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LEADING INNOVATION FOR A HEALTHIER WORLD  
CHEF DE FILE EN INNOVATION POUR UN MONDE EN SANTÉ



**Faculty of Medicine  
International and Global Health Office (IGHO)  
COVID19 Webinar Series 2020**

**COVID-19 Global Pandemic and Global Response**

**Friday, April 17, 2020**

**11:00am-12:00pm**

**Guest speaker: Mark Walker, MD, FRCSC, MSc, MHCM**



# Program

- Welcome remarks by Moderator
  - Introduction of Guest Speaker
  - Disclosures
  - Accreditation
  - Learning Objectives
- Presentation
- Questions from participants – *coordinated by moderator*



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# Biography – Dr. Mark Walker

Dr. Walker is a healthcare executive and the current Chairman and Chief of the Department of Obstetrics and Gynecology at the University of Ottawa and The Ottawa Hospital, and has recently taken on the role of Interim Director of Global Health and Internationalization with the Faculty of Medicine.

As well as being a highly respected clinician and researcher, Dr. Walker holds a Masters in Epidemiology from the University of Toronto and a Masters in Health Care Management from Harvard University.

Dr. Walker's main research interests include health services, population health, and clinical studies in perinatology. His work in research has been as an epidemiologist, public health advocate and clinical trialist. He has published more than 330 peer reviewed articles and been awarded more than \$15 million as Principal Investigator in research.

He is currently a Senior Scientist and the Scientific Director of the Better Outcomes Registry & Network (BORN Ontario) as well as a board member of the CHEO Research Institute. Dr. Walker is the co-founder of the Obstetrics & Maternal Newborn Investigations (OMNI) Research Group, at the Ottawa Hospital Research Institute (OHRI).

He has supervised 117 trainees from summer students, Post-Doctoral Fellows, Residents and Clinical Fellows.



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# Disclosure of Commercial Support

- Potential for conflict(s) of interest: None



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# Accreditation

- **RCPSC:** This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, and approved by the University of Ottawa's Office of Continuing Professional Development. You may claim a maximum of **1.0 hours** (credits are automatically calculated).
- **CFPC:** This one-credit-per-hour Group Learning program meets the certification criteria of the College of Family Physicians of Canada and has been certified by the University of Ottawa's Office of Continuing Professional Development for up to 1.00 Mainpro+ credits.



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# COVID 19 Global Pandemic and Global Response

Dr Mark Walker, MD, MSc, MHCM, FRCSC(C)

University of Ottawa / Faculty of Medicine

Interim Director Internationalization and Global Health

## IGHO COVID-19 Webinar Series

# Learning Objectives

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To describe what COVID-19 is and the impact of globalization on its spread.

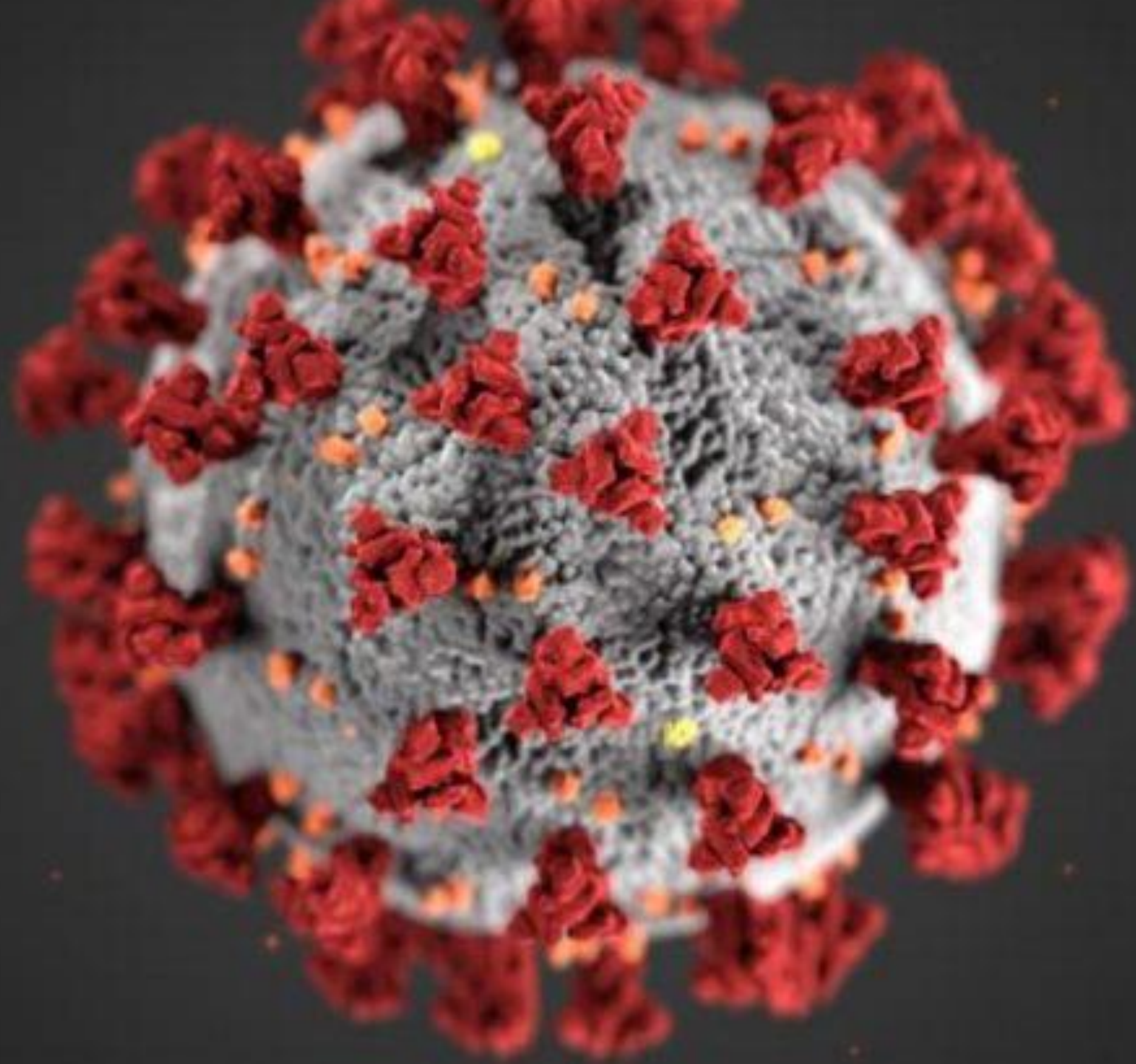
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To identify how we leveraged our global resources and partnership to prepare for the pandemic.

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To explain how the global community of scientists will work together for treatments and a vaccine.





# Video

<https://www.youtube.com/watch?v=j4Xiow30bGo>



A.

B.

C.

D.

Quiz







# How the virus spread around the world

Red dots show new confirmed cases on featured date. Shading indicates a country's first case

## 22 January

Daily cases 555 | Total cases 555  
New cases in Thailand, Japan, China, South Korea, Taiwan and US



## 26 January

Daily cases 684 | Total cases 2,118  
New cases in Australia and Canada



## 31 January

Daily cases 1,693 | Total cases 9,927  
New cases in Italy, Sweden, Russia and United Kingdom



## 19 February

Daily cases 503 | Total cases 75,639  
New cases in Iran



## 26 February

Daily cases 982 | Total cases 81,395  
New cases in Pakistan, Brazil, Georgia, Greece, North Macedonia, Norway and Romania



## 3 March

Daily cases 2,534 | Total cases 92,840  
New cases in Argentina, Chile, Jordan and Ukraine



## 9 March

Daily cases 3,766 | Total cases 113,561  
New cases in Albania, Cyprus and Brunei



## 13 March

Daily cases 16,850 | Total cases 145,193  
New cases in Kazakhstan, Ethiopia, Sudan, Guinea, Kenya and Antigua and Barb.



## 22 March

Daily cases 31,431 | Total cases 335,955  
New cases in Dominica, Grenada, Mozambique and Syria



## Current Status

Coronavirus Cases:

**2,206,676**

[view by country](#)

Deaths:

**148,663**

Recovered:

**558,440**





Questions from  
participants



A.

B.

C.

D.

Quiz



March 11, 2020 Global Pandemic Declared by WHO

# COVID-19 Update

March 11, 2020 / as of 8:13 AM EST

**1,016**  
U.S. cases

**31**  
U.S. deaths

**121,061**  
Worldwide cases

**4,368**  
Worldwide deaths

**MDedge**

Source: CDC, WHO; JHU CSSE; Worldometers.info





25.058 casi d  
2.339 operat  
1.697 decess

# 25.058 casi di COVID-19\*

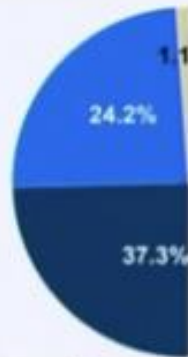
·19 in Italia



## 2.339 operatori sanitari

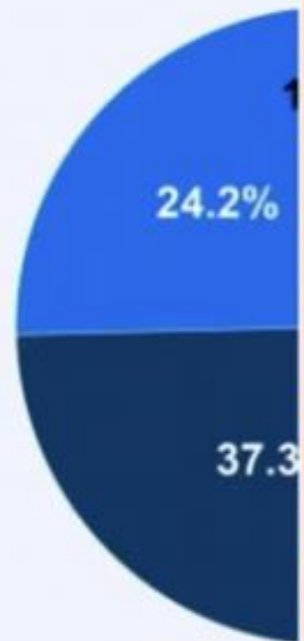
## 1.697 decessi

Sono risultati positivi il 98% dei campioni processati



0-18 19-50

Età mediana



0-18 19-50

## Età mediana 65 anni

Fascia d'età (anni)	Deceduti [n (%)]	Letalità (%)
0-9	0 (0%)	0%
10-19	0 (0%)	0%
20-29	0 (0%)	0%
30-39	4 (0.2%)	0.2%
40-49	9 (0.5%)	0.3%
50-59	46 (2.7%)	1%
60-69	144 (8.5%)	3.2%
70-79	602 (35.5%)	11.8%
80-89	727 (42.8%)	18.8%
>=90	165 (9.7%)	21.6%
Non noto	0 (0%)	0%
<b>Totale</b>	<b>1697 (100%)</b>	<b>6.8%</b>

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per Regione/PA di diagnosi

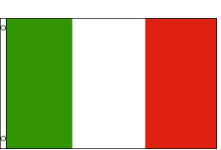
per Provincia di domicilio/residenza

European Centre for Disease Prevention and Control  
[ecdc.europa.eu/en/european-surveillance-human-infection-novel-coronavirus-2019-ncov](https://ecdc.europa.eu/en/european-surveillance-human-infection-novel-coronavirus-2019-ncov)



## Health Care System challenges

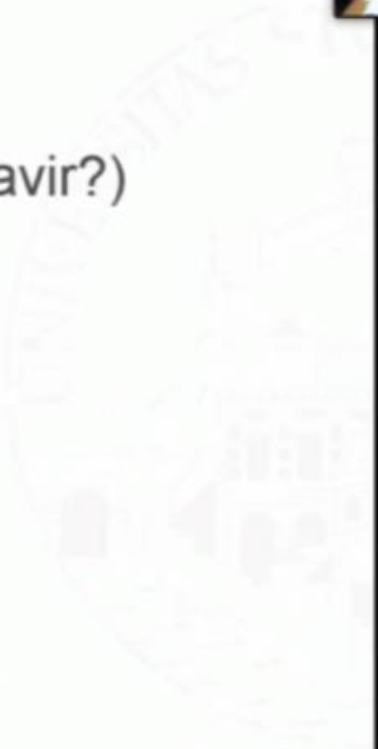


- Be prepared:
  - The epidemic runs very fast even geographically
  - SARS-Cov-2 is very contagious
  - The HS may be soon overwhelmed
  - Internal coordination (Administration, Physicians, Pharmacy, Supplies, ...)
  - Individual Protective Devices (supply, correct use, etc.)
  - Diagnostic (false negative nasofaringeal swabs, BAL...)
  - Therapeutic guidelines (no established regimens)
  - Impact on other health needs



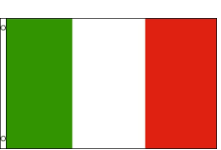
Recording

## Therapeutic options

- Protease inhibitors (lopinavir? darunavir?)
- Chloroquine
- Remdesivir
- Tocilizumab
- Other IL-6 inhibitors
- .....







## Key messages

- SARS-COV-2 spreads rapidly in geographical terms unless drastic restriction measures are taken
- SARS-COV-2 ramps very quickly in terms of epidemic curve
- Hospitals need to have a well established emergency plan (beds, staff, equipment, supplies, etc.)
- Clinical course may be sneaky, with quick worsening of respiratory function
- Lung TC is quite typical, with basilar and peripheral infiltrates (high PPV)
- Nasopharyngeal swab may be negative at first (BAL)
- High infectiousness among health care workers
- Supply stock (mask, ventilators, etc.)



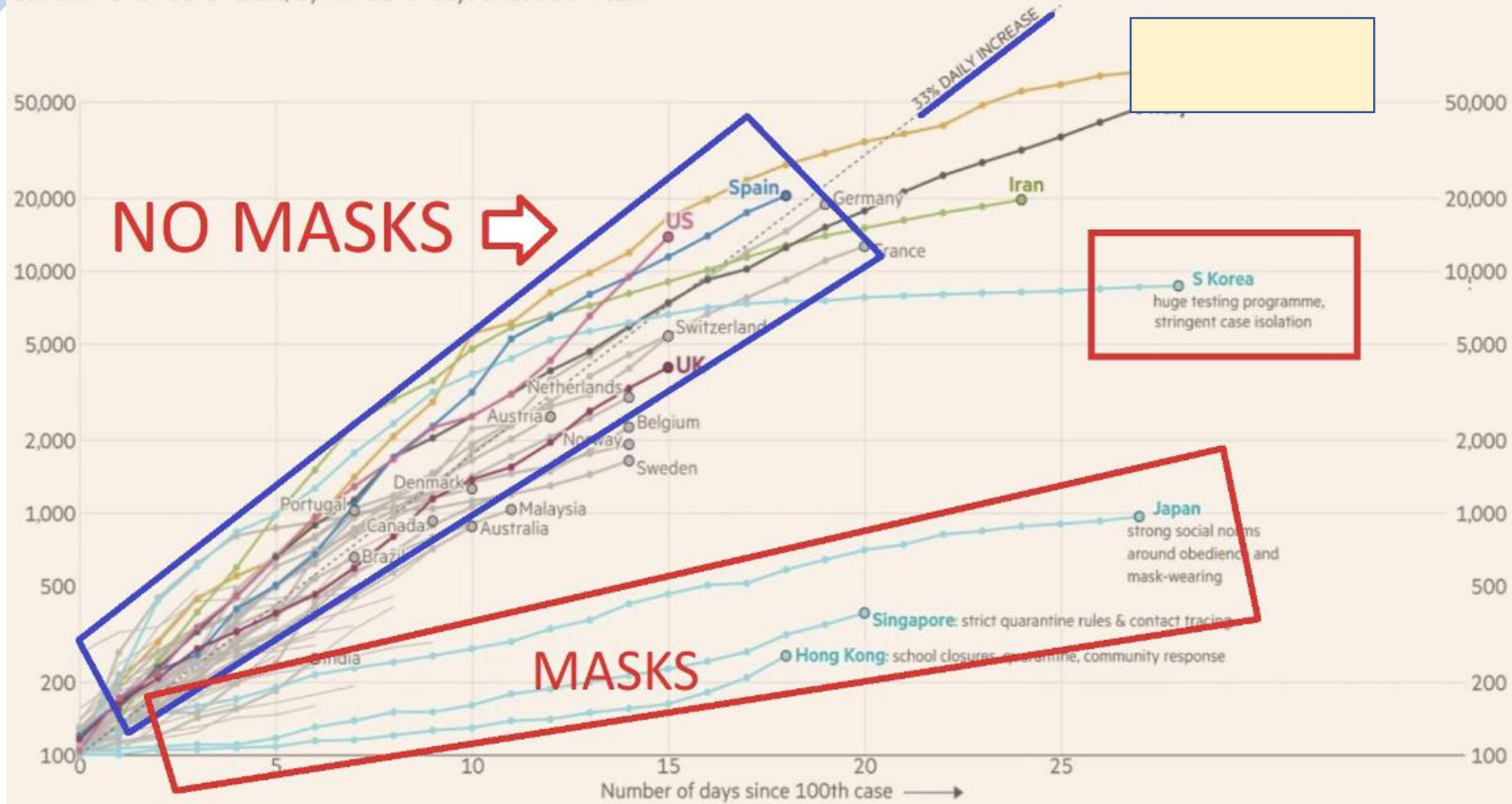
# FACTORS THAT INCREASE RISK OF TRANSMISSION TO HEALTHCARE PROVIDERS

- Inadequate personal protection use at the beginning of the epidemic
- Long-time exposure to large scale of infected patients
- Shortage of PPE
- Insufficient training of frontline staff for infection prevention and control



# Country by country: how coronavirus case trajectories compare

Cumulative number of cases, by number of days since 100th case



FT graphic: John Burn-Murdoch / @jburnmurdoch  
Source: FT analysis of Johns Hopkins University, CSSE, Worldometers. Data updated March 20, 19:00 GMT



Questions  
from  
participants



# Global Solutions



A.

B.

C.

D.

Quiz

# ICU projections

## Census projections

Projected census of COVID-19 ICU hospitalizations in Ottawa

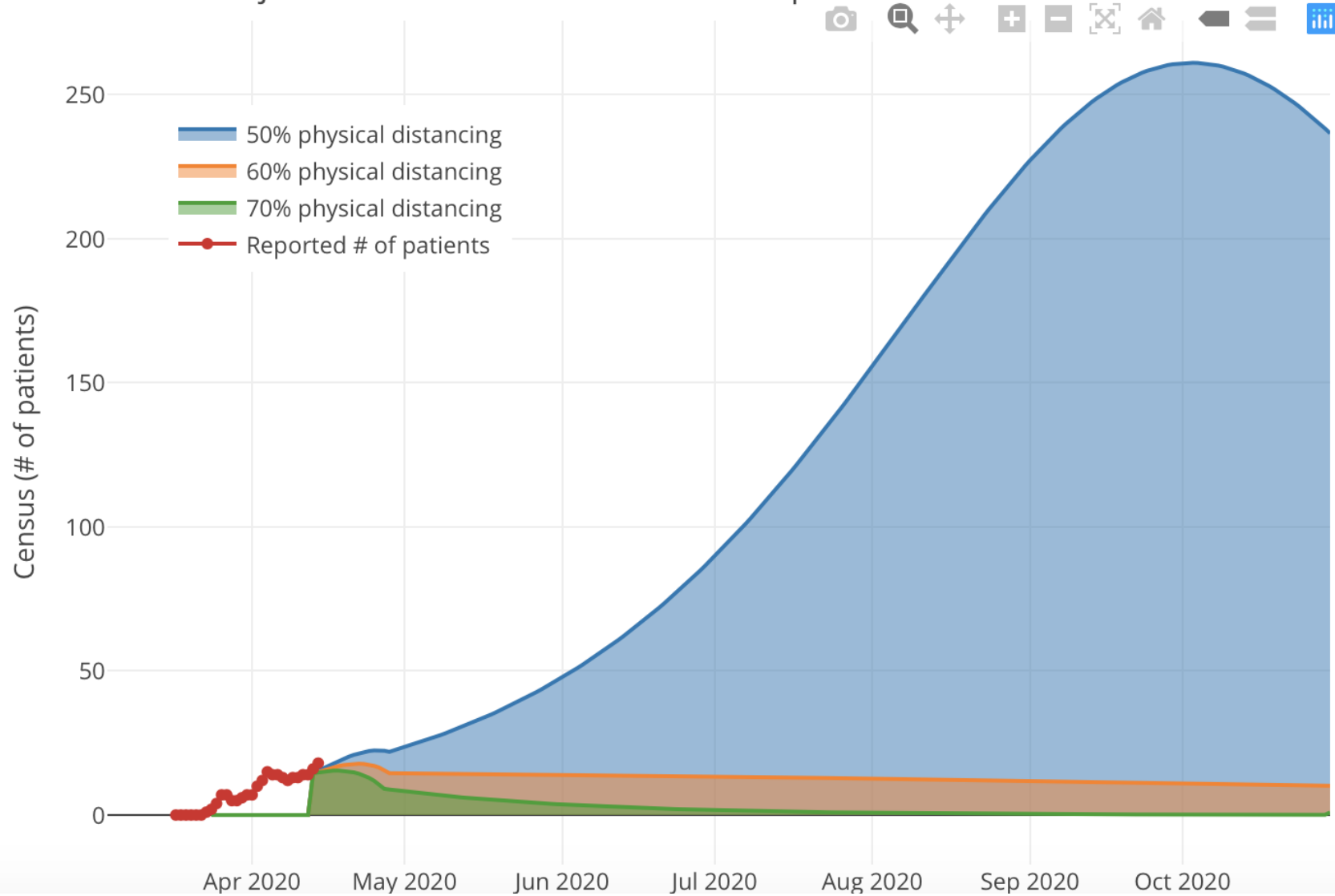
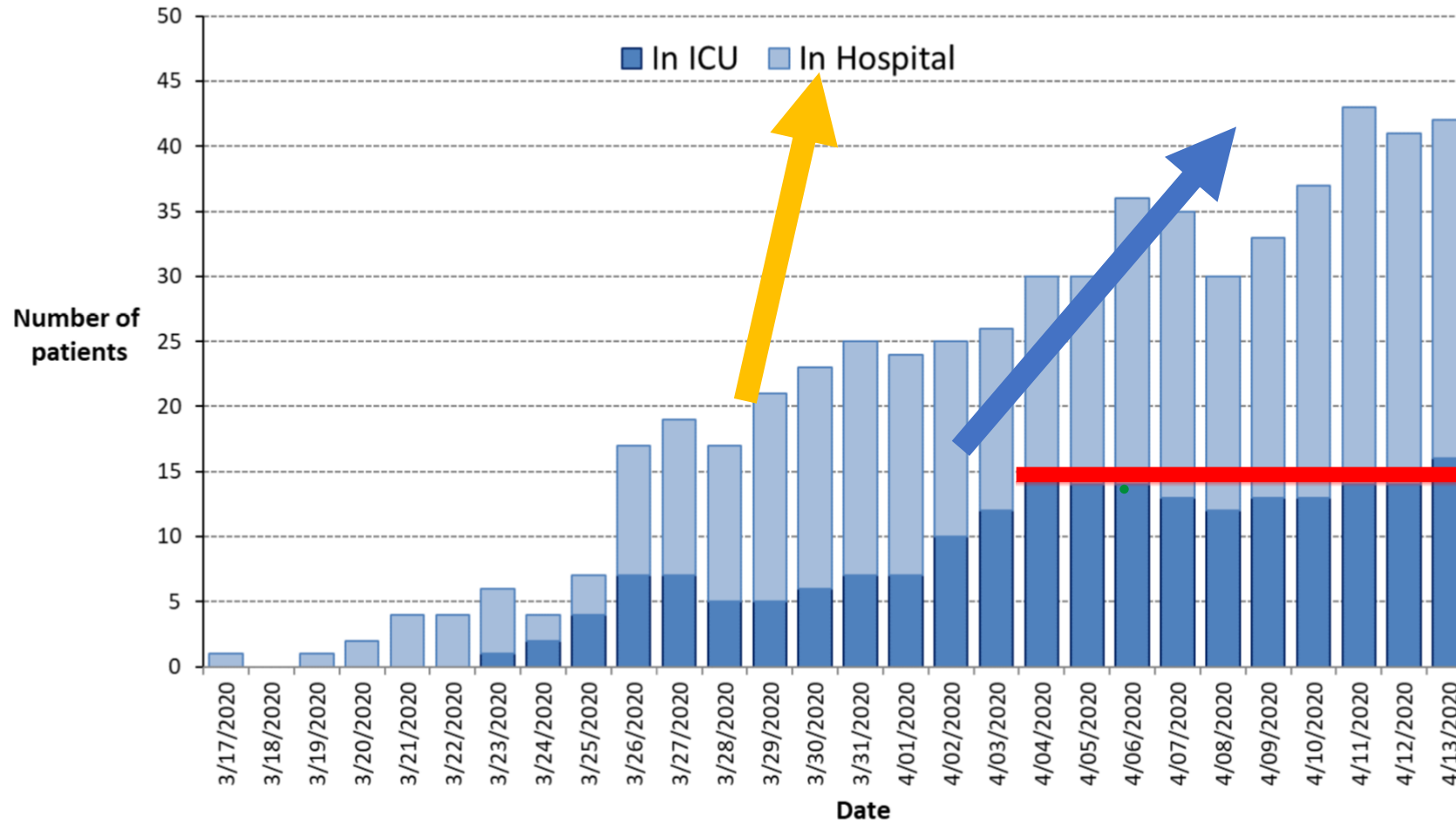


Figure 3. Confirmed Ottawa COVID-19 cases currently in hospital or intensive care, by day





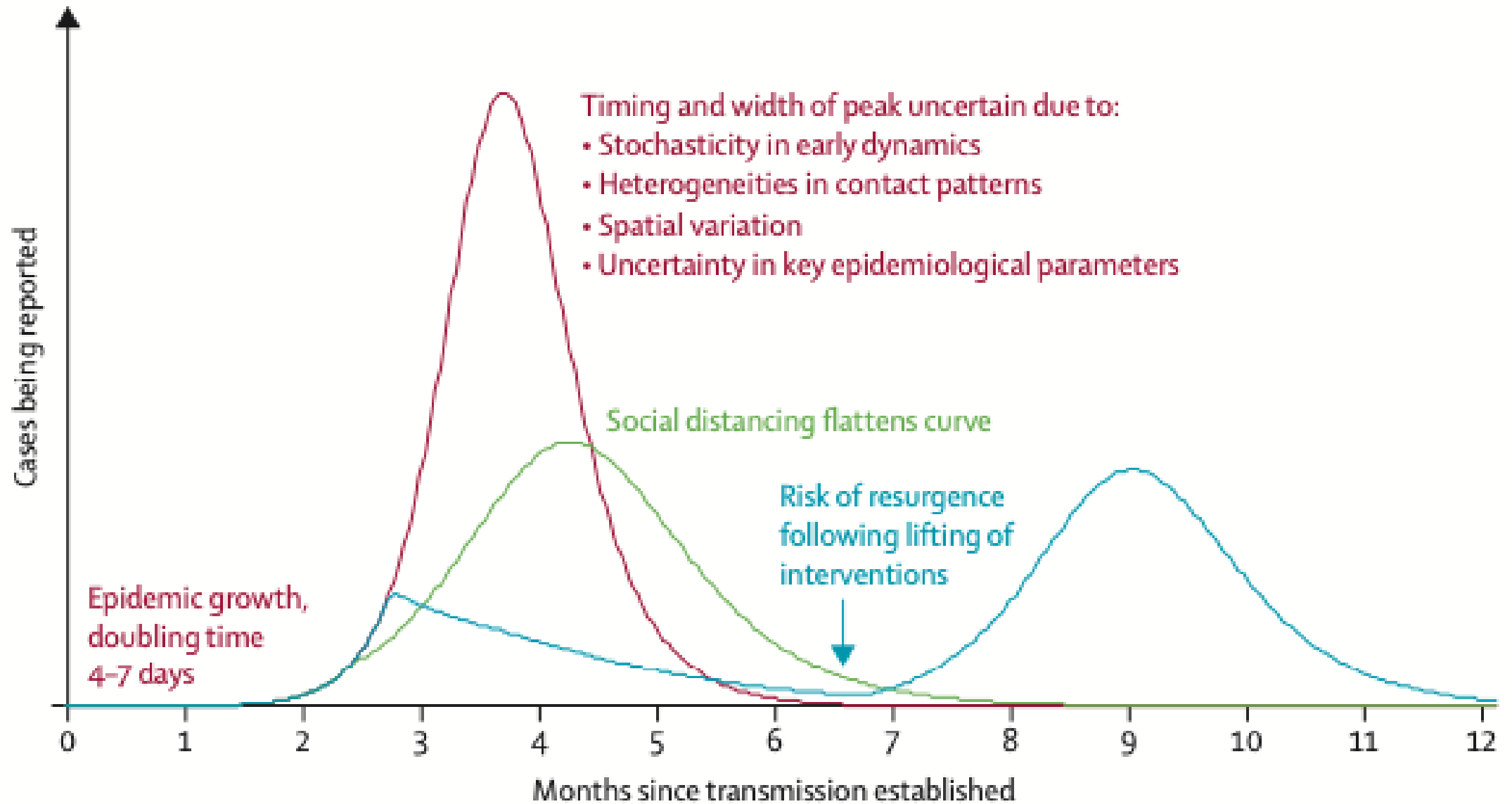
**HIGH FIVE**

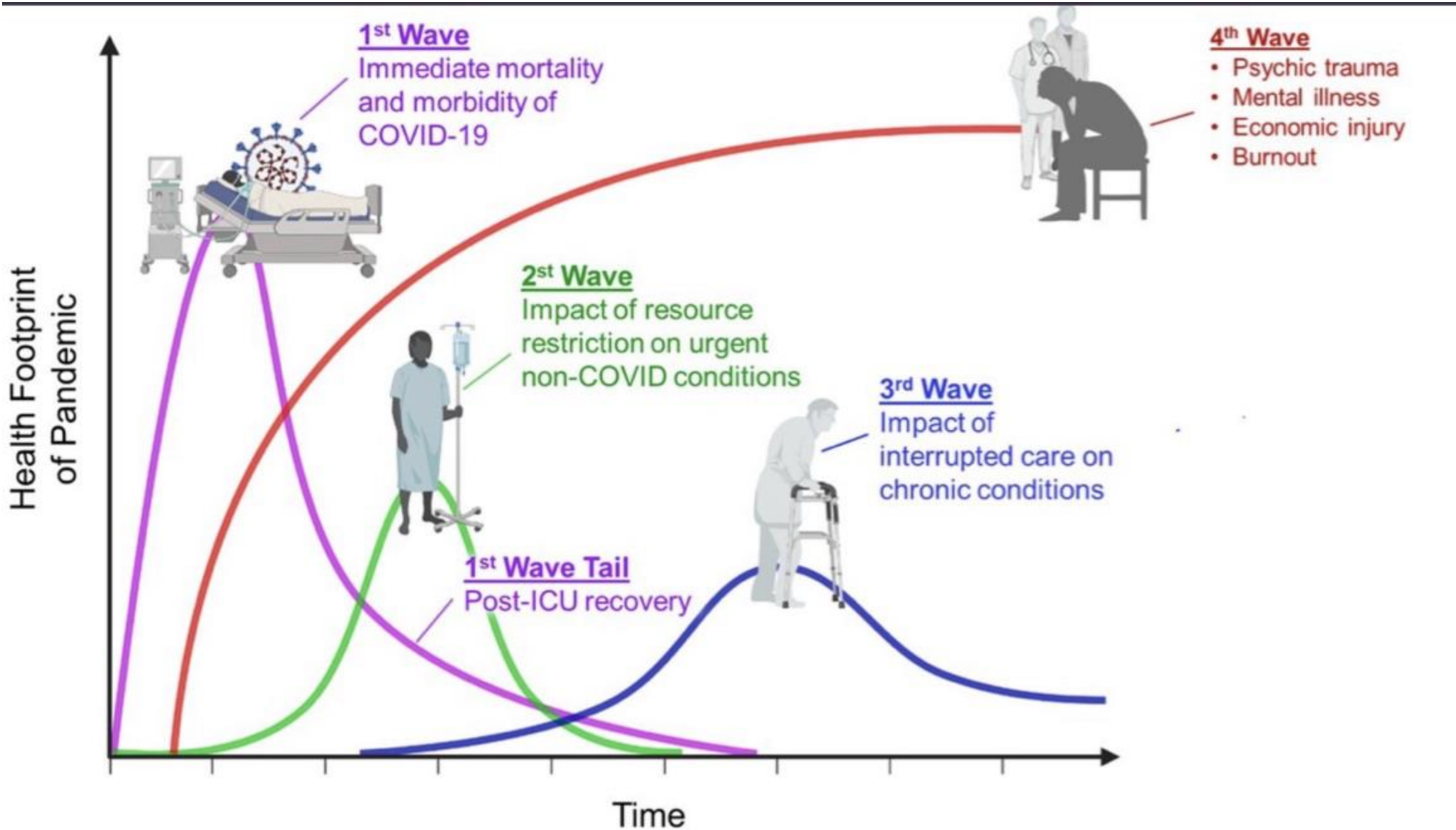


**WE GOT THIS**

# FLATTENING THE COVID-19 CURVE











A.

B.

C.

D.

Quiz





US FDA, CE-ND, K-MFDS Product License







**Favilavir**  
formerly known as Fapilavir, an antiviral that has shown efficacy in treating the novel coronavirus, was approved for marketing, the Taizhou government in Zhejiang province announced.



1  
Collect blood sample



2  
Add blood sample to sample well



3  
Place 2-3 drops of buffer in sample well



4  
Read results after 15 minutes





# Questions from participants



# Feedback *(is very much appreciated)*

- Please take a brief moment to complete the online evaluation for today's webinar
- It will be sent to you by email today
- You can also access it by clicking the link below:

[https://www.surveymonkey.ca/r/IGHO-COVID19\\_2](https://www.surveymonkey.ca/r/IGHO-COVID19_2)



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