

COVID-19 Community of Practice for Ontario Family Physicians

July 7, 2023

**Dr. Gerald Evans
Dr. Noah Crampton**



***COVID updates and
AI to alleviate admin burden***



Family & Community Medicine
UNIVERSITY OF TORONTO

Ontario College of
Family Physicians



COVID updates and AI to alleviate admin burden

Moderator:

- Dr. Ali Damji, Division Head, Primary Care, Trillium Health Partners and Family Physician, Credit Valley Family Health Team, Mississauga, ON

Panelists:

- Dr. Gerald Evans, Kingston, ON
- Dr. Noah Crampton, Toronto, ON

Co-host:

- Dr. Mekalai Kumanan, Cambridge, ON

The COVID-19 Community of Practice for Ontario Family Physicians is a one-credit-per-hour Group Learning program that has been certified for up to a total of 32 credits.

Changing the way we work

A community of practice for family physicians during COVID-19

At the conclusion of this series participants will be able to:

- Identify the current best practices for delivery of primary care within the context of COVID-19 and how to incorporate into practice.
- Describe point-of-care resources and tools available to guide decision making and plan of care.
- Connect with a community of family physicians to identify practical solutions for their primary care practice under current conditions.

Disclosure of Financial Support

This CPD program has received in-kind support from the Ontario College of Family Physicians and the Department of Family and Community Medicine, University of Toronto in the form of logistical and promotional support.

Potential for conflict(s) of interest:

N/A

Mitigating Potential Bias

- The Scientific Planning Committee has full control over the choice of topics/speakers.
- Content has been developed according to the standards and expectations of the Mainpro+ certification program.
- The program content was reviewed by a three-member national/scientific planning committee.

Planning Committee: Dr. Tara Kiran (DFCM), Dr. Mekalai Kumanan (OCFP), Dr. Ali Damji (DFCM), Dr. Liz Muggah (OH), Kimberly Moran (OCFP), Mina Viscardi-Johnson (OCFP), Julia Galbraith (OCFP), Marisa Schwartz (DFCM), Erin Plenert (DFCM), Pavethra Yogeswaran (OCFP)

Previous webinars & related resources:

<https://www.dfcm.utoronto.ca/covid-19-community-practice/past-sessions>

Land Acknowledgement

We acknowledge that the lands on which we are hosting this meeting include the traditional territories of many nations.

The OCFP and DFCM recognizes that the many injustices experienced by the Indigenous Peoples of what we now call Canada continue to affect their health and well-being. The OCFP and DFCM respects that Indigenous people have rich cultural and traditional practices that have been known to improve health outcomes.

I invite all of us to reflect on the territories you are calling in from as we commit ourselves to gaining knowledge; forging a new, culturally safe relationship; and contributing to reconciliation.

Cambridge's Newly Opened Indigenous-led Healthcare Clinic: First of its kind in the region

Over 70 people attended the opening of a new culturally appropriate and Indigenous-led primary healthcare clinic by Southwest Ontario Aboriginal Health Access Centre (SOAHAC) in Cambridge on June 20.

SOAHAC's new clinic is the first of its kind locally, servicing Guelph and Waterloo Region, and offers primary healthcare, as well as other services like those for mental health and addictions.



CBC

[Cambridge's newly opened Indigenous-led healthcare clinic | CBC News](#)





Dr. Gerald Evans– Panelist

Dr. Gerald Evans, Infectious Disease Specialist at Kingston Health Sciences Centre and Chair of the Division of Infectious Diseases, Queen's University



Dr. Noah Crampton – Panelist

Clinician investigator, Toronto Western Family Health Team (Bathurst Site) and Lecturer, Department of Family and Community Medicine, University of Toronto



Dr. Mekalai Kumanan– Co-Host

Twitter: @MKumananMD

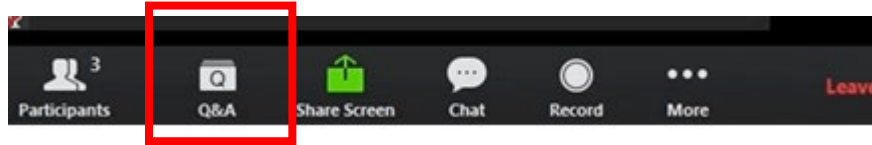
President, Ontario College of Family Physicians
Family Physician, Two Rivers Family Health Team
Chief of Family Medicine, Cambridge, ON

Speaker Disclosure

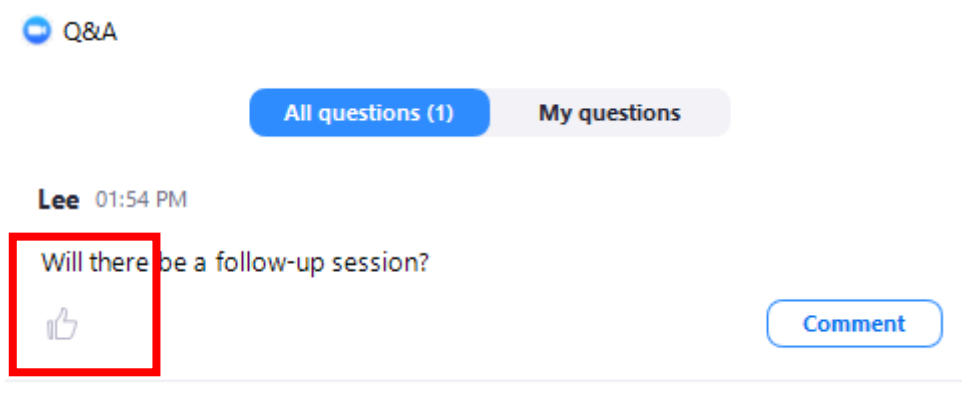
- Faculty Name: **Dr. Gerald Evans**
- Relationships with financial sponsors:
 - Grants/Research Support: N/A
 - Speakers Bureau/Honoraria: FMS conference, Moderna Australia
 - Membership on advisory boards: Ontario COVID-19 Science Advisory Table (NFP)
 - Others: N/A
- Faculty Name: **Dr. Noah Crampton**
- Relationships with financial sponsors:
 - Grants/Research Support: N/A
 - Speakers Bureau/Honoraria: Ontario College of Family Physicians, Mutuo Health Solutions Inc.
 - Others: N/A
- Faculty Name: **Dr. Ali Damji**
- Relationships with financial sponsors:
 - Grants/Research Support: N/A
 - Speakers Bureau/Honoraria: Ontario College of Family Physicians
 - Others: N/A
- Faculty Name: **Dr. Mekalai Kumanan**
- Relationships with financial sponsors:
 - Grants/Research Support: N/A
 - Speakers Bureau/Honoraria: Ontario College of Family Physicians
 - Others: Chief of Family Medicine, Cambridge Memorial Hospital

How to Participate

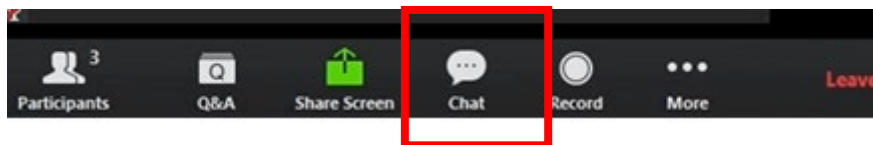
- All questions should be asked using the Q&A function at the bottom of your screen.



- Press the thumbs up button to upvote another guests questions. Upvote a question if you want to ask a similar question or want to see a guest's question go to the top and catch the panels attention.



- Please use the chat box for networking purposes only.





Dr. Gerald Evans– Panelist

Infectious Disease Specialist and Chair of the Division of Infectious Diseases, Queen's University



Dr. Noah Crampton – Panelist

Clinician investigator, Toronto Western Family Health Team (Bathurst Site) and Lecturer, Department of Family and Community Medicine, University of Toronto



Dr. Mekalai Kumanan– Co-Host

Twitter: @MKumananMD

President, Ontario College of Family Physicians
Family Physician, Two Rivers Family Health Team
Chief of Family Medicine, Cambridge, ON



COVID-19 Update: Ontario

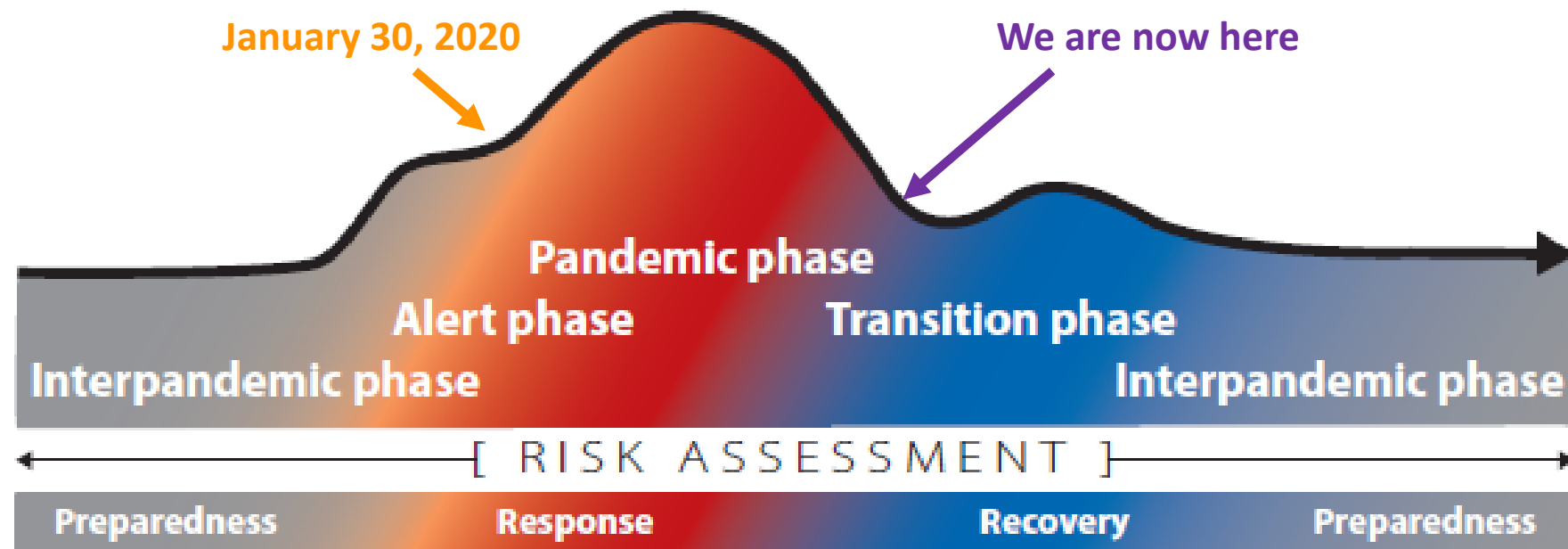
Ontario College of Family Physicians

Community of Practice

July 7, 2023

Dr. Gerald Evans

Figure 1. The continuum of pandemic phases^a



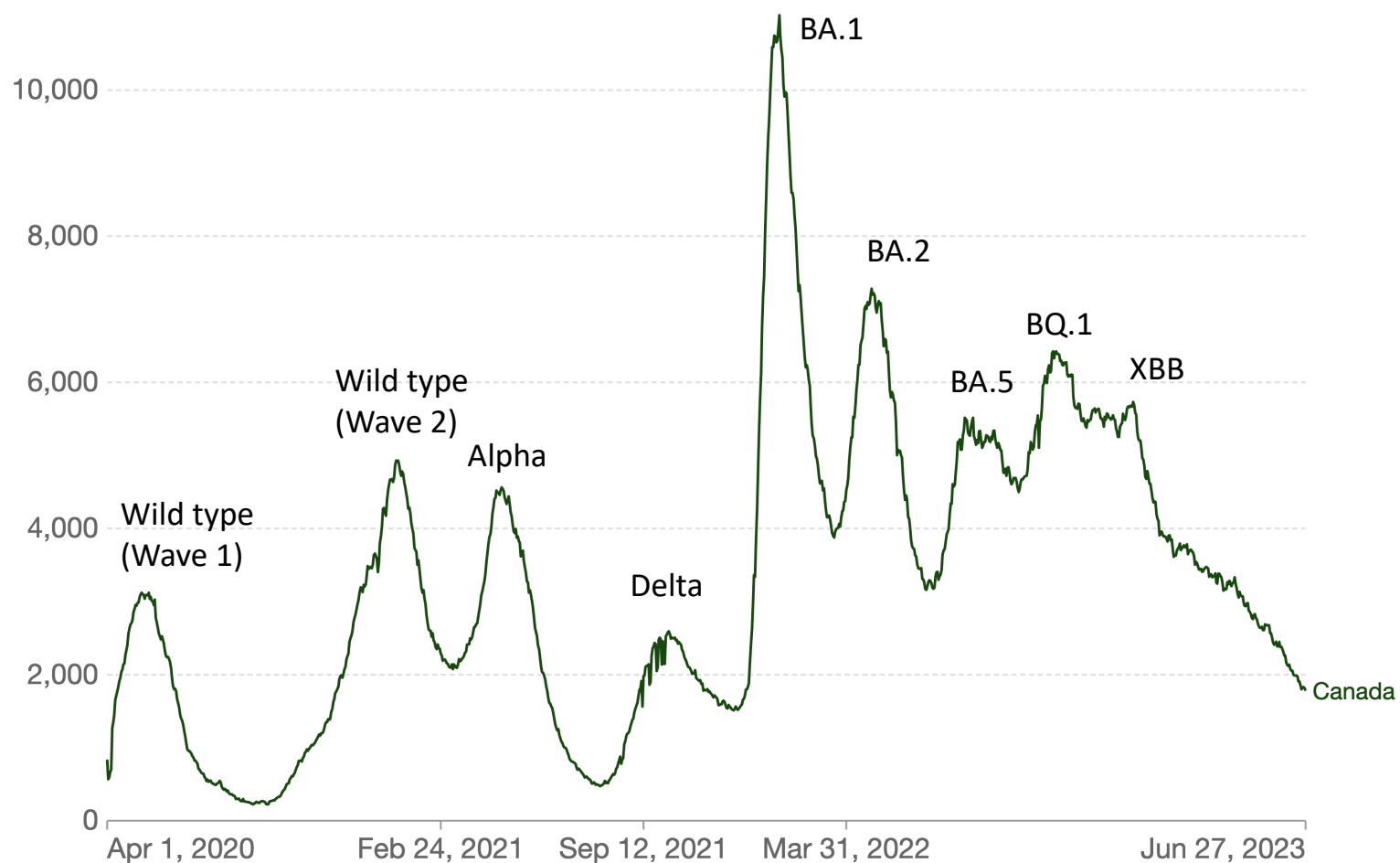
^a This continuum is according to a "global average" of cases, over time, based on continued risk assessment and consistent with the broader emergency risk management continuum.



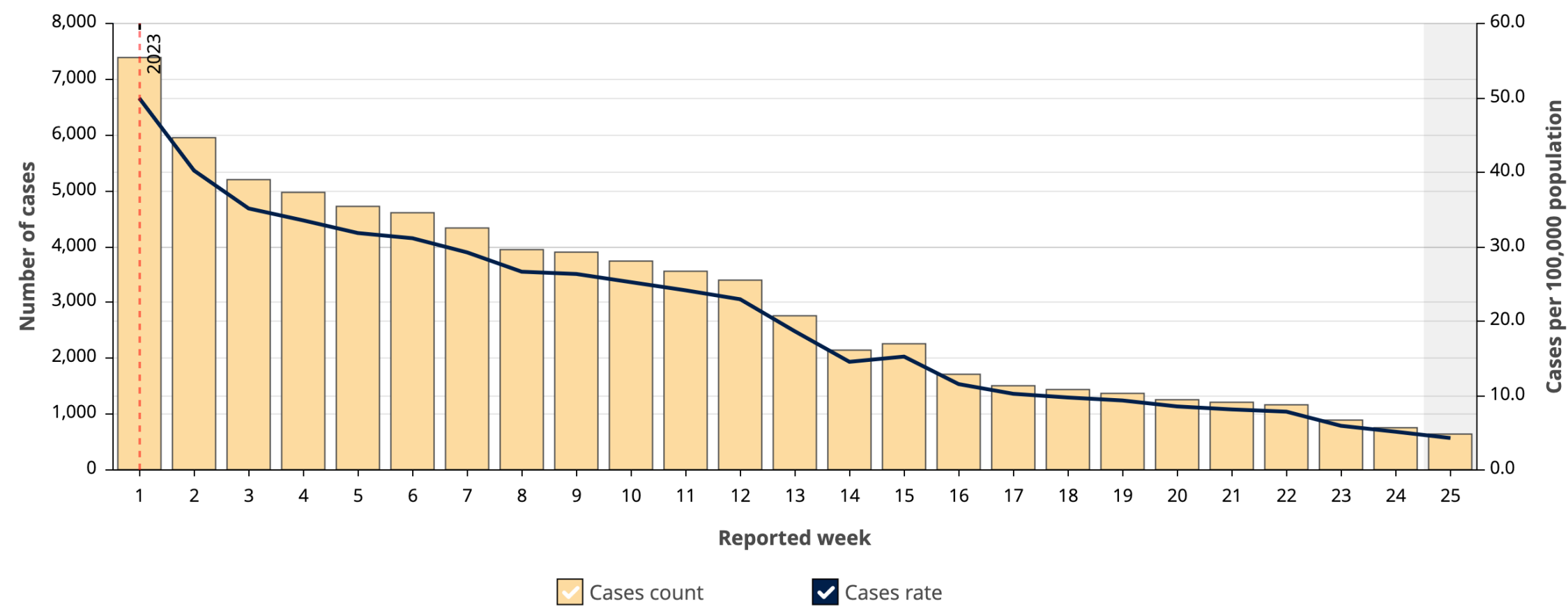
COVID-19 Hospitalizations

Number of COVID-19 patients in hospital

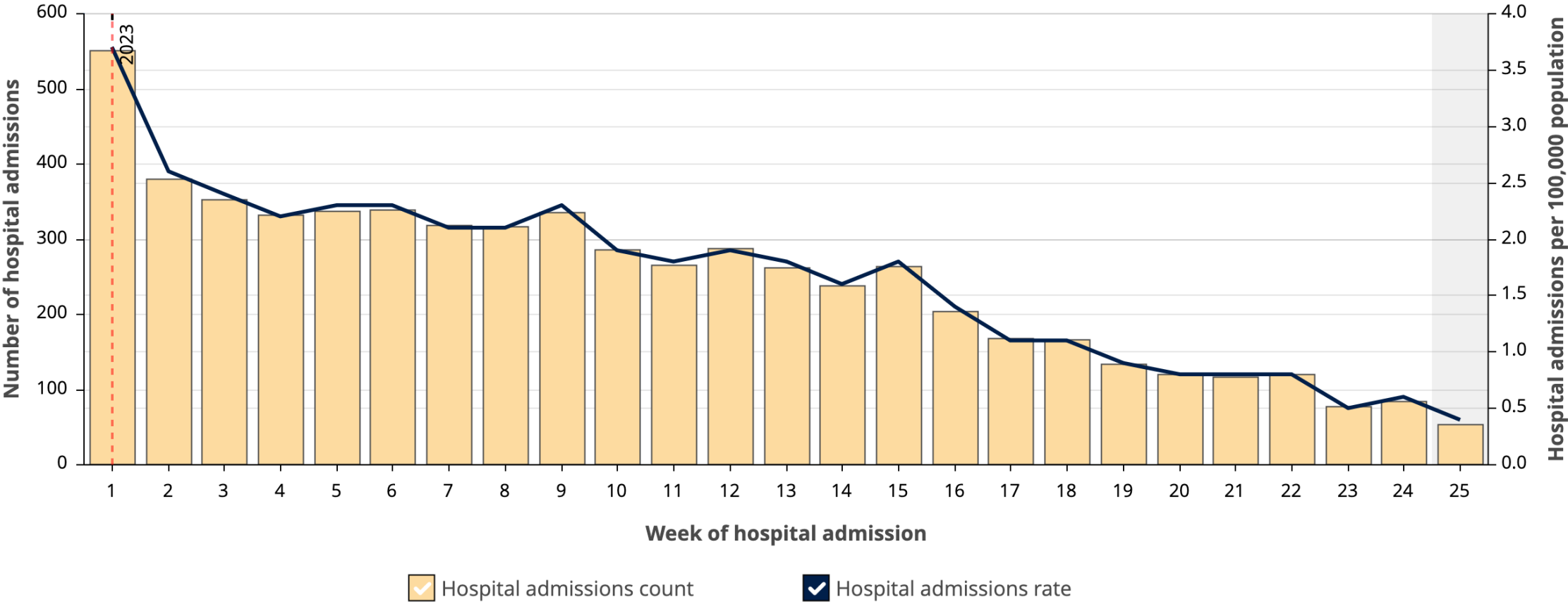
Our World
in Data



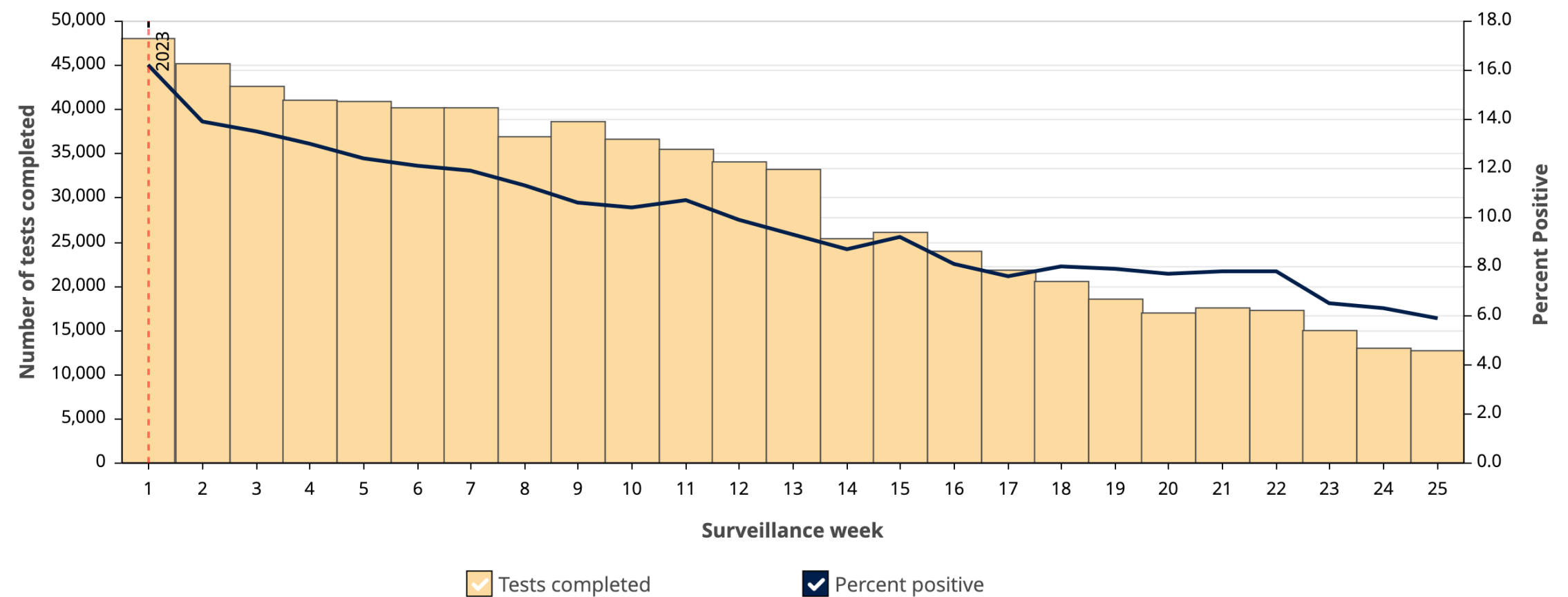
Laboratory confirmed COVID-19 weekly case counts and rates by reported date in Ontario



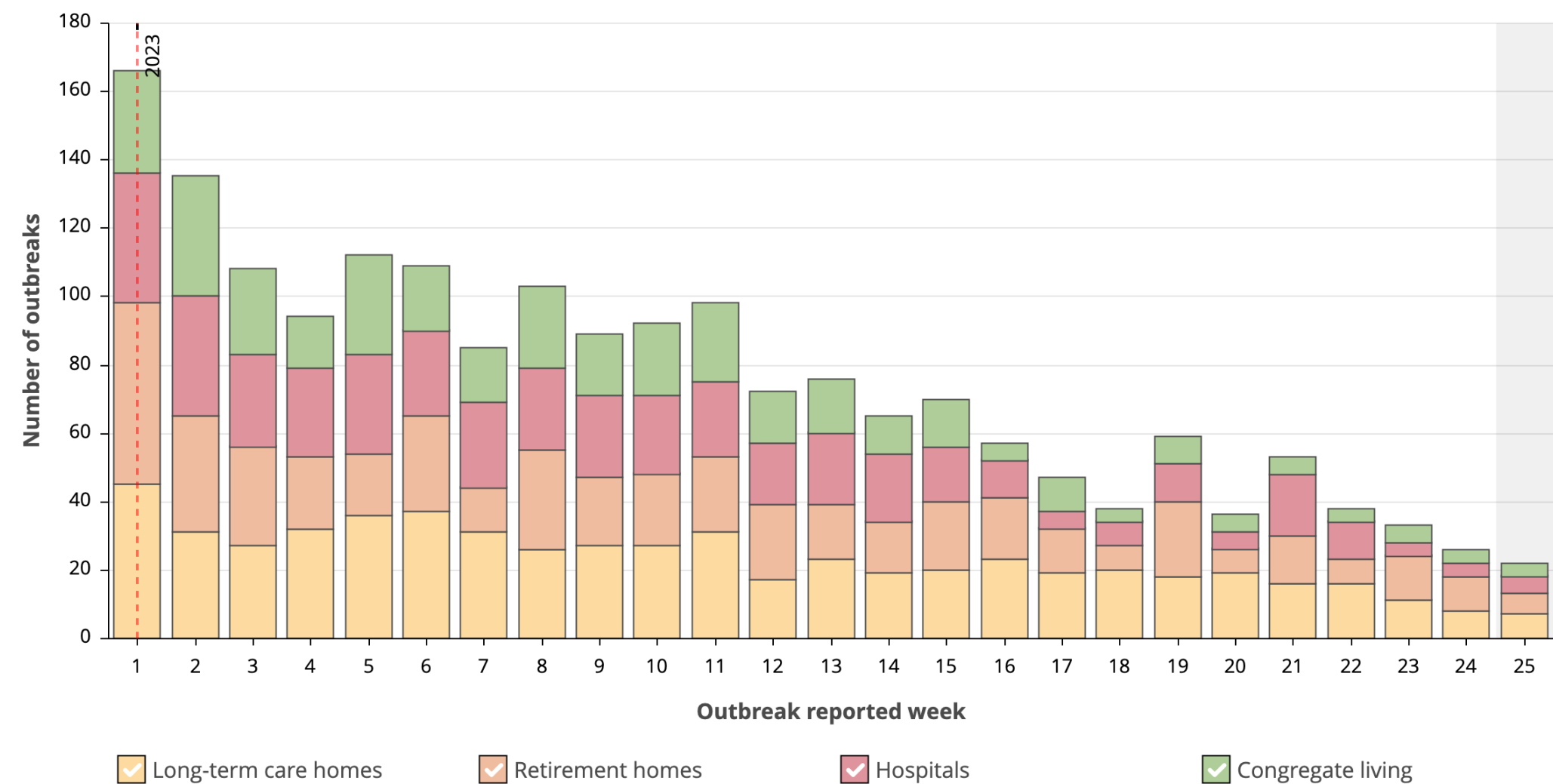
COVID-19 weekly hospital admission counts and rates by admission date in Ontario



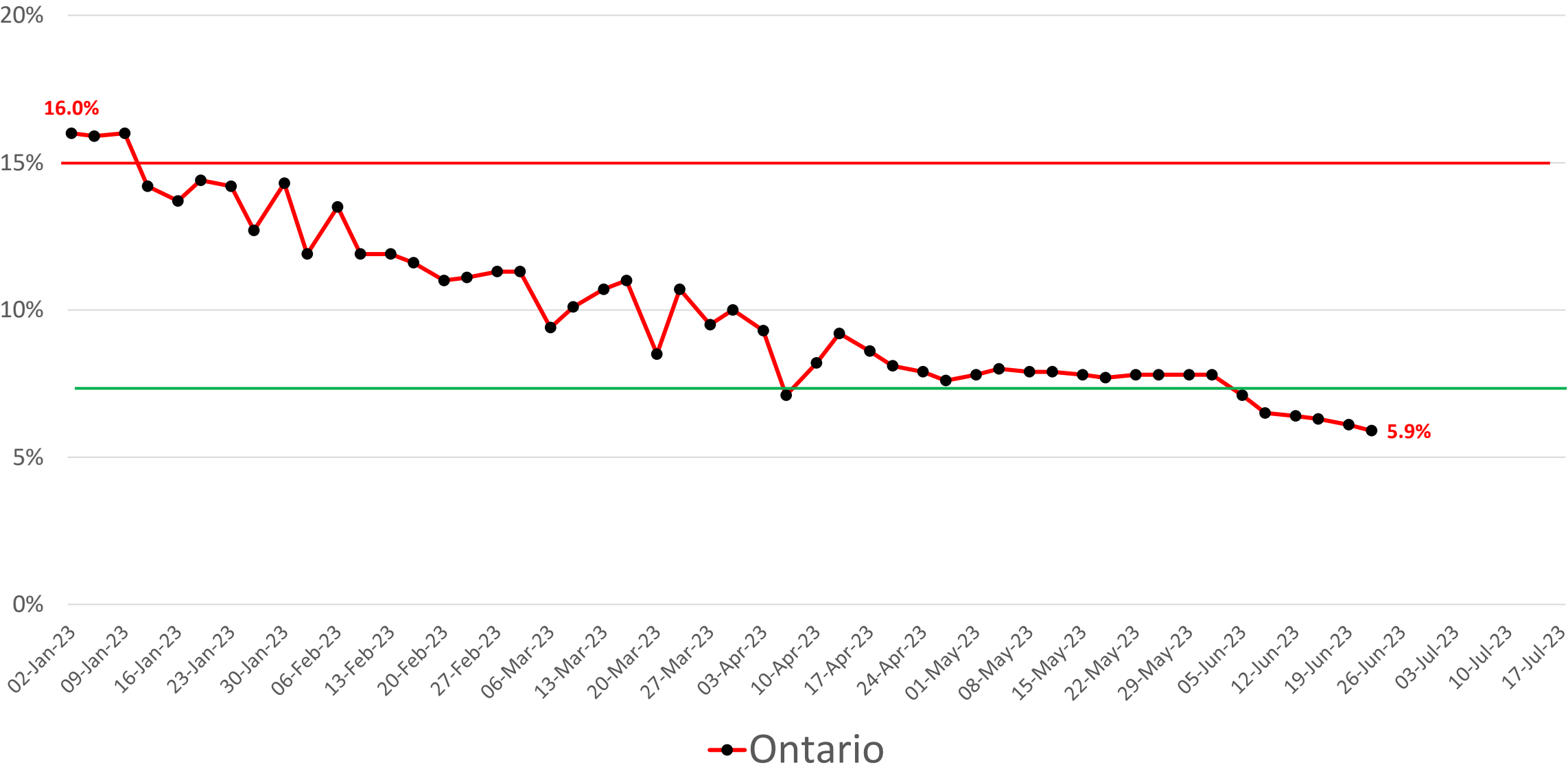
COVID-19 weekly laboratory tests completed and weekly percent positivity in Ontario from January 1, 2023 to June 24, 2023



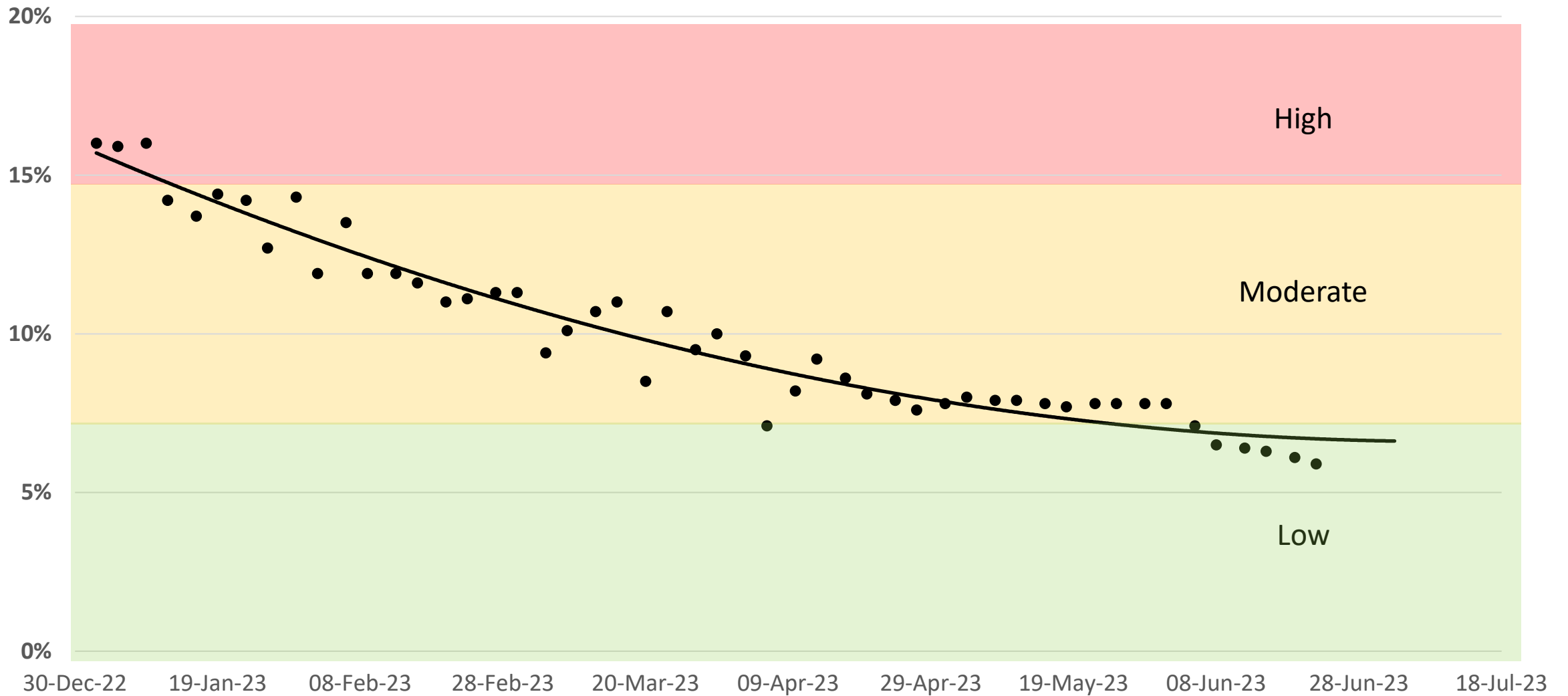
Weekly confirmed COVID-19 outbreaks in Ontario - January 1, 2023 to June 24, 2023



Ontario vs. SE Ontario Regional COVID-19 Test Positivity

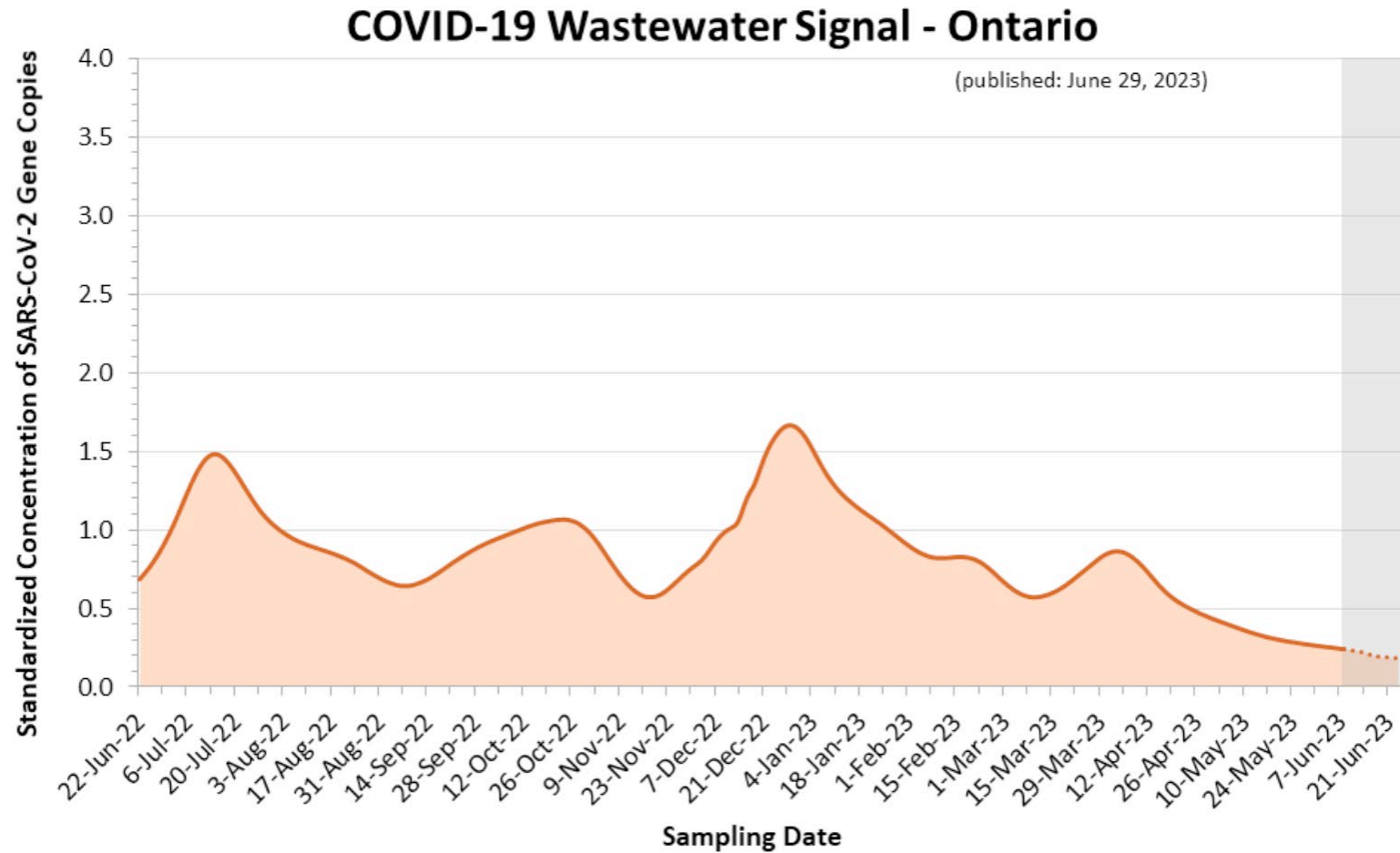


Ontario COVID-19 Test Positivity Trend & Community Prevalence



• Ontario

SARS-CoV-2 RNA in Ontario Wastewater – June 29, 2023



Current Status of COVID-19 Surrogate Markers in Ontario – July 7, 2023



Outbreak numbers



Test positivity



Wastewater detection



What does this mean for NPIs like masking & use of PPE?

- De-escalation of pandemic measures is reasonable at this time
- Consider these procedures as options to universal masking
 - ARI screening
 - Wear a mask if the patient is wearing a mask
 - Contact precautions (gown & gloves) if symptomatic with ARI
- Re-escalation is likely to be necessary when we enter the respiratory virus season this fall

Ontario College of
Family Physicians



IPAC CONSIDERATIONS
FOR INFECTIOUS RESPIRATORY DISEASES
FOR COMMUNITY PRACTICES

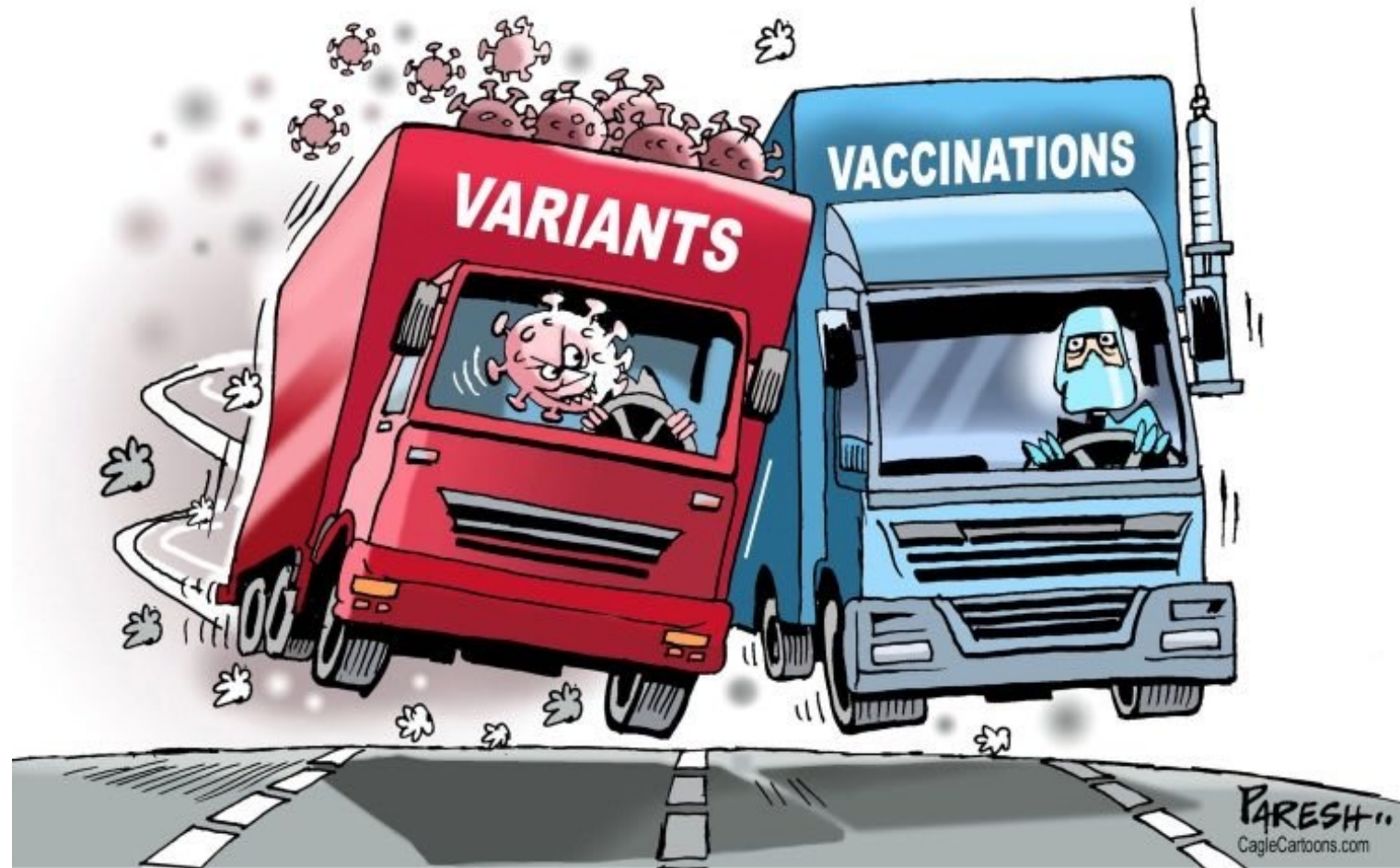
JULY 2023



IPAC CONSIDERATIONS FOR INFECTIOUS RESPIRATORY DISEASES FOR COMMUNITY PRACTICES

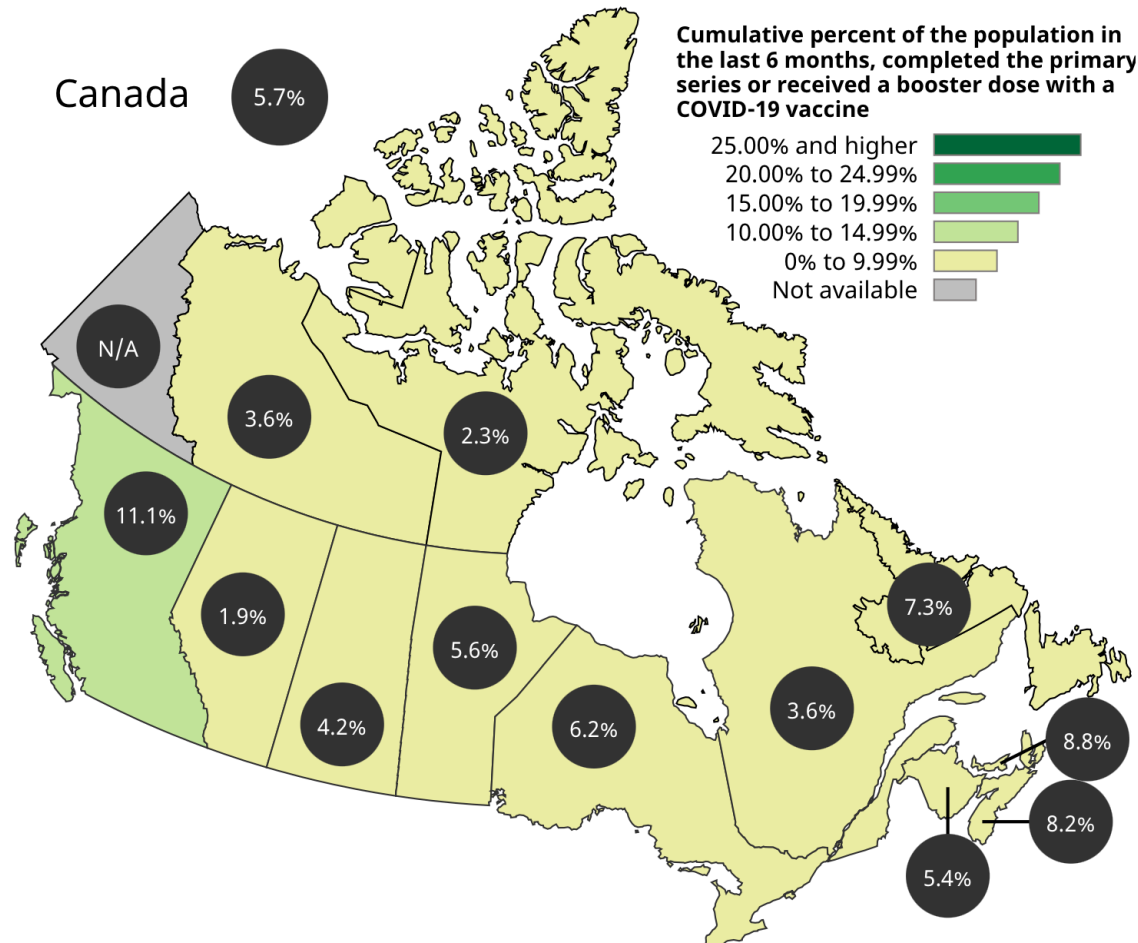
JULY 2023

1. ARI Screening – Active/Passive/Staff
2. Masking – PCRA rather than universal
3. PPE use
4. Office flow to minimize risk
5. Cleaning with low level disinfectant
6. Ventilation – consider a HEPA air cleaner if HVAC is poor

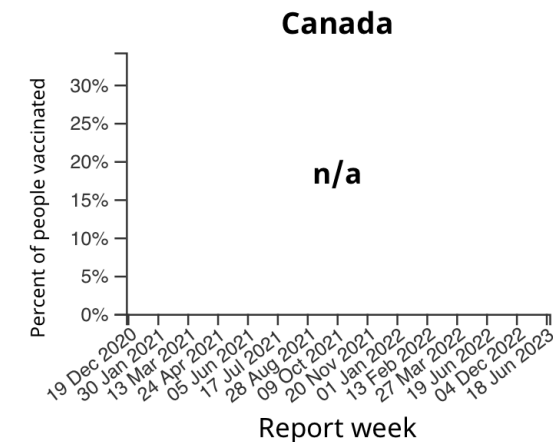


Bivalent (Omicron Targeted) Vaccines

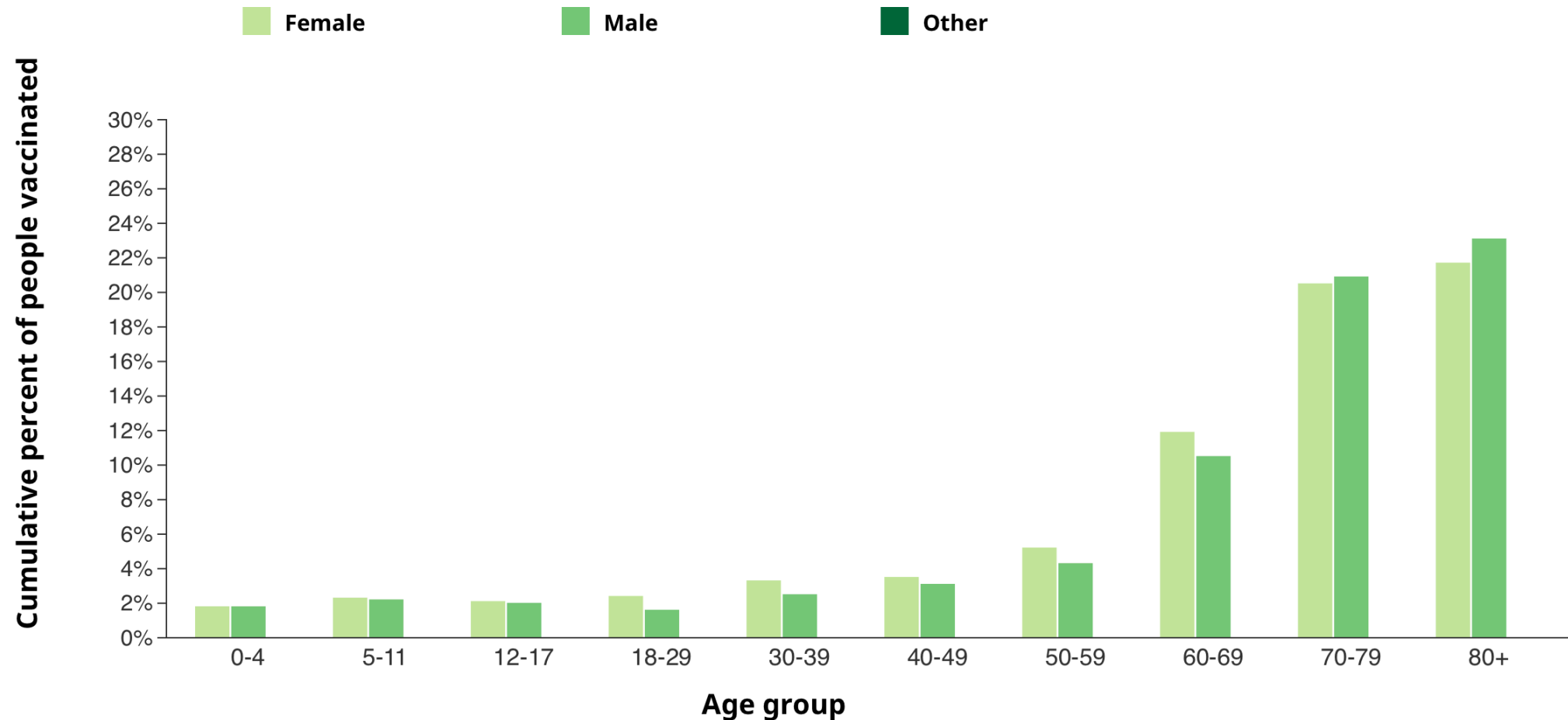
Cumulative % of persons who have, in the last 6 months, completed a primary series or received a booster dose with a COVID-19 Vaccine – June 18, 2023



The cumulative percent of people who have in the last 6 months, completed the primary series or received a booster dose with a COVID-19 vaccine in **Canada** was **5.7%** as of June 18, 2023.



Cumulative % of persons who have, in the last 6 months, completed a primary series or received a booster dose with a COVID-19 Vaccine by age and sex in Ontario – June 18, 2023



Source: <https://health-infobase.canada.ca/covid-19/vaccination-coverage/>



Real-world effectiveness of bivalent (BA.4/BA.5) boosters against severe Omicron infection

North Carolina COVID-19
Surveillance and COVID-19
Vaccine Management Systems,
Sept–Dec 2022

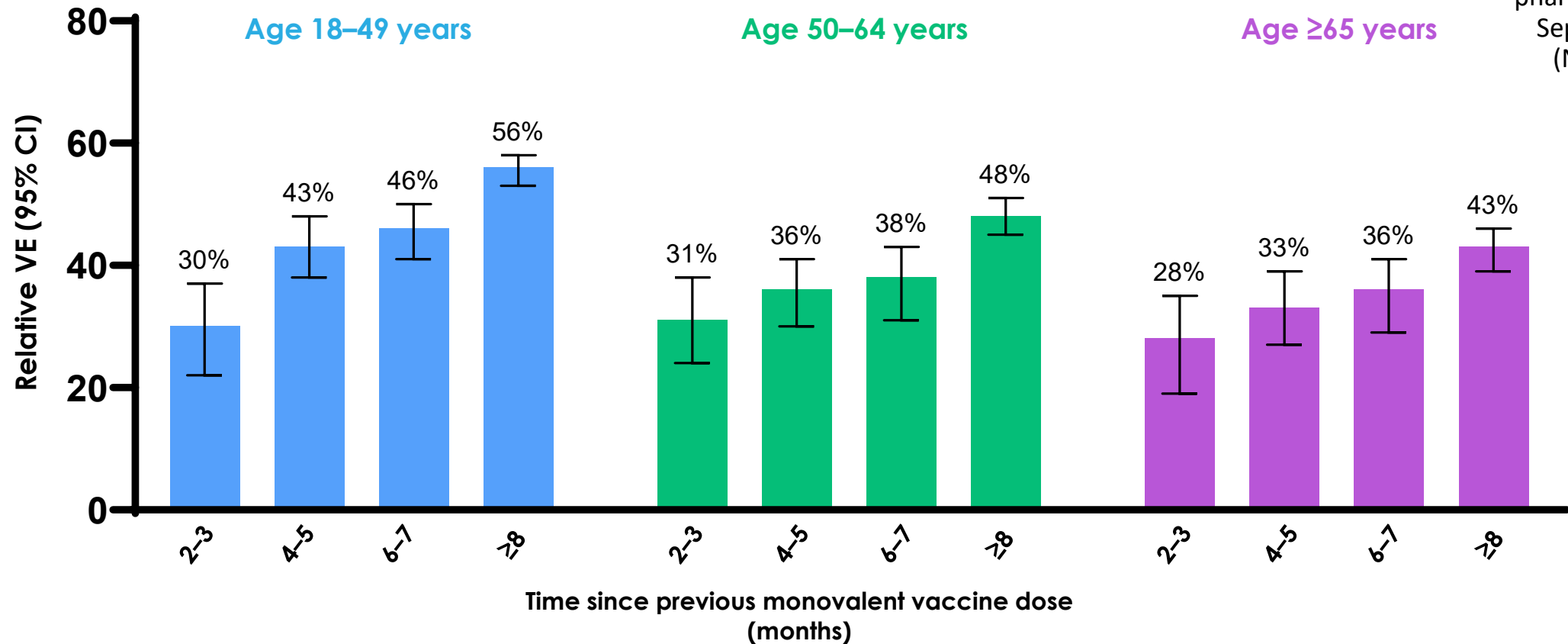
	VE against hospitalization or death (95% CI)		
	Monovalent	Bivalent	Difference
All	24.9 (1.4–42.8)	61.8 (48.2–71.8)	36.9 (12.6–64.3)
Age, years			
≥18	27.0 (4.2–44.4)	62.4 (49.0–72.3)	35.4 (11.8–62.1)
≥65	20.3 (-6.0–40.1)	61.5 (47.1–71.9)	41.2 (9.9–71.7)
Primary vaccination with mRNA vaccine	27.2 (4.0–44.9)	61.9 (48.3–71.9)	34.7 (11.4–62.2)
No previous infection	24.5 (-0.3–43.2)	63.1 (48.8–73.4)	38.6 (14.8–67.3)

- Monovalent boosters, N=292,659; bivalent boosters, N=1,070,136
- A bivalent booster provided 36.9% additional protection against COVID-19 hospitalization/ death vs a monovalent booster
- Similar protection for ≥18 and ≥65 age groups

Real-world Relative Effectiveness of Bivalent COVID-19 Vaccines: BA.5 & XBB Against Symptomatic Infection

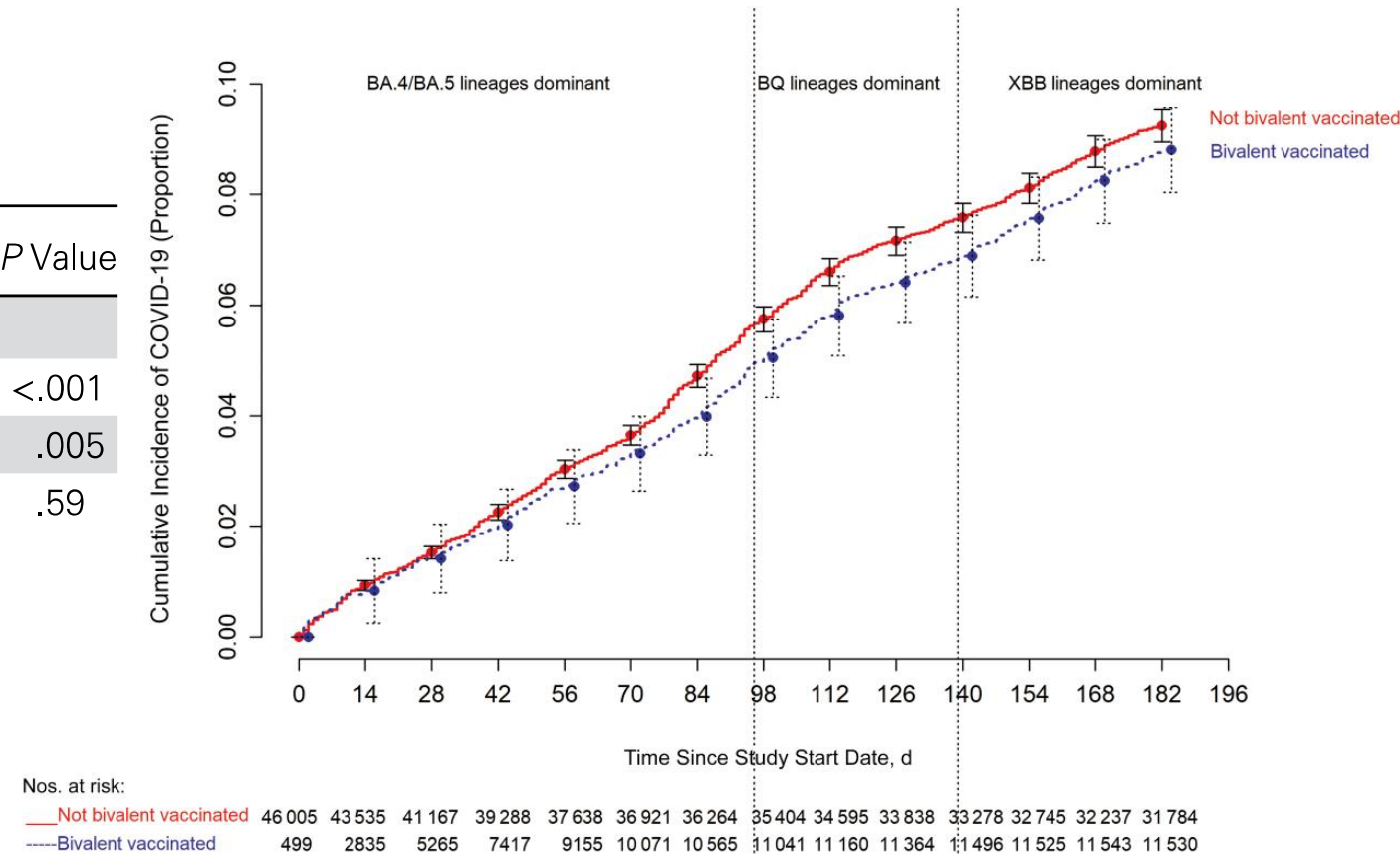
Relative VE of a bivalent booster dose after ≥ 2 monovalent doses

U.S ICATT national
pharmacy program
Sept–Nov 2022
(N=360,626)



Adjusted Associations With Time to COVID-19 in Bivalent Vaccine Recipients by Variant Dominance

Variable	Adjusted HR (95% CI) ^a	P Value
Bivalent-vaccinated state ^b		
BA.4/5-dominant phase	.71 (.63–.79)	<.001
BQ-dominant phase	.80 (.69–.94)	.005
XBB-dominant phase	.96 (.82–1.12)	.59





Source: [Summary of NACI statement of March 3, 2023: Guidance on an additional COVID-19 booster dose in the spring of 2023 for individuals at high risk of severe illness due to COVID-19](#) – Accessed June 3, 2023

Update on COVID-19 Therapeutics

Paxlovid

- Paxlovid continues to be available for free to anyone with a prescription, and can be prescribed by a physician, nurse practitioner or participating pharmacist.
- Prescriptions can be filled at many community pharmacies. Patients and health care providers can contact their local pharmacy to confirm whether they can fill prescriptions and/or prescribe Paxlovid.
- Physicians and nurse practitioners are permitted to store or log an unfilled prescription for Paxlovid with a pharmacist for future dispensing (when a patient has symptoms and positive COVID-19 test result).
- Patients having difficulty accessing care can contact Health811 by phone at 811 or visit the Health811 website (health811.ontario.ca) to chat online with a nurse who will assess their eligibility to obtain an antiviral prescription from a virtual clinic.

Update on COVID-19 Therapeutics

Remdesivir

- In most areas of the province, individuals can access remdesivir as a treatment for COVID-19 in the community through Home and Community Care Support Services (HCCSS).
- Prescribers can refer a patient to their local HCCSS branch for a nurse to administer remdesivir infusions. In most cases, patients will receive infusions at a community nursing clinic; at-home service may be provided if required.
- Patients are currently eligible for remdesivir if they have a prescription, are within seven days of symptoms, and cannot take Paxlovid due to a drug interaction or contraindication.
- For local HCCSS contact information and referral forms, see <https://www.healthcareathome.ca/find-my-hccss/>
- More information on access to remdesivir for patients in the community is available here: <https://www.ontariohealth.ca/sites/ontariohealth/files/Access-to-remdesivir-in-the-community.pdf>
- Ontario Health is developing a recommendation on the use of remdesivir for patients in the community (expected in August 2023).



THE FUTURE IS AI: SPOTLIGHT ON AI SCRIBES

By: Noah Crampton MD MSc CCFP

Family physician and researcher at Toronto Western Family Health Team

CEO Mutuo Health Solutions Inc. – AI Scribe product called AutoScribe

July 7 2023

FACULTY/PRESENTER DISCLOSURE

Presenter: Dr. Noah Crampton, Family Physician

Relationship with Commercial Interests:

I do have a conflict of interest (COI) to disclose:

- I am the CEO and founder of an early-stage Ontario-based start-up called Mutuo Health Solutions, the company commercializing an AI-based Medical Scribe product called AutoScribe

MITIGATING POTENTIAL BIAS

- I will briefly present my product as an example along 3 other competing products, with an attempt at presenting equal amount of time for the products and without using language that would suggest promotion for my product
- This approach and the presentation slides have been reviewed and approved by the OCFP

AGENDA

- Common pain points AI is trying to solve / existing use cases in family medicine
- Spotlight on AI Scribes
 - What are they
- FAQ on AI scribes

OUR CURRENT HEALTHCARE SYSTEM



AI: REALLY OUR ONE POSSIBLE SAVIOUR FROM THIS CRISIS



Obviously with the right enablers in place, i.e. the right set of health system reforms, development and implementation of relevant policies, and increased speed of thoughtful AI regulation conception and enactment

Artificial Intelligence

The theory and development of computer systems able to perform tasks normally requiring human intelligence

Machine Learning

Gives computers "the ability to learn without being explicitly programmed"

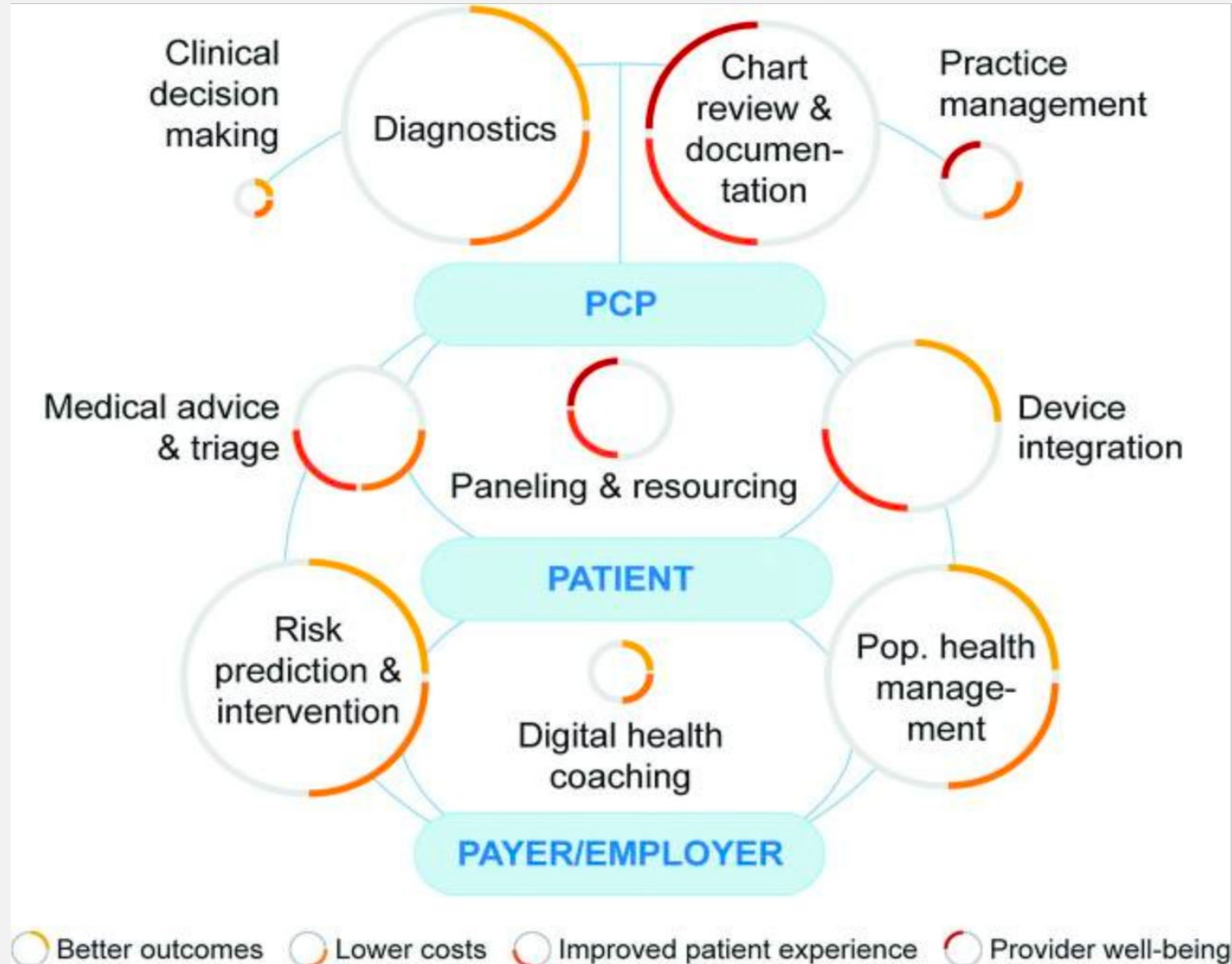
Deep Learning

Machine learning algorithms with brain-like logical structure of algorithms called artificial neural networks

LEVITY

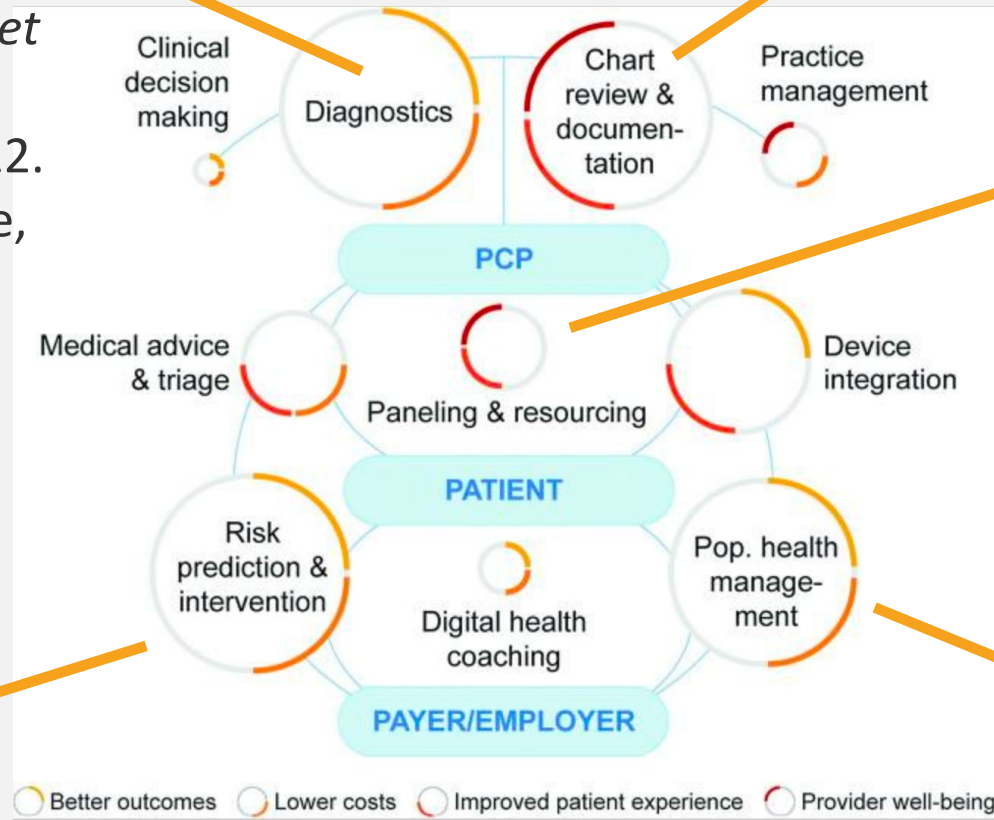
Ten Ways Artificial Intelligence Will Transform Primary Care

By Lin, Mahoney and Sinsky J Gen Intern Med. 2019; 34(8): 1626–1630



Bevan, P.J., Atapour-Abarghouei, A. (2022). Detecting Melanoma Fairly: Skin Tone Detection and **Debiasing for Skin Lesion Classification**. In: , *et al.* Domain Adaptation and Representation Transfer. DART 2022. Lecture Notes in Computer Science, vol 13542.

Zeevi et al. **Personalized Nutrition** by Prediction of Glycemic Responses. Cell. 2015 Nov 19;163(5):1079-1094

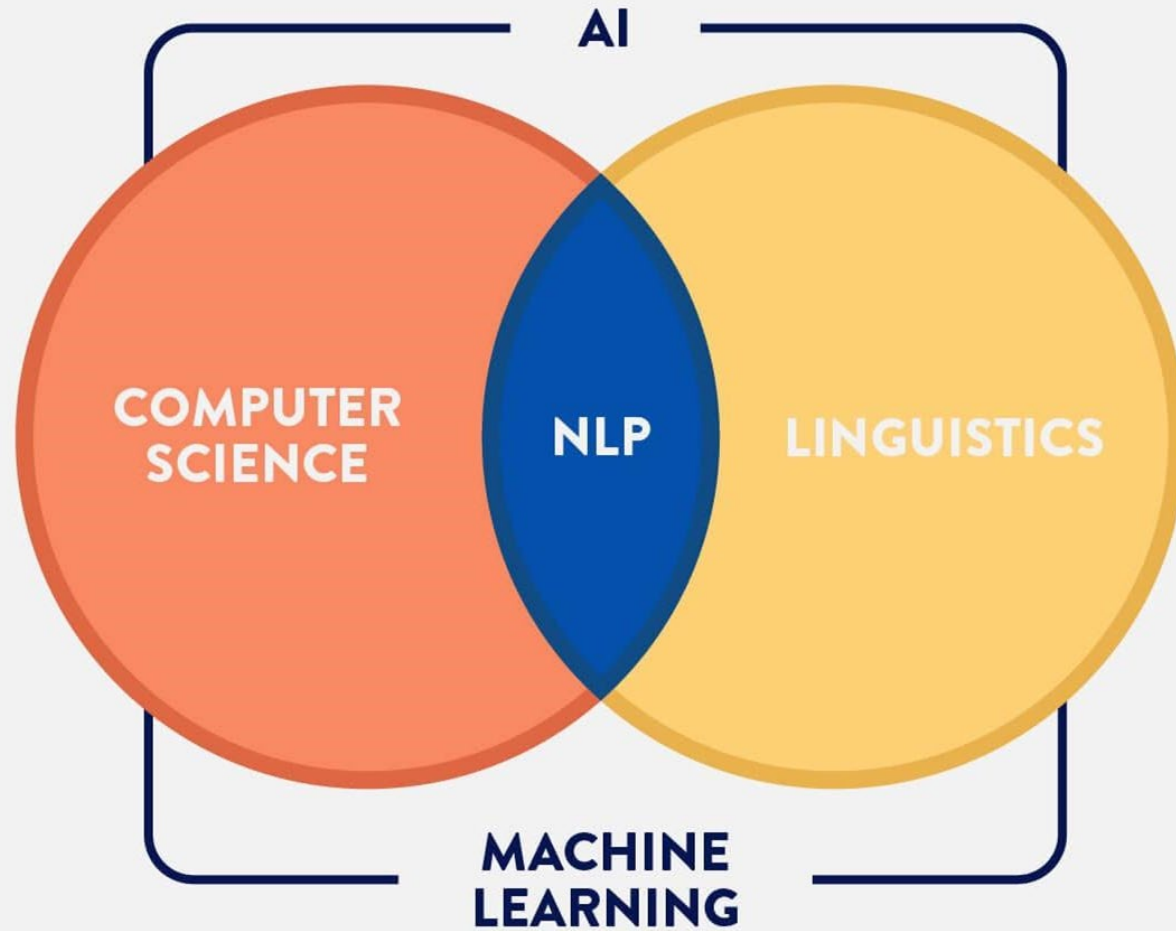


My area of interest!

Determining the Size and Skill-Mix of a Nursing Resource Team (NRT) Using Forecasting and Optimization ***Unity Health**

Finch, et al. A comparison of attentional neural network architectures for modeling with electronic medical records, *JAMIA Open*, Volume 4, Issue 3, July 2021
***Kaiser Permanente**

**CHARTING AND
DOCUMENTATION
INVOLVES LANGUAGE.
HOW DOES AI
APPLIED TO
LANGUAGE ACTUALLY
WORK?**



NLP = Natural Language Processing

WHAT ARE AI-BASED MEDICAL SCRIBES AND EMR ASSISTANTS? A.K.A.: DIGITAL SCRIBES, AMBIENT CLINICAL INTELLIGENCE

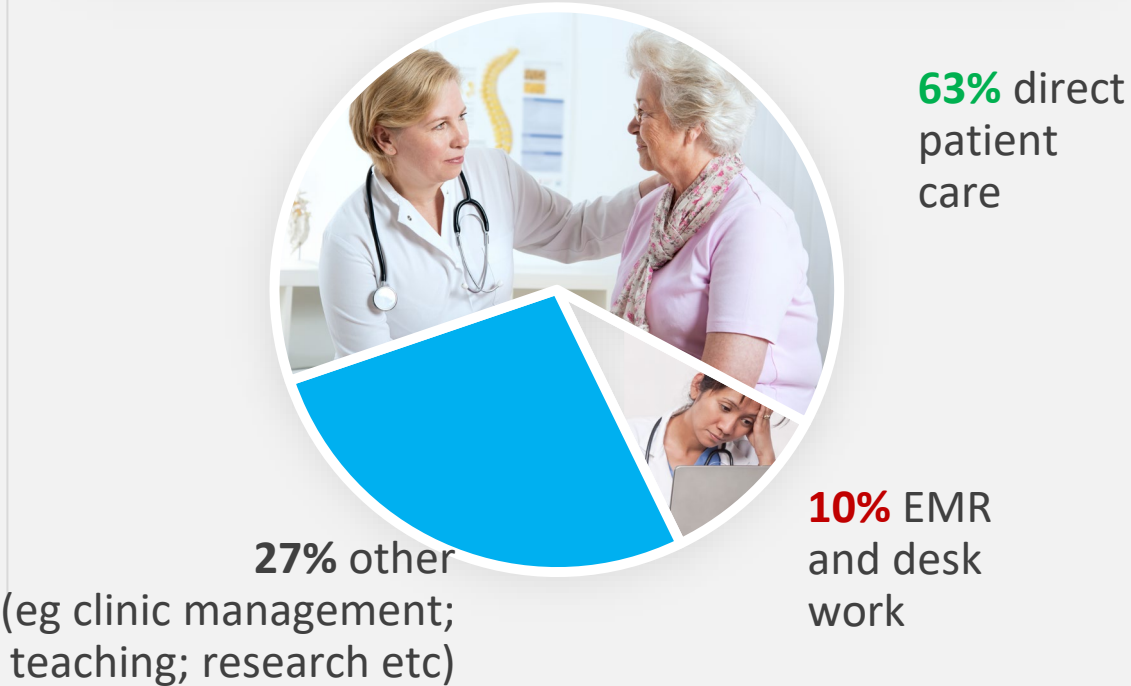
- AI Scribes are not dictation tools. They use speech recognition and then NLP to **interpret doctor-patient conversations (including voiced out loud physical exam findings) to generate a medical note based on the conversation transcript and/or execute EMR actions.**
- In clinics where human scribes are often not affordable, these products offer much needed relief of clerical burden at **significantly lower long-term cost compared to human scribes, and without the turnover associated with periodically having to retrain human scribes.**

The problem AI scribes aim to solve:
Many family doctors are burning out, in part from all the administrative tasks we have to do such as charting

How doctors **ACTUALLY**
spend their time¹



How doctors **WANT**
to spend their time



AI SCRIBES: HOW DO THEY WORK?

AUTOMATING CHARTING

- 1: CLINICIAN-PATIENT
CONVERSATION TRANSCRIBED BY A
MICROPHONE ATTACHED TO EXAM
ROOM COMPUTER
- 2: AI GENERATES MEDICAL NOTE
- 3: CLINICIAN REVIEWS THE AI NOTE
AND EDITS IT (MUCH LESS TIME THAN
WRITING OR DICTATING THE NOTE
FROM SCRATCH)
- 4: AI LEARNS/IMPROVES FROM
THESE EDITS



AI SCRIBES: Proven benefits

More **engaged** doctor-patient experiences

More **efficient, cost-effective** clinical encounters

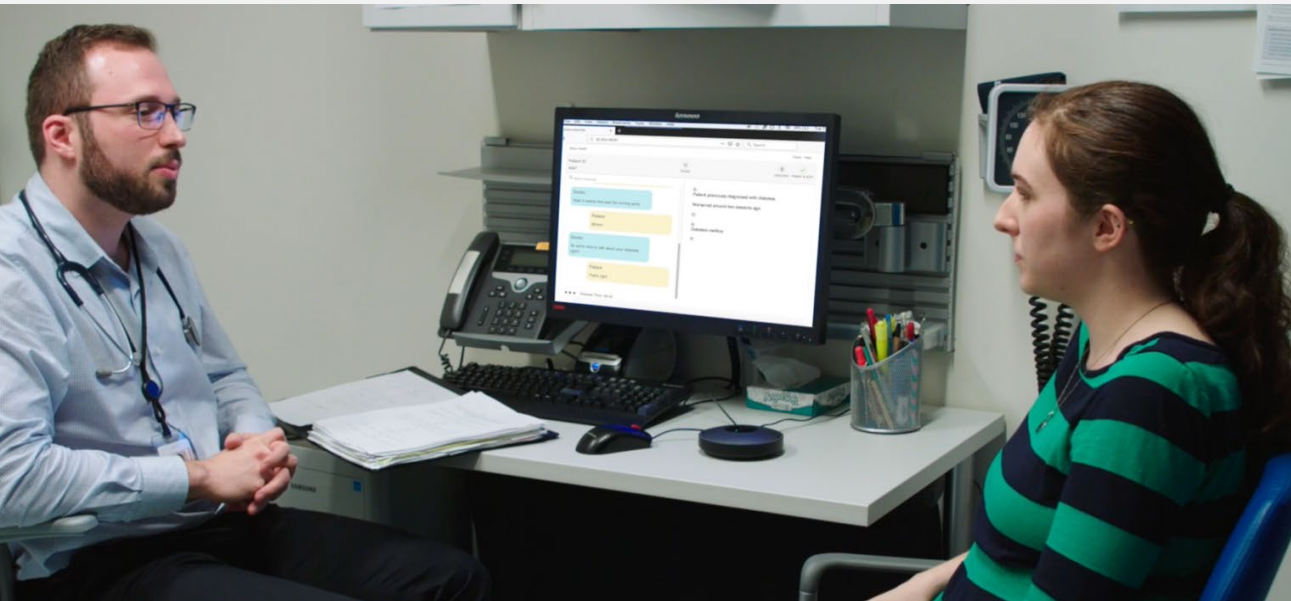
Reduces administrative burden so clinicians can focus on higher value activities



Automatically document care with the Dragon Ambient eXperience

Enhance quality of care and the patient experience, increase provider efficiency and satisfaction, and improve financial outcomes with the Dragon Ambient eXperience (Nuance DAX), an ambient clinical intelligence solution that automatically documents patient encounters accurately and efficiently at the point of care.

autoScribe



Mutuo Health

Close Help

Patient ID
4567

PAUSE

DISCARD FINISH & EDIT

Search Transcript

Doctor

So I can see that you did your fasting bloodwork and urine tests 10 days ago. Your hemoglobin A1C improved from 8.1 to 7.8 today so that's really good. Increasing your metformin last time to 1000 milligrams twice a day made a big difference.

Patient

That's great

Doctor

How's the numbness in your toes?

S:

Patient previously diagnosed with diabetes

Worsened around two seasons ago

Fasting bloodwork and urine tests completed 10 days ago

Current hemoglobin A1C measured at 7.8%

Previous hemoglobin A1C measured at 8.1%

O:

A:

Diabetes mellitus – improving clinical status

Diabetic neuropathy

P:

At last visit, metformin 1000 milligrams twice daily was prescribed

Elapsed Time: 00:57



Free AI Assisted Medical Scribe,
and Unlimited Drug Dosage Look up

<https://tali.ai>

Metformin dosage for a 10 year old
with type II diabetes?

Initial: 500 mg orally every 12 hours
Maintenance: Titrate once/week by 500
mg; no more than 2000 mg/day in
divided doses

 **U.S. FOOD & DRUG**
ADMINISTRATION [Go to Source](#)



Coming Soon, an Entire Suite of
Features to Save Time for Physicians

<https://tali.ai>



Ambient
Scribe



Chart
Mining



EHR Voice
Navigation



Voice
Automations



Personalized
Search



Simplified state machine

Uses the latest advances in natural language processing to alternate between semantic (commands) and syntactic (dictation) speech.



Some things you can ask me

"Suki ...

Show my schedule

Create a follow-up note for John Smith

Bring up my unfinished notes.

Show prior notes for Mary Roberts "

more...



DeepScribe

DeepScribe brings the joy of care back to medicine by providing clinicians with a reliable, affordable, and secure medical scribe solution that eliminates the need to take notes during patient interactions or dictate notes between patients and after hours.



Reliable

Less than one correction per note on average after 20 days of usage.



Affordable

1/6 the cost of a human scribe or transcription service.



Secure

100% HIPAA-compliant with multiple layers of security and controls.

PERFORMANCE

- With the new power of generative AI / large language models (think of ChatGPT), context preserving AI is **very accurate (>90%) at predicting the right next text with the optimal prompt engineering**
- Published evaluation: “AAFP Innovation Lab: Reducing Documentation Burden through the use of a Digital Assistant”
 - Time & Motion Study; Satisfaction Survey; Physician interview
 - Deployed with 10 providers
 - Uses Suki product

Time & Motion Study

Time & Motion	Time Per Patient		Time during clinic		Time after-hours	
	Before	After	Before	After	Before	After
Provider 1	18	5.7	360	114	0	0
Provider 2	15.2	4.1	220	59	60	30
Provider 3	14	5.6	210	84	150	50
Provider 4	14	6	120	90	45	15
Provider 5	12	3	60	55	80	0
Provider 6	18	7	150	85	30	15
Provider 7	14	6	130	90	60	30
Provider 8	10	5	125	70	30	0
Provider 9	10	4	60	20	90	30
Provider 10	10	5	60	60	120	30
Total	13.5	5.1	149.5	72.7	66.5	20.0
Delta	8.4		76.8		46.5	
% Improvement	62%		51%		70%	

“The anxiety of being rushed has significantly decreased. I feel more at ease during longer visits because **I know I will be able to make up the time in most cases through quicker charting....** I’m not stressed to squeeze in one more patient if needed. I think it’s going to be more sustainable and more enjoyable for physicians as long as we do not use the margin created to overload our schedules.”

Documentation Burden	
Time and Motion	% Improvement
Decrease in time per patient	62%
Decrease in time during clinic day	51%
Decrease in afterhours	70%
Provider Survey	% Improvement
Satisfaction with note completion	48%
Satisfaction with documentation time savings	108%
Satisfaction with EHR for other administrative tasks	84%
Satisfaction with quality of notes	35%
Finish notes on the same day	19%
Satisfaction with patient interactions	28%

TECHNOLOGY REQUIRED

- A **computer or smartphone or tablet** that is approved by your organization for use with patients
 - Typically the computer with the EMR in the clinical exam room
- A **microphone** attached to the computer (ideally a conferencing one)
- A **reliable internet connection with adequate upload/download speeds**
 - For those in areas of Ontario where internet reliability may be an issue, consider running tests with your preferred AI Scribe vendor before trialing it

LEGAL, PRIVACY AND SECURITY

- Any software application that stores personal health information (PHI) must undergo rigorous privacy and cybersecurity assessments
 - Must demonstrate compliance with **PHIPA (Ontario)**; PIPEDA (rest of Canada); HIPAA (USA)
 - Third party assessments should be done by reputable companies:
 - threat risk assessments, (TRAs) and penetration testing,
 - privacy impact assessments (PIAs) and
 - proof of adequate vendor cyber insurance
- Practically speaking:
 - Large healthcare organizations (hospitals; large clinic networks) tend to have the internal staff to review these vendor documentation, and whether it meets their internal requirements
 - If you are a community doctor/clinic manager without access to those internal experts, **consider speaking with your OntarioMD contact and your small business' lawyer** to ensure your review process of third-party software ancillary software to EMRs is covering the essentials of privacy and security

PATIENT CONSENT

- Having a conversation audio-recorded can be a **jarring new proposition to a patient**
- The confidentiality of the doctor-patient relationship ensures patients transparently share all the sensitive details of their reason for visit with you, but if it's unclear how the audio-recording data is used, that can have a chilling effect
- **STRONG RECOMMENDATION:** for first ever use of an AI scribe, make sure you obtain **informed consent** from your patient to use an AI scribe, including explaining why you are using it, and its benefits and risks (for instance, how the vendor legally commits to using the collected audio data)
 - Speak to your chosen AI scribe vendor on this, as they may have **pre-developed consent tools and change management processes** which ensure completeness and efficiency of obtaining patient consent
 - Pay special attention

REGULATION

- First and foremost, it is encouraged to directly check yourself with your legal body and professional representatives, such as the CMPA and the CPSO.
- In general though, these organizations recognize AI scribing is a new technological tool, which simply due to its novelty has its own inherent risk.
- But if an AI scribe vendor meets privacy and security requirements with robust patient consent, these bodies have not currently recommended for or against its use.
- Furthermore, Health Canada classifies diagnostic and therapeutic prediction software using AI as software-as-a-medical device,
- But AI Scribes are not currently classified as such, as there is only prediction of what the doctor voiced, which is similar to dictation tools like Dragon (which are also not considered software-as-a-medical device).

CERTAIN AI SCRIBE FEATURES TO CONSIDER WHEN DECIDING BETWEEN DIFFERENT OFFERINGS:

- **AI accuracy**
- **Speed of outputs:** are they real-time or only at end of encounter?
- Personalizing to **preferred templates/writing style**
- **EMR integrations**
- **Medical specialty flexibility**
- **Adherence to documentation standards;** note content maps to structured clinical codes?
- **Value for patients:** eg summary handout?
- **Trust and transparency** of vendor and how they use collected data: is the vendor's governance structured to ensure appropriate use of the collected data?

SPEAK TO OTHER DOCS WHO ARE ALREADY USING AI SCRIBES!

- An AI Scribe vendor would be happy to connect you with their existing client base for you to ask questions

LANGUAGES AND ACCENTS

- AI scribes are only as good as the speech recognition (the speech-to-text) technology that's currently available
- English in the North American accent performs the best
 - Due to the economic incentive for speech recognition companies to optimize (i.e. labeling audio data) for this language and accent
- As such, there **may be a higher error rate in terms of AI scribe accuracy with patients using in other languages or accents**
 - Be mindful of the inherent **EQUITY** issues of using an AI Scribe in your daily practice
 - Ask your selected AI scribe vendor how they plan to address these issues

AI BIAS AND HALLUCINATIONS

- AI is only as good as the data it is trained on
 - Datasets can have **inherent biases** which affect how the AI converts the laymen's terms in the doctor-patient conversation to the medical jargon we write in our medical notes
 - E.g. the word "couch-surfing": how does the AI know how to predict housing status?
- Also new large language models can **spontaneously predict content that is completely unrelated** to what it was prompted to do
 - These are called hallucinations (also related to the datasets and the prediction algorithms)
 - While it is critical for clinicians to review every AI Scribe output thoroughly, there can be a loss of trust if an AI Scribe outputs frequently include hallucinated outputs
- CHALLENGE YOUR AI SCRIBE VENDOR: **HOW ARE THEY ADDRESSING BIAS AND HALLUCINATIONS INHERENT TO THIS TECHNOLOGY?**

PRICE

- Prices vary enormously
 - Anywhere from \$50-\$1600 per month depending on the company
- As such, due diligence is required on:
 - the specific AI Scribe's features
 - adherence to policy requirements and
 - your core values as a family physician

QUESTION PERIOD

**YOU CAN ALSO REACH OUT TO ME AT:
NOAH.CRAMPION@MAIL.UTORONTO.CA**

THANK YOU!

Questions?

Webinar recording and curated Q&A will be posted soon

<https://www.dfcm.utoronto.ca/covid-19-community-practice/past-sessions>

Our next Community of Practice: July 28, 2023

Contact us: ocfpcme@ocfp.on.ca

Visit: <https://www.ontariofamilyphysicians.ca/tools-resources/covid-19-resources>

The COVID-19 Community of Practice for Ontario Family Physicians is a one-credit-per-hour Group Learning program that has been certified for up to a total of 32 credits..

Post session survey will be emailed to you. Mainpro+ credits will be entered for you with the information you provided during registration.