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# COVID-19 Webinar

## “July Update”

We're taking a virtual role call today for those on the WebEx.  
If you're viewing this in a group, please use the “Chat” window  
on the right to enter your:

**Name**, **Agency Name**, and **# of people** joining from your location.

***Please send chat messages to “All Panelists”***

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This session will be recorded, and a  
link sent out to attendees.

# Facilitators:



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## Kyle Sereda

Chief

Moose Jaw & District EMS

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President, FirstWatch

[tstout@firstwatch.net](mailto:tstout@firstwatch.net)

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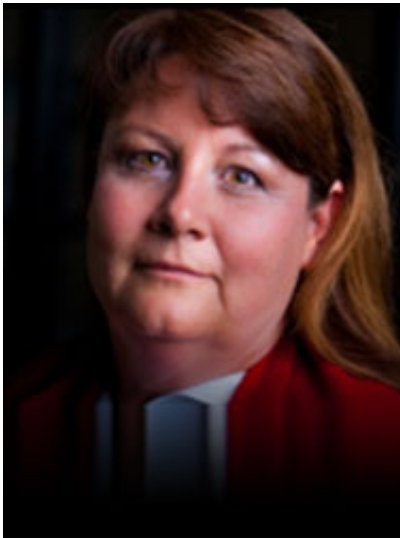




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# Guest Speaker:



## COVID-19 Update

Pam Farber, RN, EMT-P  
Public Health Advisor,  
FirstWatch  
[pfarber@firstwatch.net](mailto:pfarber@firstwatch.net)

Health Intelligence Resource  
[www.firstwatch.net/hi](http://www.firstwatch.net/hi)

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# Paramedic Chiefs of Canada COVID-19 “Coronavirus” International Teleconference



Cisco WebEx Training Center - How to ask a question using the WebEx system

File Edit Share View Audio Participant Session Breakout Help

Quick Start Session Info Questions

01: Questions/Comr

Click the hand icon to virtually “raise” your hand and ask a question.

Questions/Comments?

You can also use the chat box to send your questions to any of the groups provided in the dropdown list.

Participants

Speaking:

Panelist: 1

Katelyn Gilligan (Host, me)

Attendee: 0

Chat

Send to: Host, Presenter & Panelists

Select a p: Host, Presenter, Host & Presenter, Host, Presenter & Panelists

Send

Full Screen 96% View

Cisco WebEx Session No. 801 291 332





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# Webinars are now held once a month

## Next COVID-19 Webinar

**Thursday, August 20 at 10:30am PT (1:30pm ET)**

[Sign up for information and notifications @ www.firstwatch.net/hi](http://www.firstwatch.net/hi)

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# Please mute your phone

- All attendees are automatically muted by WebEx, but **we recommend muting your phone on your end**, as sometimes we unmute everyone on the WebEx side to anyone who wants to speak, and if you have background noise it will limit everyone's ability to share.

Thank You!



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# Agenda:

- ▶ Purpose & Rules of Engagement
- ▶ COVID-19 Situation Update
- ▶ Guest Speaker Discussion
- ▶ Q&A (if time allows)



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# Purpose of these gatherings:

- Update on COVID-19 situation
- Receive FirstWatch SitRep on COVID-19 surveillance activity
- Listen to guest speakers on select issues
- Share solutions regarding specific challenges posed by COVID-19





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# Rules of Engagement

- ▶ Session will conclude after 60 minutes
- ▶ Session materials can be sent to [eid@ParamedicChiefs.ca](mailto:eid@ParamedicChiefs.ca) for posting on Paramedic Chiefs of Canada website
- ▶ Please keep your comments brief



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# COVID-19 Situation Update



Silvia Verdugo, MD, MPH

Medical Director

FirstWatch

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# COVID-19 Situation Update



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## COVID- 19 Cases

**14,562,550**

213,637 (24 hrs)

## Deaths

**607,781**

4,083 (24 hrs)

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### Situation in numbers (by WHO Region)

Total (new cases in last 24 hours)

Africa	611 185 cases (13 962)	9 898 deaths (207)
Americas	7 702 075 cases (117 400)	311 569 deaths (2 260)
Eastern Mediterranean	1 400 544 cases (13 249)	35 145 deaths (459)
Europe	3 103 674 cases (24 401)	207 958 deaths (416)
South-East Asia	1 478 141 cases (42 000)	35 121 deaths (733)
Western Pacific	266 190 cases (2 625)	8 077 deaths (8)

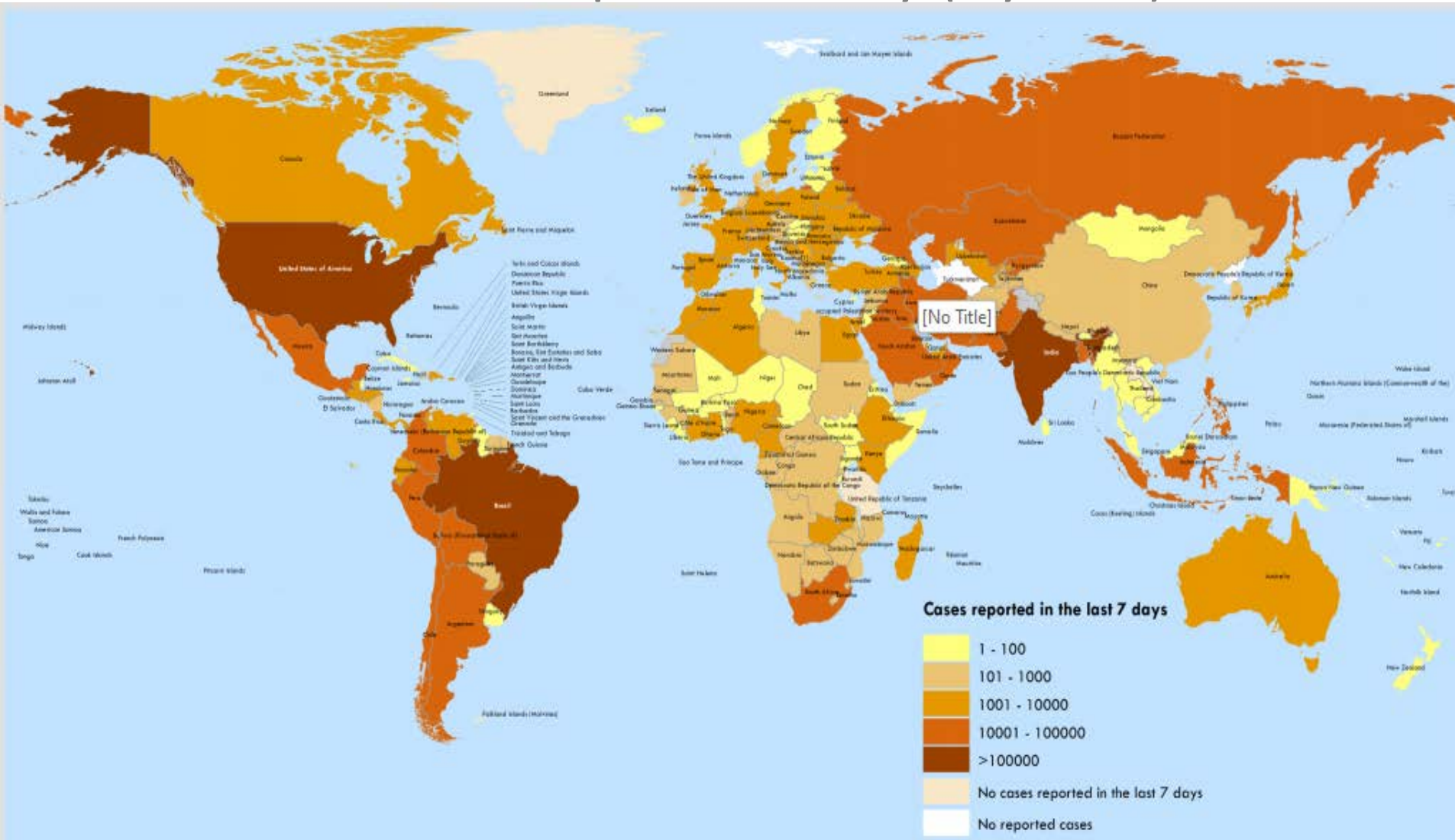
# COVID-19 Situation Update



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Number of confirmed COVID-19 reported in last 7 days (July 17 – 21)





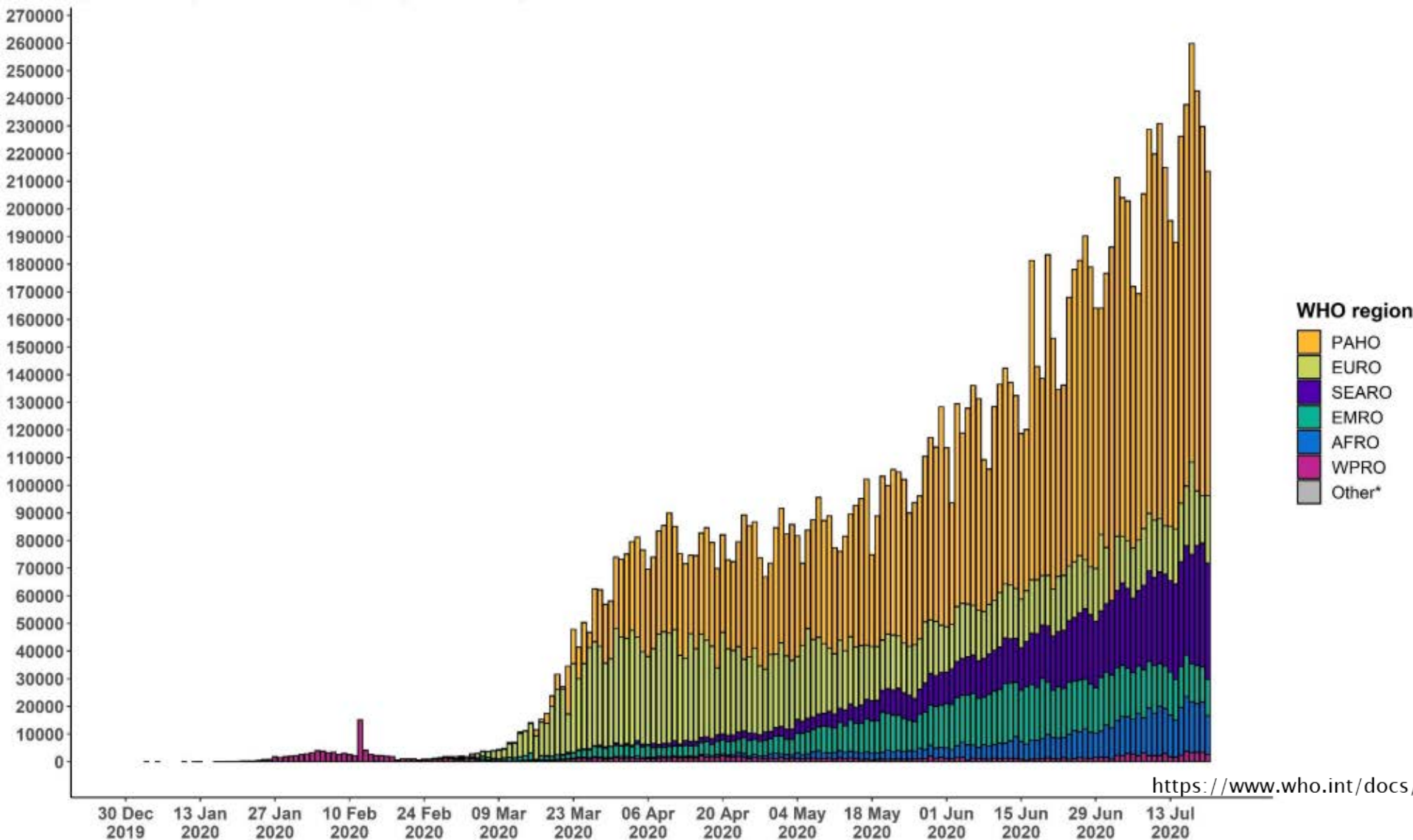
# COVID-19 Situation Update



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Number of confirmed COVID-19 reported Dec. 30 – July 21

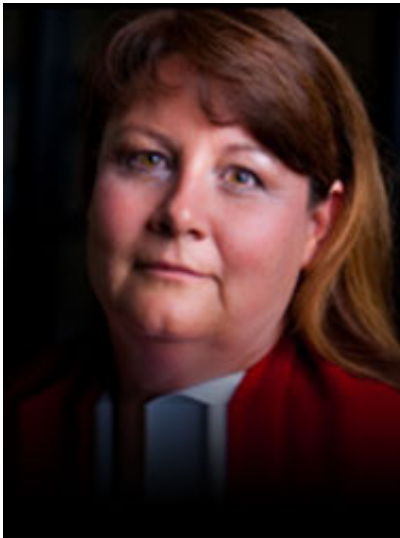




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# Guest Speaker:



## COVID-19 Update

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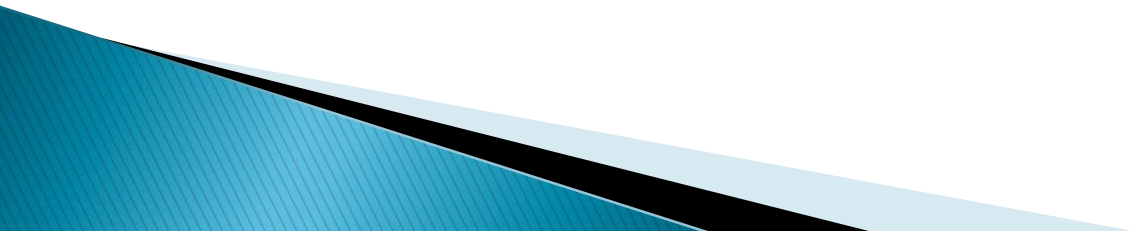
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# COVID -19

## WHAT WE KNOW NOW and WHAT WE DON'T

Questions ???

Feel Free to Ask  
as We Go !!



# Why All the Changes?



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**SARS-CoV-2 is a new virus (likely less than a year old) which causes COVID-19**

**With a new virus & disease, it takes a while to study the virus & disease and to collect & sort data**

**This results in changing knowledge & updated recommendations.**

**It also leads to scientific debate & disagreement**

# Follow the Science

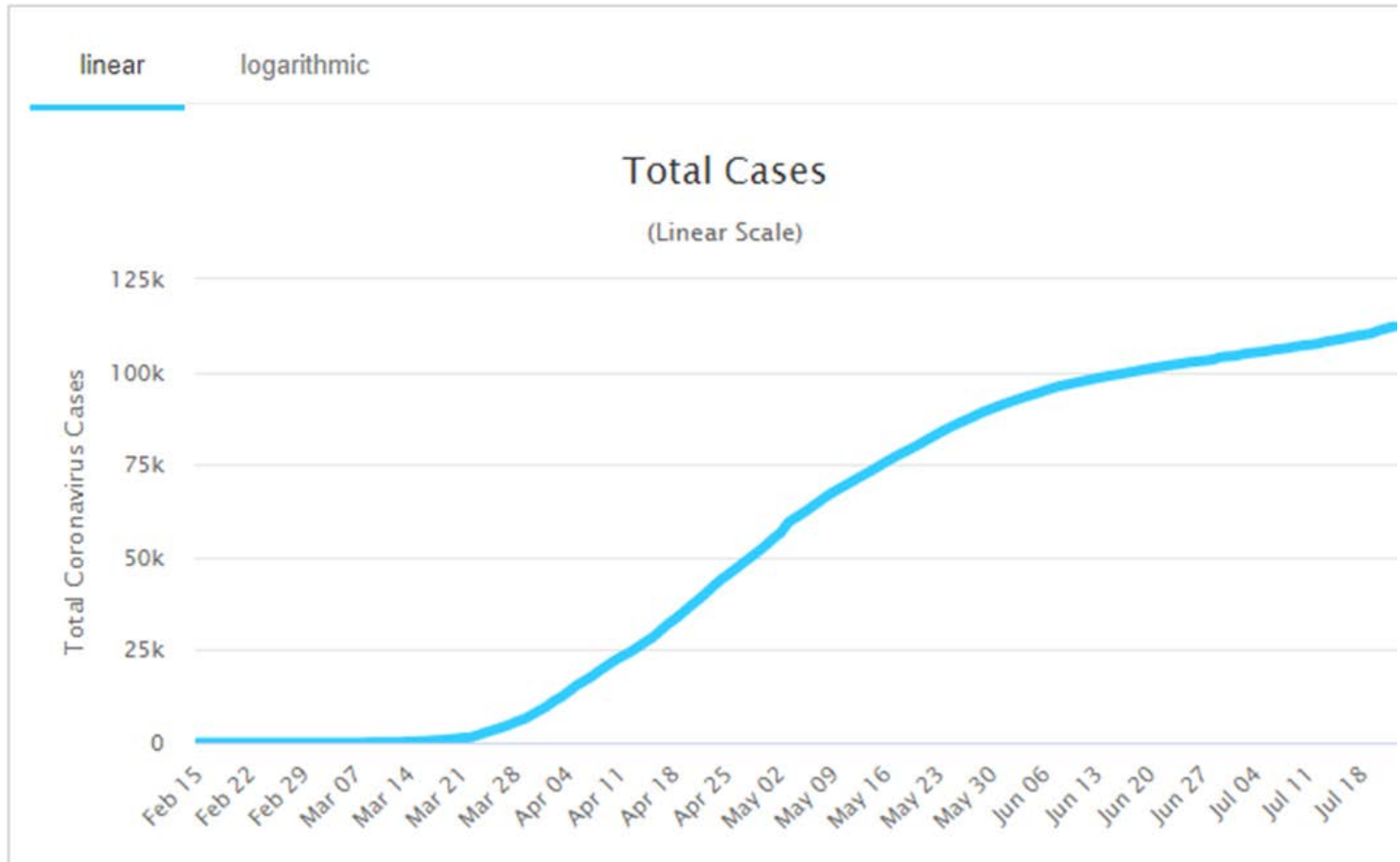


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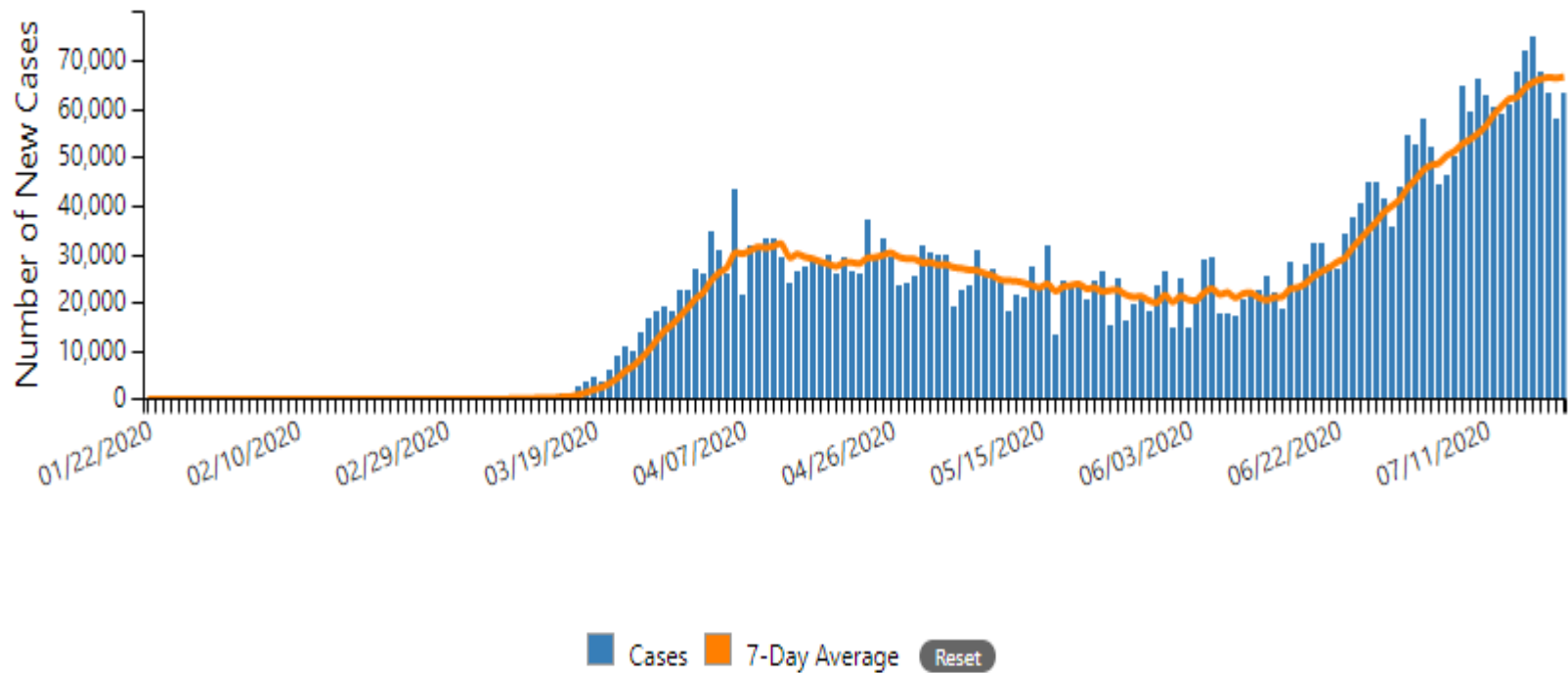
- ▶ Check your country's public health website
- ▶ Subscribe to renowned sites for updates – we'll post some suggestions
- ▶ There is a lot of information being posted & forwarded, as well as reported by news agencies and websites. Look for trustworthy sites that you recognize or are recommended by scientists, physicians, or field specialists
- ▶ Look for published studies with peer review
- ▶ Valid information should be found on multiple sites

# Total Coronavirus Cases in Canada



## New Cases by Day

The following chart shows the number of new COVID-19 cases reported each day in the U.S. since the beginning of the outbreak. Hover over the bars to see the number of new cases by day.





# Why Is This So Hard ?



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## COVID Doesn't Play by the Rules

- Not just a respiratory infection
- Affects many systems/organs
- There is an Inflammatory Response even in mild & moderate cases
- Some have no symptoms & others die

# Different Approaches



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**Data shows that a total lock down stops the virus earlier:**

- minimize travel & movement
- stay at home order
- masks & social distancing when out

With rolling orders in different areas where the virus is hitting hard, stopping the virus takes longer & risks continued spread

# Proper Public Masking



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- ▶ It's not enough to say 'wear a mask'
- ▶ It has to be **proper** masking / modeling:
  - Multiple layers of a tight weave – cotton layer(s)
  - Good coverage of nose & mouth with a snug fit
  - Talking & activity should not shift the mask
  - No adjustments made by touching the cloth area
  - Most valves protect only the wearer
- ▶ Ideally has:
  - Nose clip
  - Filter pocket/filter: HEPA, charcoal, coffee filter
  - Adjustable ear loops: small O rings

# Plus Social Distancing



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- ▶ Minimum 2 meters/6 feet
- ▶ Airborne requires more 3–4 meters/10–12 ft
- ▶ Better to face the same direction or stagger rather than face to face
- ▶ More distance required if dispelling large amounts of air/droplets (sneezing, coughing, exercising, singing, laughing)

# Transmission



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- ▶ Large Droplet directly from one to another
- ▶ Fomites – contaminated objects from droplets or contaminated touch then transferred to another's hands (typically) and then to the mouth, nose and/or eyes
- ▶ Airborne – Small Aerosolized Droplets that hang in the air (inside) for long periods of time and can be direct or indirect transmission
- ▶ Feces Contamination/Toilet/Hopper Spray

# Airborne Aerosols



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- ▶ Likely the cause of the “super spreading events” occurring in venues:
  - Cultural & Religious Activities
  - Gyms
  - Bars & Restaurants
- Much less likely outside
- Scientists and Doctors sent information & request to WHO to include as transmission mode
- Several Studies published supporting this type
- WHO, CDC, etc. acknowledge that is a possibility



# More Cases Than Known



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## In Areas with Community Spread:

- Unless testing most of the population & doing contact tracing, assume positive cases are a multiplier of known case rate (many models use x10)
- With widespread community cases, assume anyone may have COVID, even without symptoms and treat accordingly
- Identify **small** family group (typically household) as the only ones where masking & distancing is not required
- You are coming into contact with everyone the person you are around contacted. (may be lots of germs)

# Increased Risk for Severe COVID



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**Any age group with certain medical conditions are at increased risk for severe illness from COVID-19:**

- ▶ Cancer
- ▶ Chronic kidney disease
- ▶ COPD
- ▶ Immunocompromise from a solid organ transplant
- ▶ Obesity (BMI  $\geq 30$ )
- ▶ Serious heart conditions (CHF, CAD, cardiomyopathies)
- ▶ Sickle cell disease
- ▶ Type 2 diabetes

(CDC 7/17/20)

# Possible Increased Risk



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The following conditions **may be** at increased risk of severe disease:

- ▶ Asthma (moderate to severe)
- ▶ Cerebrovascular disease ( blood vessels & blood supply to brain)
- ▶ Cystic Fibrosis
- ▶ Hypertension
- ▶ Immunocompromise from blood or bone marrow transplant, immune deficiencies, HIV, corticosteroid or other immune weakening meds
- ▶ Neurologic conditions such as dementia
- ▶ Liver disease
- ▶ Pregnancy
- ▶ Pulmonary Fibrosis
- ▶ Smoking
- ▶ Thalassemia
- ▶ Type 1 diabetes

(CDC 7/17/20)

# Risk for Children



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**Children with medical complexity, neurologic, genetic, or metabolic conditions, or who have congenital heart disease might be at increased risk for severe illness from COVID-19 when compared to other children**

(CDC 7/17/20)

# Who Shows Symptoms?



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- ▶ **Asymptomatic COVID Illness** + / – 50–60% of cases; most often in children/young adults but seen even in nursing homes/ALFs
- ▶ **Mild & Moderate** + / – 30–20% of cases may present like a cold, allergies or atypically but may also present with SOB/DB & lower O2 sat
- ▶ **Severe & Critical** + / – 20% of cases; requires O2 and other supportive management; Critical generally require respiratory & pressor support

# COVID-19 Viral Loads



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Another quirk of COVID is that all those infected have different viral loads

So far, investigations have revealed that the highest viral load is found in those that are asymptomatic or so mildly symptomatic that COVID infection is rarely considered

And, to keep things really interesting, the virus is thought to most readily spread in the days before symptoms appear, if they do at all



# COVID Symptoms



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Most Common Symptoms (Canada.ca )	Most Common Symptoms (CDC.gov)
new or worsening cough	fever or chills
shortness of breath/difficulty breathing	cough
temperature $\geq 38^{\circ}$ C	Shortness of breath/difficulty breathing
fatigue or weakness	fatigue
feeling feverish or chills	sore throat
muscle or body aches	muscle or body aches
headache	headache
GI: abd pain, diarrhea, vomiting	GI: nausea, diarrhea, vomiting
feeling very unwell	congestion or runny nose
<b>new loss of smell or taste</b>	<b>new loss of taste or smell</b>
vary from person to person	wide range of symptoms reported
may vary by age groups	from mild to severe illness
Kids more likely to have GI, skin changes, rashes	

# \* Emergency Warning Signs



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## **Seek Emergency Medical Care Immediately if:**

- ▶ Trouble Breathing/ O2 sat lower than 94
- ▶ Persistent Chest Pain/Pressure
- ▶ New Confusion
- ▶ Inability to wake or stay awake
- ▶ Bluish lips or face

Not a complete list; If concerned call medical provider/hotline for guidance

<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

# Inflammatory Response



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In some individuals, in the weeks after their COVID infection (whether symptomatic or not), another set of symptoms may be exhibited that seem to be caused by an inflammatory response. This can include pulmonary embolus, strokes, MIs, rashes, etc. Visits to the hospitals are often necessary.

What's notable, is that most of these people were asymptomatic, mild or moderate and often did not go to the hospital (hospitalized patients also have this response but in the course of their stay).

# MIS-C



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Multi-Inflammatory Syndrome in Children is also an inflammatory response that occurs in those younger than 18 or 21, depending on the country definition. It can attack many different systems including the heart, brain, any blood vessels, skin, GI system, kidneys.

A new report from Dr. Diana Bianchi, from the Eunice Shriver Unit of NIH, suggests that 25% of children that have COVID develop some form of MIS-C. A UK researcher also found a 10-fold greater incidence of MIS-C after COVID than previously thought to occur.

More on MIS-C can be found in previous PCC Webinar recording or on the FirstWatch Health Intelligence Page

# Protection for Workers



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- ▶ Health care providers / Public Safety should always protect themselves from others unless in their identified family group
- ▶ New CDC guidance suggests EMS Workers wear masks when on duty in common areas; these can be N95 respirators or cloth masks
- ▶ This should apply to other essential employees as well (HCWs, Police, Fire, PSAPs)

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html>

# Flu & COVID-19



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Seasonal Flu Season is rapidly approaching

There is now proof from last winter/spring that there WAS co-infection of COVID-19 & seasonal flu

One did not cause the other, but being weakened by one may lead to more susceptibility than the other

Increased risk for complications/severe disease only raises the risk higher to worsen the other



# Flu & COVID Continued



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The only definitive symptom between the two is that **SOME** COVID patients lose their sense of smell and/or taste

Even the complications of Flu, in many ways, mirror what can be seen with COVID.

It is **ESSENTIAL**, now more than ever, to get a seasonal flu shot as soon as your health care or vaccine provider make them available.

# Health Care Provider PPE



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**Still a Debacle:**

**Over 1 700 HCPs & Public Safety have died from COVID-19 worldwide.**

**Risk will not diminish until there is adequate single-use appropriate PPE to use as intended**

# Diagnostic & Antibody Testing



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There are still testing issues regarding:

- Supply issues
- Rapidity of Results
- Reliability or Understanding of what a result means

More Point-of-Care tests should be coming out, but many of the same testing supplies (swabs, machines, etc.) are shared between COVID and Flu meaning supplies availability may get even worse

Labs are working on a Flu/COVID combo test which will help

# COVID- 19 Treatments



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There are a variety of treatments that have been proven effective in many patients with COVID. Most are used only when patient condition dictates.

They include:

- Prone Positioning
- Remdesivir
- IL 6 Inhibitors
- Convalescent Plasma
- Anticoagulation
- Decadron

There are ongoing studies & trials

# Antibody Persistence



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So far, it has been difficult to detect antibodies after COVID infection for more than 2–3 months. There are indications that **a person can get COVID more than once** although investigations are ongoing

Those that have severe infection over a longer period of time seem to have a better antibody response than those that are asymptomatic or have milder disease

Antibodies from those that have recovered are used to make convalescent plasma

# COVID-19 Vaccines



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There are over 100 vaccines being explored for use in preventing COVID-19


There are several vaccines that have showed promise in early phases of their trials and are moving onto phase 2 & 3 trials.

They show promise and only more time and the larger phase trials will answer if there are going to be ultimately effective in preventing COVID for even a short time frame



## Clinician On-Call Center



The **Clinician On-Call Center** is a hotline with trained CDC clinicians standing by to answer COVID-19 questions daily from healthcare personnel on a wide range of topics, such as diagnostic challenges, clinical management, and infection prevention and control. To reach this service, call 800-CDC-INFO (800-232-4636) and ask for the Clinician On-Call Center. [Learn more](#)  [1 page].

# In Memory



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Medscape has developed a list of those Health Care Providers and First Responders who have died as a result of their work.

The link below explains their list and how to apply to have someone added to it.

<https://www.medscape.com/viewarticle/927976>



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# Q&A and Thank You

[eid@ParamedicChiefs.ca](mailto:eid@ParamedicChiefs.ca)

Kyle Sereda – [ksereda@moosejawems.ca](mailto:ksereda@moosejawems.ca)

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