasone^{d,e} at the dose and duration discussed above **(AI)**

or

Dexamethasone^e plus **remdesivir** for patients who have recently been intubated at the doses and durations discussed above **(CIII)^f**

COVID-19 Treatments

Immune response over time:
Self-limiting in 80%
Severe in 15%–20%
Fatal in 1%–2%

VACCINES

ANTIVIRALS

Remdesivir
Lopinavir/Ritonavir

IMMUNE-BASED

Convalescent Plasma
Monoclonal Antibodies

Stage 1

Asymptomatic

Innate immune activation

Viral engagement of PAMPs
Low type 1 IFN

Stage 2

Nonsevere symptomatic

Adaptive immune activation

Generation of specific antibodies and T-cell response
Release of DAMPs

Stage 3

Severe respiratory-inflammatory

Cytokine release syndrome

IL-1, IL-6, TNF, GM-CSF, IFN-gamma, others
Coagulopathy
Complement

IMMUNE MODULATORS

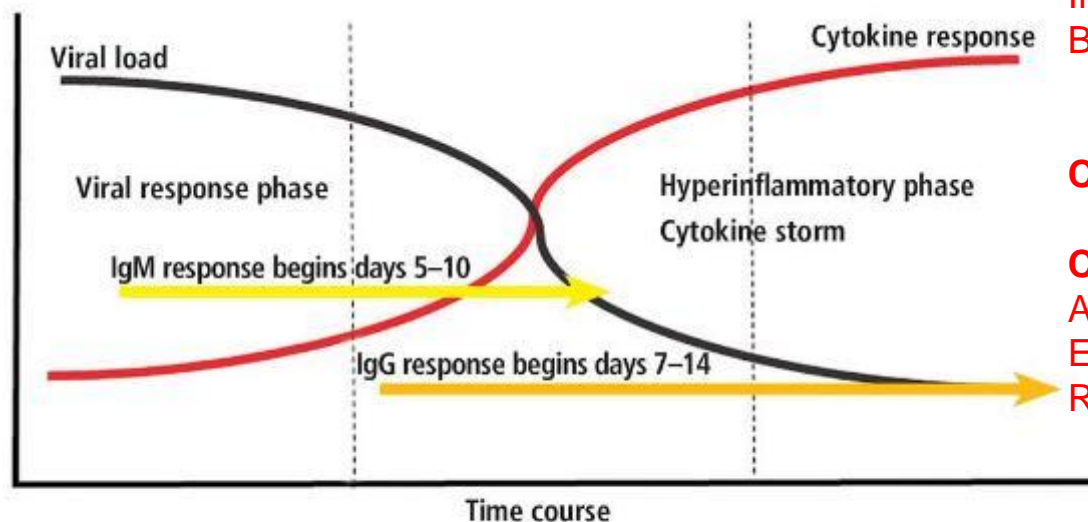
Dexamethasone

Anakinra (IL-1)
Tocilizumab (IL-6)
Interferons (α or β)
BTK Inhibitors

COAGULOPATHY

COMPLEMENT

AMY-101 (C3)
Eculizumab/
Ravulizumab (C5)



DAMPs = damage-associated molecular patterns; GM-CSF = granulocyte macrophage colony-stimulating factor; IFN = interferon; IgM = immunoglobulin M; IL-1 = interleukin 1; IL-6 = interleukin 6; PAMPs = pathogen-associated molecular patterns; TNF = tumor necrosis factor

COVID-19 is an emerging, rapidly evolving situation.

Get the latest public health information from CDC: <https://www.coronavirus.gov>

Get the latest research information from NIH: <https://www.nih.gov/coronavirus>



COVID-19 Treatment Guidelines

Search



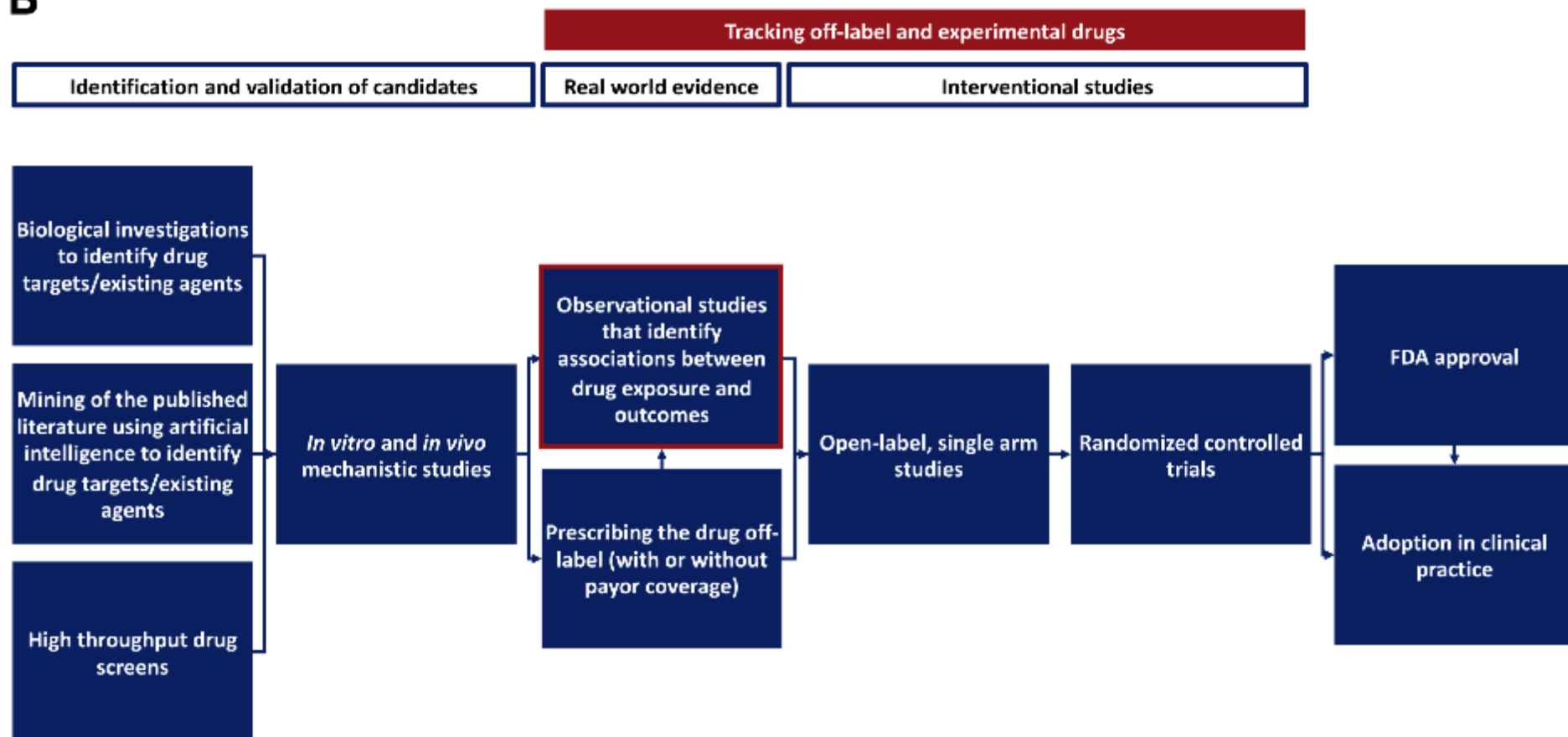
Coronavirus Disease 2019 (COVID-19) Treatment Guidelines

VIEW GUIDELINES

Credit NIAID-RML

Visit <https://www.covid19treatmentguidelines.nih.gov/> to access the most up-to-date guideline

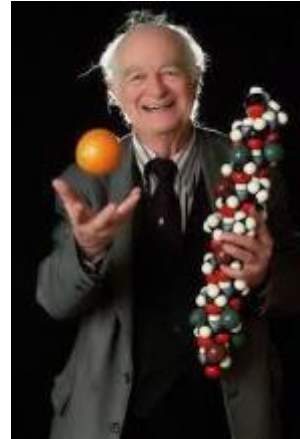
B



Vitamin C

- Rationale

- Antioxidant and free radical scavenger with anti-inflammatory properties
- Influences cellular immunity and vascular integrity
- May need more vitamin C in states of oxidative stress - including serious infections and sepsis
- The potential role of high doses of vitamin C in ameliorating inflammation and vascular injury in patients with COVID-19 is being studied



Vitamin C



- Recommendation for **Non-Critically ill Patients With COVID-19**
 - There are insufficient data for the COVID-19 Treatment Guidelines Panel (the Panel) to recommend either **for** or **against** the use of vitamin C for the treatment of COVID-19 in non-critically ill patients
- Rationale
 - Those not critically ill with COVID-19 are less likely to experience oxidative stress or severe inflammation – no compelling reason to use vitamin C in this setting

Vitamin C



- Recommendation for **Critically ill** Patients With COVID-19
 - There are insufficient data for the Panel to recommend either **for** or **against** the use of vitamin C for the treatment of COVID-19 in critically ill patients
- Rationale
 - There are no completed controlled trials of vitamin C in patients with COVID-19, and the available observational data are sparse and inconclusive
 - Studies of vitamin C in sepsis patients and ARDS patients have shown variable efficacy and limited safety concerns

Vitamin C



- Other Considerations

- Note that high circulating concentrations of vitamin C may affect the accuracy of point-of-care glucometers
- Additional large, randomized clinical trials in severely ill patients with sepsis have completed enrollment
 - These studies may provide additional data on the safety and efficacy of vitamin C that support its potential use in treating patients with COVID-19
- Several trials of oral and IV vitamin C supplementation in people with COVID-19 are ongoing

Vitamin D

- Recommendation
 - There are insufficient data to recommend either **for** or **against** the use of vitamin D for the prevention or treatment of COVID-19



Vitamin D

- Vitamin D is critical for bone and mineral metabolism
- Vitamin D receptor is expressed on immune cells such as B cells, T cells, and antigen-presenting cells, and these cells can synthesize the active vitamin D metabolite
 - Potential to **modulate innate and adaptive immune responses**
- **Deficiency** (defined as a serum concentration of 25-hydroxyvitamin D ≤ 20 ng/mL) is **common** in the United States
 - Hispanic ethnicity and Black race
 - Older patients and those with obesity and hypertension

Vitamin D

- + Low vitamin D levels - associated with an increased risk of community-acquired pneumonia in older adults and children
- + Vitamin D supplements may increase the levels of T regulatory cells and their activity
- + Meta-analysis of randomized trials, vitamin D supplementation was shown to protect against acute respiratory tract infection
- - Two randomized, double-blind, placebo-controlled trials, administering high doses of vitamin D to critically ill patients with vitamin D deficiency (but not COVID-19) did not reduce the length of the hospital stay or the mortality rate compared to placebo
- - High levels of vitamin D may cause hypercalcemia and nephrocalcinosis

Vitamin D and COVID-19



- The role of vitamin D supplementation in the prevention or treatment of COVID-19 is not known
 - The rationale for using vitamin D is based largely on immunomodulatory effects that could potentially protect against COVID-19 infection or decrease the severity of illness
 - Ongoing observational studies are evaluating the role of vitamin D in preventing and treating COVID-19

Vitamin D and COVID-19 Trial (VIVID)

Study Type : Interventional (Clinical Trial)

Estimated Enrollment : 2700 participants

Allocation: Randomized

Intervention Model: Parallel Assignment

Masking: Quadruple (Participant, Care Provider, Investigator, Outcomes Assessor)

Primary Purpose: Treatment

Official Title: A Cluster-Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy of **Vitamin D3** Supplementation to Reduce Disease Severity in Persons With Newly Diagnosed **COVID-19** Infection and to Prevent Infection in Household Members

Vitamin D and COVID-19 Trial (VIVID)

Arm	Intervention/treatment
Active Comparator: Vitamin D Daily vitamin D3 (9600 IU/day on days 1 and 2; 3200 IU/day on days 3 through 28)	Dietary Supplement: vitamin D Vitamin D softgel capsules; each capsule contains 3200 IU of vitamin D3 . Three capsules per day (9600 IU/day) will be taken on days 1 and 2, and one capsule per day (3200 IU/day) will be taken on days 3 through 28 •Other Names: vitamin D3 •cholecalciferol
Placebo Comparator: Placebo Placebo	Dietary Supplement: Placebo Placebo softgel capsules. Three capsules per day will be taken on days 1 and 2, and one capsule per day will be taken on days 3 through 28

Zinc



- Recommendations
 - There are insufficient data to recommend either **for** or **against** the use of zinc for the **treatment** of COVID-19
 - The COVID-19 Treatment Guidelines Panel (the Panel) **recommends against** using zinc supplementation above the recommended dietary allowance for the **prevention** of COVID-19, except in a clinical trial

Zinc

- Increased intracellular zinc concentrations efficiently impair replication in a number of RNA viruses
 - Zinc can enhance cytotoxicity and induce apoptosis when used *in vitro* with a zinc ionophore (e.g., chloroquine). Chloroquine has also been shown to enhance intracellular zinc uptake *in vitro*
 - The relationship between zinc and COVID-19, including how zinc deficiency affects the severity/clinical outcome of COVID-19 infections, is under investigation
 - Zinc levels are difficult to measure accurately
- Zinc supplementation alone or in combination with hydroxychloroquine for prevention and treatment of COVID-19 is currently being evaluated
 - The optimal dose of zinc for the treatment of COVID-19 is not established
 - The recommended dietary allowance for elemental zinc is 11 mg daily for men and 8 mg for nonpregnant women
 - The doses used in clinical trials vary between studies, with a maximum dose of zinc sulfate 220 mg (50 mg of elemental zinc) twice daily

Zinc

- **WARNING**

- Long-term zinc supplementation can cause copper deficiency
 - Subsequent reversible hematologic defects (i.e., anemia, leukopenia)
 - Potentially irreversible neurologic manifestations (i.e., myelopathy, paresthesia, ataxia, spasticity)
- Zinc supplementation for a duration as short as 10 months can cause copper deficiency
- Oral zinc can decrease the absorption of medications

Zinc Clinical Trial Example

Study Type : Interventional (Clinical Trial)

Estimated Enrollment : 60 participants

Allocation: Randomized

Intervention Model: Single Group Assignment

Intervention Model Description: Placebo controlled Resveratrol and Zinc combination therapy

Masking: Single (Participant)

Masking Description: single blinded

Primary Purpose: Supportive Care

Official Title: Can **SARS-CoV-2** Viral Shedding in **COVID-19** Disease be Reduced by Resveratrol-assisted **Zinc** Ingestion, a Direct Inhibitor of **SARS-CoV-2**-RNA Polymerase? A Single Blinded Phase II Protocol (Reszinate Trial)

[Click to copy](#)

Pepcid as a virus remedy? Trump admin's \$21M gamble fizzled

By RICHARD LARDNER and JASON DEAREN July 23, 2020



Famotidine

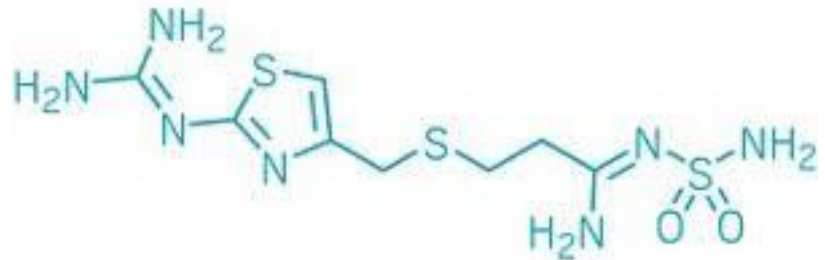
- Two investigators in NY proposed to treat COVID-19 patients with high doses of famotidine IV (9x dose)
- \$21 million emergency contract given in a rush to fund COVID-19 treatments
- Whistleblower complaint – rushed without scientific oversight
- Weak supportive evidence
 - Patients in Wuhan more likely to do better if they were on famotidine – 6,212 pts – poorer patients on famotidine had a 14% mortality compared to 27%. Not statistically significant
 - Computer model indicated famotidine might inhibit the papainlike protease that helps COVID-19 replication
- Study fizzled, still has not completed enrollment

Stomach Acid and COVID-19

- 1,300 Hospitalized COVID-19 Patients
 - Proton-pump inhibitors associated with a 2 to 3 fold higher risk of death
- Online Survey of 53,130 with 3,386 COVID-19 positive
 - Proton-pump inhibitor BID more likely to be COVID-19 positive than those on once a day or none (or a histamine-2 blocker)
 - Proton-pump inhibitors may undermine the gastric barrier to SARS-CoV-2 entry and affect microbiome
- 1,620 Hospitalized COVID-19
 - Demonstrated no effect of proton-pump inhibitors
 - Famotidine (histamine-2 receptor blocker) correlated with less risk of intubation or death

Famotidine

- Decreased stomach acid is associated with increased ACE2 receptor expression?
- Why are do patients on proton pump inhibitors appear to do worse than those on famotidine, a histamine-2 receptor blocker?
- Direct antiviral effect?
- Clinical trials needed



Famotidine

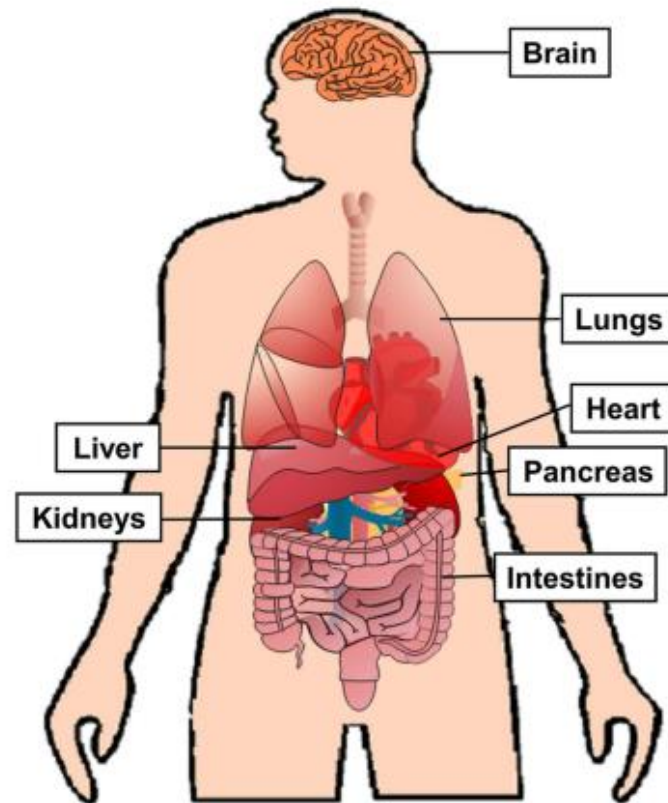
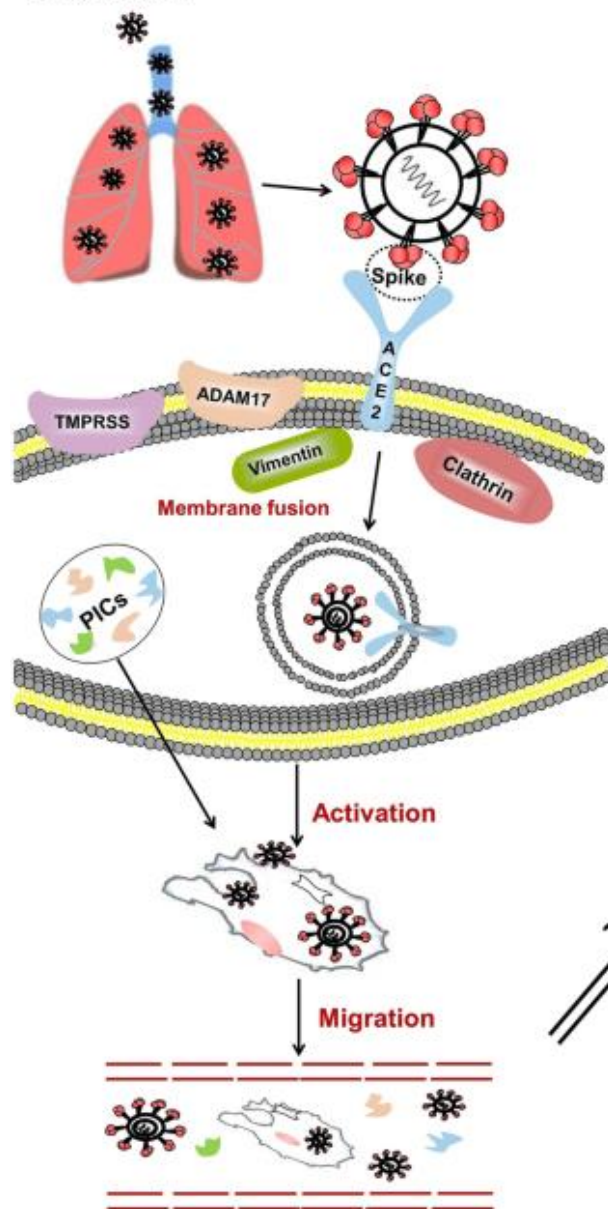
Melatonin

- No direct evidence to support use in treatment of COVID-19
 - Melatonin has been shown to have a direct antiviral effect
 - Ebola replication affected
 - No other direct anti-viral effect has been shown
 - Melatonin has been shown to have an anti-inflammatory and anti-oxidant effect
 - Decrease acute lung injury/ARDS
 - Decrease Cytokine Storm?
 - Inexpensive, readily available
 - Ongoing clinical trials

ACE Inhibitors and ARB

- Angiotensin-Converting Enzyme Inhibitors and Angiotensin Receptor Blockers
 - If you're on ACEI or ARBs for cardiovascular disease (or other indications) you should **continue** these medications
 - The COVID-19 Treatment Guidelines Panel (the Panel) **recommends against** the use of ACE inhibitors or ARBs for the **treatment** of COVID-19, except in a clinical trial

SARS-CoV-2

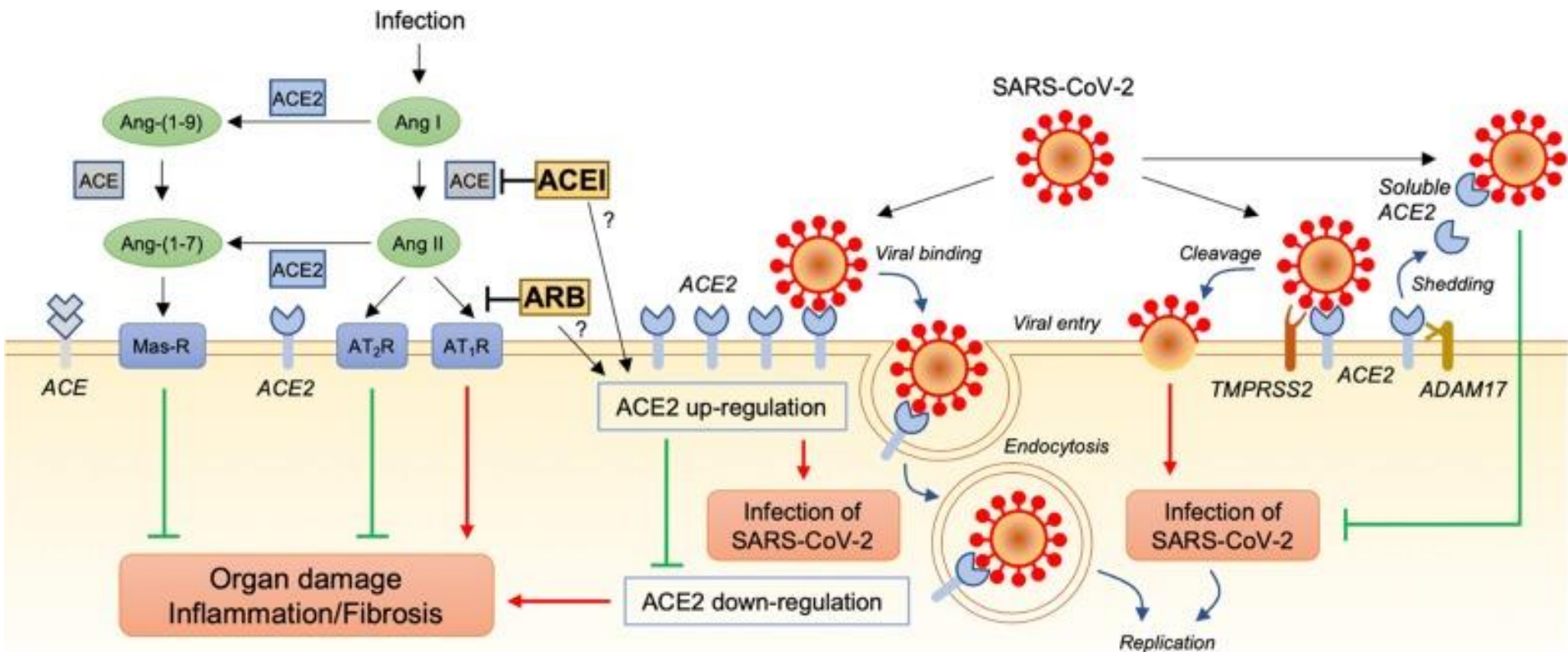


Multi-organ injury in COVID-19

ACE Inhibitors and ARB

- Angiotensin-converting enzyme 2 (ACE2) is the cell surface receptor for the spike protein of COVID-19
 - The modulation of ACE2 associated with ACE inhibitors or ARBs could suppress or enhance SARS-CoV-2 replication
 - Investigations of the role of ARBs and recombinant human ACE2 in the treatment and prevention of SARS-CoV-2 infection are underway
- Whether these medications are helpful, harmful, or neutral in the pathogenesis of SARS-CoV-2 infection is unclear
- Currently, there is a lack of sufficient clinical evidence demonstrating that ACE inhibitors or ARBs have any impact on the susceptibility or the severity/outcomes of infection

Renin-Angiotensin-Aldosterone System Blockers and Risk of Covid-19



HMG-CoA Reductase Inhibitors (Statins)

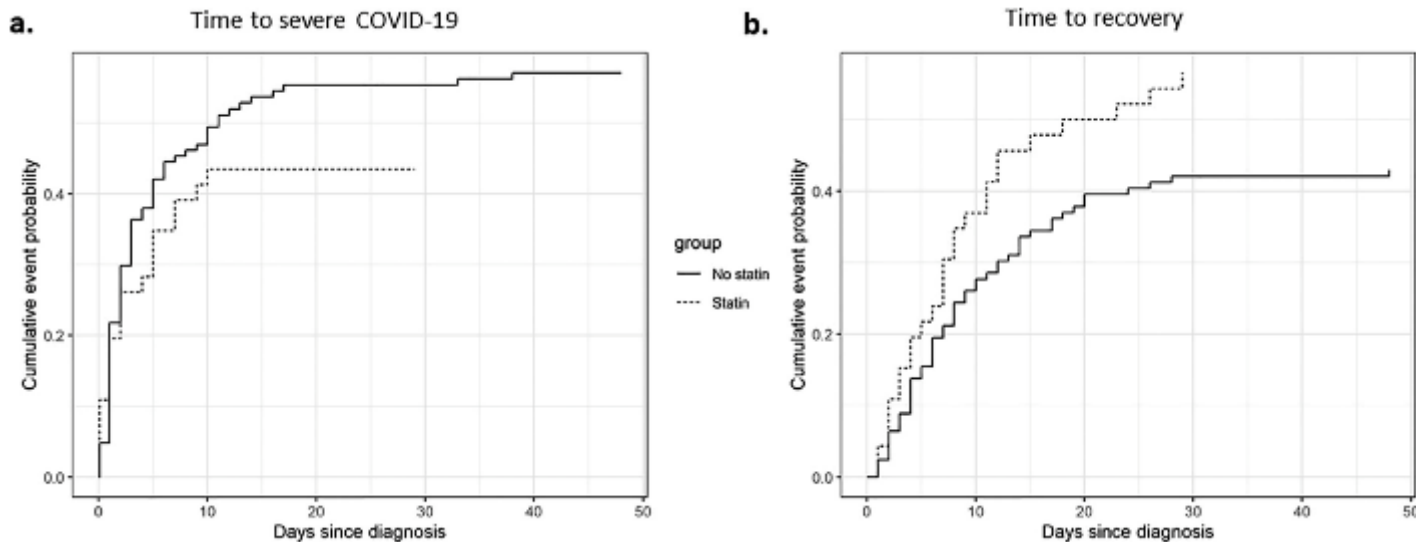
- Persons with COVID-19 who are prescribed statin therapy for the treatment or prevention of cardiovascular disease should **continue** these medications
- The Panel **recommends against** the use of statins for the treatment of COVID-19, except in a clinical trial

HMG-CoA Reductase Inhibitors (Statins)

- Statins have anti-inflammatory and immunomodulatory properties
- Lipid metabolism is implicated in the pathogenesis of COVID-19
- Statins increase cellular expression of ACE2, potentially decreasing inflammation
- Hubei Province – 13,981 hospitalized with COVID-19 with 1,219 on statins
 - 28-day all cause mortality was **5.2% in the statin group** and **9.4% in the matched non-statin group** ($p = 0.001$)

Relation of Statin Use Prior to Admission to Severity and Recovery Among COVID-19 Inpatients

Lori B. Daniels, MD, MAS^{a,b,*}, Amy M. Sitapati, MD^c, Jing Zhang, MS^d, Jingjing Zou, PhD^e,
Quan M. Bui, MD^a, Juntong Ren, MS^c, Christopher A. Longhurst, MD, MS^c,
Michael H. Criqui, MD, MPH^{a,b}, and Karen Messer, PhD^{d,e}



- 50% reduction in risk of developing severe COVID-19 infection with shorter hospital stays
- Upregulation of a gene called CH25H in human lung cells infected with COVID-19 => depletion of cell membrane cholesterol which appears to block fusion of the virus with the cell membrane

Halloween Frights – Is this a cold, the flu, or COVID-19?



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Hawai'i Pacific Health
Medical Group

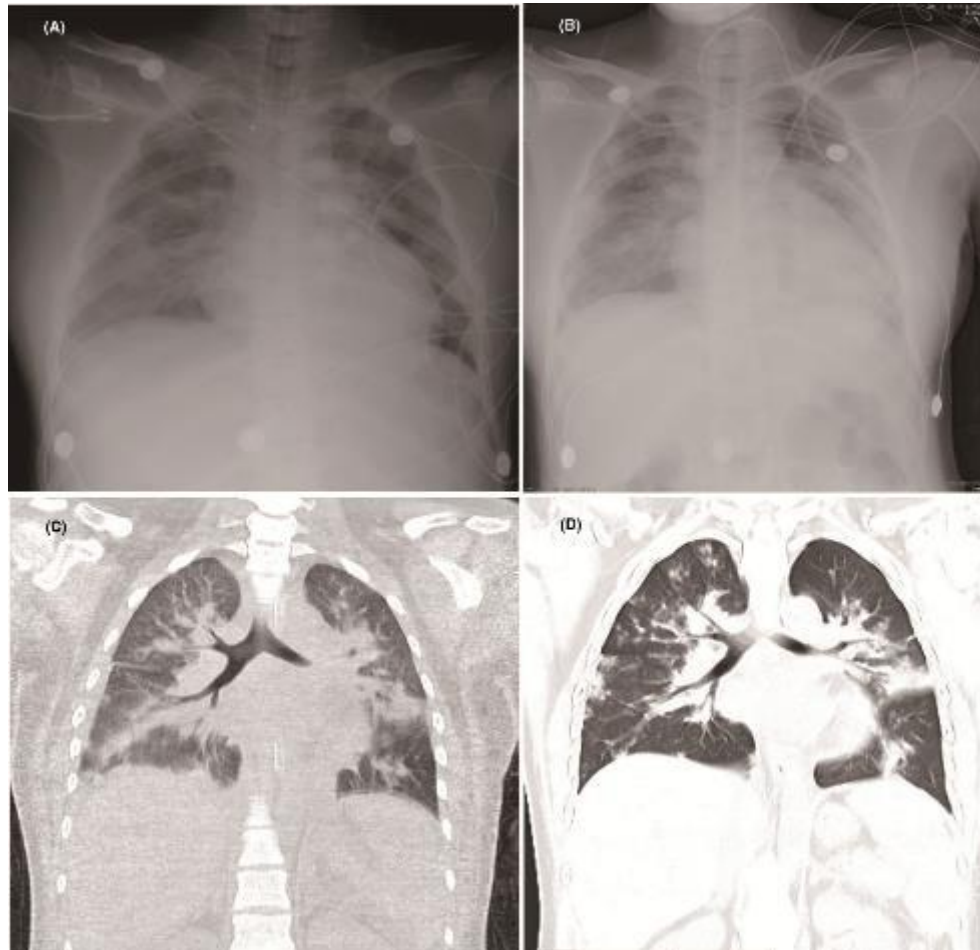


Owen Chan, MD, PhD
Medical Director
Clinical Labs of Hawai'i
Pali Momi Medical Center

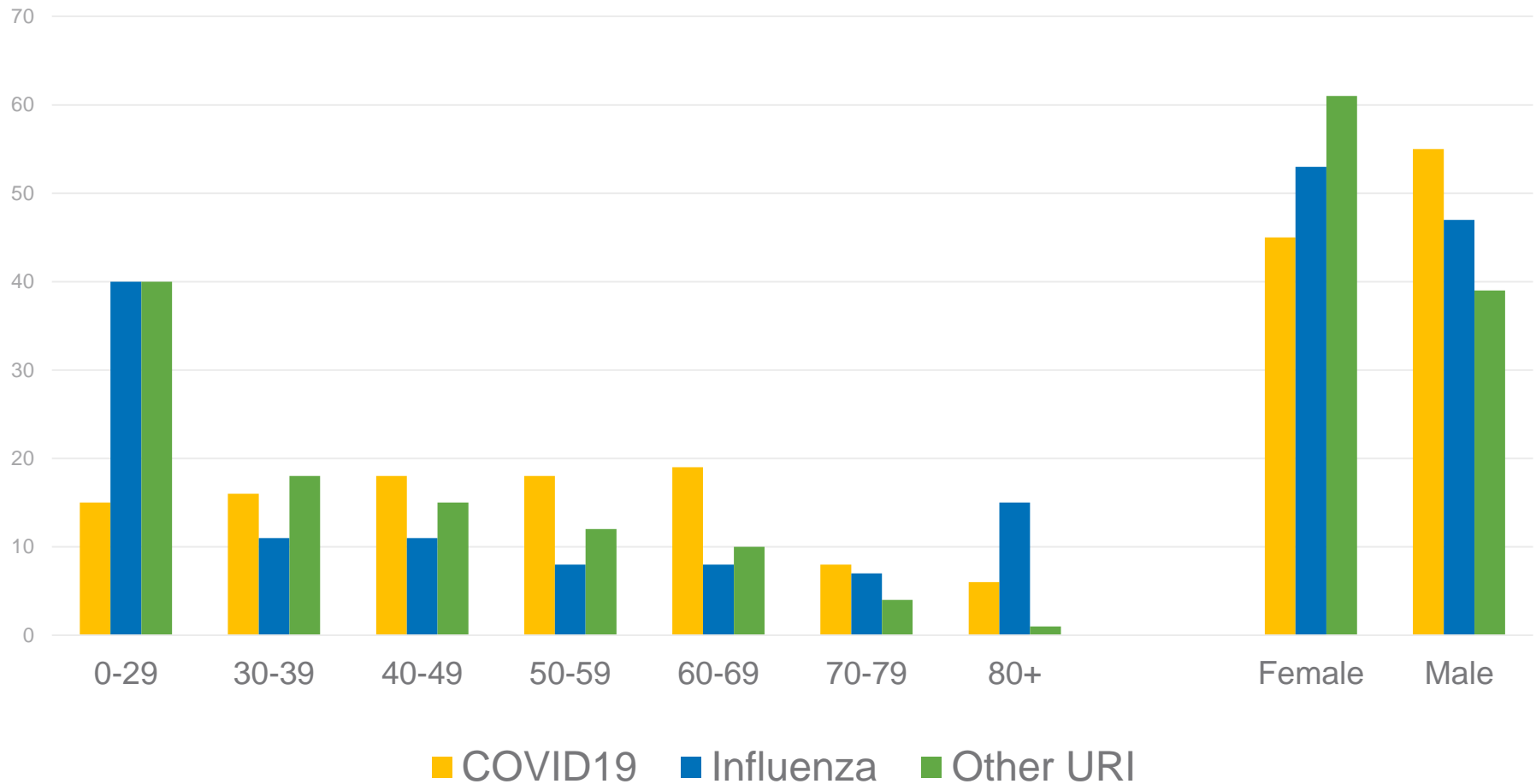
**HAWAI'I
PACIFIC
HEALTH**

**HAWAI'I
HEALTH
PARTNERS**

February 3, 2020, Guangzhou Medical University, China:
21 y/o F w/ 33 wk gestation with cough and fever to 38.5, BP 170/110.
Normal prenatal screen. WBC 11, lymph 7%, HGB 10, PLT 56; Creat 2.1,
2+ urine protein; ALT 156, AST 295.

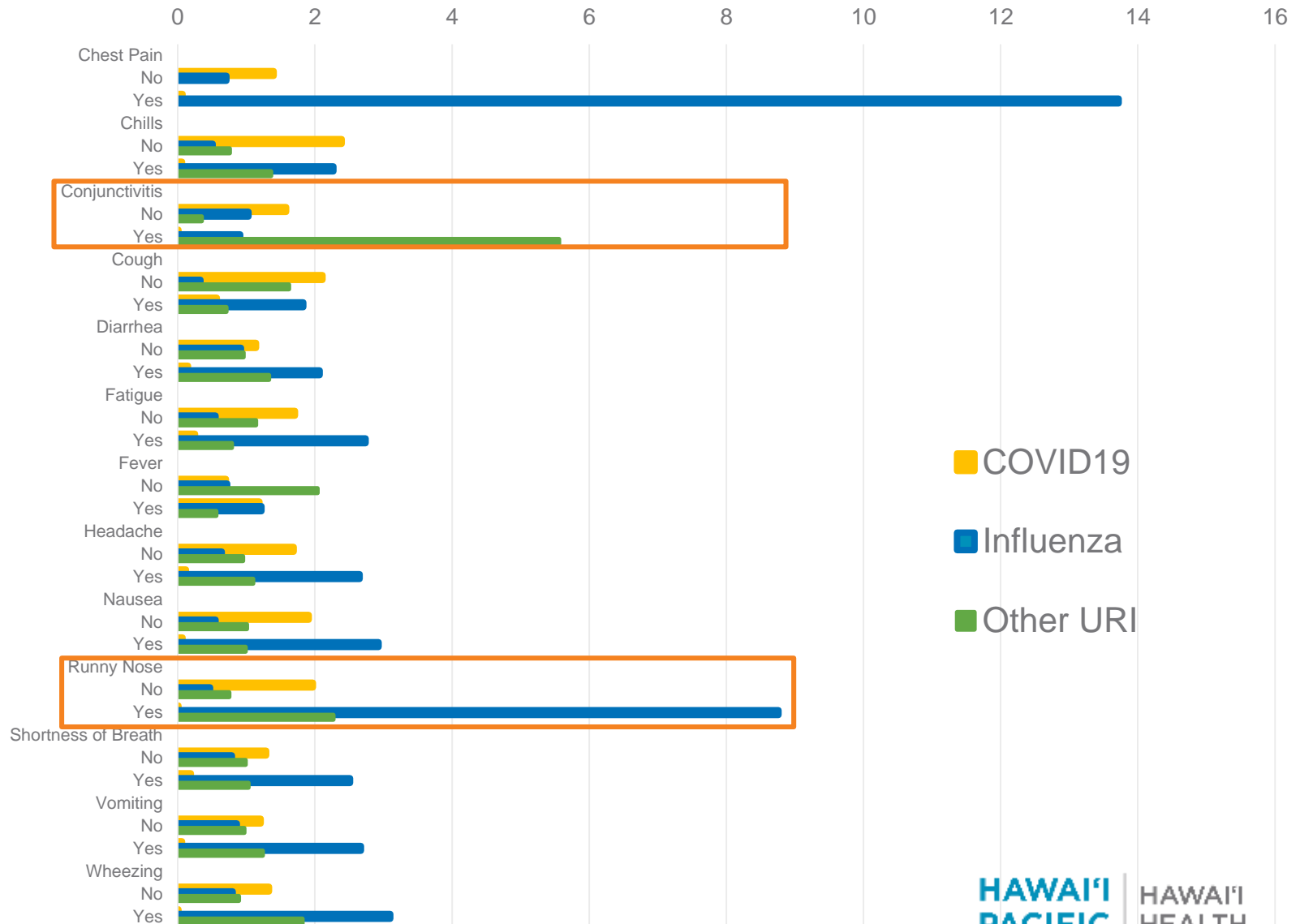


Symptom Prevalence between COVID-19, Influenza and Other URI (% of cases)



Alemi, Farrokh and Vang, Jee and Roess, Amira, Differential Diagnosis of COVID-19 and Influenza: Lessons Learned from COVID-19 Symptoms in China (4/1/2020). Available at SSRN: <https://ssrn.com/abstract=3569864>

Odds Ratios – Symptoms across COVID19, Influenza and Other URI



Community Diagnosis of COVID-19

This tool calculates the probability of COVID-19 diagnosis, based on your signs and symptoms. Share this information with your healthcare provider and together decide what is best for you.

Are we in flu season?

- ☒ Yes
☐ No

Is the patient symptomatic?


- ☒ Yes
☐ No

Submit

<https://hi.gmu.edu/c19/>

Flu Season Symptomatic 



Powered by AutoNetica™

Topic: Flu Season Symptomatic  Reload

Questions

Do you have chills?: ☐ No ☐ Yes ☐ (Skip)

Results

Diagnosis: COVID-19 = 50.0% 
Influenza or ILI = 50.0% 

Most Likely Order of Common Respiratory Disease Symptoms for COVID-19

Transition Probabilities		Transition Probabilities
	No Symptoms	
0.731	↓	0.035
	Fever	
0.783	↓	0.297
	Fever & Cough	
0.845	↓	>0.999
	Fever, Cough, Sore Throat, Headache & Myalgia,	
0.656	↓	0.502
	Fever, Cough, Sore Throat, Headache, Myalgia, & Nausea/Vomiting,	
1.000	↓	1.000
	Fever, Cough, Sore Throat, Headache, Myalgia, Nausea/Vomiting, & Diarrhea	

B Compared To Influenza

Most Likely Order of Symptoms in Influenza

Transition Probabilities In Influenza	Transition Probabilities In COVID-19
	No Symptoms
0.673	↓ 0.229
	Cough & Myalgia
0.578	↓ 0.020
	Cough, Myalgia, & Headache
0.710	↓ 0.022
	Cough, Myalgia, Headache, & Sore Throat
0.991	↓ 0.982
	Cough, Myalgia, Headache, Sore Throat, & Fever
1.000	↓ 1.000
	Cough, Myalgia, Headache, Sore Throat, Fever, Diarrhea, & Nausea/Vomiting

Symptom Comparison

Symptom	Allergies	Cold/URI	Influenza	COVID-19
Body Aches	Never	Often	Often	Sometimes
Cough	Sometimes	Often	Often	Often
Diarrhea/GI	Rare	Rare	Sometimes	Sometimes
Fatigue	Sometimes	Sometimes	Often	Often
Fever / Chills / Shaking	Never	Rare	Often	Often
Headache	Rare	Rare	Often	Sometimes
Loss of Taste or Smell	Never	Never	Never	Sometimes
Shortness of Breath or Difficulty Breathing	Rare	Rare	Rare	Often
Sneezing	Often	Often	Rare	Rare
Sore Throat	Rare	Often	Sometimes	Sometimes
Stuffy Nose	Often	Often	Sometimes	Rare

October 26, 2020

Rule Out COVID

Virtual COVID Clinic

462-5430 (option 4)
Open Monday-Sunday
8:00 am- 8:00 pm

PEDS: 763-2888 (hours below)

PCP Virtual Visit

Call provider during office hours

Possible Outcome from either of the two above:

1. COVID Testing at Collection Sites

Times vary, please refer to daily bulletin for updated hours of operation

Appointments are required and can be scheduled through the Clinical Labs of Hawai'i website at ClinicalLabs.com/COVID or by calling 679-4122.

2. Face to Face Visit at the REC for respiratory and symptom evaluation

We strongly encourage to call ahead to schedule a same day visit, however walk in's will be accepted

- Straub King Street REC: 808-462-5100
- Kaua'i Medical Clinic REC: 808-245-1504

Hours for the Adult Respiratory Evaluation Clinics vary, please refer to daily bulletin for updates.

PEDIATRIC AFTER HOURS CLINIC: 763-2888

Monday – Friday 5:00-8:00 pm and Saturday and Sunday Noon – 7:00 pm

Virtual/Walk in/no appointment

PCP needs face to face visit after virtual visit - send note to "p wc after hours walk in clinic pool (559999116)"

* Kapiolani Clinic also available for evaluation of sick child after 12:00 by referral only.

3. Emergency Department (depending on severity of symptoms/issues)

COVID Positive

Virtual Urgent Care

824-5237

Open Monday-Sunday

8:00 am- 8:00 pm

PEDS: 763-2888 (hours below)

PCP Virtual Visit

Call provider during office hours

1. Face to Face Visit at the King Street REC: 808-462-5100

We strongly encourage to call ahead to schedule a same day visit, however walk in will be accepted

- The REC will provide an in-person exam for urgent care concerns specifically for COVID positive patients.
- To refer a patient, please either call the clinic at 462-5100 or send an in basket message to the SCH RESPIRATORY CLINIC FRONT DESK pool via EPIC.
- Hours vary, please refer to daily bulletin.

PEDIATRIC AFTER HOURS CLINIC: 763-2888

Monday – Friday 5:00-8:00 pm and Saturday and Sunday Noon – 7:00 pm

Walk in/no appointment

Referral after PCP virtual visit, send note to “p wc after hours walk in clinic pool (559999116)”

2. Emergency Department (depending on severity of symptoms/issues)

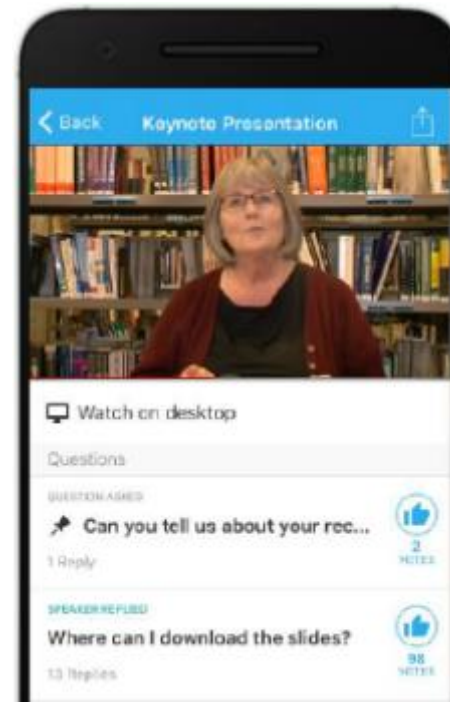
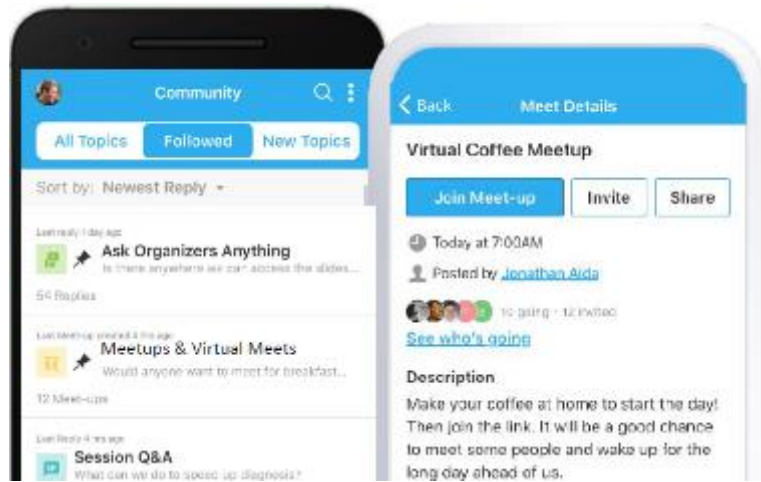
HHP 7th Annual Membership Meeting

- How to Attend: Email invitation or HHP website

- 1 Register
- 2 Download the Whova mobile app.
- 3 Create a Whova account

Start talking and engaging with your team members & colleagues!

- Now till Nov. 7th: Community Giveback Project
- Saturday, Nov. 7th: Virtual meeting
 - Whova
 - 8:00 a.m. to 12:30 p.m.



AT&T 2:01 PM 47%

V Home Switch Event

You are now viewing the app as an attendee
[Go back to admin view](#)

Exhibitor Hub



Collect Leads/Contacts



Additional Resources

Leaderboard

Photos

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Rankings

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Polls

Documents

Session Q&A

Speakers

Surveys

Twitter

WhovaGuide

Event Description

The Whova web application is not HIPAA

[Nonprofit Spotlight](#)



Blood Bank of Hawaii



Home



Agenda



Attendees



Community



Messages

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AT&T 2:02 PM 45%

V Home Switch Event

You are now viewing the app as an attendee
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CREATING A HEALTHIER HAWAI'I

Hawai'i Health Partners 7th Annual Membership Meeting

Virtual
Nov 7, 2020

Exhibitor Hub



Collect Leads/Contacts



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Session Q&A

Speakers

[Nonprofit Spotlight](#)



Home



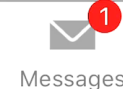
Agenda



Attendees



Community



Messages

**HAWAI'I
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HEALTH** | HAWAI'I
HEALTH
PARTNERS

Q&A

CREATING A HEALTHIER HAWAI'I

**HAWAI'I
PACIFIC
HEALTH**

HAWAI'I
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PARTNERS

Thank you!

- A recording of the meeting will be available afterwards.
- Unanswered question?
 - Contact us at Covid19Bulletin@hawaiipacifichealth.org