

# HHP/HPH COVID-19 Updates Webinar Series

Monday, April 20, 2020

5:00pm – 6:30pm

# Disclaimer:

- The following is intended as information resource only for HHP/HPH providers, clinicians, administrative and clinical leaders.
- 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.

# How to Claim CME Credit

## 1. Step 1: Confirm your attendance

- Email [Info@hawaiihealthpartners.org](mailto:Info@hawaiihealthpartners.org)
- Let us know you attended by Tuesday, April 21<sup>st</sup>

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

- Complete and submit evaluation survey

# CME Accreditation Statement

- In support of improving patient care, Hawai'i Pacific Health is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.
- Hawai'i Pacific Health designates this webinar activity for a maximum of 1.5 AMA PRA Category 1 Credit (s)™ for physicians. This activity is assigned 1.5 contact hour for attendance at the entire CE session.



JOINTLY ACCREDITED PROVIDER™  
INTERPROFESSIONAL CONTINUING EDUCATION



# COVID-19 & HPH Clinic Updates

Gerard Livaudais, MD, MPH, Executive Vice President, Population Health and Provider Networks

Leslie Chun, MD, Chief Executive Officer, Hawai'i Pacific Health Medical Group

Melinda Ashton, MD, Executive Vice President and Chief Quality Officer

Hawai'i Pacific Health

CREATING A HEALTHIER HAWAI'I

**HAWAI'I  
PACIFIC  
HEALTH**

HAWAI'I  
HEALTH  
PARTNERS

# Hawai'i Data Collaborative Data as of 04/20/20

## Hawaii COVID-19 Data: Current Situation

(Values in parentheses refer to change from previous day)

**State**  
**584**  
( $\Delta$  4)

● County Pending: 0

● HI residents diagnosed elsewhere: 6

Show  $\Delta$  as a:

Count

Hawaii

**64**

( $\Delta$  2)



Honolulu

**385**

( $\Delta$  0)



Kauai

**21**

( $\Delta$  0)



Maui

**108**

( $\Delta$  2)



 Last Updated: April 20 @ 12pm

<https://www.hawaiidata.org/covid19>

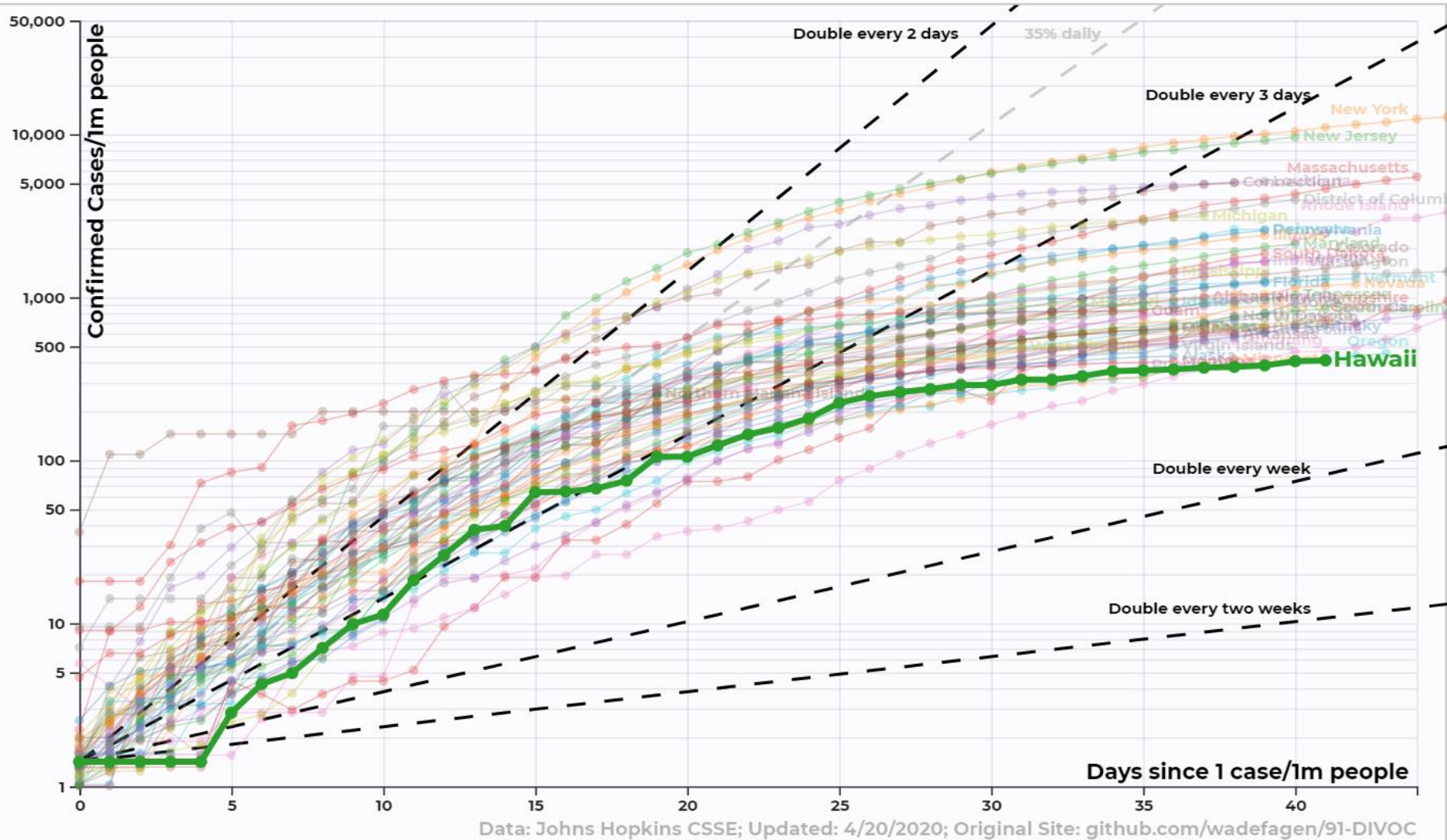
CREATING A HEALTHIER HAWAI'I

 HawaiiData  
COLLABORATIVE

**HAWAI'I  
PACIFIC  
HEALTH**

HAWAI'I  
HEALTH  
PARTNERS

# Confirmed Cases per One Million People – Hawai‘i



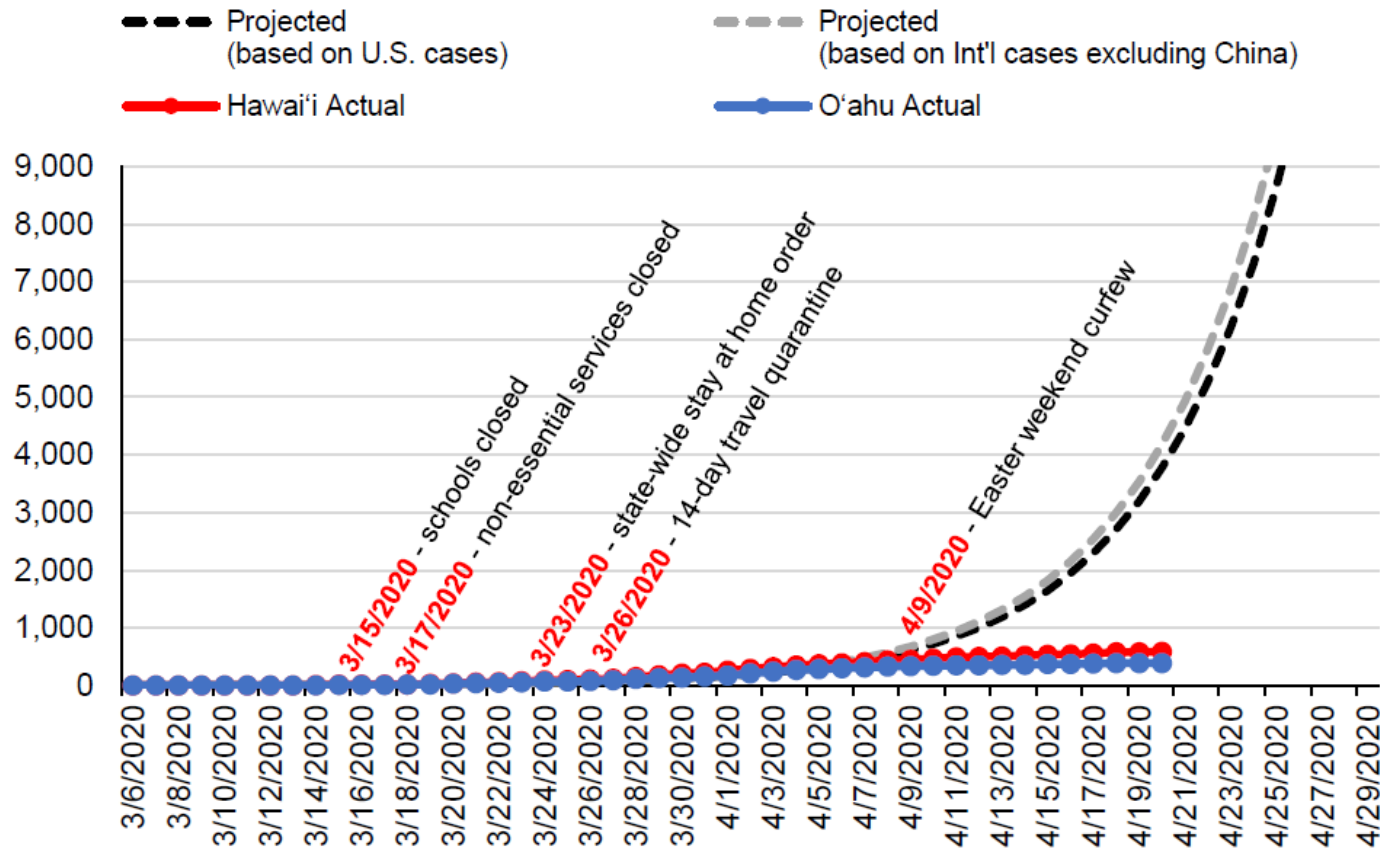
<https://www.hawaiidata.org/covid19>

## CREATING A HEALTHIER HAWAII

**HAWAII  
PACIFIC  
HEALTH** | **HAWAII  
HEALTH  
PARTNERS**

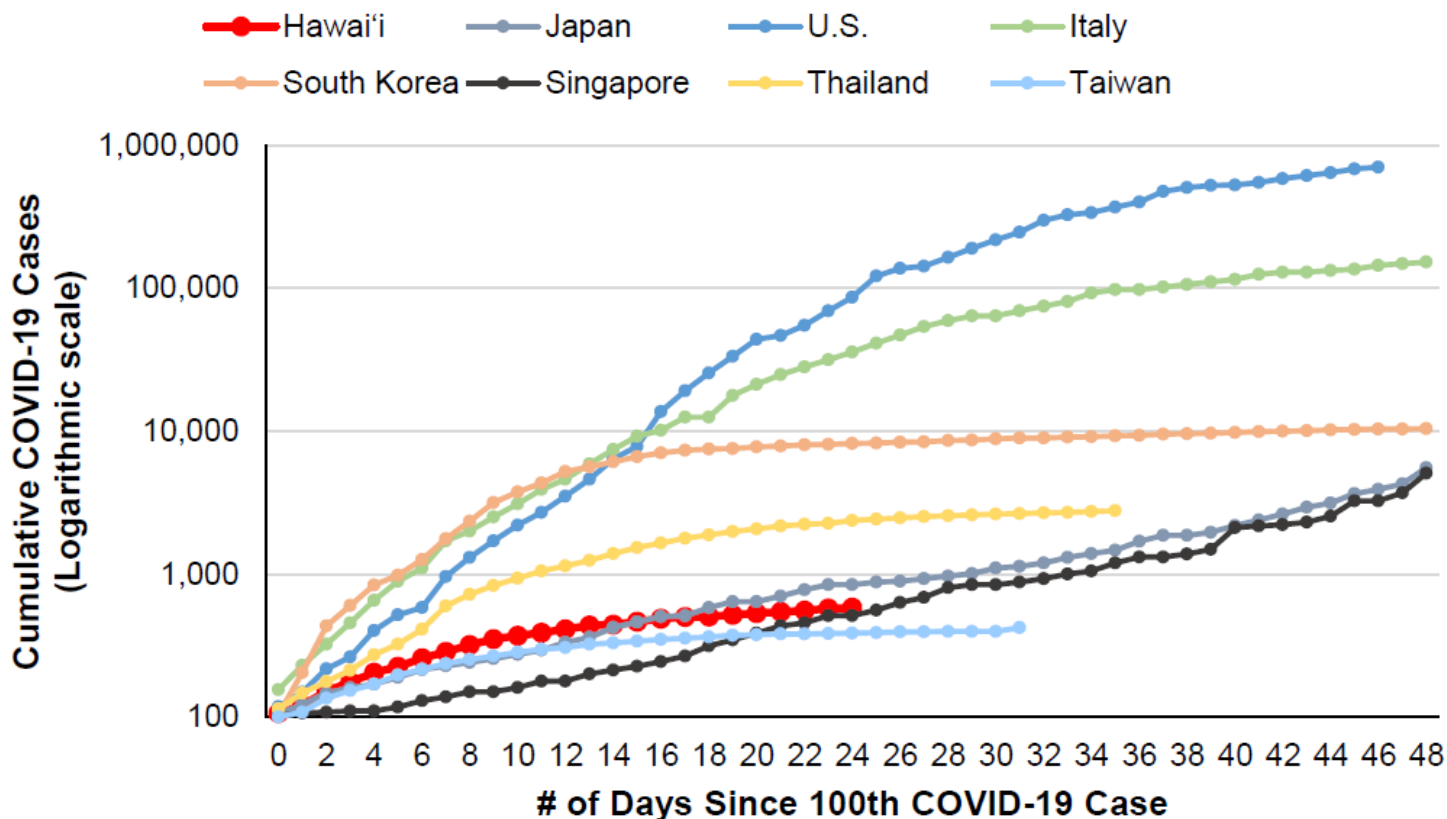
# Projected and Actual Hawai'i COVID-19 Cases

Projected and Actual COVID-19 Cases in Hawaii



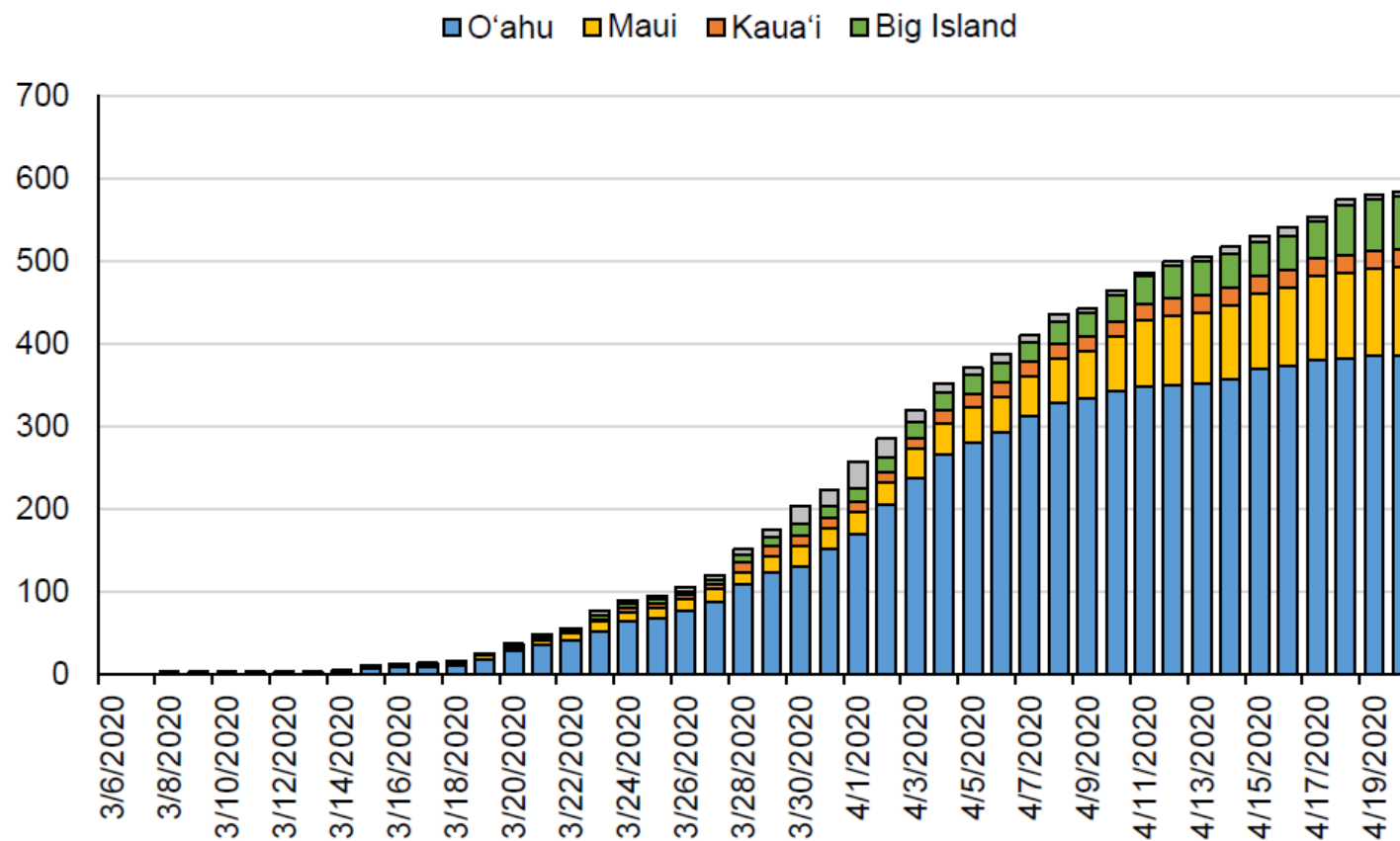
# COVID-19 Cases by Country

COVID-19 Cases by Number of Days Since 100th Case



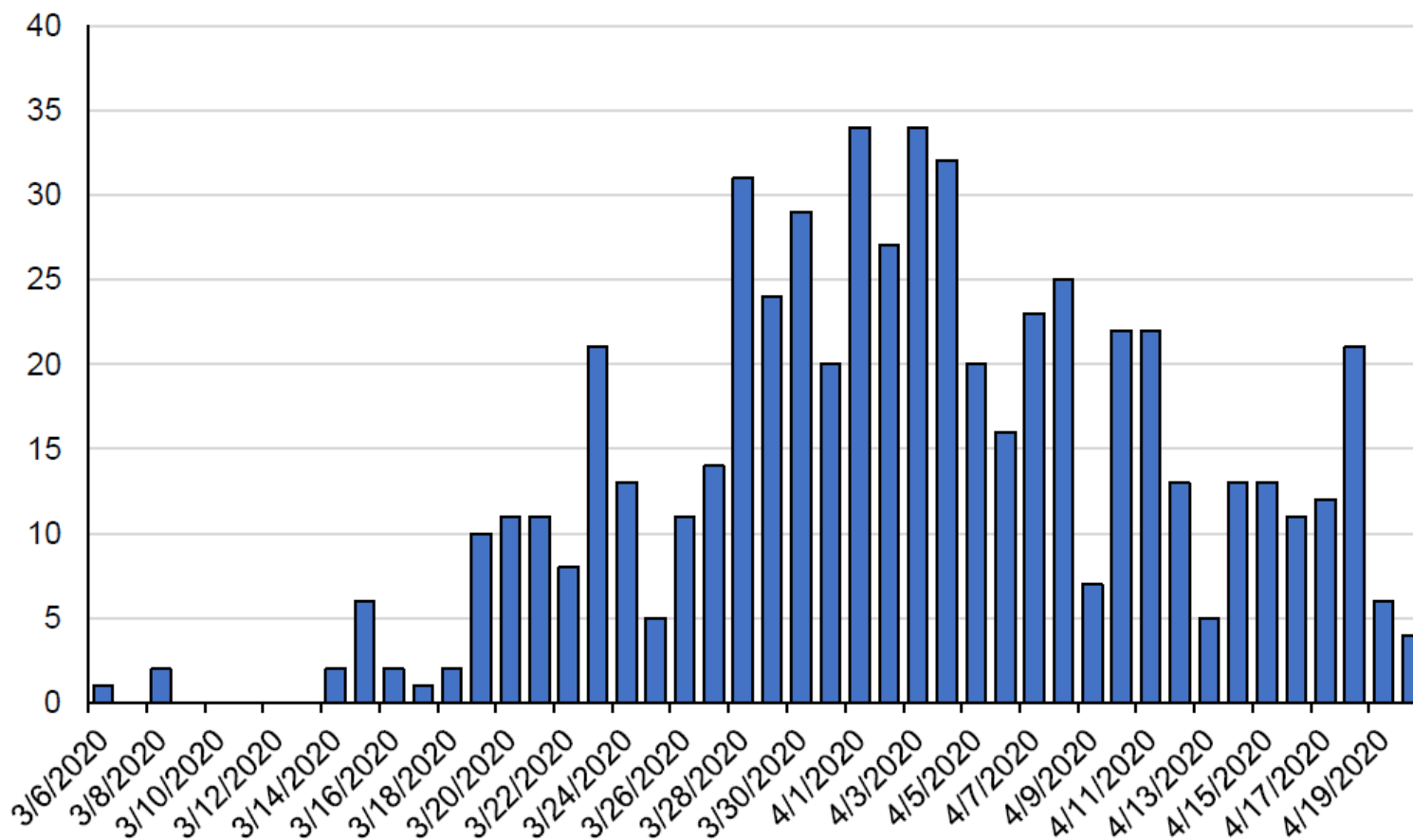
# COVID-19 Cases by Island

## Hawaii COVID-19 Cases by Island



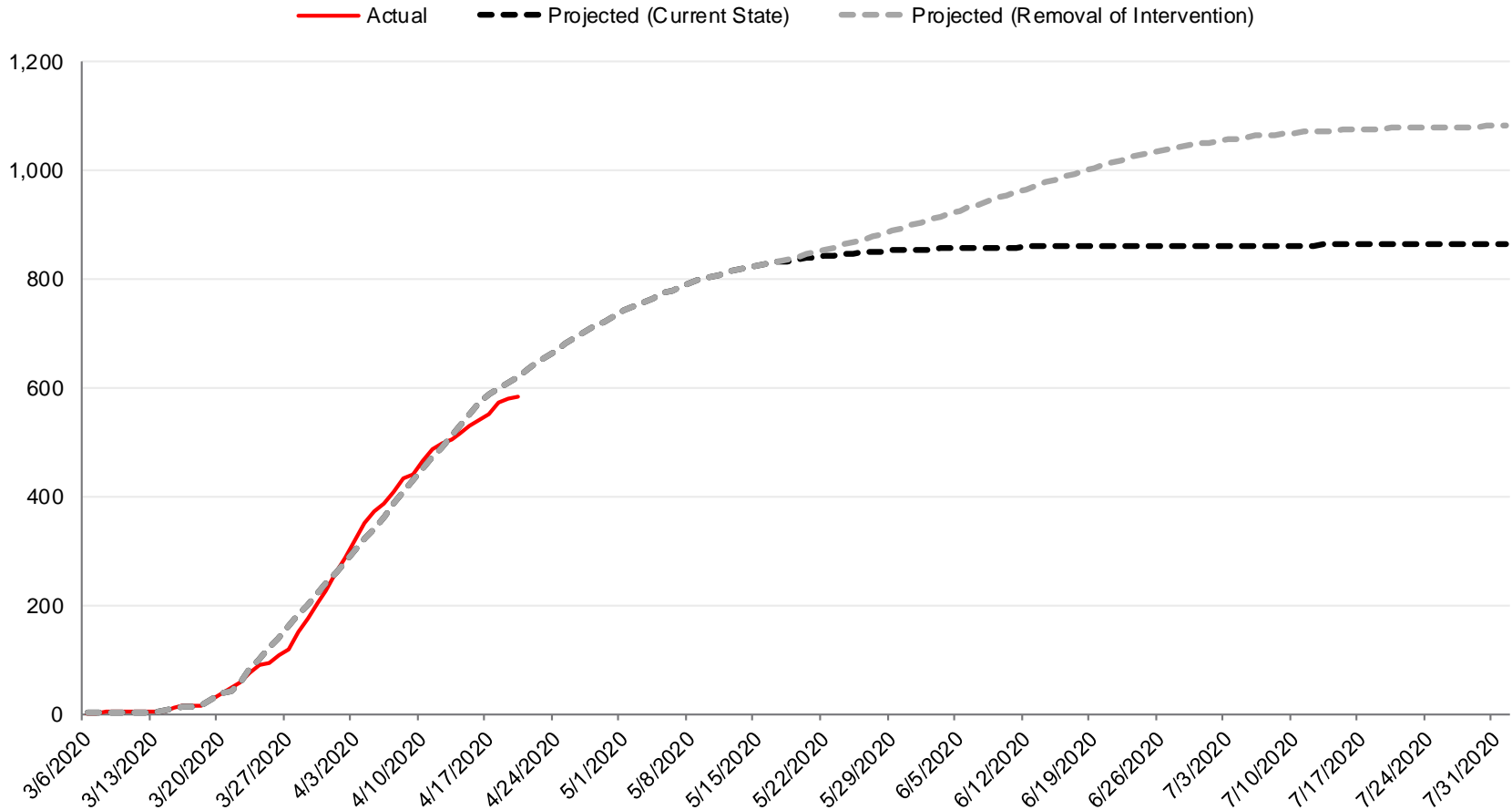
# New COVID-19 Cases by Day

Hawaii COVID-19 New Cases by Day



# Projected COVID-19 Cases in Hawaii

## Projected and Actual COVID-19 Cases in Hawaii



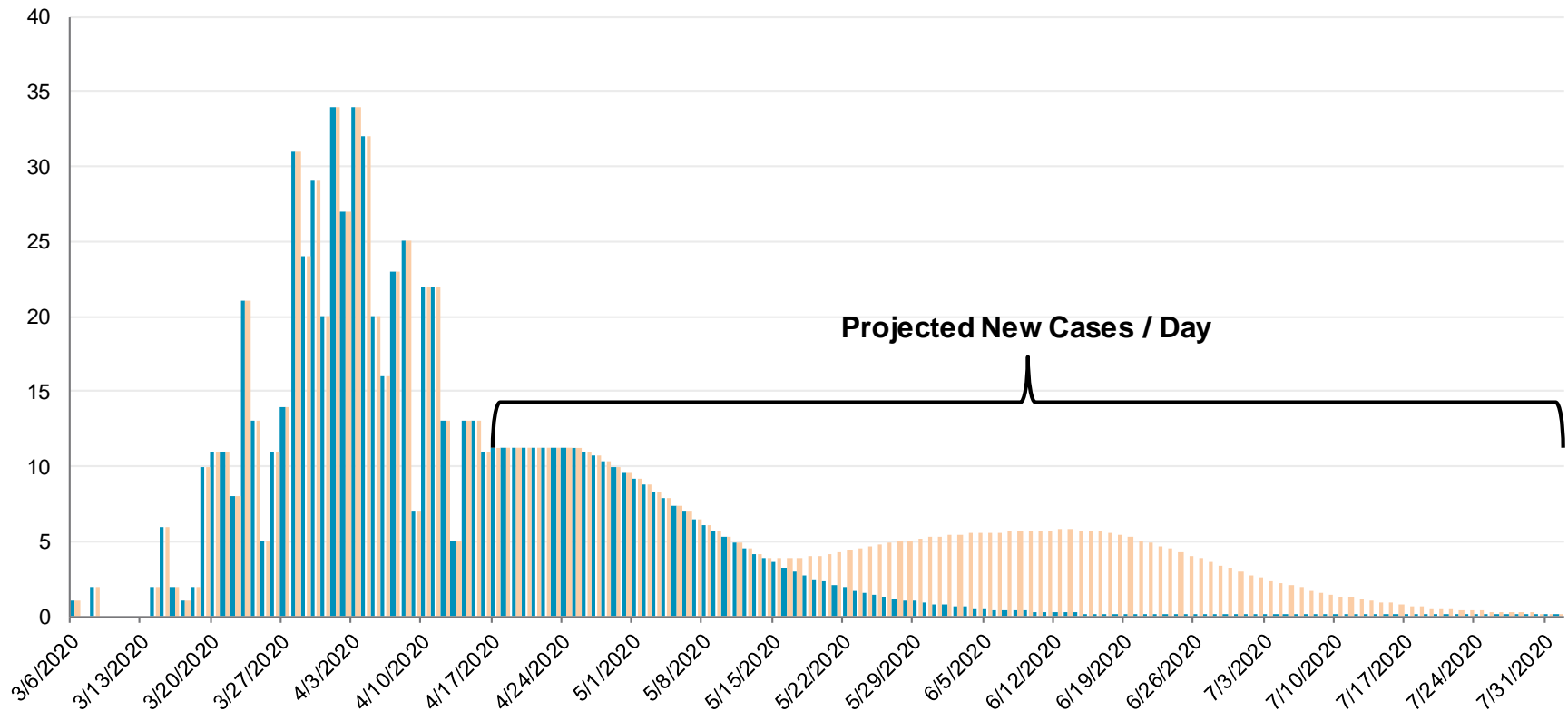
\*Projections considering the removal of interventions are based on a combination of predictive models developed by the University of Stanford and University of Basel (Switzerland)



# Projected COVID New Cases / Day

## Projected COVID New Cases/ Day

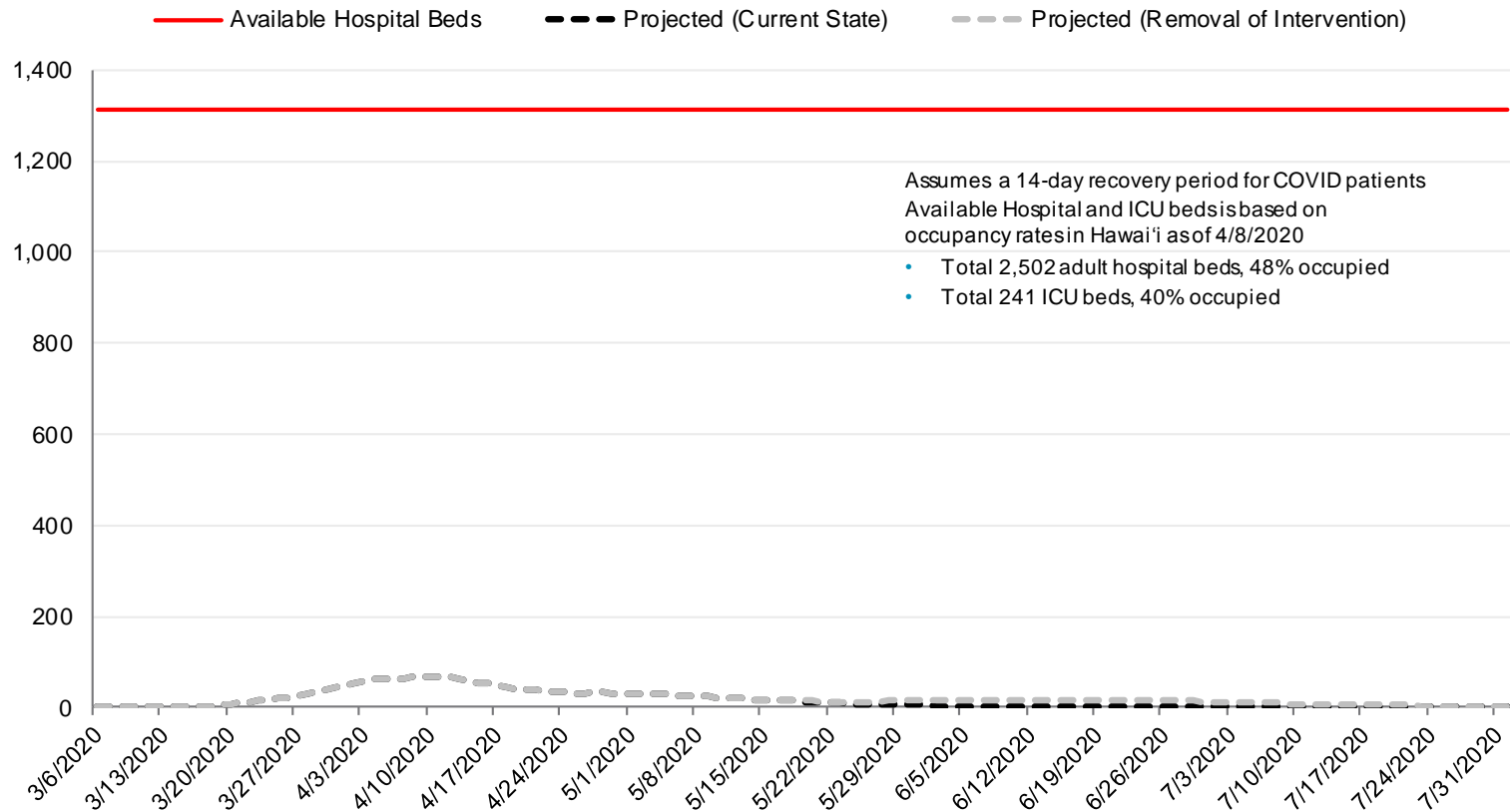
■ Projected (Current State)    ■ Projected (Removal of Intervention)



\*Projections considering the removal of interventions are based on a combination of predictive models developed by the University of Stanford and University of Basel (Switzerland)

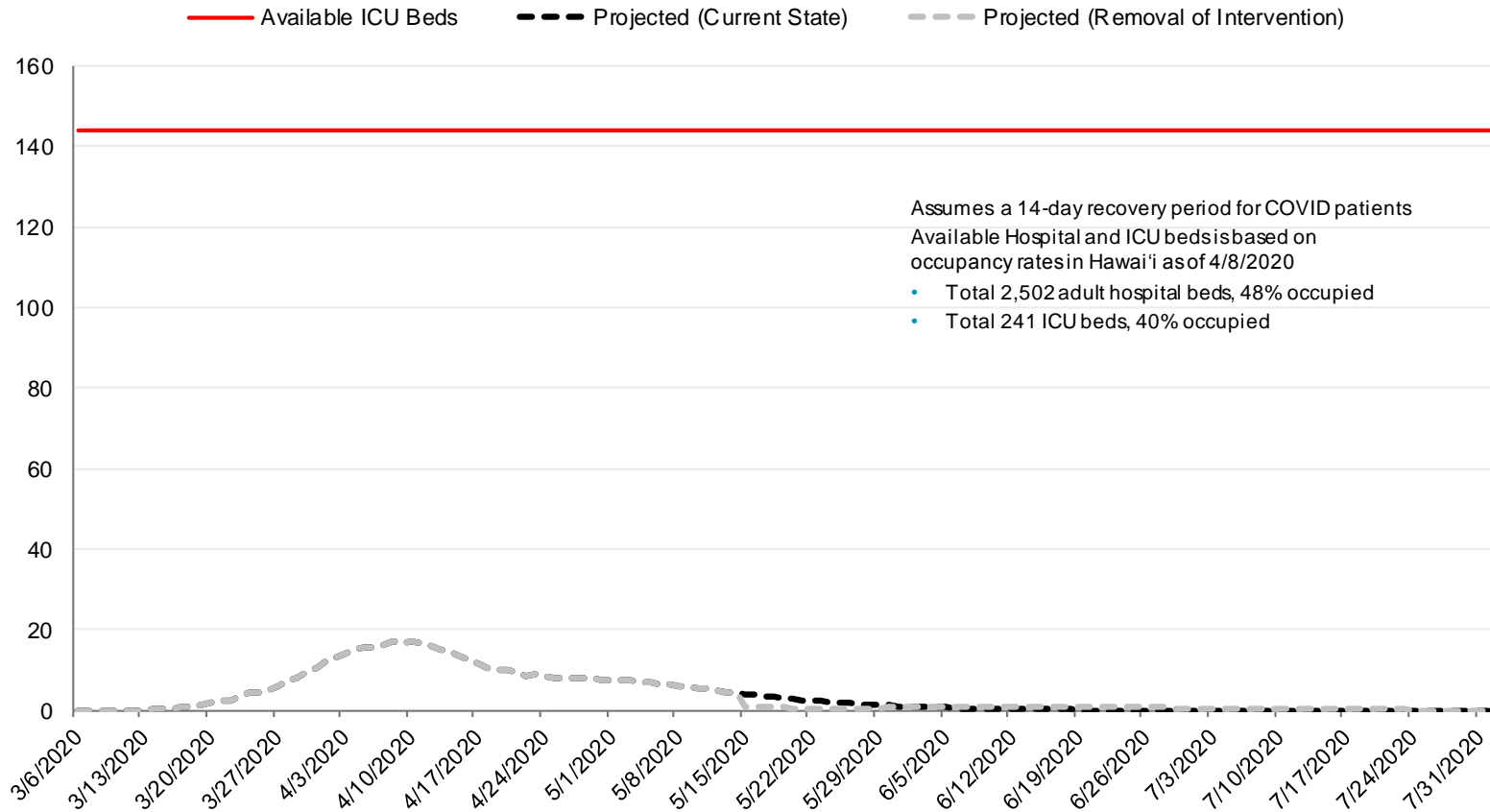
# Projected Hospitalizations

## Projected COVID-19 Hospitalizations in Hawaii

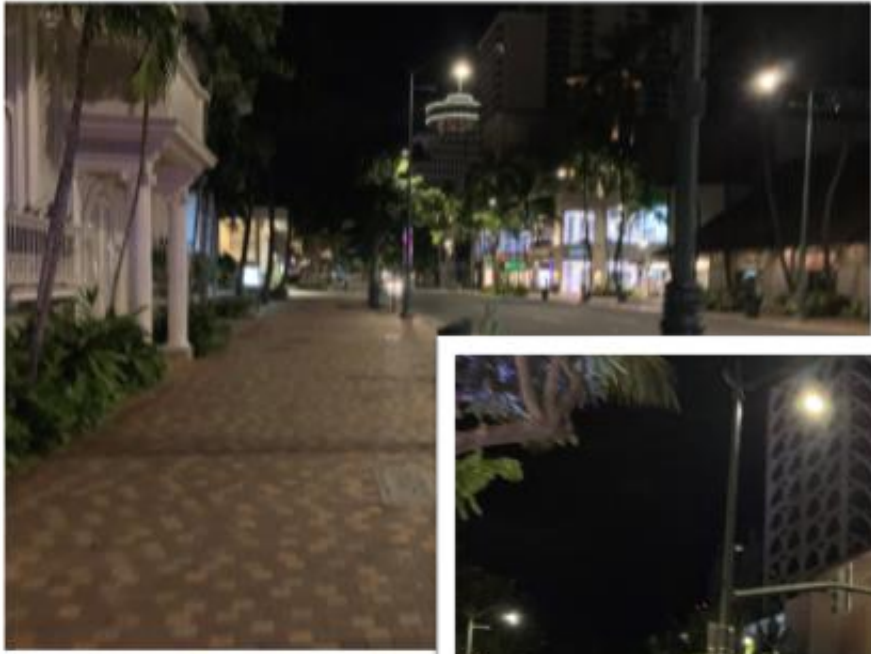


# Projected Hospitalizations

## Projected COVID-19 ICU Cases in Hawaii



As of 04/20/20	Total Census	ICU beds occupied	# Ventilators in use	# new admitted patients w/ COVID-19 screen	admitted patients who have tested positive for COVID-19	Patients currently hospitalized w/ suspected or confirmed COVID-19
KMCWC	132	AICU: 0 NICU: 66 PICU: 4	AICU: 0 NICU: 15 PICU: 3 Wilcox: 1	1	0	0
PMMC	74	7	6	2	0	1
SMC	82	10	7	1	0	1
WMC	36	4	0	1	0	0



Advertisement

## HAWAII NEWS

# Hawaii has the highest unemployment rate in the nation, USA Today reports

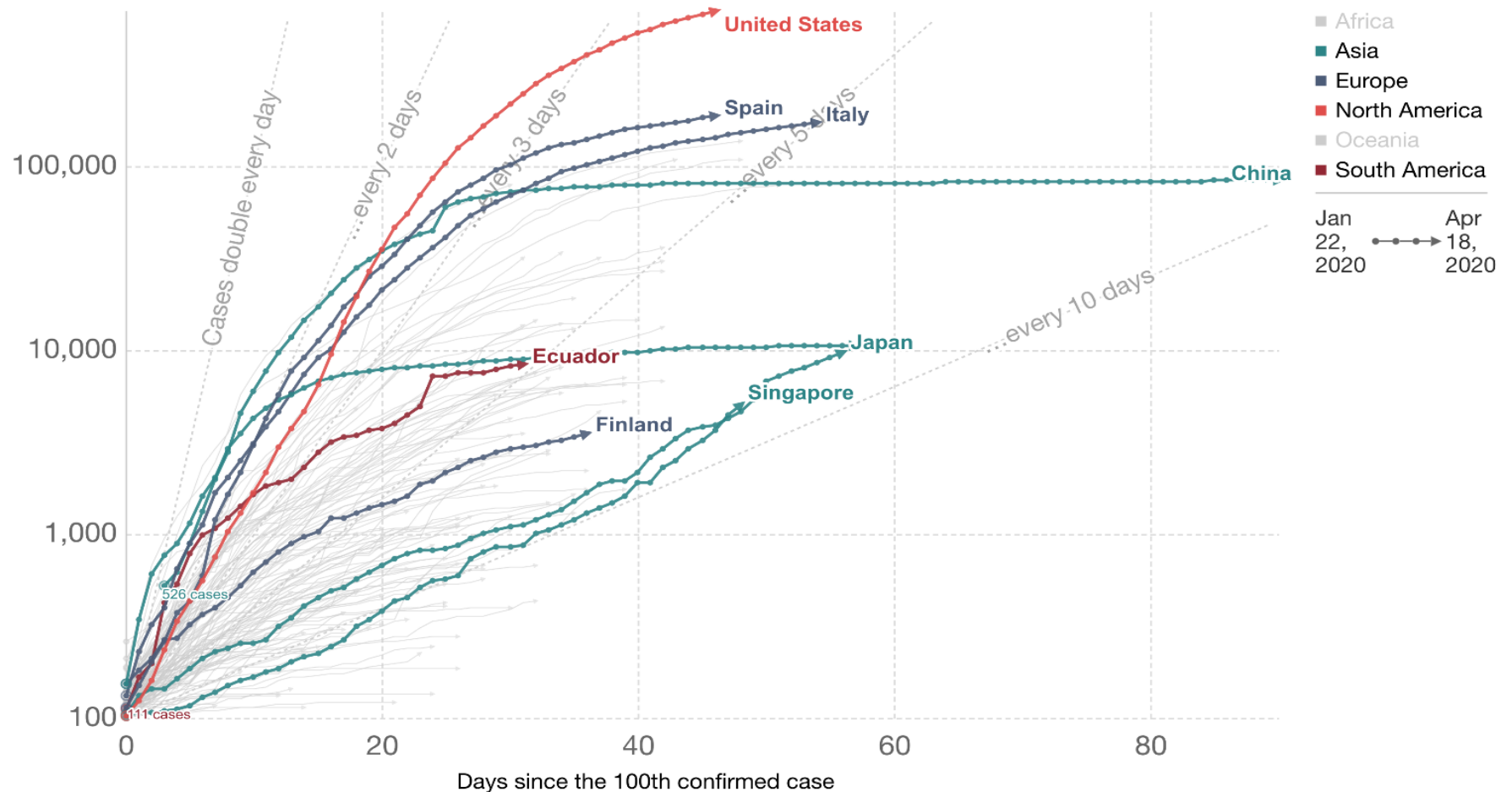
By [Andrew Gomes](#) - April 18, 2020

- *“From the beginning of March through Wednesday, DLIR reported receiving 244,330 initial unemployment claims. Based on a preliminary March estimate of 651,650 people in the state’s labor force, Hawaii’s unemployment rate would be 37% — or more than one out of every three people in the labor force.”*

# Total confirmed cases: how rapidly are they increasing?

The number of confirmed COVID-19 cases is lower than the number of total cases. The main reason for this is limited testing.

Our World  
in Data



Source: European CDC – Situation Update Worldwide – Last updated 18th April, 11:15 (London time)

OurWorldInData.org/coronavirus • CC BY



March 23, 2020

Dear AHD Family,

Ecuador is suffering. The Minister of Health just resigned, and as of today, no additional public funding has been budgeted for this epidemic. Frankly, I'm stunned at their complete lack of response regarding resources and funding given that we're on lockdown and our borders are closing. The number of cases doubles daily down here, and that's only what we know from limited testing capability. The public sector will soon be overwhelmed. Our medical staff is prepared, and we have protocols in place. We recognize there is suffering everywhere around the globe, but please keep Ecuador in your thoughts. We have started a COVID-19 emergency fund for these underserved people. Please consider donating.

Gratefully,

David





# Pandemic Phases

## Acceleration

- Social Distancing
- Testing
- Isolation and Contact Tracing

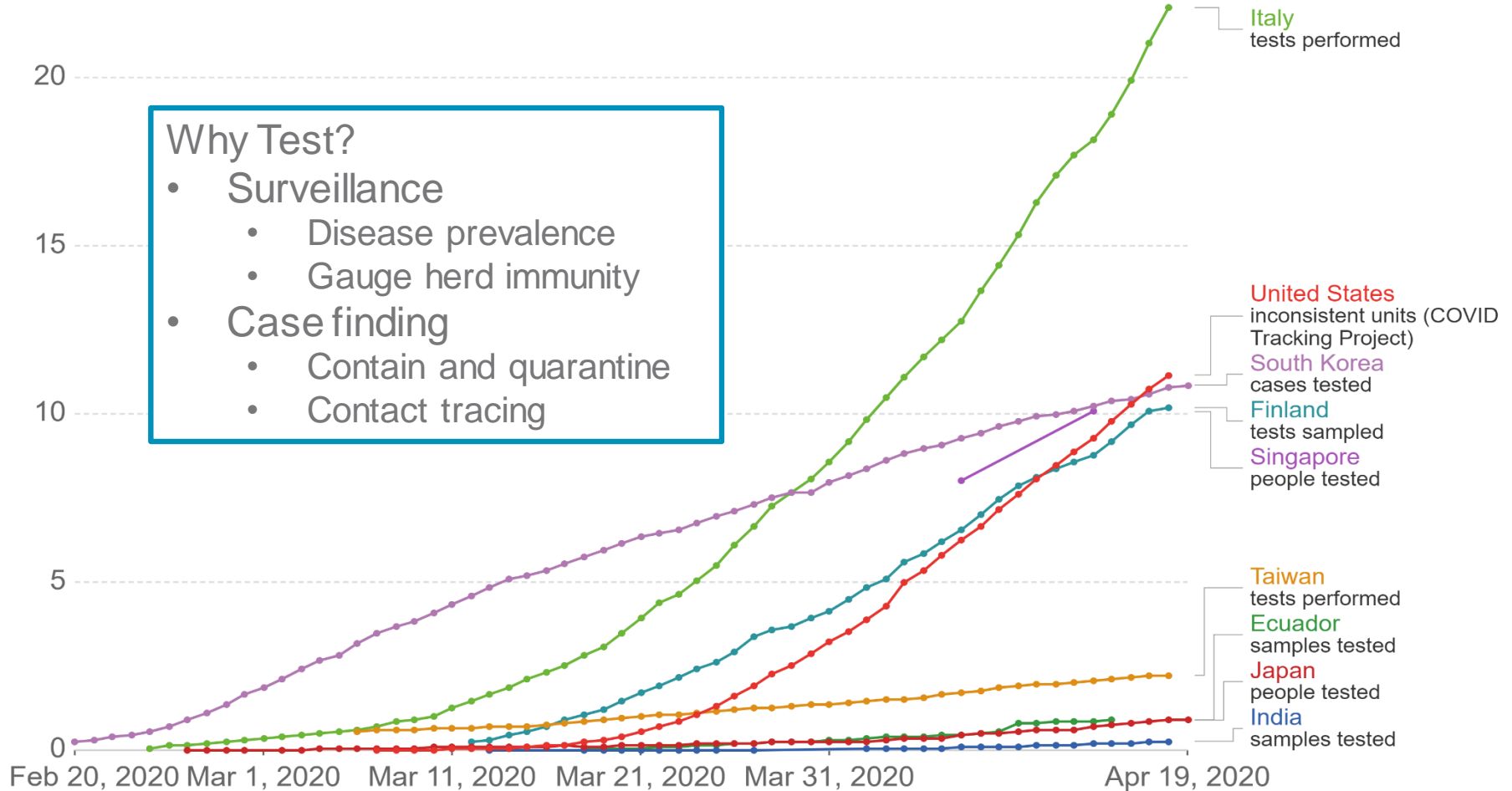
## Transition

- Vigilance for rebound
- Careful easing
- Immunity Testing

## Post Pandemic

- Immunizations
- More effective treatment

# Total tests for COVID-19 per 1,000 people



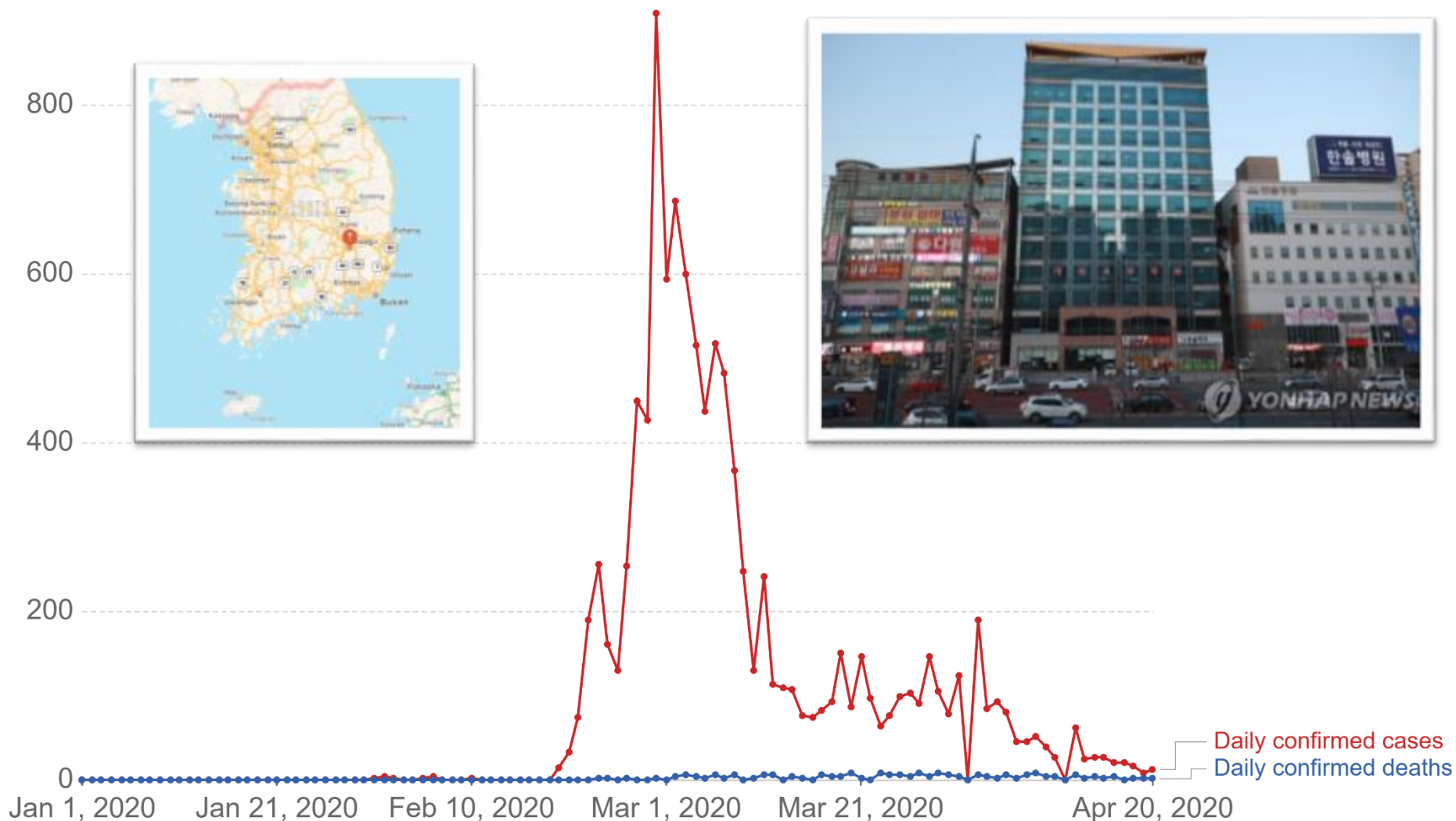
Source: Official sources collated by Our World in Data

OurWorldInData.org/coronavirus • CC BY

Note: There are substantial differences across countries in terms of the units, whether or not all labs are included, the extent to which negative and pending tests are included and other aspects. Details for each country can be found at [ourworldindata.org/covid-testing](https://ourworldindata.org/covid-testing).

# Daily new confirmed COVID-19 cases and deaths, South Korea

The confirmed counts shown here are lower than the total counts. The main reason for this is limited testing and challenges in the attribution of the cause of death.

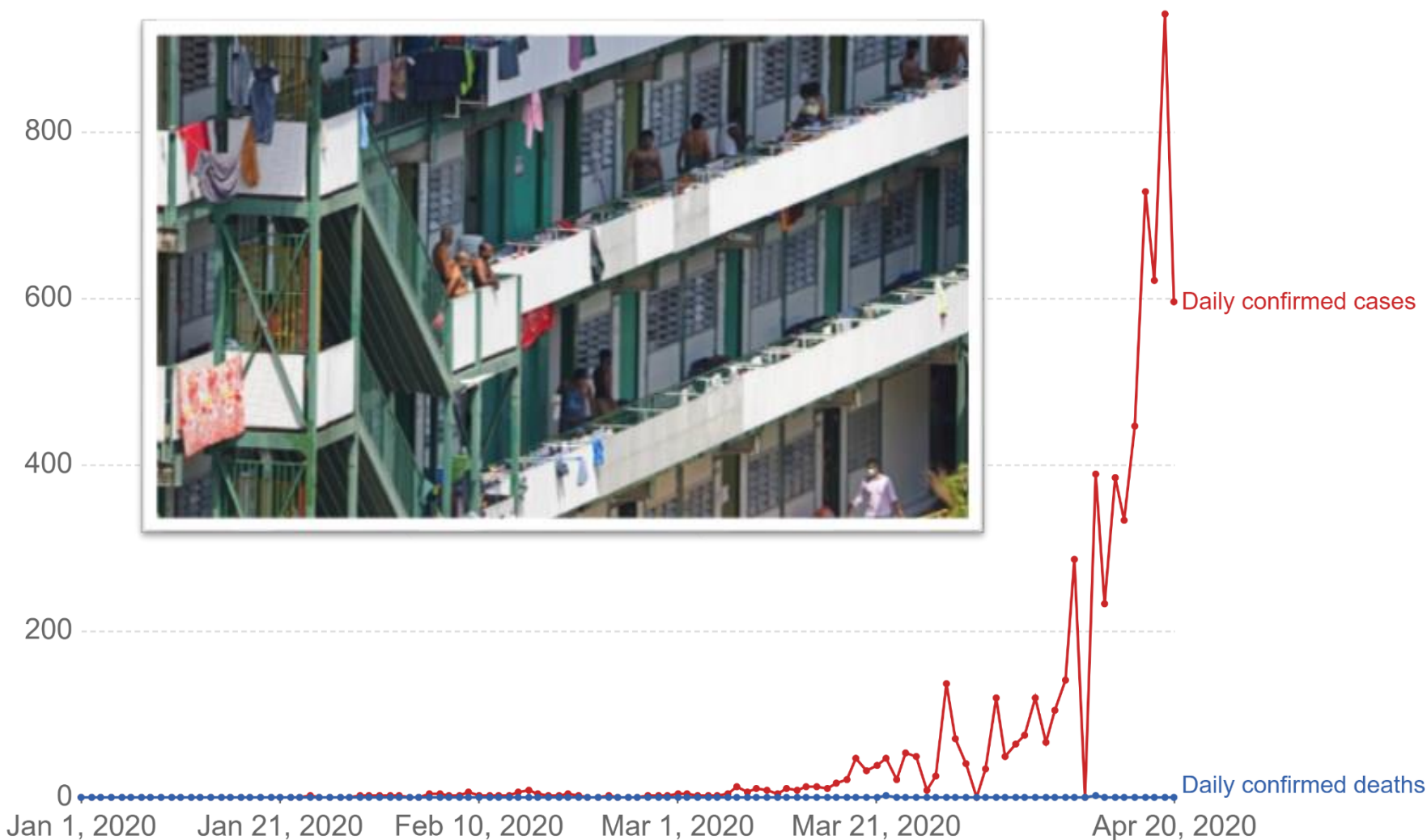


Source: European CDC – Situation Update Worldwide – Last updated 20th April, 11:30 (London time)

OurWorldInData.org/coronavirus • CC BY

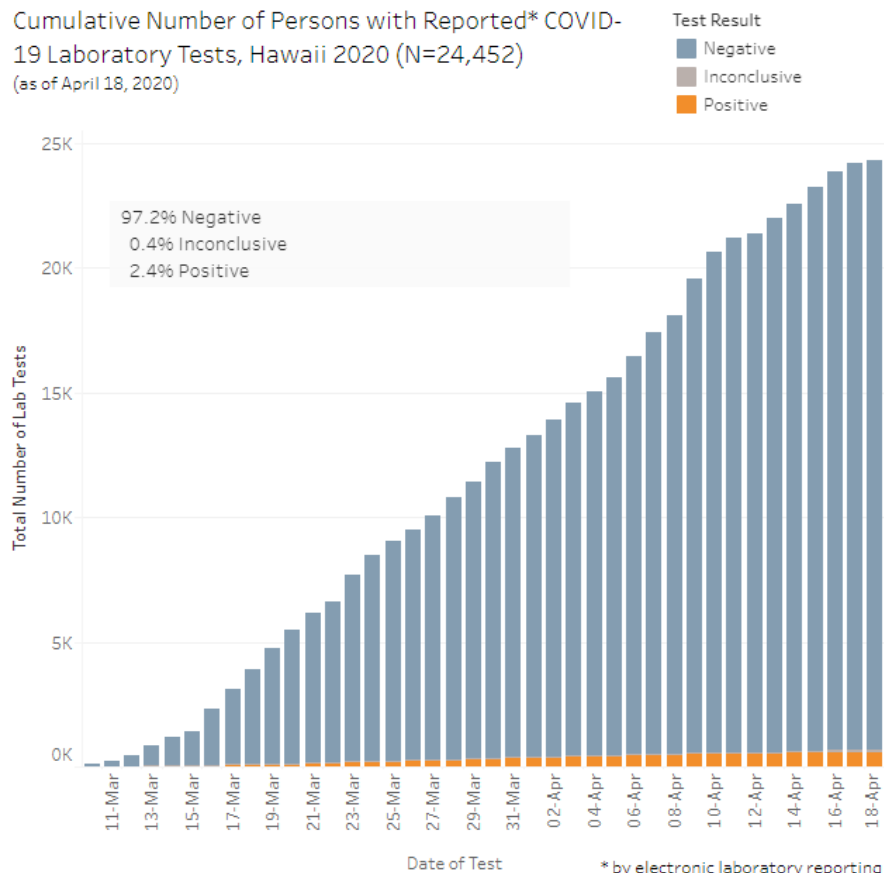
# Daily new confirmed COVID-19 cases and deaths, Singapore

The confirmed counts shown here are lower than the total counts. The main reason for this is limited testing and challenges in the attribution of the cause of death.

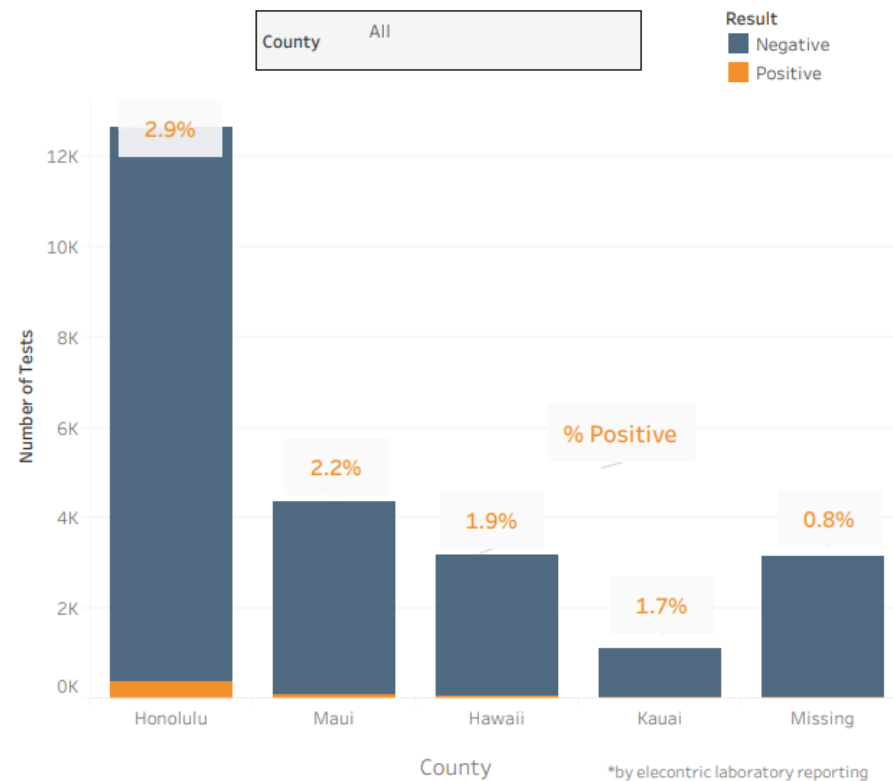


# Testing in Hawaii

Cumulative Number of Persons with Reported\* COVID-19 Laboratory Tests, Hawaii 2020 (N=24,452)  
(as of April 18, 2020)



Number of Reported\* COVID-19 Laboratory Tests by County, Hawaii 2020 (N=24,452)  
(as of April 18, 2020)



<https://health.hawaii.gov/coronavirusdisease2019/what-you-should-know/current-situation-in-hawaii/> Accessed 04.20.20

# Are we ready for transition?

4 R's to consider

## 1. Resurgence

- Clusters
- Travel
- 2<sup>nd</sup> wave (flu 1918)

## 2. Relapse

- Clearance
  - Shedding up to 3 weeks after
- Immunity
- Reactivation

## 3. Reinfection

- Mutations

## 4. Reservoirs

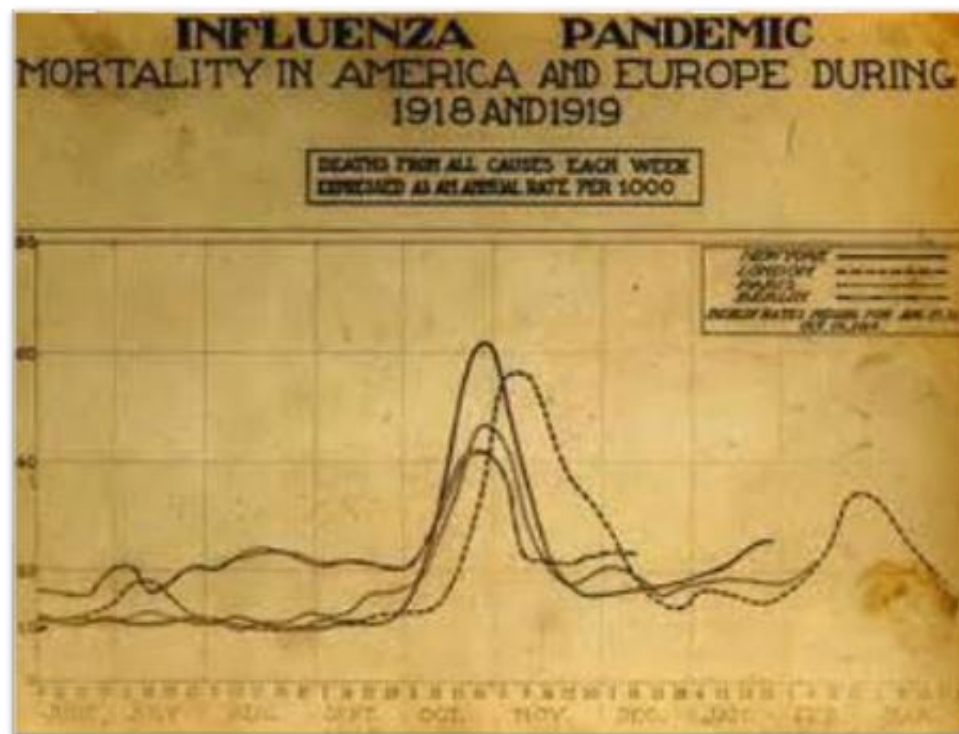
- Civets, bats & cats





# Compared to Influenza

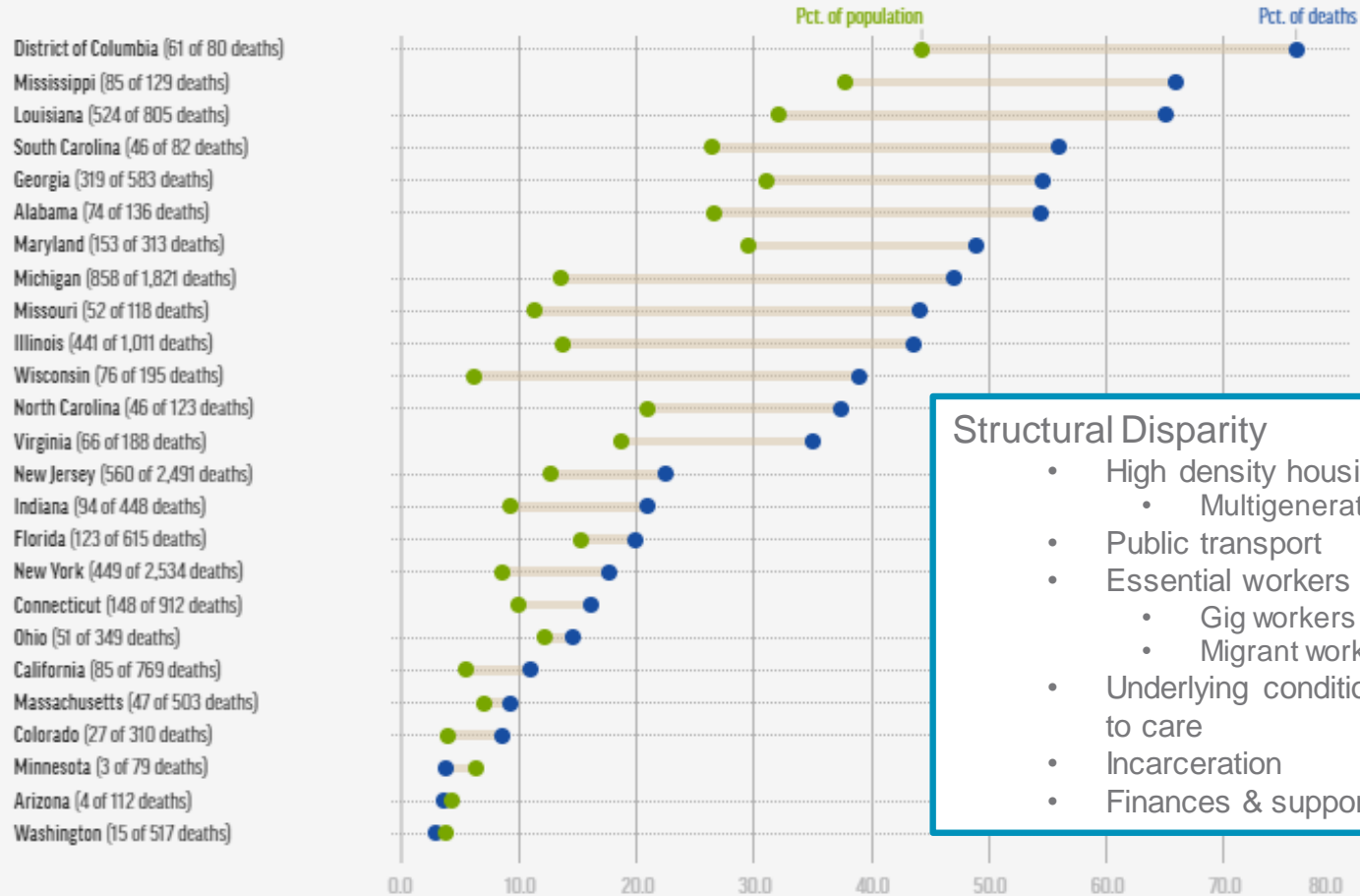
- Spanish flu came roaring back in the fall and again in the spring.
  - 3 waves taking 50 million lives
- COVID-19 has infected over 2.2M and taken 155K lives.
  - Hawai'i: 541 cases, 9 deaths; US: 710,272 cases and 37,175 deaths
- Influenza
  - Current Influenza's CFR is 0.1%; SARS was 9.6%, MERS was 34%
  - Influenza (ILI): Nationally 40-55M patients, 25-60K deaths (55K in 2017)



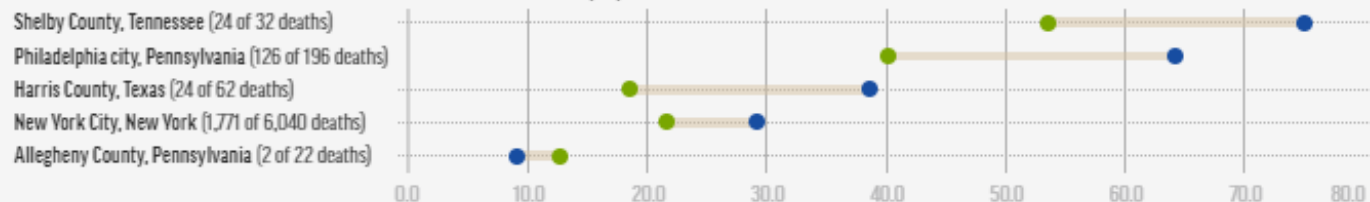
# COVID-19 has disproportionately affected black people

African Americans account for more than one-third of COVID-19 deaths in the U.S. where the race of victims has been made publicly known. Data from states, cities and counties show black people are regularly overrepresented compared to their share of the population:

When the race of COVID-19 fatalities were known in states, black people accounted for:



When the race of COVID-19 fatalities were known in cities and counties, black people accounted for:



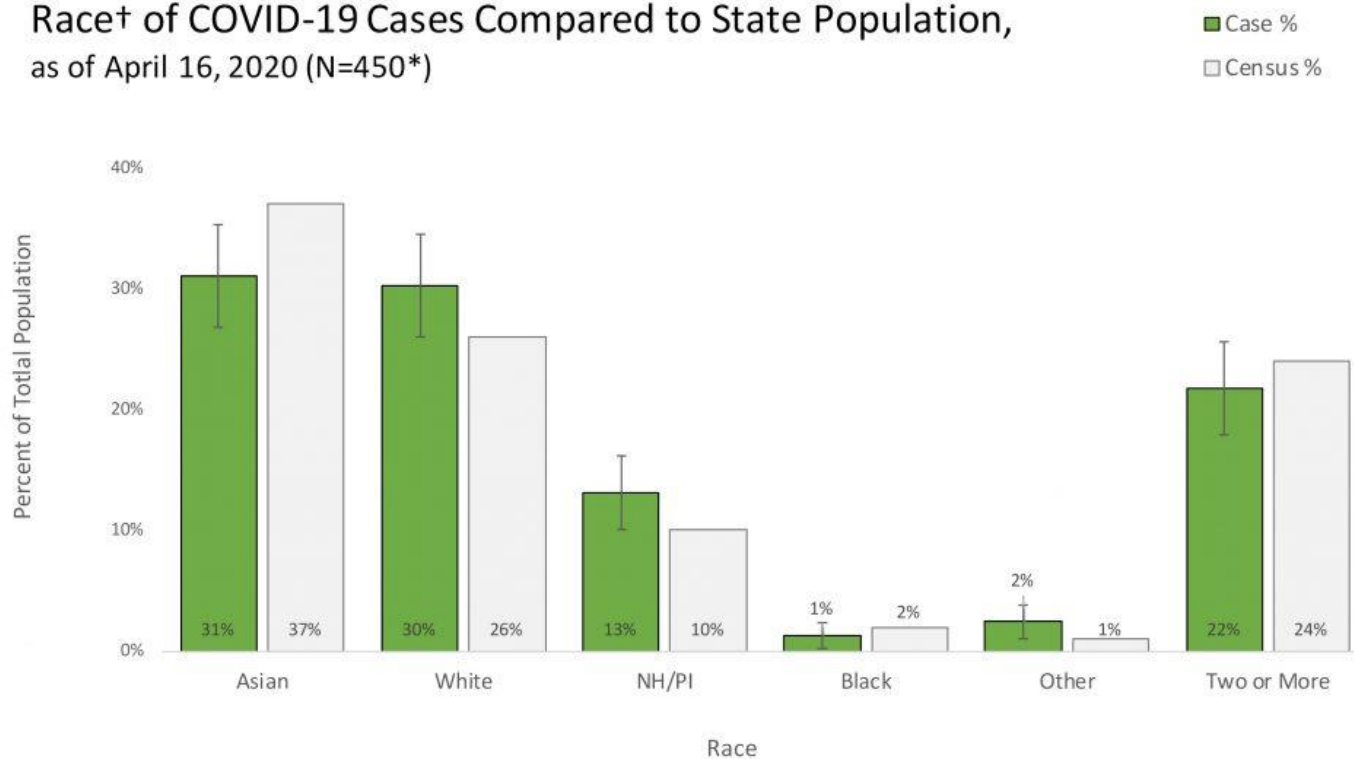
Data collected through April 16. Some cases of death existed where race wasn't known, those were left uncoupled.

Source: AP reporting; American Community Survey / Graphic: Meghan Hoyer & Phil Holm



# Hawai'i COVID-19 and Race

Race† of COVID-19 Cases Compared to State Population,  
as of April 16, 2020 (N=450\*)



†Race alone, persons reporting multiple races represented by "Two or More"

\*Race missing for n=103 (19%) of cases

Error bars indicate 95% confidence limits

# Are we ready for transition?

## Wet Market (Wuhan, China)



Vendor prepares a frog for sale in a Wuhan street market

Improvised table for cutting meat

Live frogs for sale

Fish and frog remains

Frog being slaughtered for client

Nylon industrial gloves

Unwashed buckets

Dirty scale

# Are we ready for transition?

## Tianhe International Airport (Wuhan, China)

Medical workers walk by a police robot at Wuhan Tianhe international airport

Photograph: Aly Song/Reuters





# Are we ready for transition?

## Street Demonstration (Chicago, Ill)



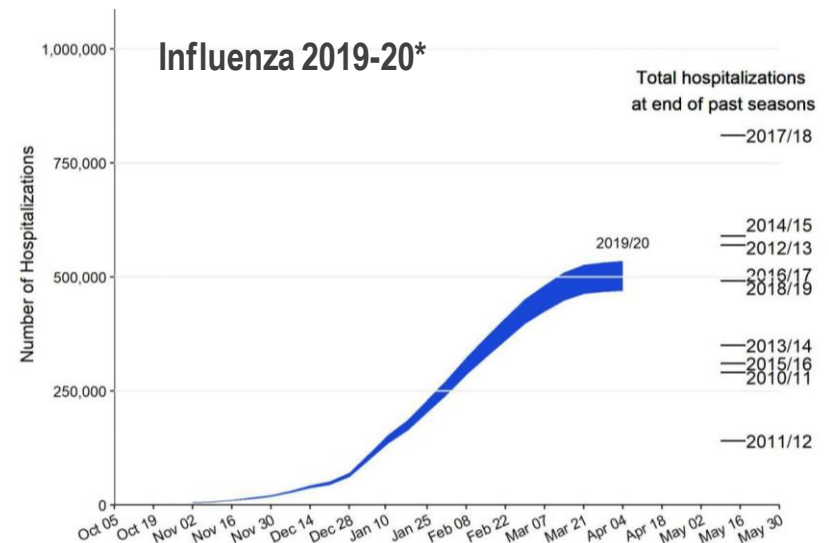
# Collateral damage/benefit costs of COVID

## Damage

- Delayed necessary care
- Decreased access to care
- Economic peril

## Benefit

- Traffic
- Environment
- Communicable Disease
  - Influenza?



\*<https://www.cdc.gov/flu/about/burden/preliminary-in-season-estimates.htm> accessed 04.20.20

Photo credit: <https://www.cnn.com/travel/article/lions-kruger-lockdown-scli-intl> accessed 04.20.20

# Evolution of Healthcare

- What will the “new normal” be for your specialty?
- What accommodations for an indefinite period of time with COVID-19?

# Elective Procedures

- Current Status
- Performing Urgent Procedures
  - Oversight committees
- Joint Statement Roadmap
  - American College of Surgeons, American Society of Anesthesiologists, AORN, AHA
  - Initiate restart when have at least 14 days of sustained reduction of new COVID-19 cases
  - Ensure adequate testing, PPE and medication supply
  - Criteria to decide which cases
  - Redesign of surgical process
  - Readiness to slow/stop if resurgence



# Why we do this...

## Thank you!

Veronica Moore RN (traveler)  
Jessica Bianchi RN (traveler)  
Glady Oliver RN  
Sarah Shin RN  
Kimberly Kikkawa RN  
Kaya Trino RN  
Karen Nervell RN  
Amanda LeClere RN  
Chris Plourde RN (traveler)  
Glenn Cadelina RN  
Bryanne Ramiscal RN  
Cynthia Hugentugler RN  
Siew Lan Tai RN  
Michelle Casteel RN  
Rachel Stucke RN  
Ashley Domanay RN  
Abcde Furuta-Harada CA  
Taylor Hiraki CA  
Andrew Piliere CA  
Sherra Tiongson CA  
Monique Castro CA  
Evan Rabanal CA  
Stana Au CA  
Christina Sweetman RN  
Evina Sana CA  
Vanessa Leung CA  
Vangie Ratcliffe, RN  
Sunday Castillo, RN

Dr. Melanie Kim  
Dr. Ashley Ono  
Dr. Trang Le

Dr. Emilio Ganitano  
Dr. Timothy Vossler  
Dr. Brian Pien

Dr. Marc Kruger  
Dr. Cecilia Wang  
Dr. Karthik Kode



Tiffany Padilla, RN  
Rose Nazareno, RN  
Tanya Davis, RN  
Shannel Esmeralda, RN  
Marie Castillo, RN  
Teresa Chi, RN  
Michael Tan, RN  
Lysandra Padeken RN  
Andrea Hishinuma, RN  
Lynn Fernandez, RN  
Erica Ramirez, RN  
Kellen Sumida, RN  
Sherilyn Fernandez, RN  
Karen Gabbuat, RN  
Kalei Aurio- Char, RN  
Brendan Nakatani, RN  
Jonathan Nipales, CA  
Luna Somera, CA  
Leslie Verona, CA  
Alden Lanuevo, CA  
Jeff Batorne, CA  
Aitulagi Ala, CA  
Julius Bumanglag, CA  
Rona Delos Santos, CA  
Fatima Gabrillo, CA  
Katrina Kalawaia, CA  
Hazel Edrada, CA  
Melfred Pascua, CA  
Gabby Woolery, CA  
Mel Acio, CA



# COVID-19 Treatment Updates

Douglas Kwock, MD

Chief Medical Officer – Pali Momi Medical Center

Hawai'i Pacific Health

**HAWAI'I  
PACIFIC  
HEALTH**

HAWAI'I  
HEALTH  
PARTNERS

# HPH Site Specimen Collection Thru 04/20/20

		Totals (New from last week - 04/13/20)		
Location		Ordered	Pending	Positive
Kapiolani Medical Center	Inpatient	156 (15)	1	1 (0)
Kapiolani Medical Center PSC	Outpatient	708 (81)	9	14 (0)
Pali Momi Medical Center	Inpatient	325 (36)	1	6 (1)
Pali Momi PSCs	Outpatient	1416 (228)	32	45 (9)
Straub Clinic and Hospital	Inpatient	252 (49)	1	2 (0)
Straub Clinics	Outpatient	1085 (121)	18	26 (0)
Wilcox Memorial Hospital	Inpatient	138 (20)	2	3 (0)
Wilcox Clinics	Outpatient	873 (89)	26	13 (0)
HPH Total		4,953 (639)	90	110 (10)

Inpatient = ED and hospitalized (currently all “inpatient” positives are from ED, none are hospitalized)

Outpatient = clinics and specimen collection sites

# Treatment Updates

- **Study considerations**
  - In vitro vs in vivo
  - Randomized?
  - Blinded?
  - Conclusions: “May provide benefit...”, “Further studies are needed...”
- **Medications**
  - Hydroxychloroquine
  - Remdesivir
  - Convalescent plasma
- **Therapy**
  - Outpatient: Supportive care
  - Inpatient: Supportive care. Consider HCQ with close cardiac monitoring.

# COVID-19 Treatment Update

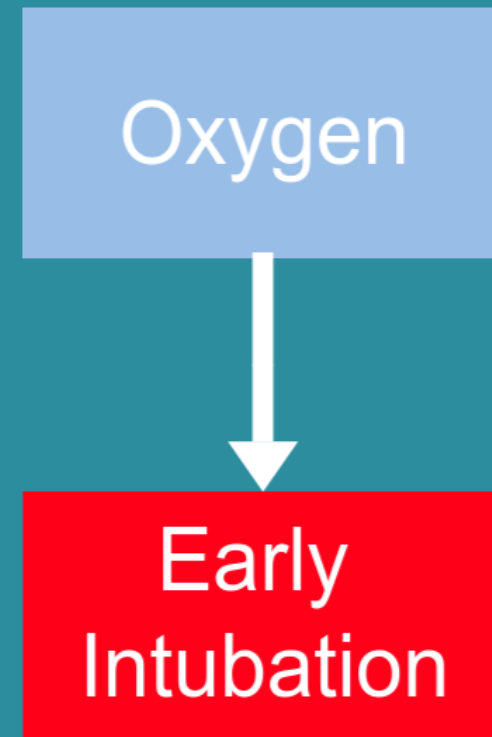
## Acute Respiratory Failure

Emilio Ganitano MD, FACP

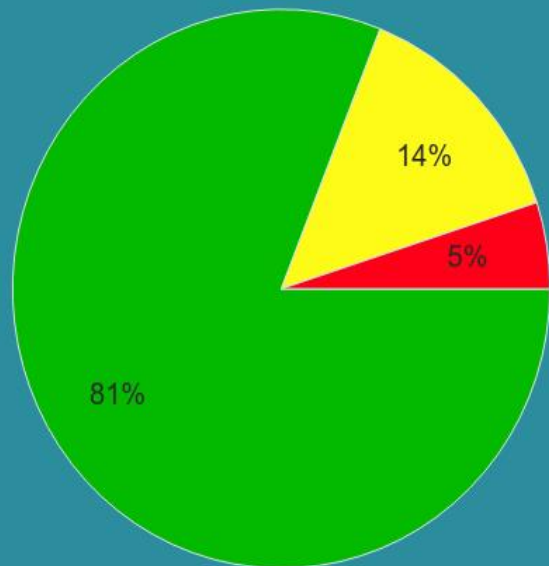
Medical Director Pali Momi ICU

HPH ICU Disaster Response Administrative Workgroup COVID

- 80 year old male patient.
- URI symptoms and productive cough x 2 weeks.
- Shortness of breath x 1 week.
- Recent travel to Europe and California.
- CXR shows scattered bilateral infiltrates.
- CBC showed normal WBC but Lymphopenia.
- Admitted to General Floor.
- Oxygen 5L NC x 2 days.
- SARS Cov 2 - **Positive**
- Physician called for patient suddenly desaturating SpO2 85% on Venti Mask 60%



## COVID 19 Severity



■ Mild 81 ■ Severe 14 ■ Critical 5

Wu et al. JAMA 2020 323(13) 1239

## ARDS



Develop ARDS within 72 hours of ICU admission.



Developed ARDS after intubation

# Early Intubation in COVID 19 Pro / Con



- ✓ Rapid progression of Acute Respiratory Failure.
- ✓ HFNC and NIPPV did not prevent Intubation.
- ✓ Rapid Sequence Intubation Protects Staff from Aerosolizing Procedures



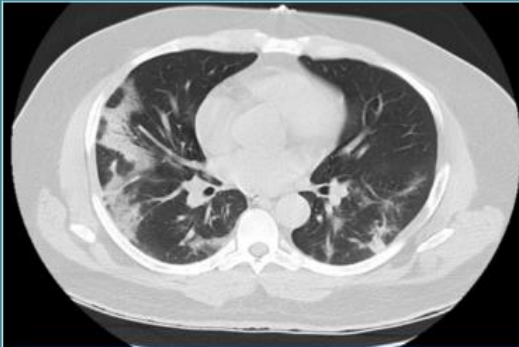
- COVID R/O and PUI : > 90% negative for COVID 19.
- Most have other conditions not requiring early intubation.
- **Alternative theory** on nature of COVID 19 Respiratory failure.



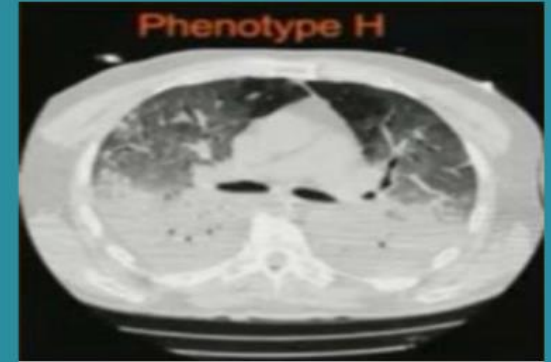
# Acute Respiratory Distress Syndrome

- Well studied condition in adult Critical Care.
- Strong Evidenced Based Practice Guidelines - ARDSnet
- Low Tidal Volume Ventilation (6-8 ml/kg)
- Positive End Expiratory Pressure (PEEP)
- Keep patients intravascularly "DRY"
- Prone Position Ventilation

# ARDS Phenotype



Gattioni et al. Intensive Care Medicine 2020



## **"L" Phenotype**

*L - Low Elastance (NOT STIFF) - Good Compliance*

Small Scattered Infiltrates

Low Recruitability

Loss of Hypoxemia Vasoconstriction?

### **Treatment:**

Low PEEP

Avoid Intubation Mechanical Ventilation

Attempt HFNC

## **"H" Phenotype - "Standard ARDS"**

*H - High Elastance (Stiff) - Poor Compliance*

Dense Infiltrates

High Recruitability

High Shunt

### **Treatment:**

High PEEP / Early Proning

Intubate and Mechanical Ventilation



## Early Intubation

- Standard Indications for intubation regardless of COVID +, PUI Status.
- Acute Respiratory Failure NOT due to quickly reversible process.
- Rapid deterioration in patient with high clinical suspicion for COVID 19 Pneumonia.





### **High Flow Nasal Cannula(HFNC):**

Incomplete response to NC, Venturi Mask or NRB

P/F Ratio: 200 -300

Frequent Re-Evaluation for Intubation

Limit Flow to 30 LPM

PPE for aerosolizing procedures.

### **Non Invasive Positive Pressure Ventilation (NIPPV):**

"Quickly Reversible" Causes of Respiratory Failure  
(i.e. Acute Pulmonary Edema, COPD Exacerbation)

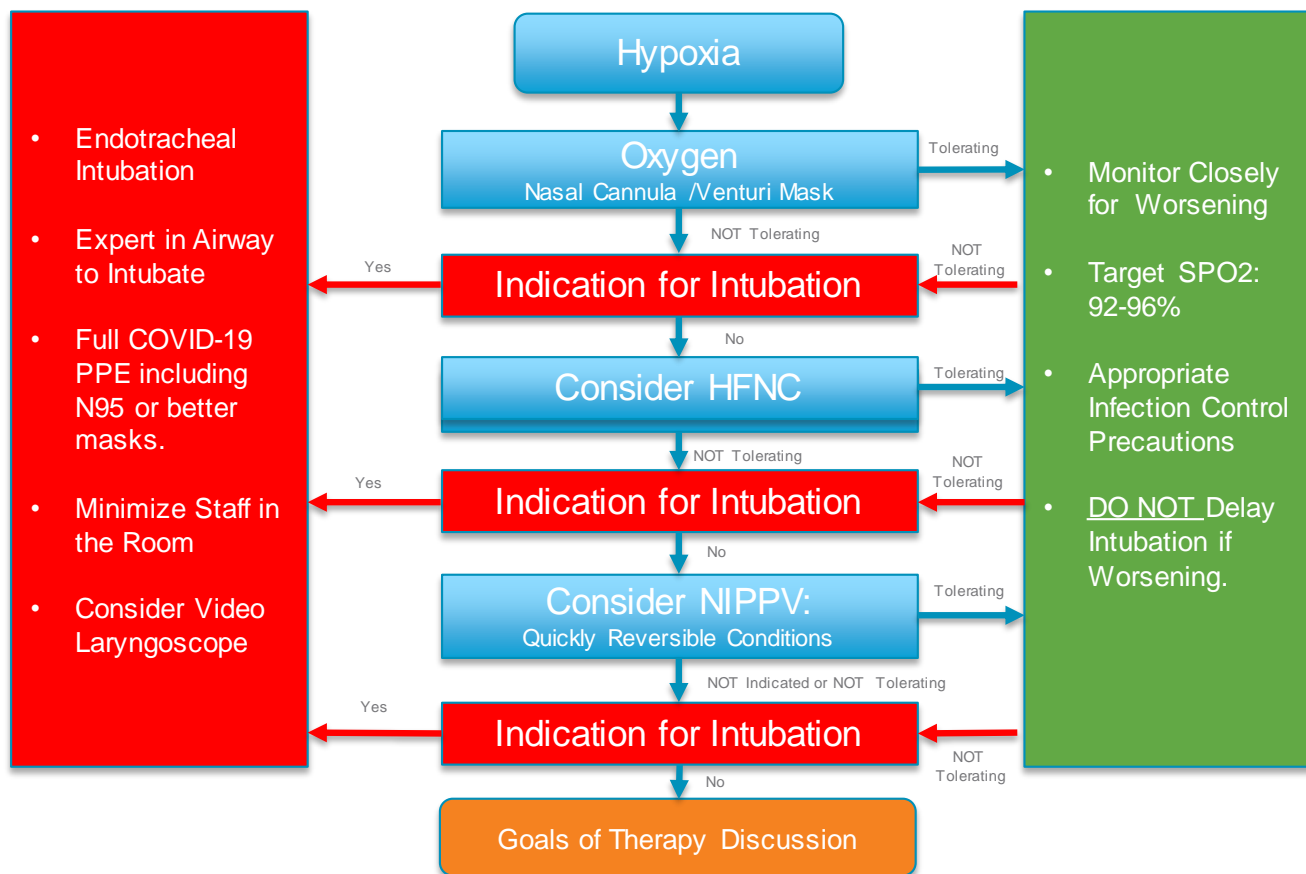
Frequent Re-Evaluation for Intubation

PPE for aerosolizing procedures.



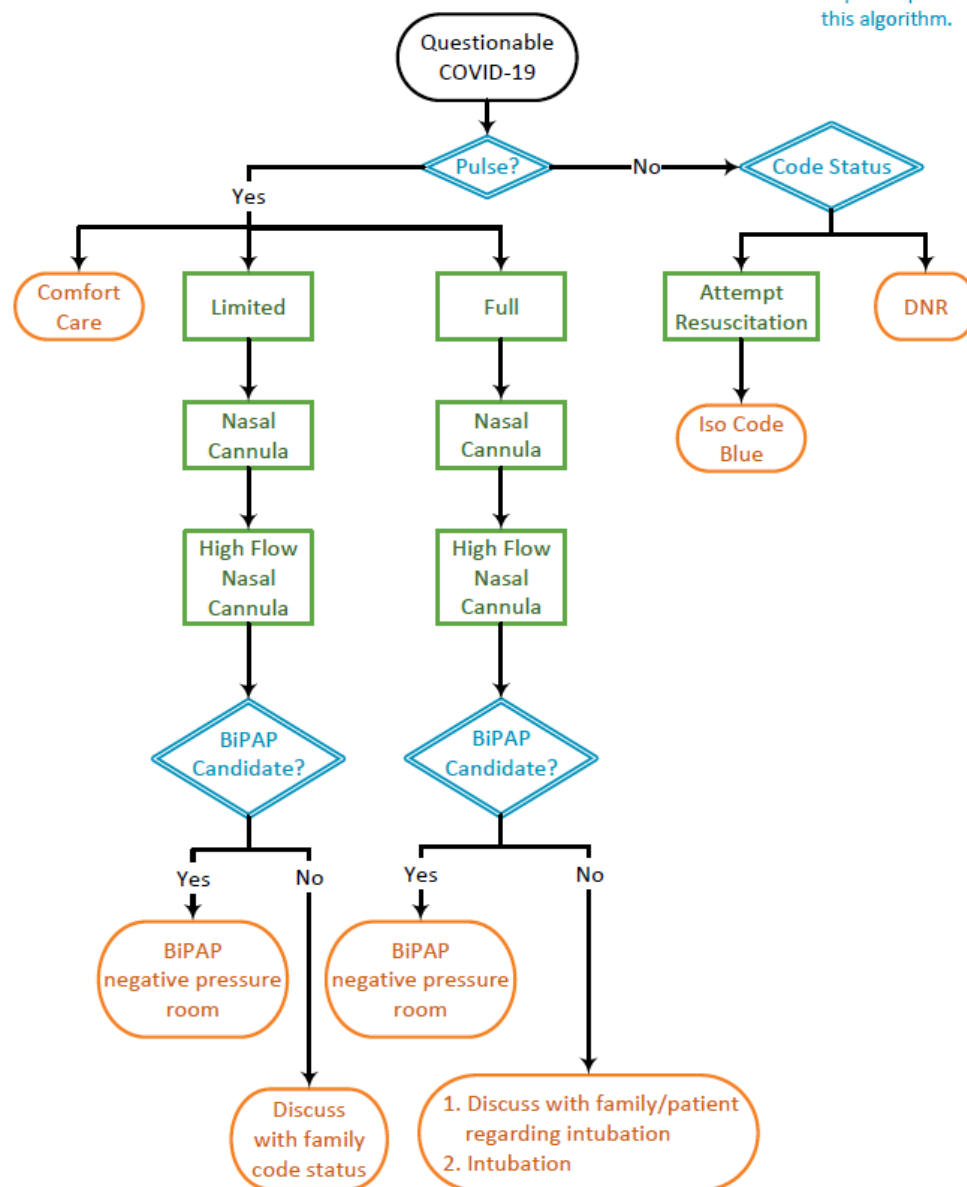
File Photos

# Summary of Recommendation on Initial Management of Hypoxemia in COVID-19 or COVID-19 R/O Patient



## COVID-19 Respiratory Distress Management

Updated 04/20/2020  
Please check  
[hawaiihealthpartners.org](http://hawaiihealthpartners.org)  
for frequent updates to  
this algorithm.





UH Manoa Online File Photo.

CREATING A HEALTHIER HAWAII

**HAWAII**  
**PACIFIC**  
**HEALTH** | HAWAII  
HEALTH  
PARTNERS



# Telehealth at Pali Momi: *My Personal Experience*

Maria “Marel” Ver, MD  
Trauma Medical Director  
Pali Momi Medical Center

## For context —

- General surgeon and Bariatric surgeon
  - Outpatient clinic
  - Inpatient care
- Trauma Medical Director
  - Work closely with the ICU

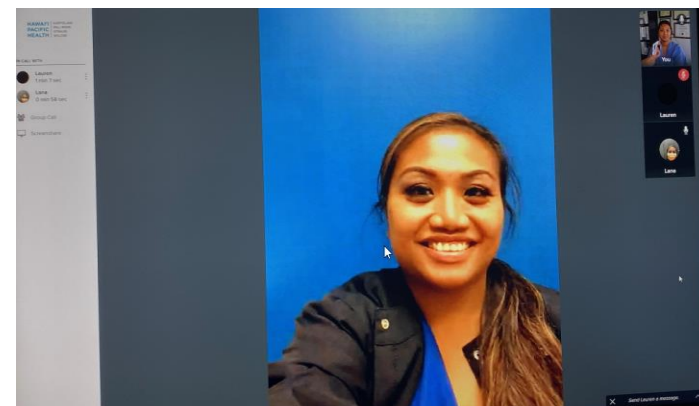
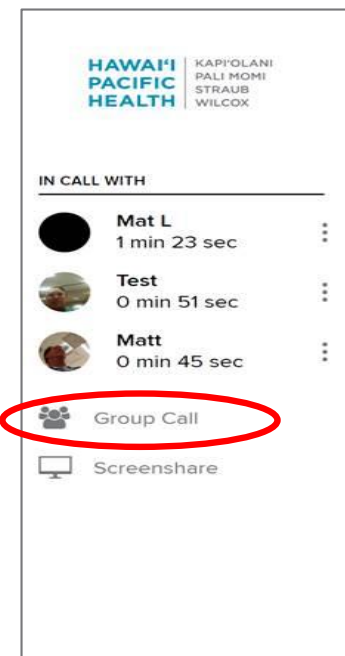
# OUTPATIENT EXPERIENCE

- Use of *hph.doxy.me* platform
- At my office desk
  - 1) Tablet (telehealth)+ computer (to document)
  - 2) Computer w 2 screens + Webcam + Headset
    - 1 screen for telehealth visual
    - 1 screen for documentation/epic



# OUTPATIENT EXPERIENCE

- *How can we expand use of technology?*
- Doxy.me as *group call (ie group chat)* capabilities
  - Bariatric clinic - ?MultiD meetings ?Nutrition class
    - There is screenshare option
    - Limitations – connectivity issues
  - GenSurg clinic – MA on the group call
    - Mute + no video
    - MA to scribe and write orders



# INPATIENT EXPERIENCE

- Technology available at Pali Momi
  - All ICU bedside computer workstations have webcams
  - Martii (available 4/17/2020) with newly installed *doxy.me* and *Zoom*

# INPATIENT EXPERIENCE – ICU



- No visitors allowed policy during pandemic
- Overall increased anxiety from family since cannot visit loved one
- Patients and families feel even more alone, detached, not part of decision-making team, “don’t know what’s going on”
- Don’t understand ‘reality’ of sickness, despite MD/nurses daily telephone updates
- Delays decisions in care of critically ill patient
- Some social media posts reporting idea of ‘distrust’ of hospitals, ‘hiding’ mistreatment, ‘killing’ their family members

# INPATIENT EXPERIENCE – ICU

- *Why not expand the doxy.me technology to the ICU?*
- All ICU bedside computer workstations already have webcams
- Some inpatient providers have doxy.me accounts
  - But many inpatient providers may not find necessity for hph.doxy.me access



# INPATIENT EXPERIENCE – ICU

- Intensivist Dr. Cecily Wang and I trialed this in the ICU one day.
  - Dr. Wang is also a general surgeon, so has a doxy.me account
- Trialed with a TBI patient
  - Family at bedside
  - Called family in the Philippines to ‘visit’
- The next day -
  - Dr. Wang had 5 doxy.me “family meetings”
    - Two of these meetings resulted in change in code status to DNR, as appropriate
  - A post-extubation patient got to say hello to her husband



# INPATIENT EXPERIENCE – ICU

## TELEHEALTH FOR PALI MOMI ICU PROVIDERS

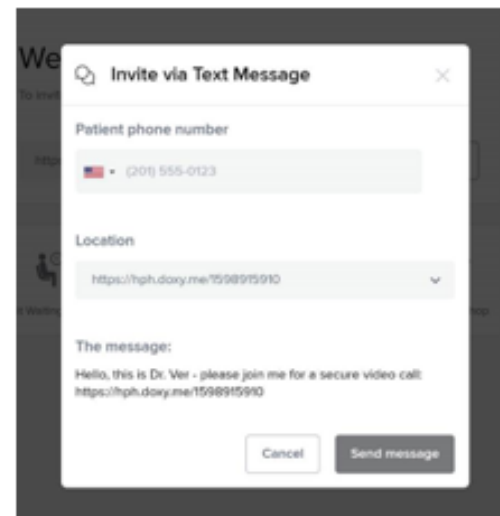
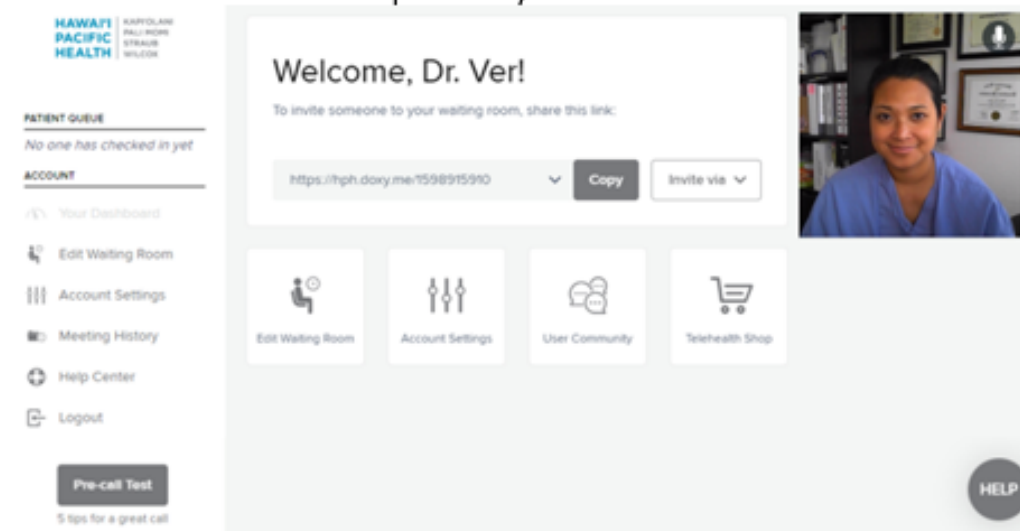
These instructions are specifically for Providers using Pali Momi ICU bedside computers with Webcams setup.

### SET-UP

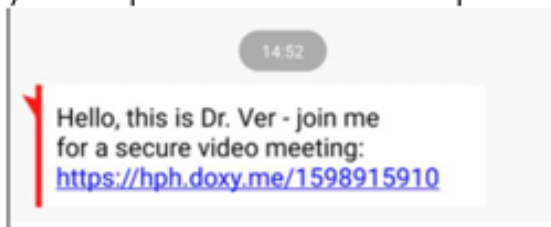
- 1) CAMERA – on Webcam.
- 2) MICROPHONE – on Webcam.
- 3) SPEAKERS – need external speakers.
  - a. Identify headphone socket on computer modem.
  - b. Connect external speakers to this headphone socket.
  - c. Check volume in “settings” on the computer.
- 4) ROOM AMBIANCE
  - a. Reduce glare. Close blinds if needed.
  - b. Prepare patient and room to be on video. Position IV poles, monitors, etc.
  - c. Position mobile computer workstation strategically.
- 5) MEETING SPECIFICS
  - a. Set a specific meeting time with family.
  - b. Collect phone numbers (need smartphone/tablet) or email (smartphone/tablet/computer) of family members who will be participating (ideally max 4).  
\*ok if international phone numbers .
  - c. All participants need reliable internet.
  - d. Explain to participants that they will be receiving a text or email with link, several minutes before designated meeting time.  
They will need to click on link and follow instructions.
- 6) PROVIDER ACCOUNT – need *hph.doxyme* provider account.

## HAVING TELEHEALTH VISIT using *hph.doxy.me*

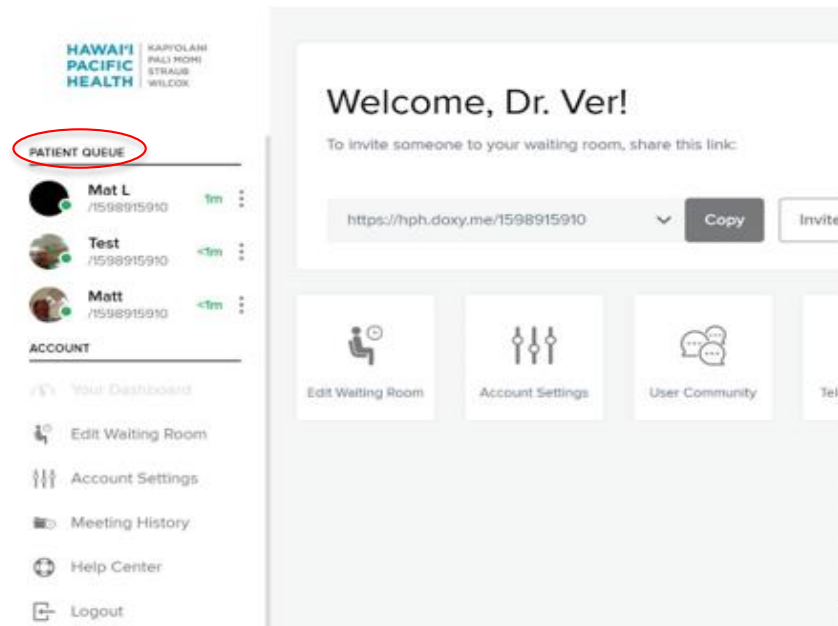
- 1) On computer workstation, open Google Chrome to *hph.doxy.me*. Click on top right "Provider Login".
- 2) Provider signs onto their *hph.doxy.me* account, several minutes before planned meeting.
- 3) Enable webcam and audio. Video feed to be in upper right side of screen.
- 4) Click on "invite via" tab, and invite family members via "text message" or "email". You will need to input their phone numbers or emails collected previously.



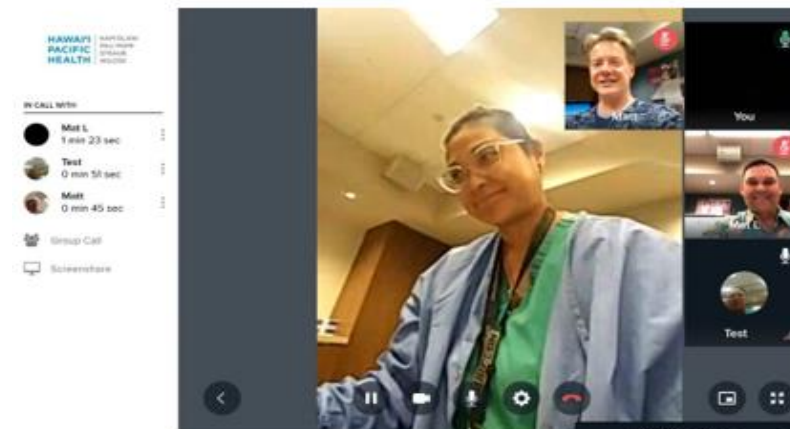
- 5) Participants to click on the link provided (text message or email) to join meeting, near designated meeting time



6) Once participants have 'checked in', you will see them on the left side screen in 'patient queue'.



- 7) Click on one participant to start meeting. This will enable audio-visual streaming.
- For GROUP CALL - click on "Group Call" tab on left to add to participants to meeting  
\*if participants are not 'checked in' when you start the meeting, then they will not be able to join in



8) Proceed with meeting

TIPS for successful meeting

- a. Set rules for participants at beginning of session
  - Talk slow, loud, and clear
  - Mute device if not talking
  - One person speak at a time
- b. Position workstation for best visualization of patient, provider talking, and participants
  - \*important to see patient the whole time

OTHER considerations

- a. Give family in room and family online private time for discussion without provider, allow them to “visit”
- b. Set time expectations
- c. Provider to document family meeting in chart



# INPATIENT EXPERIENCE – ICU + Floors

- Martti now available for use

## 1) Language line

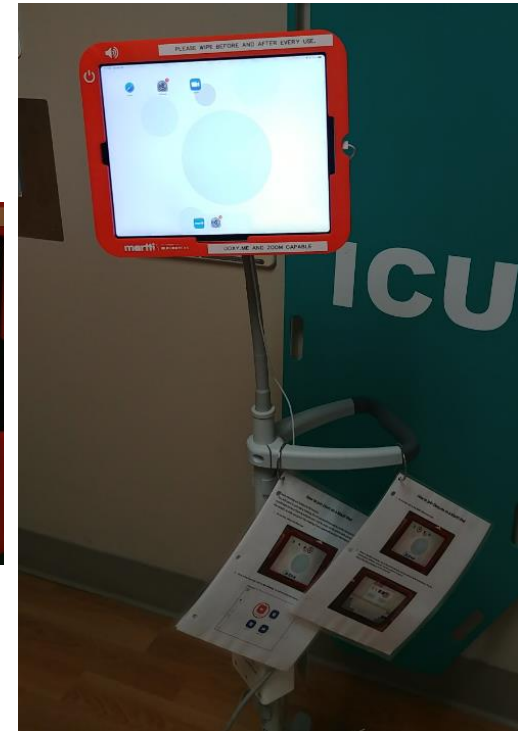
## 2) Doxy.me

- Need login provider info
- Written instructions provided



## 3) Zoom

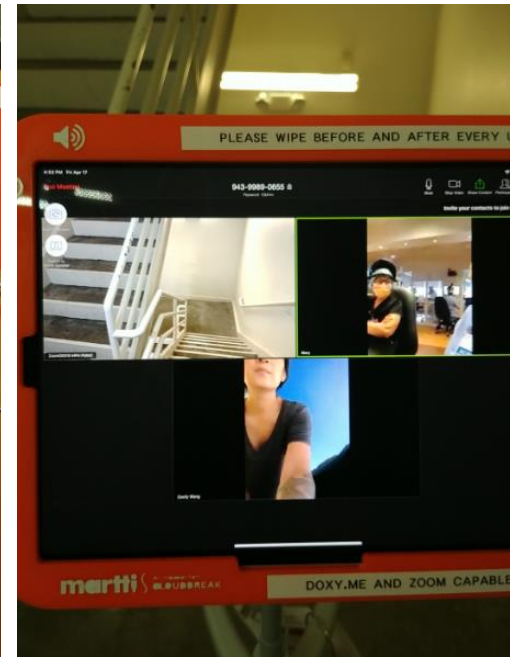
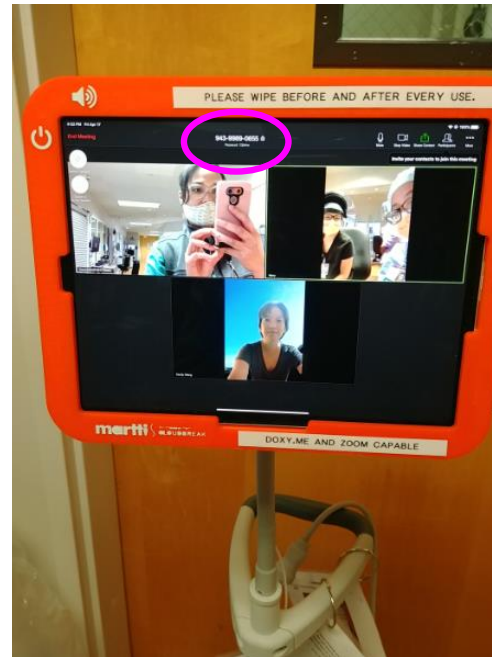
- Already has account to start meetings
- Written instructions provided





# INPATIENT EXPERIENCE – ICU + Floors

- Zoom on Martti
  - Easy to start meeting
  - Audio/video great
  - Easily mobile
  - Good group connection
  - Easy to flip camera
- Participants need Zoom app
  - need to input
    - Meeting ID
    - Password



# Telehealth comparisons on Martti

## DOXY.ME (preferred)

### *Pros -*

- Secure platform
- Easy for participant to join call
- Adequate audio/visual

### *Cons –*

- Need personal doxy.me account
- Connectivity issues
- Audio/video can be spotty
- Group chat can be disruptive
- Flipping camera is disruptive

## ZOOM

### *Pros -*

- Excellent audio/video
- Easy to flip camera
- Good connectivity for group chat
- Do not need personal account

### *Cons –*

- ?Security
- Participants need to have zoom app and need to know how to use
- Need to input long meeting ID numbers
- Meeting ID numbers only available after meeting starts, so provider needs to call participants from floor phone to give info
- 40 minute time limit

# Summary

- Telehealth technology is available outpatient AND inpatient
  - [hph.doxy.me](https://hph.doxy.me)
  - Zoom
- Need to train providers
  - Providers need to be willing to try
  - Hands-on better than written instructions
  - Need practice to be more comfortable with use
- Need to provide guidance to call participant / receiver
- Chose telehealth platform appropriate for use for patient/family and situation



# Telehealth for Inpatients

James Lin, MD

Vice President, Information Technology  
Pediatric Hospitalist, Kapiʻolani Medical Center

# Inpatient Telehealth Hardware Options

- **Physician/provider**
  - Workstation with camera/headset
  - Laptop with microphone camera
  - Tablet with strong wifi (HPHPROD or home) or cell signal
  - Smartphone with strong wifi or cell signal
- **Patient in isolation room**
  - Patient smartphone, tablet on GUEST wifi
  - MARRTI
  - Ipad on wheels (Kapi'olani Only)
  - Webcams (Pali Momi ICU only)
  - Wound care smartphones on some nursing units (coming soon)

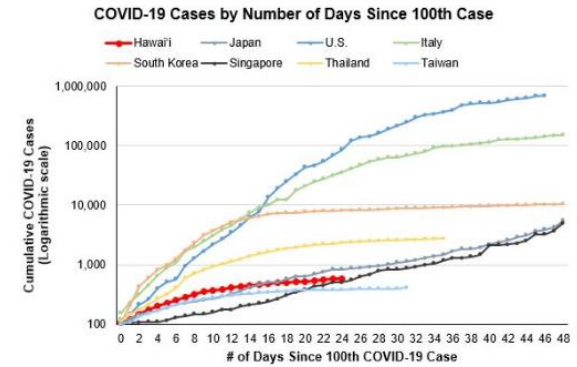
\* Remember to close other applications or other streaming apps

# Inpatient Telehealth Workflows in Development

- Family centered rounds
  - Dr. Shilpa Patel and Peds Hospitalists
  - Physician brings device into room,
  - Logs in to her room using Ipad's safari app webpage
  - Sends invite to resident smartphone outside the room
- Physician using Martti to converse with patient and family in room
  - Dr. Steve Situ and Hospitalists
  - Nurse/staff types in the webpage address of the physician's doxy.me room on the Safari browser
  - Then the nurse can bring in the Marti into the patient room for use.
- Nurses to remotely observe prone patients
  - Dr. Ashley Ono
  - In progress
- Physician to remotely consult for telepsychiatry
  - Dr Ryan Lunsford, Kapi'olani Behavioral Health Services
  - In progress

# Inpatient Telehealth Tips

- Documentation
  - Document within note about use of Video visit
    - .HPHVIDEOVISIT
    - .HPHVIDEOVISITCONSENT
- 3 Way video calling
  - Interpreter
  - Family members
  - Consultants
- Telehealth time counts towards 'face to face' time for prolonged services



Latest HPH COVID-19 Bulletins & Information (previous Bulletins in [archives](#)):

- [COVID-19 Actual v. Predicted Cases April 19](#)
- [Bulletin #34 April 17](#)
- [DOH Medical Advisory #10 April 15](#)
- [HPH Surge Plan: KMCWC, PMMC, SMC, WMC](#)

Evaluation Workflows/Testing and Specimen Collection:

- [COVID-19 Algorithms:](#)
- [Specimen Collection:](#)

[Airway Management:](#)

[PPE Guidelines:](#)

[PPE Donning and Doffing:](#)

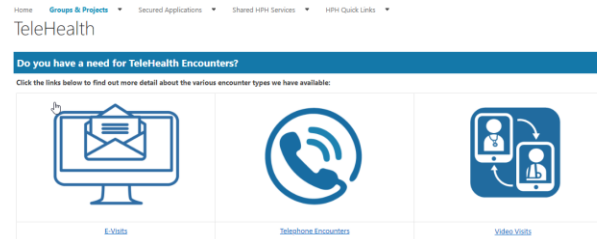
[PPE Cleaning and Conservation:](#)

[Advance Care Planning Scripting:](#)

[TeleHealth and Video Visits – COVID-19](#)

[Additional State and National Resources:](#)

[Archived Information](#)





# COVID-19: ED Perspective

Nathan Angle, MD

Chief of ED

Straub Medical Center

# COVID-19: ED Perspective

## **EMTALA** WAIVED by CMS

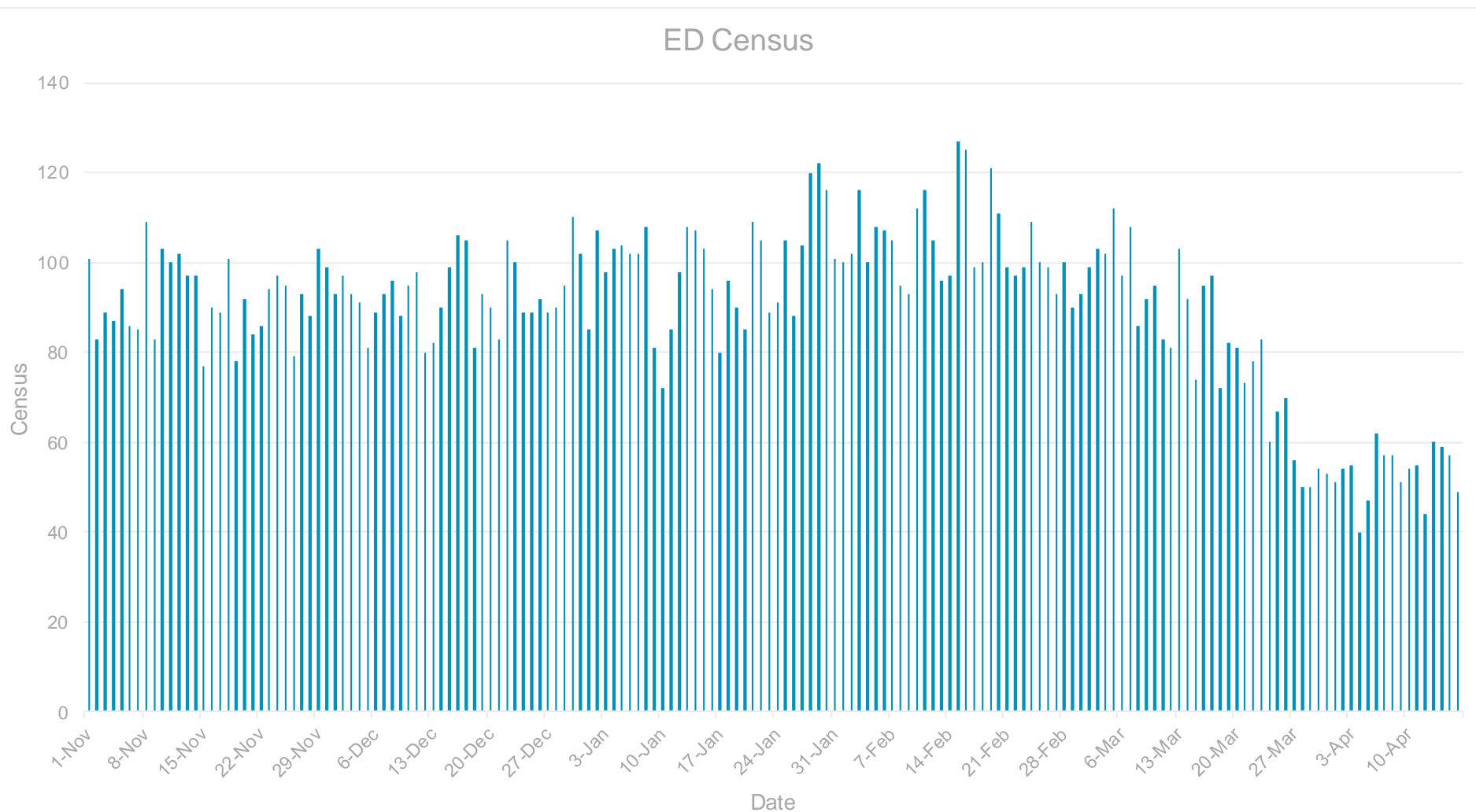
- Emergency Medicine Treatment and Labor Act
  - Requirement for Medical Screening Exam MSE
  - Applies to COVID-19 patients ONLY
- 
- NEED an alternate site (Resp evaluation clinic)
  - Implications for volume and revenue: nights?

# COVID-19: ED Perspective

## Volume

- ED volumes about 40% down across the state
- Positive and negative ramifications
- Flattening the curve
- *Where are all the appy's, hip fractures, CVA's?*
- Will this lead to pent up demand?
- Staffing implications longer term?

# COVID-19: ED Perspective



# COVID-19: ED Perspective

## Respiratory Evaluation Clinic

- Valuable alternative site for MSE 7 days a week
- Invaluable resource if COVID-19 cases rise
- Probably contributing to lower ED volumes
  - *Occasionally receive patient FROM the REC*

## Drive Up Testing

- ED can place an order for COVID-19 test, pt drives up
- Helps conserve PPE for ED staff & limit exposure
- Still probably costs ED visit & we're in PPE already

# COVID-19: ED Perspective

## **Management:**

- Who do you test?
  - Inpatient, HCWs, NH residents, high risk, pt preference
  - Test takes **24h+**
- Who is a COVID-19 patient?
- Highly symptomatic (fever, cough, SOB)
- Asymptomatic (community spread): STEMI? *Variable...*
- Implications for rooms, OR, consultants, follow up
  - *Requires capacity, flexibility, telehealth= different*

# COVID-19: ED Perspective

## **Management: Critically Ill**

- Intubation: Control airway, limits aerosolization
- Initially most pts intubated → Poor outcomes
- Seeing less intubations in field by EMS
- Hands only CPR when possible
- Move to CPAP and HFNC
- Requires more PPE & negative pressure rooms (1)



# COVID-19: ED Perspective

## Management: Mild and Moderately Ill

- Mask everyone, isolate whenever possible
- **Mildly ill:** Treat outside if possible, or refer to REC
- **Moderately ill:** isolated, ideally negative pressure.
  - Otherwise closed door.
- Moderate and severely ill **WILL** outstrip your capacity to safely isolate them (we have 4 'closed door' rooms)
  - Cohorting respiratory patients in curtained rooms???
  - *Requires capacity, flexibility, moving patient= different*

# COVID-19: ED Perspective

## **Management: Other implications (5 S's)**

- **Supplies**/PPE: What and when?
  - Doffing and donning areas
  - Variation in procedures/protocols (*night vs day*)
  - How do you get supplies: CSD? HPH?
  - Prepare for questions and confusion
- Additional **Space**: Intake area, (-) pressure tent
- Additional **Staffing**: MD, PA, RN, CA surge plan

# COVID-19: ED Perspective

## **Management: Support**

- EVS: How do you transport COVID-19 PUIs?
- EVS: How do you clean room after COVID-19 PUI?
- Homeless resources through 4H
- Getting test results to + **and** – patients
- Mock codes/drills
- Visitors (dementia, language barrier)
- **Stress**: Considerable stress among patients and staff
  - Valid, manifests in many ways, many ideas

# COVID-19 Virtual Care Team, Population Health Management

Melanie Nordgran, MBA  
Director – ACO Operations  
Hawai'i Pacific Health

**HAWAI'I  
PACIFIC  
HEALTH**

HAWAI'I  
HEALTH  
PARTNERS

# COVID-19 Virtual Care Team

## Hours of Operation and Contact Info.

### *Hours of Operation*

Monday – Friday, 8am - 3:30pm

Saturday – Sunday, 9am - 12pm

### *Phone Number*

808-462-5430, Option 5

# COVID-19 Virtual Care Team

## Surveillance Registry

☐ Live Now

- ☐ Ensure patients receive timely test results
- ☐ Contact providers to confirm test result delivery or PUI form
- ☐ Document DOH PUI forms
- ☐ Deliver test results if needed

## Patient Monitoring

☐ Live Tuesday, 4/21

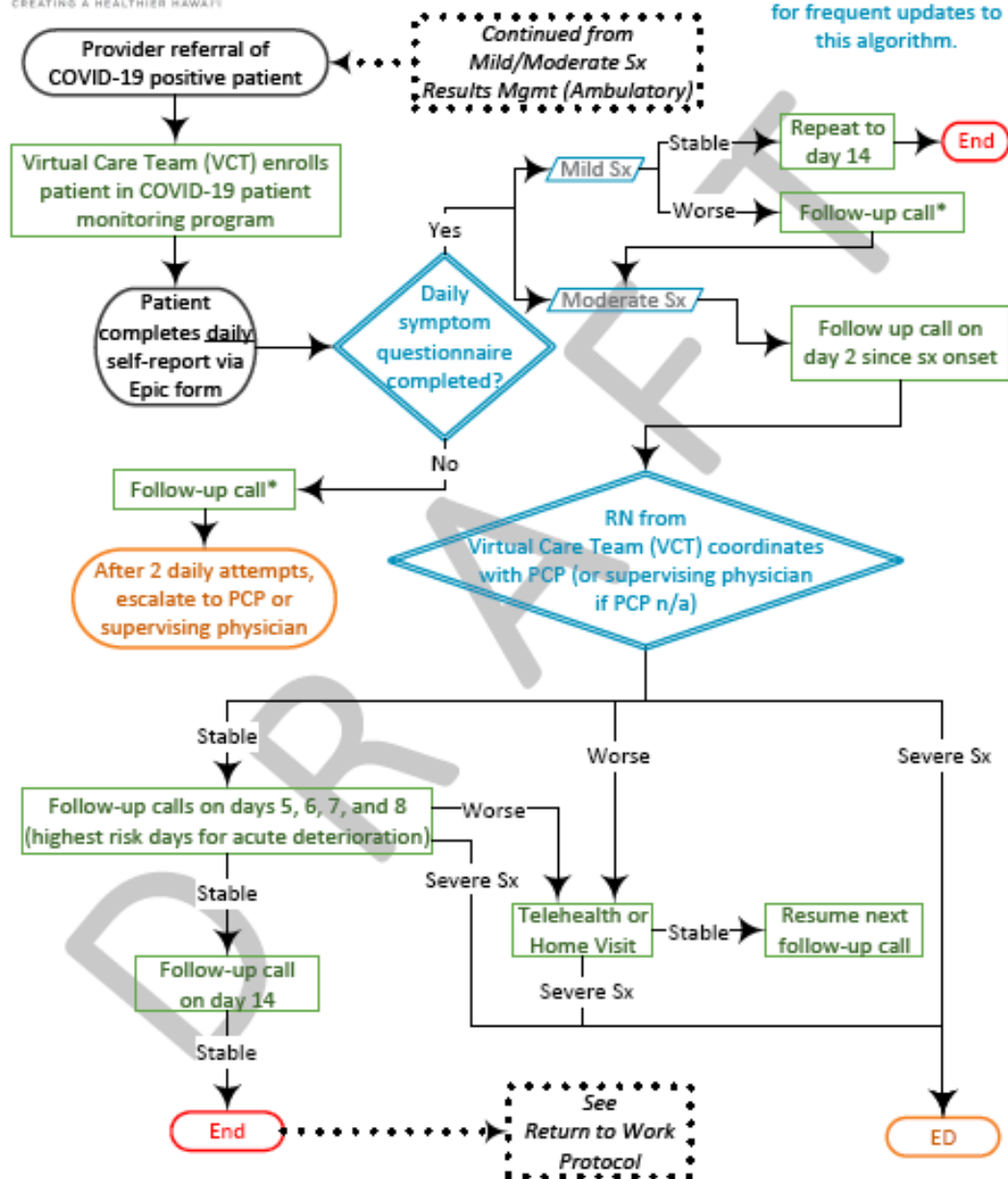
- ☐ Order in Epic to enroll in Patient Monitoring
- ☐ MyChart preferred, not required
- ☐ Daily symptom check with patient
- ☐ Escalation to nurse and physician as indicated



## COVID-19 Patient Monitoring

Updated 04/20/2020

Please check  
[hawaiihealthpartners.org](http://hawaiihealthpartners.org)  
for frequent updates to  
this algorithm.



This algorithm is general guidance to practicing clinicians, may change with time, and is not intended to supersede the medical judgment of the clinician.

Please send in your questions to:  
[Covid19Bulletin@hawaiihealthpartners.org](mailto:Covid19Bulletin@hawaiihealthpartners.org)

# Enrollment in Patient Monitoring

## Option 1

- Epic Referral to HHP Complex Care; Referral Reason as COVID-19

## Option 2

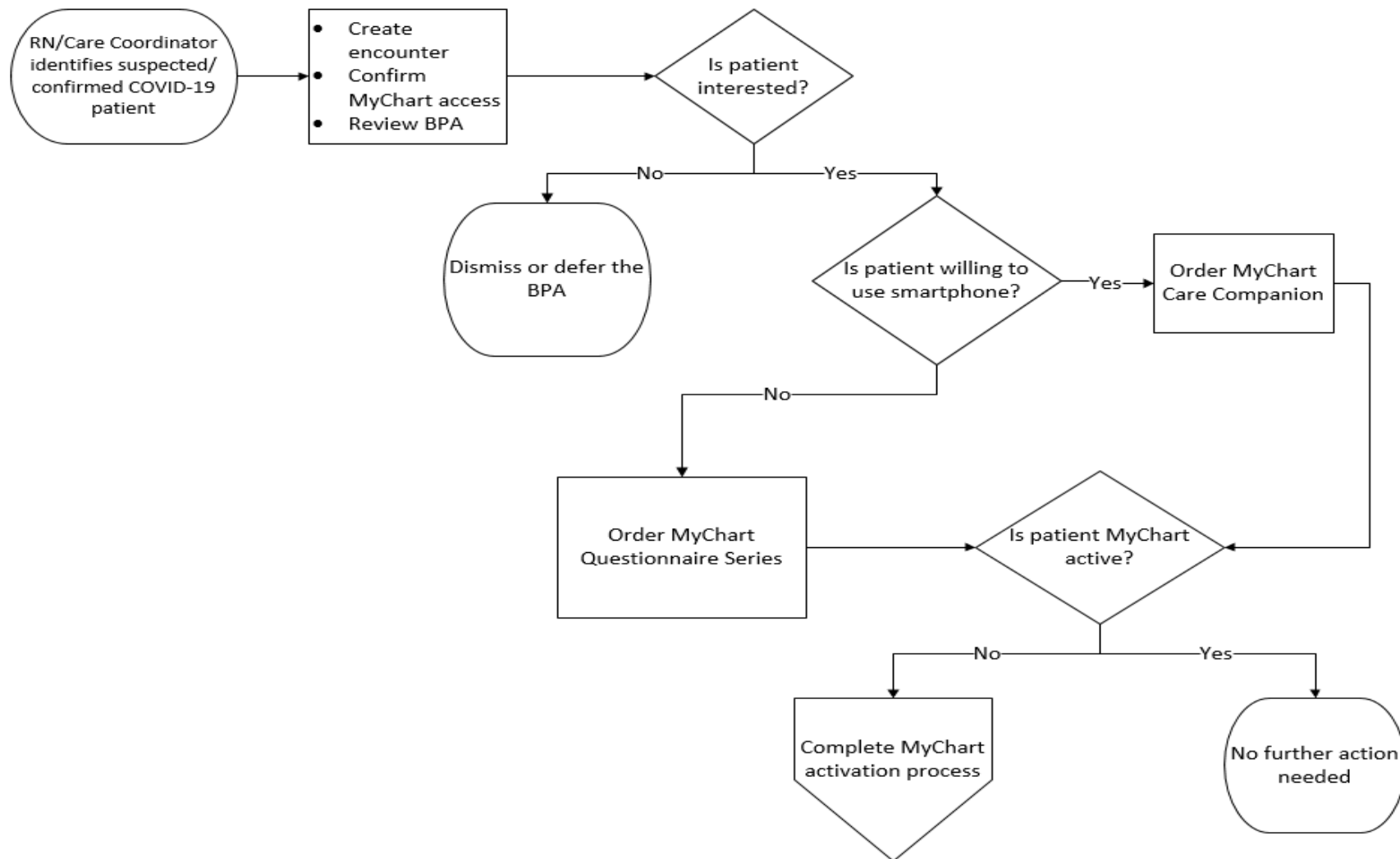
- Call the COVID-19 Virtual Care Team 808-462-5430, Option 5

## Option 3

- Virtual Care Team patient outreach

In all options if the patient uses MyChart, VCT will send provider a COVID-19 Home Monitoring order to cosign

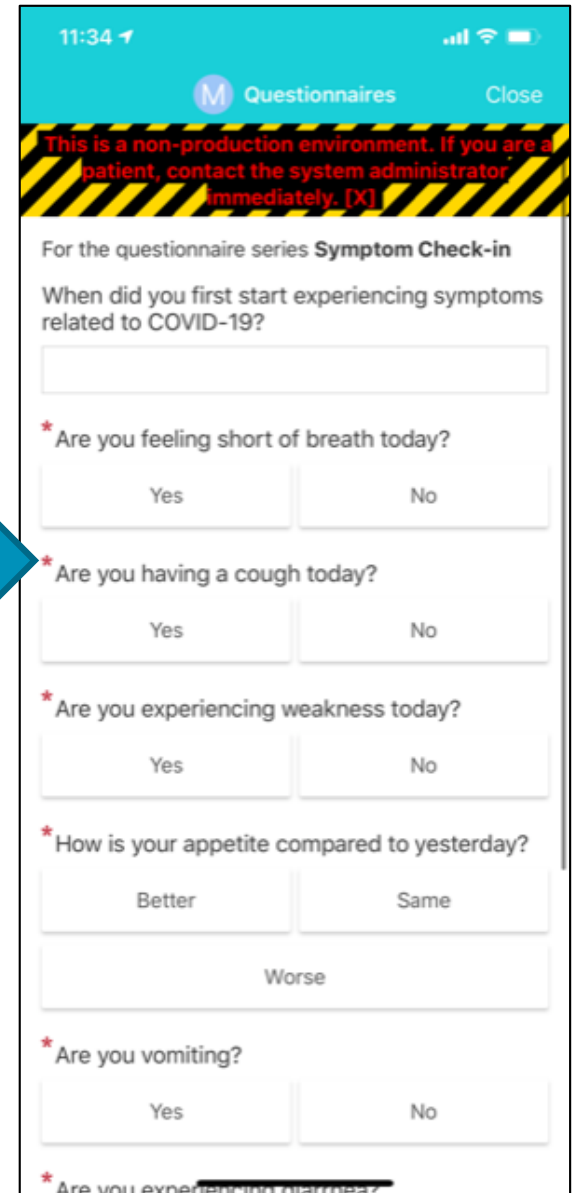
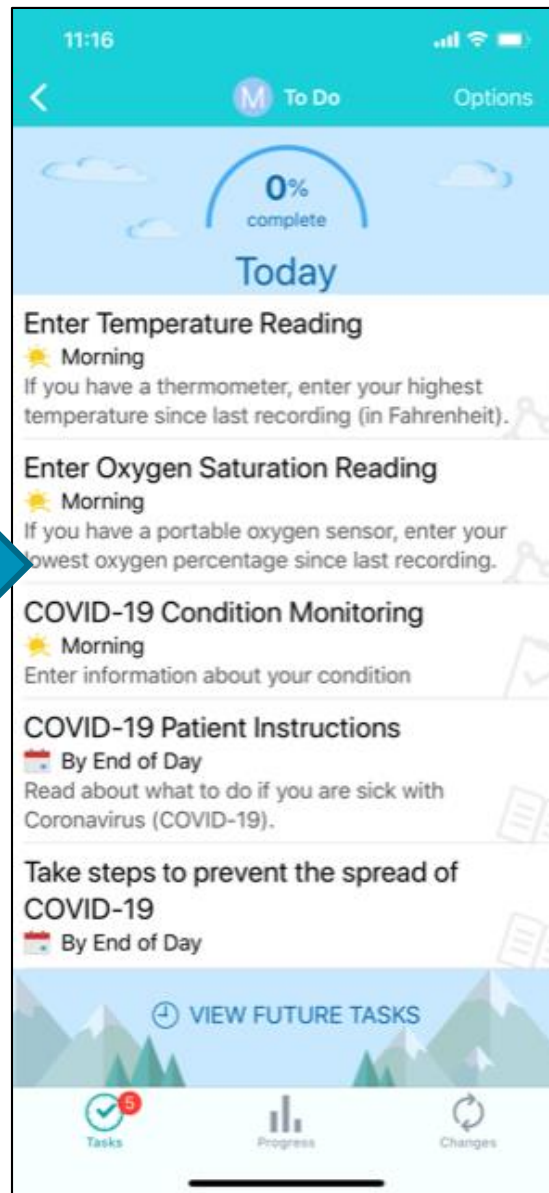
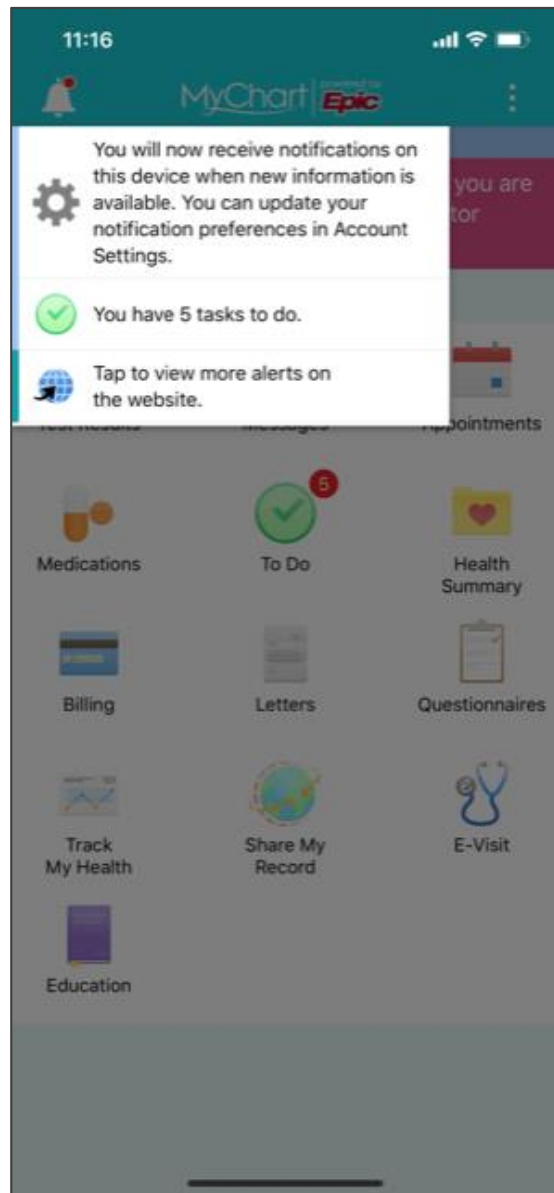
# VCT Patient Management Enrollment Workflow



# Patient Monitoring Process

- 14-day symptom questionnaire series
- Can complete in multiple ways
  - MyChart mobile app (Care Companion)
  - MyChart web questionnaire
  - Virtual Care Team telephone encounter
- Instant MyChart activation
- Encounters and patient answers visible in Epic
- Worsening symptoms will automatically route to Nurse team

# MyChart Care Companion - App



# MyChart Questionnaire - Web

Welcome!



Learn more about how to prevent the spread of respiratory illnesses like COVID-19



Having fever and cough? Complete an E-visit or send a message to your physician



Complete your COVID-19 Condition Monitoring questionnaire, which is due today.



Health



Visits



Messaging



Billing

## What's in My Record?

- My Conditions
- Plan of Care
- Test Results
- Health Summary
- Current Health Issues
- Medications
- Allergies
- Preventive Care
- Medical History
- Immunizations


## Medical Tools

- Lucy
- Document Center
- Who's Accessed My Record?
- Health Trends
- Growth Charts
- Questionnaires
- Track My Health
- Wallet Card
- Share My Record



# MyChart Questionnaire – Web, cont.

When did you first start experiencing symptoms related to COVID-19?



\* Are you feeling short of breath today?

\* Are you having a cough today?

\* Are you experiencing weakness today?

\* Are you vomiting?

\* How is your appetite compared to yesterday?

\* Are you experiencing diarrhea?

If you have a thermometer, what is your highest temperature (in Fahrenheit) since last recording?  
A temperature greater than 100.3 indicates a fever.












If you have a portable oxygen sensor, what is your lowest oxygen percentage since last recording?

# MyChart Questionnaire – Web, cont.

## COVID-19 Condition Monitoring

For the questionnaire series **COVID-19 Home Monitoring**

Please review your responses. To finish, click **Submit**. Or, click any question to modify an answer.

Question	Answer	
When did you first start experiencing symptoms related to COVID-19?	04/13/2020	
Are you feeling short of breath today?	Yes	
Is the shortness of breath better, the same, or worse than yesterday?	Worse	
Are you having a cough today?	Yes	
Is the cough better, the same, or worse than yesterday?	Worse	
Are you experiencing weakness today?	No	
Are you vomiting?	Yes	
How is your appetite compared to yesterday?	Worse	
Are you experiencing diarrhea?	No	
If you have a thermometer, what is your highest temperature (in Fahrenheit) since last recording?	101	
If you have a portable oxygen sensor, what is your lowest oxygen percentage since last recording?	90	

# Non-MyChart Workflow

- Patient outreach calls by COVID-19 Virtual Care Team
- Document in Patient Outreach Encounter with smartphrase

# Encounters in Epic

- Questionnaire Submissions
- Patient Outreach encounters, with COVID-19 Home Monitoring description

Chart Review					
Encounters					
Notes/Trans Labs Imaging Procedures Meds LDAs Cardio/EKG RT Episodes Letters Referrals Other Media Misc Rpts					
Text Search Preview Refresh (5:16 PM) Select All Deselect All Review Selected Flowsheet Route Load Remaining RL: Event Encounter Add to					
Filters Hide Add'l Visits Health Mgt Complex Care - Strau... Admissions					
Sum Date	Type	Department	Provider	Description	
Today	Questionnaire Series Submission	ADT-Appt Conversion Dept	Mychart, Provider		
Today	Patient Outreach	Complex Care - Straub Clinic King St	Ebbay, Geldilyn B, RN	Covid-19 Home Monitoring	

# Wellness Support for HHP Providers During the COVID-19 Pandemic

Bart Pillen, Ph.D.

Clinical Psychologist

Kapi'olani Behavioral Health Service

# Overview of Provider Support

1. Identify provider support needs
2. Propose a model for timely intervention by trusted colleagues
3. Access meaningful resources
4. Develop additional organizational and personal support, consultation

# Stress First Aid

- The Stress Continuum Model

READY (Green)	REACTING (Yellow)	INJURED (Orange)	ILL (Red)
<b>DEFINITION</b> <ul style="list-style-type: none"> <li>Optimal functioning</li> <li>Adaptive growth</li> <li>Wellness</li> </ul> <b>FEATURES</b> <ul style="list-style-type: none"> <li>At one's best</li> <li>Well trained and prepared</li> <li>In control</li> <li>Physically, mentally, and spiritually fit</li> <li>Mission-focused</li> <li>Motivated</li> <li>Calm and steady</li> <li>Having fun</li> <li>Behaving ethically and legally</li> </ul>	<b>DEFINITION</b> <ul style="list-style-type: none"> <li>Mild and transient distress or impairment</li> <li>Always goes away</li> <li>Low risk</li> </ul> <b>FEATURES</b> <ul style="list-style-type: none"> <li>Feeling irritable, anxious or down</li> <li>Loss of motivation</li> <li>Loss of focus</li> <li>Difficulty sleep</li> <li>Muscle tension, heightened heart rate, breathing, or other physical changes</li> <li>Not having fun</li> </ul> <b>CAUSES</b> <ul style="list-style-type: none"> <li>Any stressor / trigger</li> </ul>	<b>DEFINITION</b> <ul style="list-style-type: none"> <li>More severe and persistent distress or impairment</li> <li>Leaves an emotional/mental "scar"</li> <li>Higher risk</li> </ul> <b>FEATURES</b> <ul style="list-style-type: none"> <li>Loss of control</li> <li>Panic, rage, or depression</li> <li>No longer feeling like normal self</li> <li>Excessive guilt, shame, or blame</li> </ul> <b>CAUSES</b> <ul style="list-style-type: none"> <li>Life threat</li> <li>Loss</li> <li>Inner conflict</li> <li>Excessive wear and tear</li> </ul>	<b>DEFINITION</b> <ul style="list-style-type: none"> <li>Persistent and disabling distress or loss of function</li> <li>Clinical mental disorders</li> <li>Unhealed stress injuries</li> </ul> <b>FEATURES</b> <ul style="list-style-type: none"> <li>Symptoms persist and worsen over time</li> <li>Severe distress or social or occupational impairment</li> <li>Hopelessness</li> </ul> <b>TYPES</b> <ul style="list-style-type: none"> <li>PTSD</li> <li>Depression</li> <li>Anxiety</li> <li>Substance abuse</li> </ul>

- Practical approaches have been developed to support First Responders often exposed to trauma



# The Stress First Aid Model:

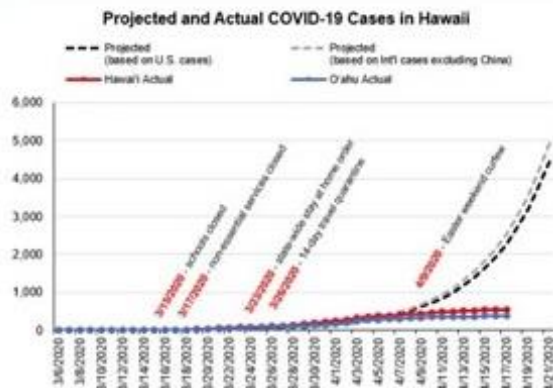
## A proposed model of intervention for HHP members

1. **Contact and Engagement.** Goal: To initiate contact with individuals who have experienced a traumatic event in ways that are nonintrusive, compassionate and helpful
2. **Safety and Comfort.** Goal: To enhance immediate and ongoing safety and provide physical and emotional comfort.
3. **Stabilize Emotions.** Goal: To calm and orient emotionally overwhelmed or disoriented individuals.
4. **Gather Information.** Goal: To enhance immediate and ongoing safety and provide physical and emotional comfort.
5. **Offer practical assistance.** Goal: To offer practical help to people when addressing immediate needs and concerns

# Timely Access to Support Resources

### COVID-19 UPDATES/ MEMOS

About HPH  
Business Sites  
Directories and Resources  
Document Database  
(Policies & Procedures)  
HPH Fitness Center  
Patient Experience  
Training and Education  
Site Contents



• Letter from Ray Vara April 2

#### FAQs:

- FAQs for HPH Employees
- FAQs for HPH Manager
- FAQs for Employees Working from Home
- FAQ Hotels for Heroes April 10
- FAQs for Employees Related to COVID-19

Employee Health Return  
Travel Quarantine

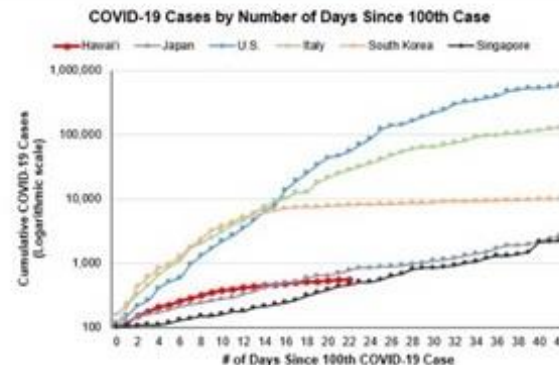
#### Self-Care

#### Leadership Resources

#### For Patients:

- Stay Healthy And Informed With HPH
- What to do after you are tested for COVID-19

COVID-19: Do not panic



#### Latest HPH COVID-19 Bulletins & Information (previous Bulletins in archives):

- COVID-19 Actual v. Predicted Cases April 17
- Bulletin #33 April 16
- DOH Medical Advisory #10 April 15
- HPH Surge Plan: KMCWC, PMMC, SMC, WMC

#### Evaluation Workflows/Testing and Specimen Collection:

- COVID-19 Algorithms:
- Specimen Collection:

#### Airway Management:

#### PPE Guidelines:

#### PPE Donning and Doffing:

#### PPE Cleaning and Conservation:

• • • • •

# HHP/HPH eConnect Resources

The screenshot displays the HPH eConnect mobile application interface. At the top, the header includes the HPH eConnect logo, navigation icons for Saved Items, Messages, Notifications, and a profile icon. Below the header is a large banner with the text "STAY CONNECTED ON THE GO WITH HPH eCONNECT" over a background image of a person using a smartphone. The main content area is divided into three columns. The left column contains a sidebar with icons for COVID-19 and SELF-CARE, a search bar, and a list of categories: General, COVID-19, and Self-Care. The "Self-Care" category is circled in red, and the "Healthier Connection Podcast" is listed under it. The middle column features a post by Bryce Watanabe titled "Healthier Connection Podcast Episode 2: Gratitude & Ritual With Guest Puanani..." with a thumbnail image of a podcast player. The right column shows a post by Alison Zecha titled "Emotional Well-Being During the COVID-19 Crisis for Health Care Providers..." with a video thumbnail. Below this is another post by Alison Zecha titled "Drama Resilience Webinar: Compassionate Self-Care During Covid-19. After..." with a video thumbnail. At the bottom right, there is a section for "ACI SPECIALTY BENEFITS" featuring the "Employee Assistance Program (EAP)" and a link to "ACI (EAP) Benefits.pdf".

# HHP Organizational Support

## Accessing Support that is now available:

1. Become familiar with the eConnect resources for Self-Help and Professional Assistance
2. Call the HHP Central Support Line (808 462-5104) to communicate concerns, or access resources and consultation
3. Become familiar and active with the Physician Wellness Committee at each HPH facility
4. Behavior Health Consultation for provider concerns is now being developed and piloted by HHP and HPH leadership.

# Future Steps

## **Areas being developed by HHP and HPH:**

1. The dissemination of Stress First Aid material
2. Identification of site-specific Administrators and Physician Champions to provide follow up
3. Develop and implement additional support activities, per identified needs
4. Please forward suggestions!

# COVID-19 Resource Pages for Physicians

- HHP Internet
  - [www.hawaiihealthpartners.org/covid-19](http://www.hawaiihealthpartners.org/covid-19)
- HPH Intranet

HAWAII  
PACIFIC  
HEALTH | HAWAII  
HEALTH  
PARTNERS  
CREATING A HEALTHIER HAWAII



Creating a *healthier* Hawai'i

HAWAII  
PACIFIC  
HEALTH | KAPI'OLANI  
PALI MOMI  
STRAUB  
WILCOX

Home Groups & Projects Secured Applications Shared HPH Services HPH Quick Links

Announcements

COVID-19 UPDATES/ MEMOS

ABOUT HPH

- Our Leadership
- Business Sites
- Directories and Resources
- Document Database (Policies & Procedures)
- HPH Fitness Center
- Patient Experience
  - Patient Experience Blog
- Training and Education

UPDATES COVID – 19

Latest HPH COVID-19 Bulletin (previous Bulletins in [archives](#)):

- #24 April 5
- Visitor Policy March 24
- DOH UPDATE #7 – COVID-19 March 25

Evaluation Workflows/Testing and Specimen Collection:

- COVID-19 Algorithms:
- Specimen Collection:

Treatment and Monitoring:

# HPH COVID-19 Virtual Clinic

HPH COVID-19 Virtual Clinic  
for Video and Phone Visits

808-462-5430 (Option 2)

7 days a week  
8 a.m.-8 p.m.

\*hours may change  
based on demand

- We encourage patients to call, send an E-Visit, or send a MyChart message to their PCP first for guidance. If patients do not have a PCP or have limited access, they can call this phone number for guidance on mild respiratory symptoms.
- The virtual clinic is staffed by physicians and advanced practice providers for adult (*18 and over*) patients with fever and respiratory symptoms (e.g., cough, difficulty breathing).
- Patients will be virtually evaluated by video or telephone visit, and appropriate tests will be ordered, including COVID-19.
- Virtual Clinic will then direct patients:
  - To self-quarantine, rest, and follow up with educational materials.
  - To a HPH drive-up specimen collection site with an order.
  - To a Respiratory Evaluation Clinic if a physical evaluation is needed for their symptoms.
  - To the Emergency Department if appropriate.

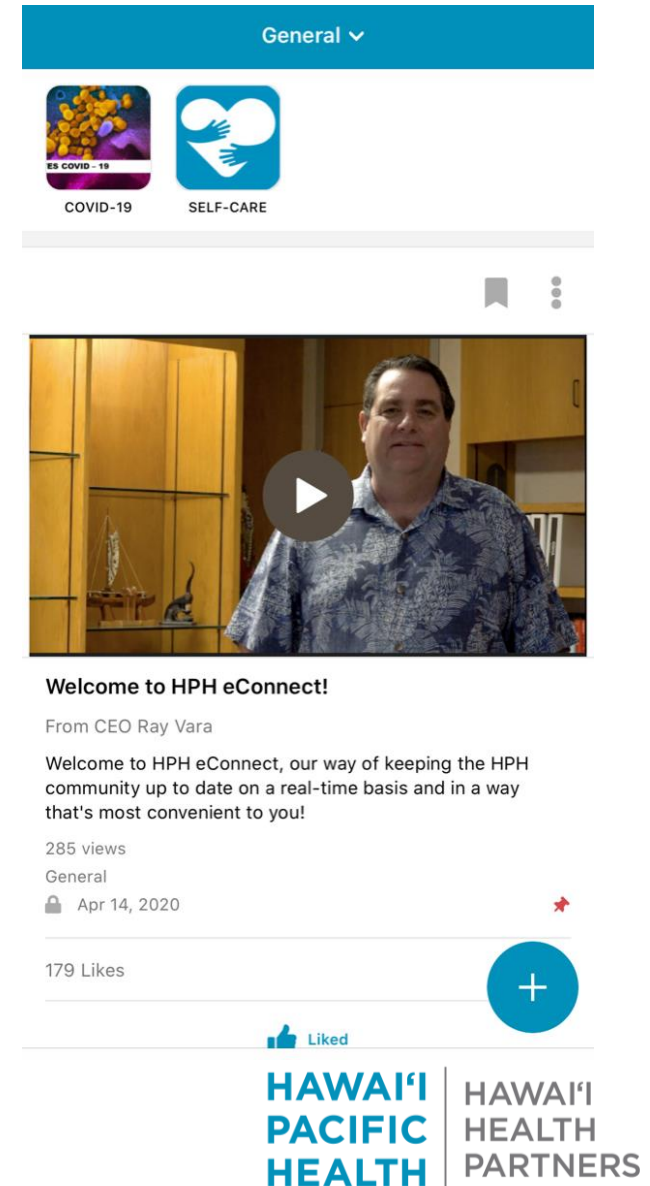


# HHP Central Support


- (808) 462-5104
  - **For Providers:** Expanded services to include answering provider questions regarding COVID-19.
  - Hours of operation: Monday to Friday, 8:00AM – 4:00PM
- Request via EPIC
  - Submit via EPIC, select “Network Access” as your “Reason for Referral”
    - Type out question(s)

# Stay Connected with HPH eConnect!

- Optional, voluntary internal communication platform
- Available to all HPH MG and HHP independent providers
- Web and Mobile app:
  - Daily updates and memos regarding COVID-19
  - Self-care support and well-being information
  - Get latest HPH news and announcements on the go
  - Opt-in push notifications




# Web based HPH eConnect


 HPH eConnect


Need help?


Community Guidelines


FAQ

 Saved Items


 Messages


 Notifications





STAY CONNECTED ON  
THE GO WITH HPH eCONNECT

 COVID-19

 SELF-CARE

Search posts

My Content

CATEGORIES

General

COVID-19

Clinician Information

Management Information


Physicians/Providers

Human Resources

Self-Care

Healthier Connection Podcast

Manage Subscriptions



Welcome to HPH eConnect!


From CEO Ray Vara

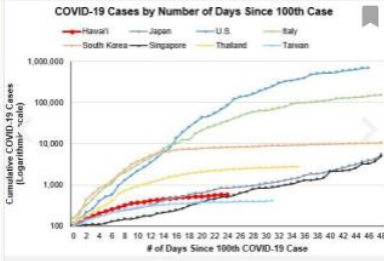
Welcome to HPH eConnect, our way of keeping the HPH community up to date on a real-time basis and in a way that's most convenient to you!

General


Apr 14, 2020, 285 views

181 Likes

 Liked




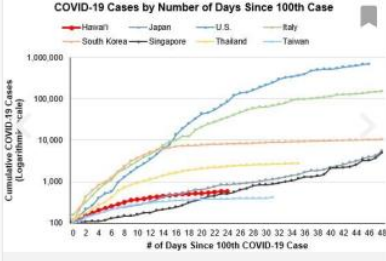
COVID-19 Actual vs. Predicted Cases April 20

 COVID-19 Actual v. Predicted Cases 2...


Clinician Information, +4

26 minutes ago, 1 view

 Like




COVID-19 Actual vs. Predicted Cases April 19


 COVID-19 Actual v. Predicted Cases 2...


Clinician Information, +4


4 hours ago, 4 views

2 Likes

 Like

 Wilcox Health

 Straub Medical Center



CREATING A HEALTHIER HAWAII

**HAWAII  
PACIFIC  
HEALTH** | HAWAII  
HEALTH  
PARTNERS

10  
6

# Q&A

CREATING A HEALTHIER HAWAI'I

**HAWAI'I  
PACIFIC  
HEALTH**

HAWAI'I  
HEALTH  
PARTNERS

# Thank you!

- A recording of the meeting will be available afterwards.
- Unanswered question?
  - Contact us at [Covid19Bulletin@hawaiipacifichealth.org](mailto:Covid19Bulletin@hawaiipacifichealth.org)