# Integrating AI and Technology into Family Medicine

PANELISTS
Dr. Cody Jackson • Ariane Siegel

WITH
Dr. Nikki Bozinoff • Dr. Stephanie Zhou

Ontario College of
Family Physicians

Family & Community Medicine
UNIVERSITY OF TORONTO

Mental Health
and Addictions

# Please introduce yourself in the chat!

Your name,
Your community,
Your twitter handle

@OntarioCollege
#PractisingWell

# Your Panelists: Disclosures

## Dr. Cody Jackson

Relationships with financial sponsors (including honoraria):

- OCFP Practising Well CoP speaker
- Western University
- Ontario Medical Association
- Cherry Health
- OntarioMD
- Ontario Health
- Independent Recruitment Consultant

## Dr. Ariane Siegel

Relationships with financial sponsors (including honoraria):

- OCFP Practising Well CoP speaker
- OntarioMD
- Ontario Medical Association

# Disclosures

## Dr. Nikki Bozinoff @NikkiBozinoff

Relationships with financial sponsors (including honoraria):

- Ontario College of Family Physicians – Practising Well Implementation Group Member, CoP Speaker
- CAMH
- Department of Family and Community Medicine (University of Toronto)
- National Institute on Drug Abuse
- Womenmind
- CIHR
- Academic Health Sciences Alternate Payment Plan

## Dr. Stephanie Zhou @stephanieyzhou

Relationships with financial sponsors (including honoraria):

- Ontario College of Family Physicians – Practising Well Scientific Planning Committee
- Canadian Medical Association – Honoraria for practice management lectures
- Habitat for Humanity GTA – Board of Directors member
- Toronto Public Health – Board of Directors member

# Disclosure of Financial Support

This program has received funding from the Ontario Ministry of Health and in-kind support from the Ontario College of Family Physicians and the Department of Family and Community Medicine, University of Toronto.

**Potential for conflict(s) of interest:**
N/A

# Mitigating Potential Bias

- The Scientific Planning Committee (SPC) has control over the choice of topics and speakers.
- Content has been developed according to the standards and expectations of the Mainpro+ certification program.
- The program content was reviewed by the SPC.

# 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.

# Arrival Practice


Breathe in

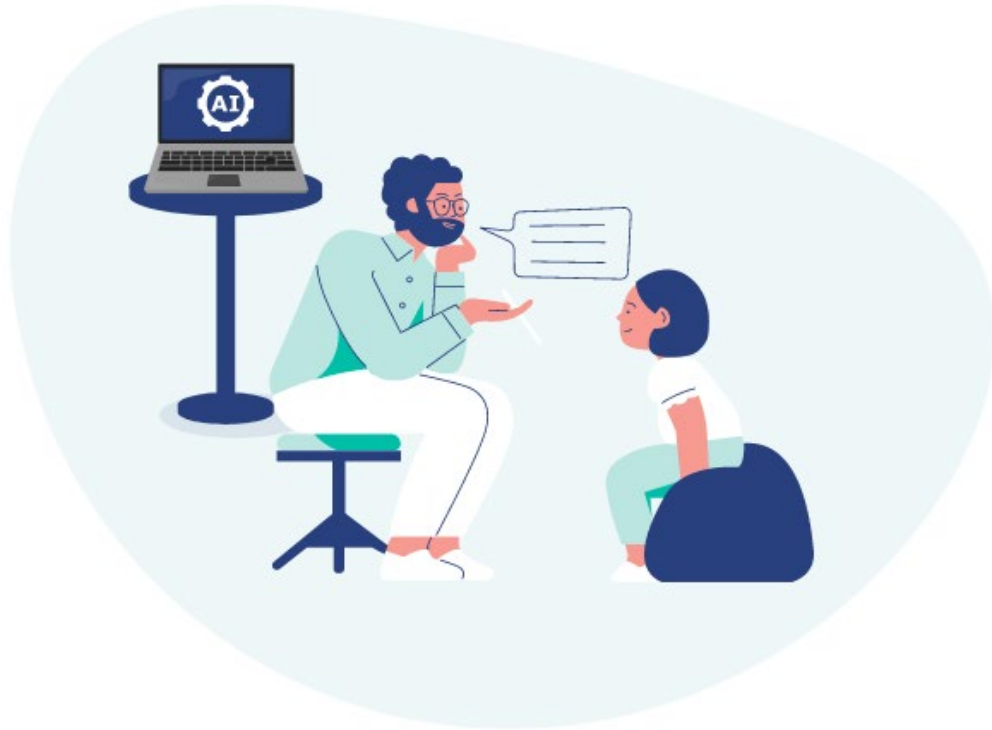# Integrating AI and Technology into Family Medicine

You raised important questions we'll try to work through together today:

1. To learn more about AI options and discuss specific examples currently available/ease of use/cost etc.

2. Which AI incorporates well into my EMR?

3. How to integrate AI into clinical practice to reduce burden of clinical admin/data management?

4. Do we need explicit consent from patients to use AI charting assist programs?

5. AI models and confidentiality of content?

And other questions you add in the Q&A box... ?

## Your Panelists

### Dr. Cody Jackson
London, ON

### Ariane Siegel
Toronto, ON

**Integrating AI and Technology into Family Medicine**

# Why am I talking?

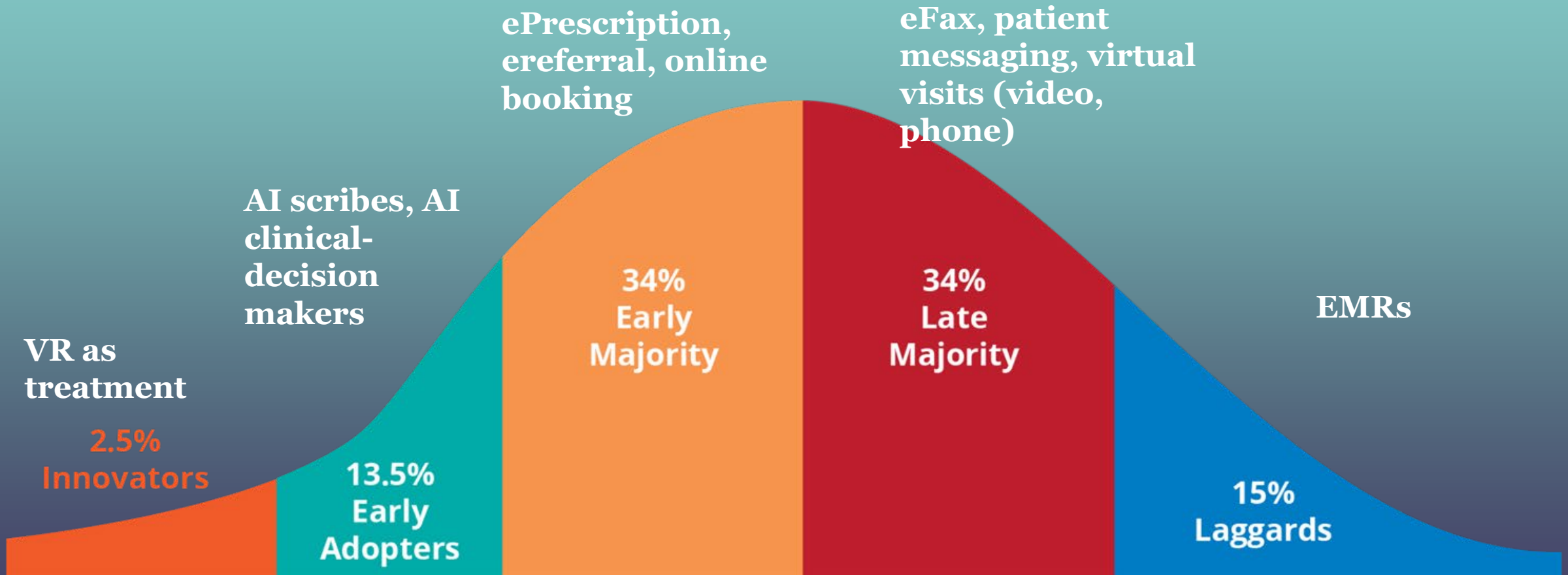Full-time Comprehensive Community Family Physician*

OntarioMD Peer Leader*

Clinical Digital Lead for Ontario Health*

Tech Nerd^


*paid position
^costs me significant money

# Diffusion of Innovation Theory

ePrescription, ereferral, online booking

eFax, patient messaging, virtual visits (video, phone)

AI scribes, AI clinical-decision makers

VR as treatment

EMRs

2.5% Innovators

13.5% Early Adopters

34% Early Majority

34% Late Majority

15% Laggards

# Technology Evaluation

## 01

**Time**

Does it (eventually) make you more efficient

## 02

**Integration**

Does it work well with your EMR, province, regulations, patient safety

## 03

**Annoyance**

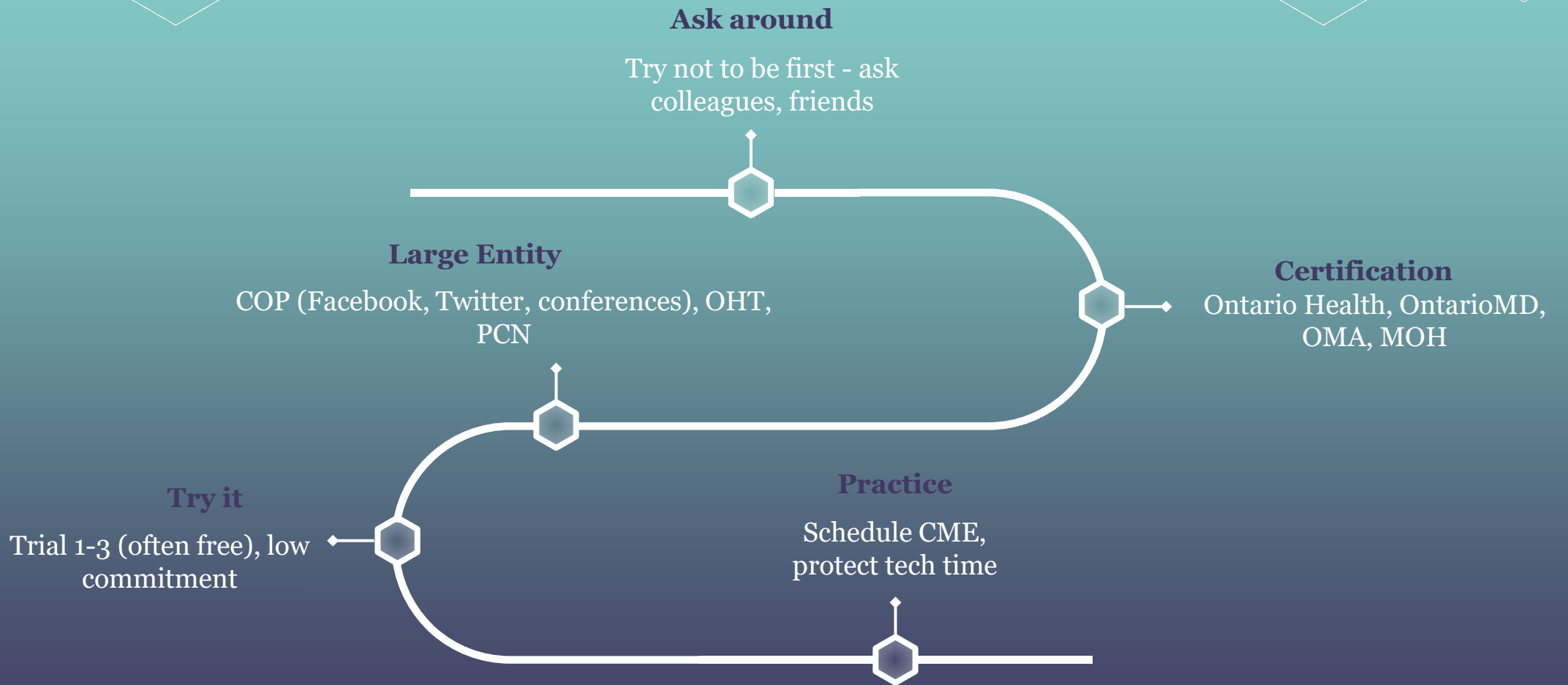Physician-initiated, ability to offload, is it your area of interest

## 04

**Money**

Cost, ability to recoup, paid for by someone else

# Tech Specifics

| Tool | DESCRIPTION | Best Use Cases |
|---|---|---|
| **AI Scribe** | Self-learning dictation-based tool that works to convert audio conversations into clinical notes eg. Tali, AI scribe, scribeberry, many... | MH visits, slow typer, eye contact, take home notes, not perfectionist |
| **Patient Messaging** | Allows you to message with patients with attachments to communicate clinically, test results, request information eg. Medeo, CHR, Ocean, Pomelo, etc | Test results, requested notes, requesting very specific information/photos |
| **Video Virtual Visits** | Software that allows video visits with patients, possibly integrated into your EMR eg. OTN, EMRs, etc | EMR-integrated, needed for billing, comfortable patients |
| **Online Appointment Booking (OAB)** | Allows patients to self-book appointments within set parameters eg. CHR, Ocean, Pomelo | Short-focussed appointments, trained patient population, single-issue visits |

# Technology Evaluation

**Ask around**

Try not to be first - ask
colleagues, friends

**Large Entity**

COP (Facebook, Twitter, conferences), OHT,
PCN

**Certification**
Ontario Health, OntarioMD,
OMA, MOH

**Try it**

Trial 1-3 (often free), low
commitment

**Practice**

Schedule CME,
protect tech time

OH verified tools - https://www.ontariohealth.ca/system-planning/digital-standards/virtual-visits-verification/verified-solutions-list
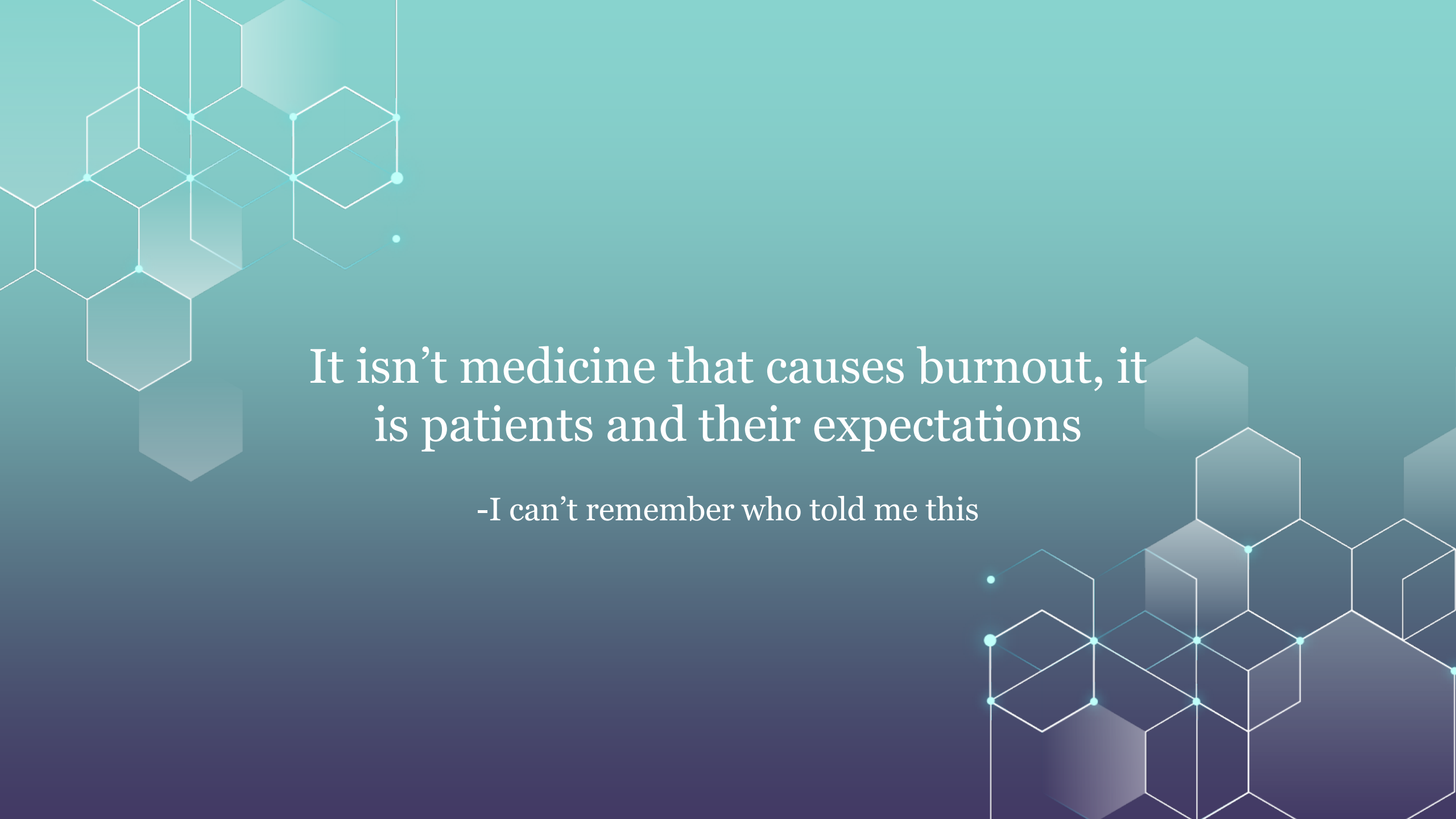
# AI Scribes


SO HOT RIGHT NOW

- OMD/WHIV study - significant time savings for most physicians, hours/week
- Vendors are more similar than different
  - All do an okay job, some have fancier tools, some tools have clinical decision-making, fill out forms, read incoming notes
- Most have trials
  - You have unique interests and styles, just try them. All will likely be better than no scribe for most
- EMR incorporation
  - Most use copy/paste, few have direct EMR integration and you may not want this yet
- Minimum requirements
  - Computer, microphone, you, patient consent

# Burnout



I just wanna be... appreciated!

**By the government, by my patients and by myself**

It isn't medicine that causes burnout, it is patients and their expectations

-I can't remember who told me this

# **Access**

- Today
    - iPhone EMR app so I can check inbox on the toilet
- 30 years ago
    - not in office = inbox doesn't exist

I have clarified with CPSO and CMPA that when not referring to critical results, the bar is what a "reasonable physician" would do
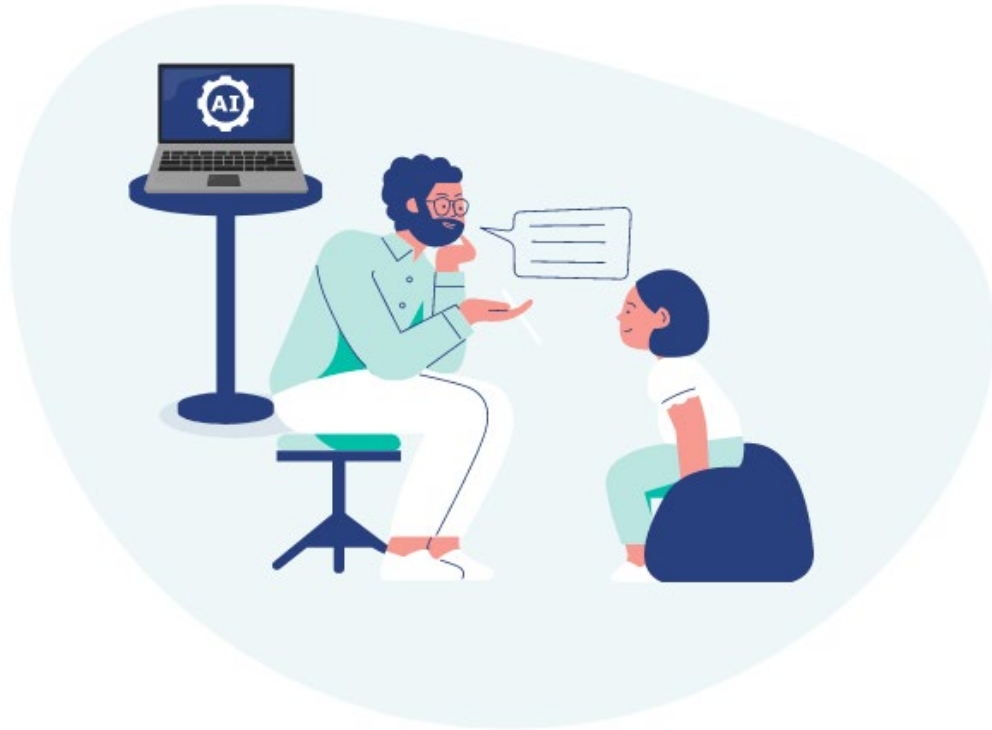- evening/weekends off sounds reasonable to me

# Clarification

Many of the issues causing burnout are systemic and are not on you to address or fix.

Do what you can within your sphere of influence.

## Your Panelists

### Dr. Cody Jackson
London, ON

### Ariane Siegel
Toronto, ON

**Integrating AI and Technology into Family Medicine**

# *HEALING FOR HEALERS:* HARNESSING TECHNOLOGY FOR A HEALTHIER HEALTHCARE SYSTEM

**Ariane Siegel, BA, LLB, LLM**
*General Counsel and Chief Privacy Officer, OntarioMD*

ARTIFICIAL INTELLIGENCE

# Overview

1. **Wellness in the Healthcare System**

2. **Coordination – 2 Case Studies**

   **Technological Solutions to Wellness**

   - AI scribes
   - Bundled approaches to privacy & cybersecurity
   - Training

# WHY IS A *LAWYER* TALKING ABOUT WELLNESS?

**Another profession suffering from the same stressors**

- 35.7% report **anxiety**
- 28.6% moderate to severe **depression**
- 55.9% reported **burnout**

**Physicians suffer from similar if not higher statistics**

- 72.9% reported some level of **burnout** in 2021, up from 66% the year prior
- 34.6% felt **completely burnt out**
- 23% increase in outpatient treatment for **substance-use** visits
- Among professions, physicians have highest risk of death by suicide

X  **HIGH-STRESS ENVIRONMENTS**

X  **DEMANDING WORKLOADS,**

X  **CULTURE OF "OVERWORK"**

X  **EMOTIONALLY/ETHICALLY COMPLEX WORK**

X  **IMPACT ON PERSONAL LIFE**

X  **STIGMA AROUND SEEKING HELP**

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# 1.  WELLNESS IN THE HEALTHCARE SYSTEM

- **Growing list of obligations**

- **Regulatory requirements and compliance** (PHIPA, FIPPA, PIPEDA)

- **Data governance** - Issues related to data deletion, data ownership, data storage, data use, data portability, data retention and data migration

- **Privacy breaches** - Daily practice, cyberattacks, ransomware and response plan

- **Vendor management** - Costs, dispute resolution, warehousing, standards, and privacy

- **Insurance coverage** - Concerns over medical-legal risk, legal defence, liability protection, cyber liability & risk- management protection.

- **IT technology** - Management, adoption and implementation of new technologies.

- **And most of all,** your *Administrative Burden*

# THE ADMINISTRATIVE BURDEN

**2023 survey shows family doctors spend 19 hours a week on administrative work – mostly unpaid and unnecessary**

- 1 full day of seeing patients = creates **5 hours** of admin work

- Comprises **40%** of the work currently done by family doctors

- **94%** of family doctors say they feel **overwhelmed** by administrative/clerical tasks

**Real risk of physicians leaving the profession or not keeping up with patients' expectations/needs**

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# 2. Bundled and Coordinated Approach
## ( 2 Case Studies - AI and Cyber)



AI Marketplace is an online hub connecting businesses with AI solutions to clinicians in Ontario and beyond looking to buy an AI scribe through a trusted site.

Physicians must be at the center

The AI scribe tools, and underlying privacy, security and regulatory requirements must be designed with physician needs. Need governance, implementation on training.

.  Trust at center

Tools to support Supported by information about All the product information you need is here to save you time researching the products yourself and help you make an informed purchase decision.

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# A. The future of AI in Primary Care

AI as an Assistant

"...the ability to have all of the data about a person assimilated and analyzed, to have scans and slides read ... liberates doctors from keyboards so they can look patients in the eye."

*Eric Topol, MD and Medical Futurist*

AI will reduce your workload, simplify your practice and give time back to **you**!

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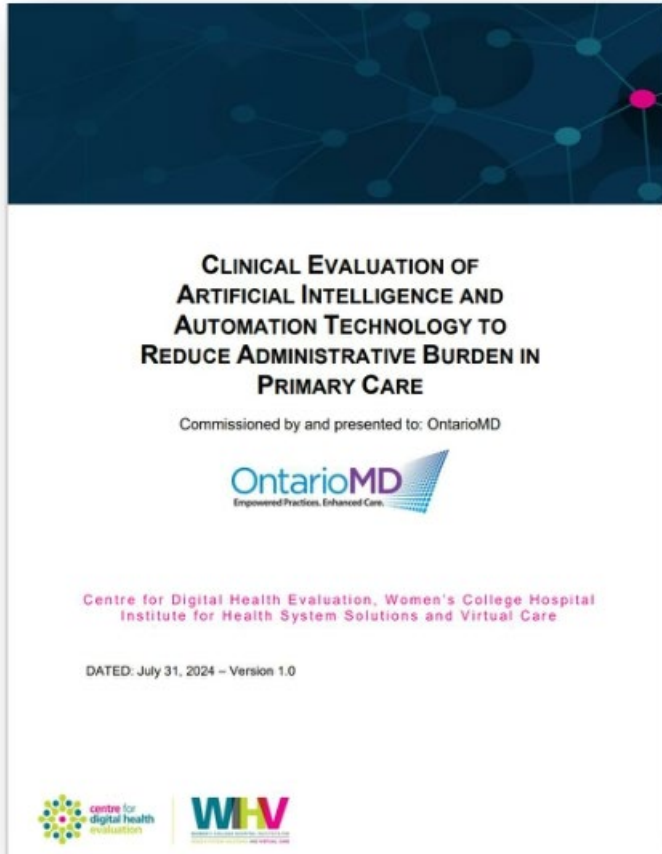
# Evaluation Study of AI Scribe

OntarioMD's Evaluation Study confirms **the value of AI scribes** in reducing administrative burden.

- In the lab setting, using an AI scribe was associated with a **70%** to **90%** reduction in time spent documenting
- PCPs reported a **3-4 hour** reduction per week in the amount of time spent on administrative tasks both during and after work hours
- **75%** of PCPs reported a significant improvement in their cognitive load during patient consultations
- **83%** of PCPs said they would use an AI scribe in their practice long term
- **Over half of PCPs** reported improved work-life balance, more personal and family time, increased job satisfaction, and professional fulfillment, with women more likely to experience benefit.

## CLINICAL EVALUATION OF ARTIFICIAL INTELLIGENCE AND AUTOMATION TECHNOLOGY TO REDUCE ADMINISTRATIVE BURDEN IN PRIMARY CARE

Commissioned by and presented to: OntarioMD

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Empowered Practices. Enhanced Care.

Centre for Digital Health Evaluation, Women's College Hospital Institute for Health System Solutions and Virtual Care

DATED: July 31, 2024 – Version 1.0

See the full Evaluation Study Report here:
https://www.ontariomd.ca/Documents/AI%20Scribe/AI%20Scribe%20Evaluation_Final%20Report_vf.pdf

"…**my friends and family were surprised at me coming home at a reasonable time** and **having the energy to participate in activities**, community volunteering events and other functions. I felt much better about Being a comprehensive long term family doctor."
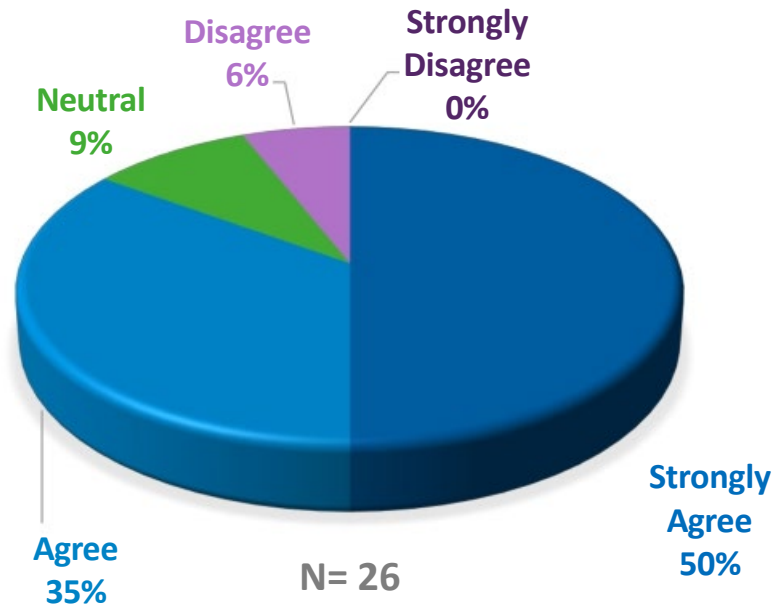
Family Physician, Female

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# Clinical Workload Management, Efficiency, & Burnout



Most physicians (85%) reported reduced cognitive and administrative burdens and time savings, indicating the AI scribe's effectiveness in managing workload and reducing documentation-related stress.
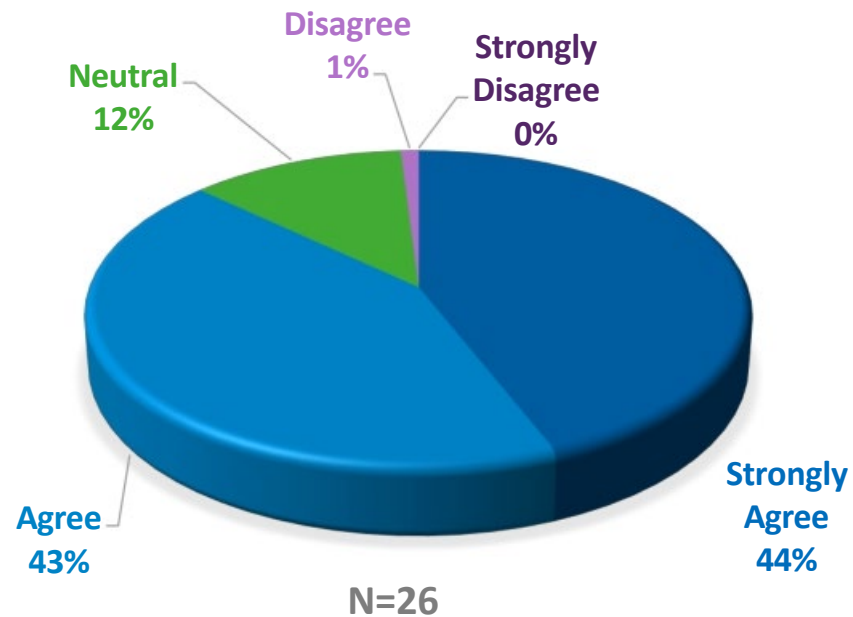
# AI Scribe Functionality
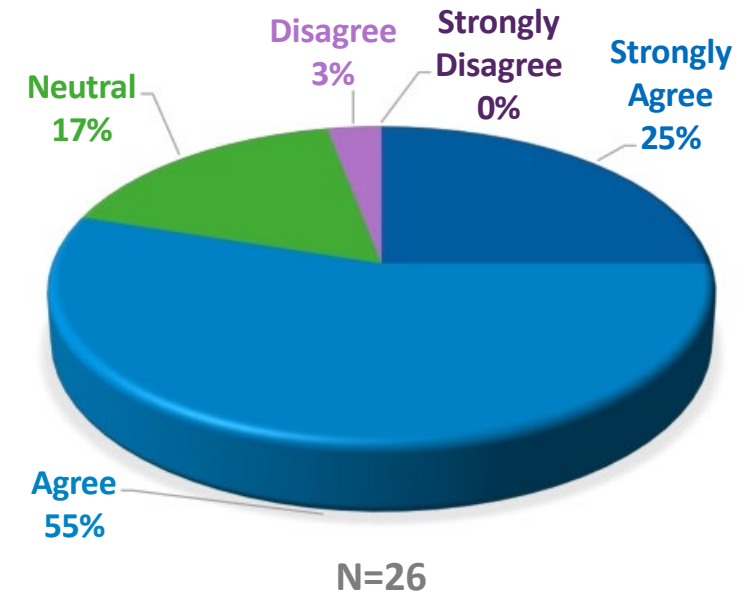


The theme centers around physician satisfaction with the AI scribe's functionality, adaptability, conversational capture, and comprehension of clinical terminology. Most physicians (80%) expressed overall satisfaction with the AI scribe, highlighting its practical features and functions.

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# Patient Perception and Satisfaction

## Physicians' Survey



**Disagree 1%**
**Neutral 12%**
**Strongly Disagree 0%**
**Strongly Agree 44%**
**Agree 43%**
**N=26**

A high percentage of physicians (87%) reported that their patients had positive reactions to the AI scribe, indicating its beneficial role in enhancing patient experiences and the quality of care.

## Patients' Survey

- **Focus on Conversation:** 95%

- **Comfort with AI Scribe:** 92%

- **Visit Satisfaction:** 84%

- **Enhanced Doctor-Patient Relationship:** 78%

**Patient-Physician Correlation:**
- Both physicians and patients recognize the AI scribe's role in enhancing clinical interactions.
- High comfort levels with AI scribes reported by patients mirror physicians' observations.
- Increased satisfaction in care experience further affirms AI scribe's positive impact.

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# AI Scribe Legal & Regulatory Analysis



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DRIVING HEALTHCARE EFFICIENCY THROUGH TRUSTED TECHNOLOGY:
LEGISLATIVE ANALYSIS ON THE USE OF AI SCRIBE TECHNOLOGY IN ONTARIO PRIMARY HEALTHCARE

JUNE 19, 2024

- Role in the evaluation included legislative, regulatory, and market analysis

- Key issues managed by OMD for the study:
  - Contract management and requirements
  - Identifying/mitigating risks of pilot
  - Obtaining input/feedback of stakeholders
  - Reviewing current legal/regulatory principles and the compliance mandates of clinicians testing the AI products

- Who did we engage – CMPA, CPSO, IPC, MOH, OH, OMA, Patients,
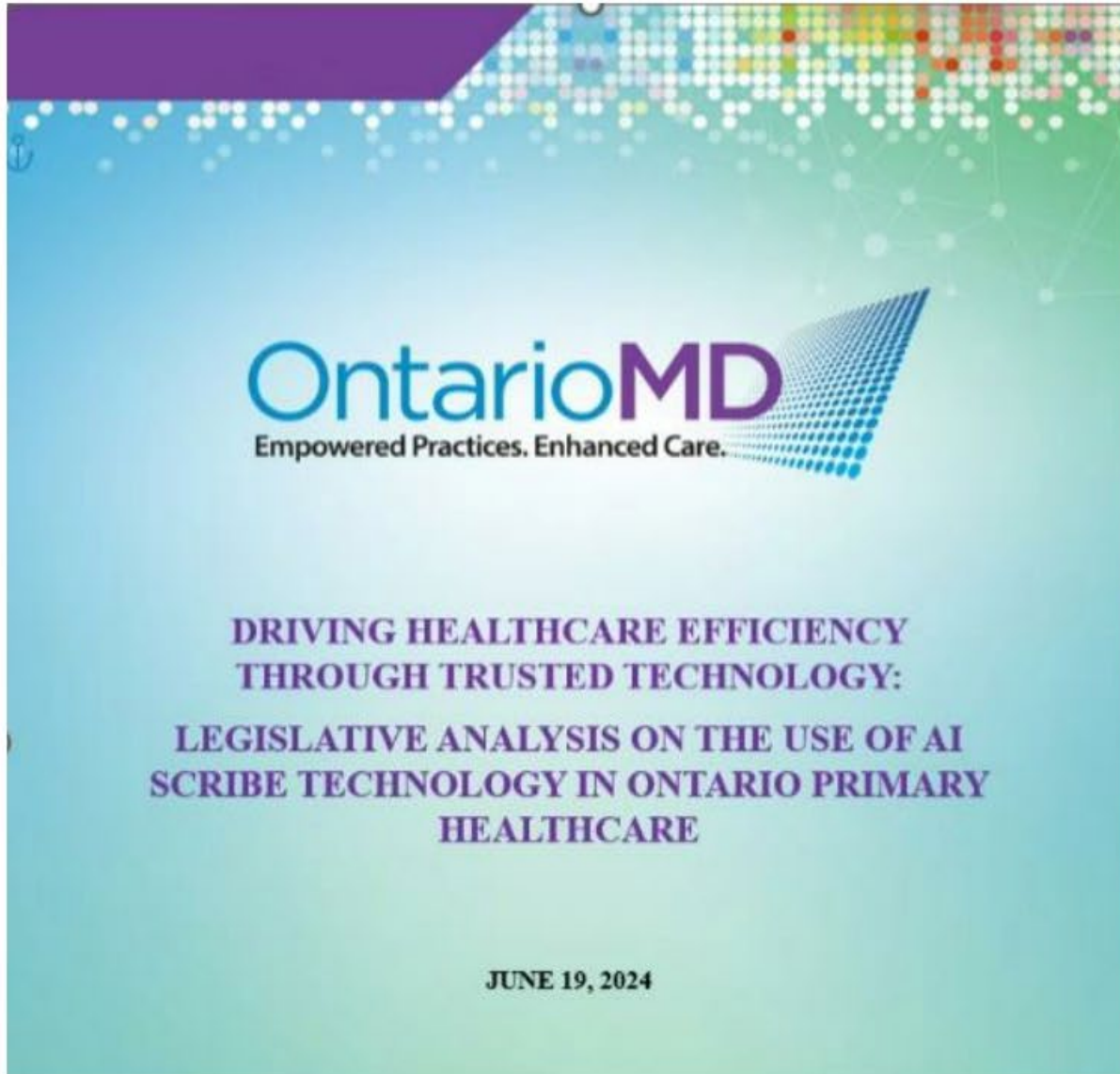
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# Legal Landscape Today

Canada: AIDA; Voluntary Code of Conduct; Guide on Generative AI

Ontario: Trustworthy AI Framework

U.S.: Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence

**E.U.: AI Act**

Draft Federal Legislation: Bill C-27 and The Artificial Intelligence and Data Act

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# B. OMD's PRIVACY & SECURITY BUNDLE OF SERVICES

Offering physicians and clients with a suite of products and services that can help to prevent and respond to privacy breaches and security threats

**OMD
Clinic Maturity Assessment**
to identify security vulnerability and gaps + make recommendations for improvement/remediation

**DNS firewall**
to prevent and protect systems and users from privacy and security threats such and hacking, ransomware, and phishing

✓ White labelled DNS Firewall Defense by Canadian Internet Registration Authority (CIRA)

✓ Dashboard Reporting on threats

**Privacy and Security Training**
*equally suitable for community practitioners and institutional settings*

✓ OMD-developed curriculum

✓ Cybersecurity content

✓ Reporting on completion

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# Privacy and Security Training



## 2023 Edition *for Acute and Community Care*

# FOR PHYSICIANS & STAFF

**Ontario Health ("OH") "EHR End-User Contracts require compliance including training that is audited/logged**

- ✓ OMD-developed curriculum
- ✓ Cybersecurity content
- ✓ Certificates
- ✓ Reporting on completion can be provided

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# NEW TECHNOLOGIES

## *Have the ability to…*

- **Reduce stress** associated with potential data breaches or compliance issues
- Built-in safeguards minimize **personal/professional anxiety** of facing legal/regulatory penalties
  - Can give a sense of control over operations, leading to higher job satisfaction and overall well-being
- Prevent **burnout**

  - Reduces cognitive load associated with managing a clinical practice

- **Administrative burden** reduced & simplified practice operations
  - Promotes efficiency by reducing distracting and allowing physicians to focus on core responsibilities
  - Fewer after-hours emergencies & paperwork promotes work-life balance
- Increased patient trust & satisfaction

# LOOKING AHEAD

- **Alignment privacy, medical regulators, government agencies**

- **Coordinated approach**

- **Requirements**

- **Competition**

- **Current clinician barriers**
  - "Safe" contracts
  - Cost/value for money

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# OntarioMD Products and Services

**OMD PARTNERS**

Ontario Health

Ontario

- Ministry of Health
- Ministry of Transportation

**10 Vendors of certified EMRs**

eConsult

Canada Health Infoway

New Nouveau Brunswick CANADA

SMA SASKATCHEWAN MEDICAL ASSOCIATION

Dynacare

**OMD CONNECTS**

**Partnered Products**

eCONSULT DEPLOYMENT AND EMR INTEGRATION

eFORMS

DHDR / DHIR EMR INTEGRATION

OLIS DEPLOYMENT

ONE ID

**OMD CONNECTS**

**OMD Products**

HEALTH REPORT MANAGER

i4C DASHBOARD

EMR CERTIFICATION PROGRAM

EMR LAB

**OMD EDUCATES**

DIGITAL HEALTH AND VIRTUAL CARE DAY

EMR PROGRESS ASSESSMENT TOOL

PEER LEADERS

PRIVACY AND SECURITY TRAINING AND RESOURCES

VIRTUAL CARE

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Resources
# Tools

Links to resources shared today will be sent to participants following the session.

# Tools and Resources

| Resource | Type | Link |
|---|---|---|
| **Verified Solutions List for Virtual Visits** | Resource | [Verified Solutions List for Virtual Visits | Ontario Health](#) |

# Verified Solutions List for Virtual Visits

This list is meant to help health service providers identify virtual care solutions that are appropriate for clinical use and that meet a standard for privacy, security, technology and functionality.

Resources
# Education

Links to resources shared today will be sent to participants following the session.

**UPCOMING!**

Public Health Ontario | Santé publique Ontario

Ontario College of Family Physicians
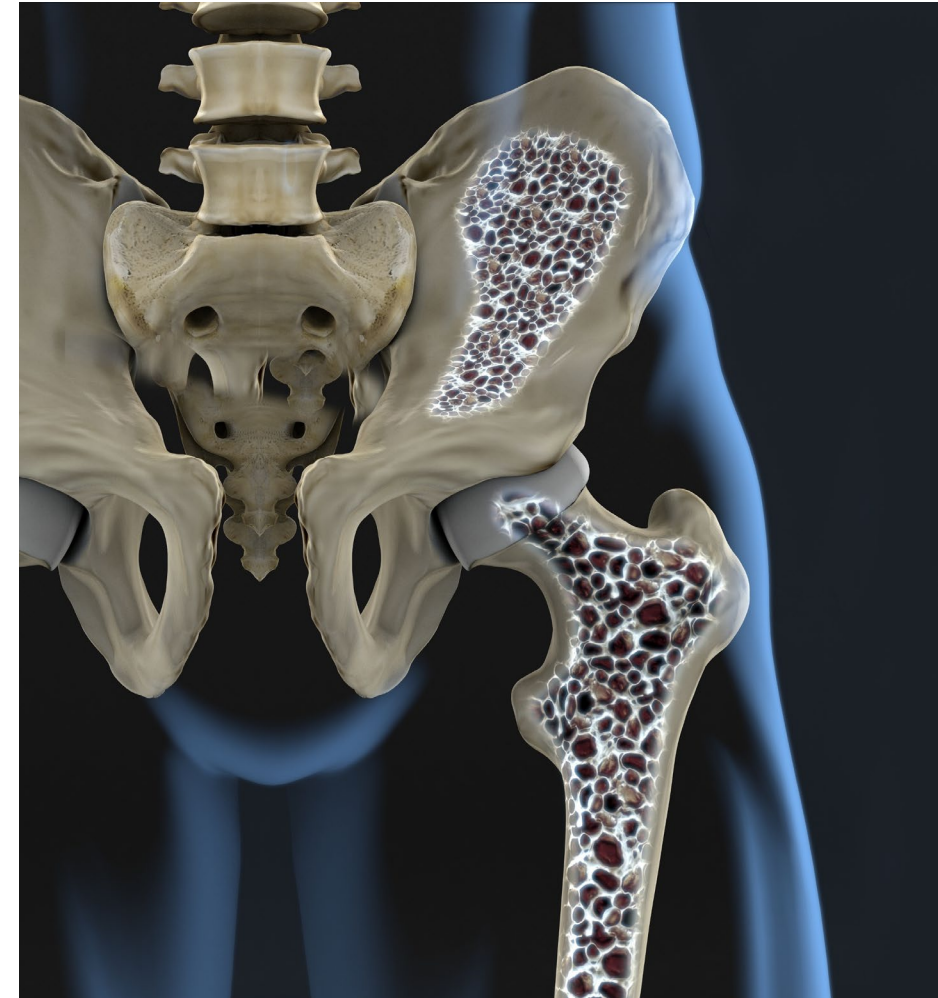
# Antimicrobial Stewardship in Primary Care Audit and Feedback to Improve Antibiotic Prescribing

November 14, 2024
12:00 p.m. to 1:00 p.m.

**FREE**

bitly

**Register Now!**

**Dealing with Grief in Family Medicine**

**Date: October 30th, 2024 8am-9am**
**Speakers: Dr. Mel Borins & Dr. Rachel Shour**

**Register now** for this **free** interactive webinar!

CFPC Mainpro+-Group Learning (one-credit-per hour)
Approved for 1 hour of MDPAC Group CE credits

# Practising Well CoP – Self Learning Program

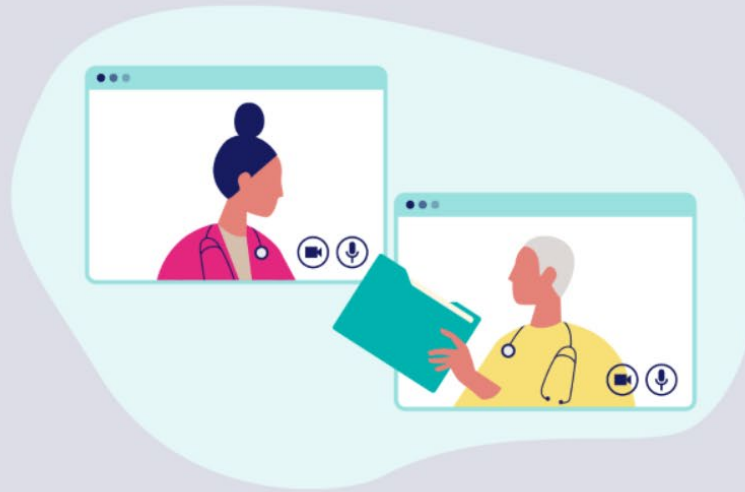**The Practising Well CoP is now certified for self learning credits!**

Earn **1-credit-per-hour** for reviewing the recording and resources from **past CoP sessions**. The self learning program is certified for up to 50 Mainpro+ credits.

Learn More and Participate

**Peer Connect**

Enabling you to connect, share and learn from your fellow family physicians.

# Mentorship Program - Connect with a Peer Guide!

An opportunity to partner with another family physician, **one-to-one or in a small group**, for support as you **explore clinical complexity and increase your confidence** caring for patients with mental health challenges, substance use, and chronic pain. A focus can be on your well-being as you engage in this challenging work.

Peer Connect          practisingwell@ocfp.on.ca

Resources

Supports

Resources

# Supports

OMA Physician Health Program
https://php.oma.org

Centre for Addiction and Mental Health
Health Care Provider (HCP) Resource
Site
http://www.camh.ca/covid19hcw

CMA Wellness Hub
https://www.cma.ca/physician-wellness-hub

**PARO**

- PARO 24/7 Helpline for Residents, Family Members, Medical Students
- 1-866-HELP-DOC

**Ontario**

- https://www.ontario.ca/#support-health-care-worker
  - Self-led  /  With peers  /  Talk to a clinician
- Ontario Shores Centre for Mental Health Sciences, Whitby
- St. Joseph's Healthcare, Hamilton
- The Royal Ottawa Mental Health Centre, Ottawa
- Waypoint Centre for Mental Health Care, Penetanguishene
- Centre for Addictions and Mental Health (CAMH), Toronto

**ECHO·ONMH**
Project ECHO® Ontario Mental Health
at CAMH & The University of Toronto

- ECHO Coping with COVID
  - for health providers (educational credits)
  - Fridays 2-3pm EST
  https://camh.echoontario.ca/echo-coping-with-covid/

# Support for you and those you care about.

# Upcoming Community of Practice

## Approaches to caring for children's mental health
with Drs. Fereshte Lalani, Anita Greig, Naima Javaid

### November 27, 2024
### 8:00am – 9:00am

**Register Now**

practisingwell@ocfp.on.ca