



# COVID-19

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## COMMUNITY WATCH



The Hamilton  
Academy of Medicine

## Community Watch App Now on Apple Store & Google Play

This community watch app allows health care researchers to survey the general population in identifying changing trends that will affect front-line healthcare systems.

You can also take the daily survey at [www.covid19app.ca](http://www.covid19app.ca), to help flatten the curve!



Available on the  
**App Store**



GET IT ON  
**Google Play**

# Who are we?



Founded 2007

Developed healthcare  
software for over 10 years



Founded 2019

Focused on healthcare  
research & technology



Contact us at  
[info@lumedi.org](mailto:info@lumedi.org)



# COVID-19 Progression

*For a typical patient that is admitted to hospital, from onset of symptoms*

Day 1: first day symptoms begin

Days 2-4: persistent fever

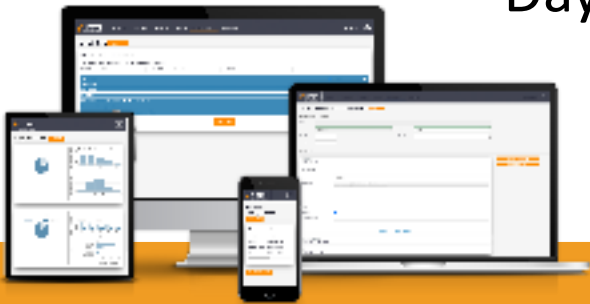
Day 5: breathing difficulty

**Day 7: average day patients are admitted**

Day 10: average day patient enters ICU

Days 12-14: survivors typically begin to improve

Day 18: average days from symptoms until death



# Why do a population based study?

Since the average patient entering hospital does so 7 days after onset of symptoms:

*If we can track the increase in symptoms, we should be able to predict when spikes will occur in hospital admissions.*

More information = better evidence-based decisions



# What is the COVID-19 Community Watch?

Population based longitudinal study studying COVID-19 in Hamilton & Halton

- Provide early detection of changing trends BEFORE they affect our health care system
- Identify 'hotspots' where COVID-19 may be actively spreading
- Assess how COVID-19 is impacting our community



# Short History

March 17, 18

- Discussed concept with local doctors
- Received support from the Hamilton Academy of Medicine & McMaster Innovators in Scrubs
- Developed survey based on symptoms defined by the WHO, with input from local doctors



IN PARTNERSHIP WITH



The Hamilton  
Academy of Medicine

POWERED BY



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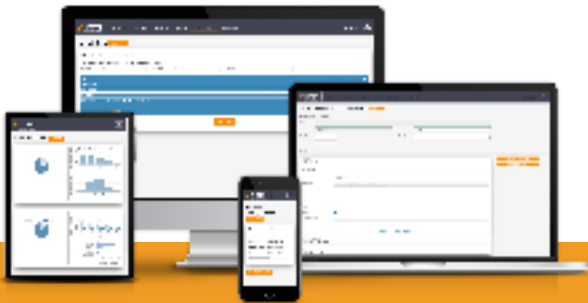
# Short History

March 19, 20

- Developed website with online survey
- Developed iOS and Android apps, submitted to app stores

March 21

- Data collection begins



How many people are living at this address

Are any people in your household showing symptoms? please indicate the number of people for each reason below

Total number of people in household self-quarantine

Showing symptoms

Exposure to someone with symptoms

Recently travelled

In an at-risk group (e.g. chronic lung disease, heart disease, immunosuppressed)

Other

Are any people experiencing symptoms (if yes, please indicate the number of people for each symptom)?

Fever


Sore throat

Cough

0 - +

1 - +

**COMMUNITY**  
Watch

 Lumedi  
Clinical Research Done Better

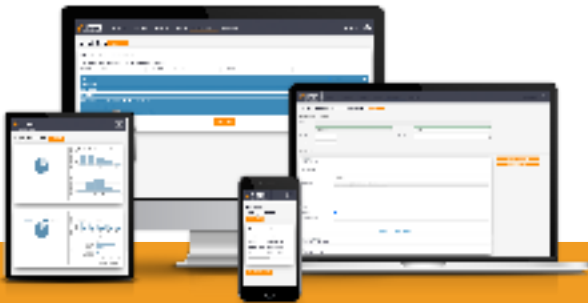
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# Collaboration

Over the next couple weeks we had opportunity to collaborate with:

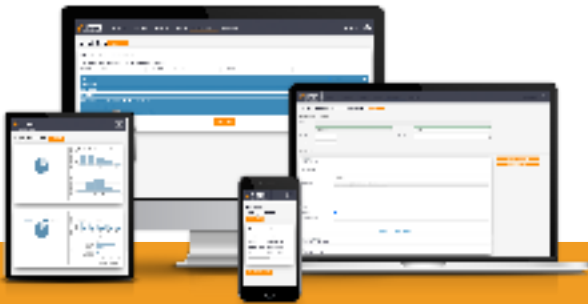
- Hamilton Academy of Medicine
- McMaster University “Innovators in Scrubs” Team
- Mohawk College
- Individuals from HHS, St. Josephs, Joseph Brant
- Other companies working on COVID-19 apps in Canada & the U.S – e.g. contact tracing initiatives
- Several CROs





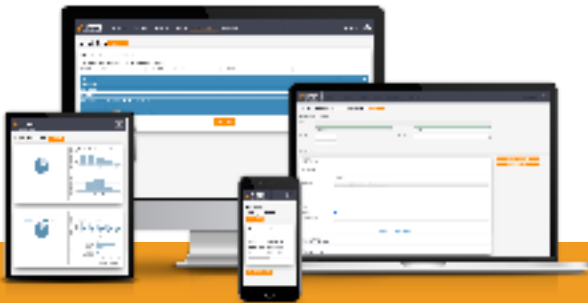
# Biggest Obstacles

- Approval of COVID-19 apps
  - Apple restricted publishing COVID-19 apps to official governmental entities, hospitals, or international bodies
  - It took almost 2 weeks to obtain approval
- Changes in symptoms associated with COVID-19



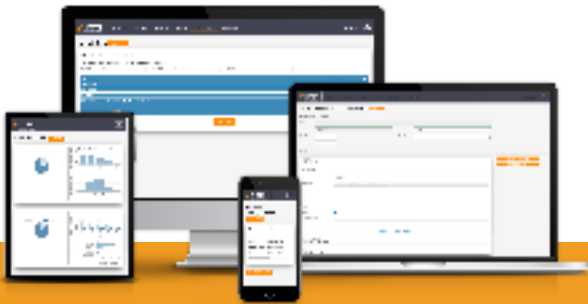
# Observations

- Symptoms
  - No big spikes, data closely matched hospital admissions
- Compliance
  - Started poorly, but rapid rise in compliance in first 2 weeks
- Self-isolation
  - Most early self-isolation was travel related
  - At-risk groups only demographic with continual rise
  - Other voluntary self-isolation was rising, previous 2 weeks shows these numbers starting to drop



# What is next?

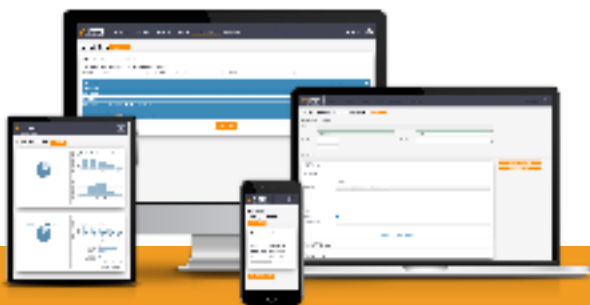
- Study will continue as long as it is useful
- We are looking at the next big challenges



# Challenge #1

Thousands of non-essential clinical research projects are on-hold. Potential for significant job losses.

Can we rapidly digitize research projects and so they can resume safely?



Autism  
Electronic  
Research  
Platform

Email

Password

[Forgot Password?](#)

[Sign In](#)



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# Challenge #2

How can we assist other workplaces to re-open safely?

Requires collaboration between healthcare experts & business community.

Requires rapid, evidence-based decisions.



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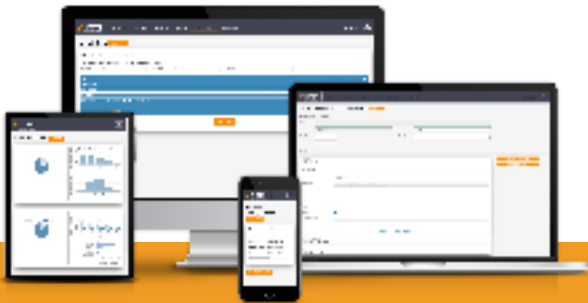
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