

Utilization of digital therapies and apps, to improve access to evidence based care

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camh

**TOBACCO CESSATION
TEACH**
Training Enhancement in Applied
Cessation Counselling and Health
ARRÊT DU TABAGISME

CAN  **ADAPTT**

stop
STOP SMOKING TREATMENT for ONTARIO PATIENTS

 **Pregnets**

Presenter Biography

Peter Selby, MBBS, CCFP, FCFP, MHSc, DipABAM, DFASAM

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Peter Selby is the Chief of Medicine in Psychiatry Division and a Clinician Scientist at the Centre for Addiction and Mental Health (CAMH). He is a Professor in the Departments of Family and Community Medicine, Psychiatry, and the Dalla Lana School of Public Health at the University of Toronto. He is also a Clinician Scientist in the Department of Family and Community Medicine. His research focus is on innovative methods to understand and treat addictive behaviours and their comorbidities. He also uses technology to combine clinical medicine and public health methods to scale up and test health interventions. His cohort of 240,000 treated smokers in Ontario is an example.

He has received grant funding totaling over 85 million dollars from CIHR, NIH, and Ministry of Health and has published 150 peer reviewed publications. He has published 6 books (including 5 edited), is the author of 31 book chapters, and 38 research reports prepared for the government. He is the Chair of the Medical Education Council for the American Society of Addiction Medicine. Dr. Selby mentors Fellows in Addiction Medicine and Addiction Psychiatry, junior investigators and medical students. The use of innovative methods to communicate messages makes Dr. Selby a sought after speaker for various topics including addictive disorders, motivational interviewing, and health behavior change at individual and system levels.

Disclosures (Lifetime)

Grants/Research Support:

- CAMH, Health Canada, OMOH, CIHR, CCSA, PHAC, Pfizer Inc./Canada, OLA,
- Medical Psychiatry Alliance, ECHO, CCSRI, CCO, OICR, Ontario Brain Institute,
- McLaughlin Centre, AHSC/AFP, WSIB, NIH, AFMC, Shoppers Drug Mart,
- Bhasin Consulting Fund Inc., Patient-Centered Outcomes Research Institute

Speaking Engagements (Content not subject to sponsors approval)/Honoraria:

- Pfizer Canada Inc., ABBVie, Bristol-Myers Squibb

Consulting Fees:

- Pfizer Inc./Canada, Evidera Inc., Johnson & Johnson Group of Companies,
- Medcan Clinic, Inflexxion Inc., V-CC Systems Inc., MedPlan Communications,
- Kataka Medical Communications, Miller Medical Communications, Nvision
- Insight Group, Sun Life Financial

Other: (Received drugs free/discounted for study through open tender process)

- Johnson & Johnson, Novartis, Pfizer Inc.

NO TOBACCO or CANNABIS or VAPING or ALCOHOL or FOOD INDUSTRY FUNDING



Learning Objectives

1

Reflect on the current state of mental health apps and digital psychiatry

2

Evaluate a Learning Health Systems approach

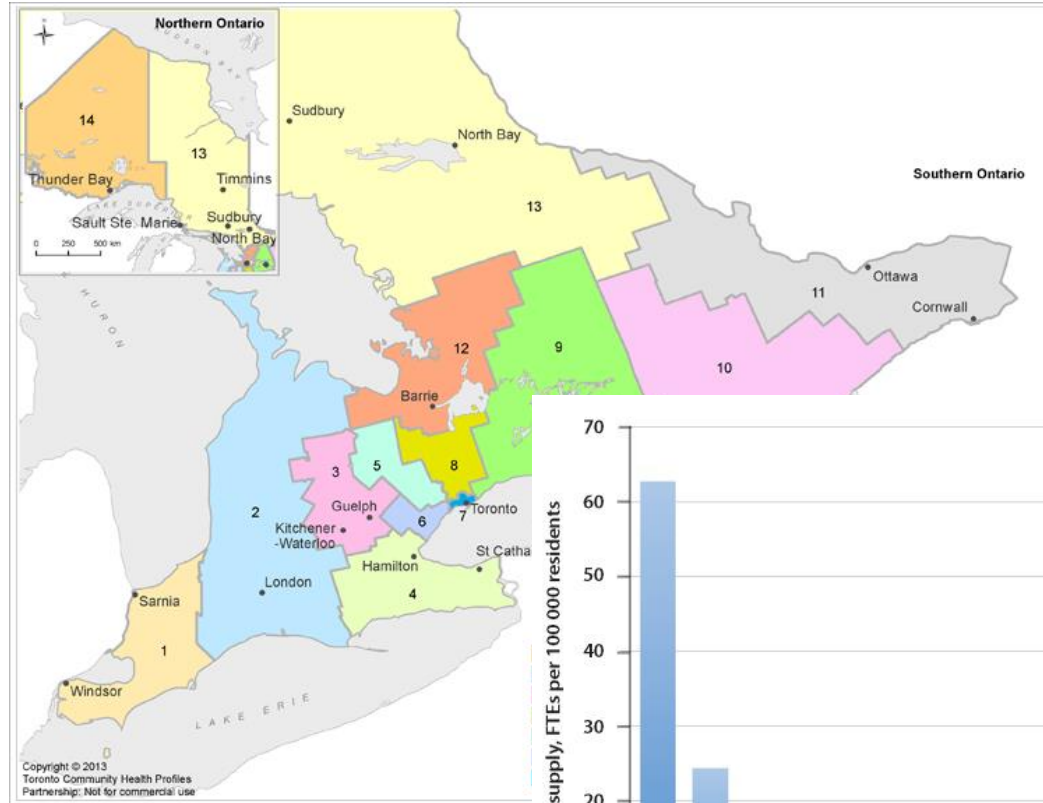
3

Locate Technology Enabled Collaborative Care projects within the scope of mental health

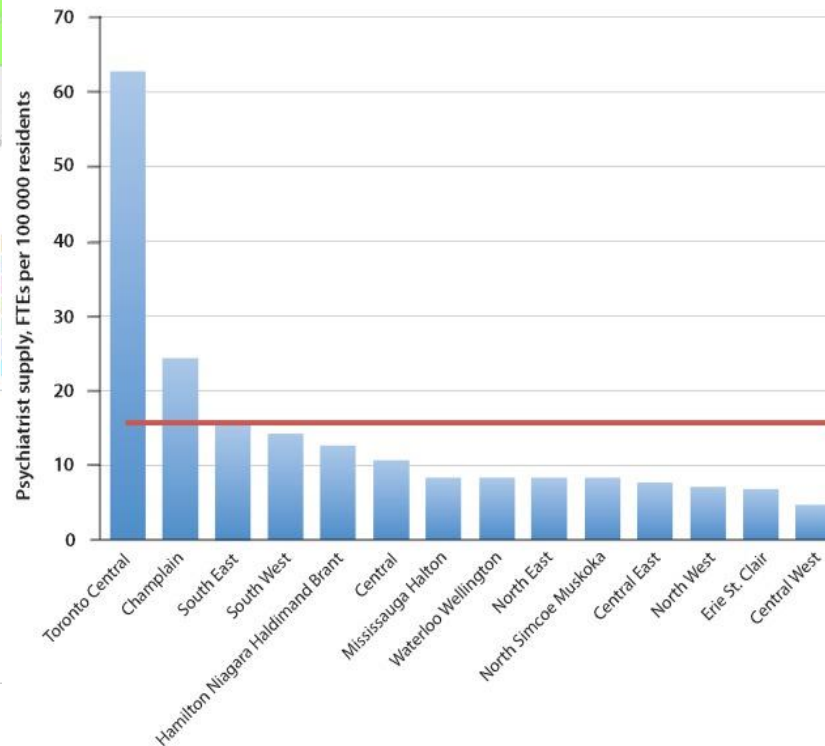
What part of the patient/Provider/ family journey are you trying to address?

1. Diagnosis early intervention
2. Access
3. Early discharge
4. Medication adherence
5. CDM?
6. Bad outcomes
7. Compassion fatigue
8. Others?

What's wrong with current health care delivery?



(n = 1379)
7 visits/year in Toronto
3.9 visits/year in
remote areas



Research

Kurdyak et al.

Universal coverage without universal access: a study of psychiatrist supply and practice patterns in Ontario

Paul Kurdyak, Thérèse A Stukel, David Goldbloom, Alexander Kopp, Brandon M Zagorski, Benoit H Mulsant



SILOCARE

Health Care
Professional #1

Location
#1

Health Care
Professional #2

Location #2

Health Care
Professional #3

Location
n #3

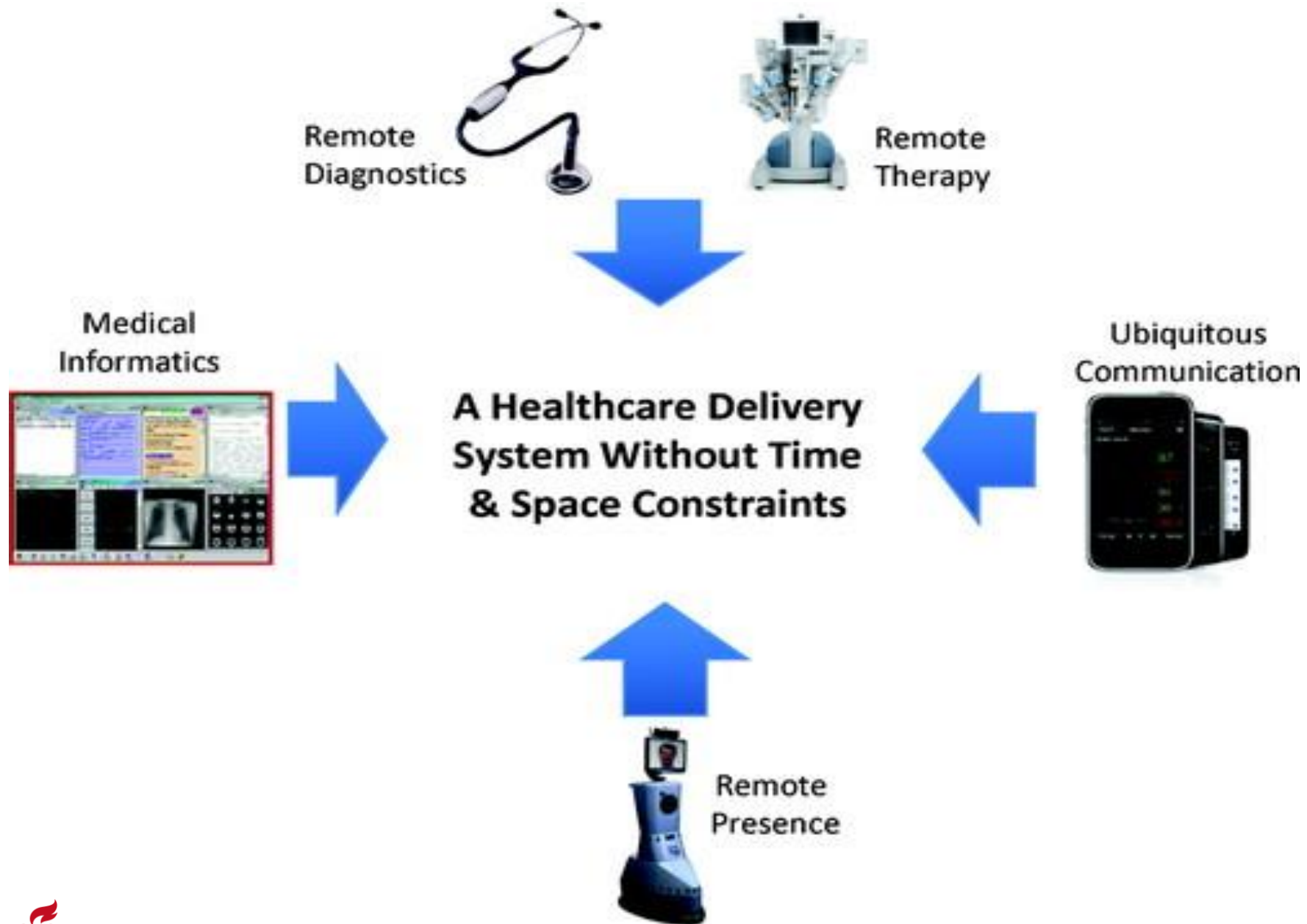
Social Service #1

Location #4



Falling through the cracks

This Photo by Unknown Author is
licensed under [CC BY-SA](#)



What can Digital mental health do?

- 1) self help
- 2) mutual aid
- 3) Care pathway
 - Assessment
 - Diagnoses
 - >Decision Support
 - Psychosocial interventions/psychotherapy
 - Medication
- 4) Follow up and re-engagement
- 5) Family and social support engagement

RISKS

1. Privacy
2. Digitize the siloed system
3. Lack of interoperability
4. Low adoption- shiny new toy syndrome
5. Worsen mental health-
 1. social isolation and dislocation,
 2. chronic activation of flight/fight/freeze response,
 3. Attentional hijacking



This Photo by Unknown Author is licensed under CC BY

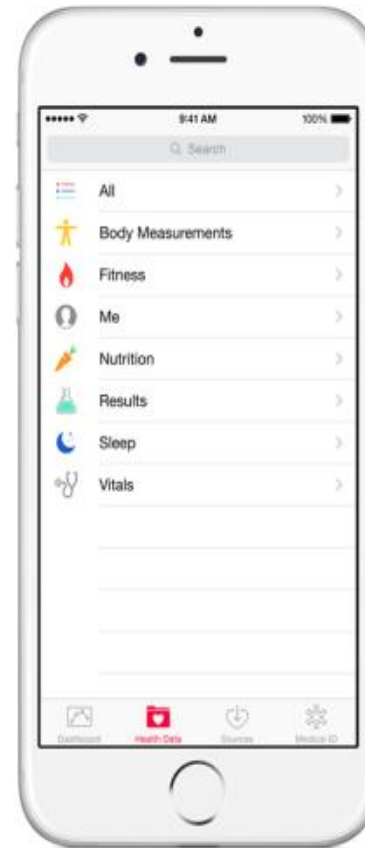
What is mobile health m-Health?

Electronic health and mobile devices for medicine and public health

Active detail collection:- surveys, Ecological momentary assessments



See your whole health picture. Quickly view your most recent health and fitness data in one dashboard.



Manage what you're tracking. See a list of the different types of data being managed by Health, then tap to see each one individually.



Passive Data collection from the device or sensors

mHealth- Interventions

SMS text messages

Purposes: Reminder, alert, education, motivation, preventions

JMIR MHEALTH AND UHEALTH

Review

(*JMIR Mhealth Uhealth*
2018;6(1):e23) doi:
10.2196/mhealth.8873

Marcolino et al

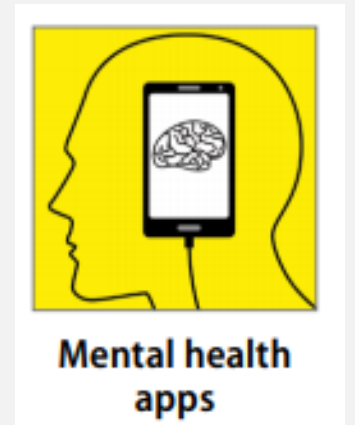
The Impact of mHealth Interventions: Systematic Review of Systematic Reviews

SMS cheaper than phone call
reminders for attending appointments,
medication adherence



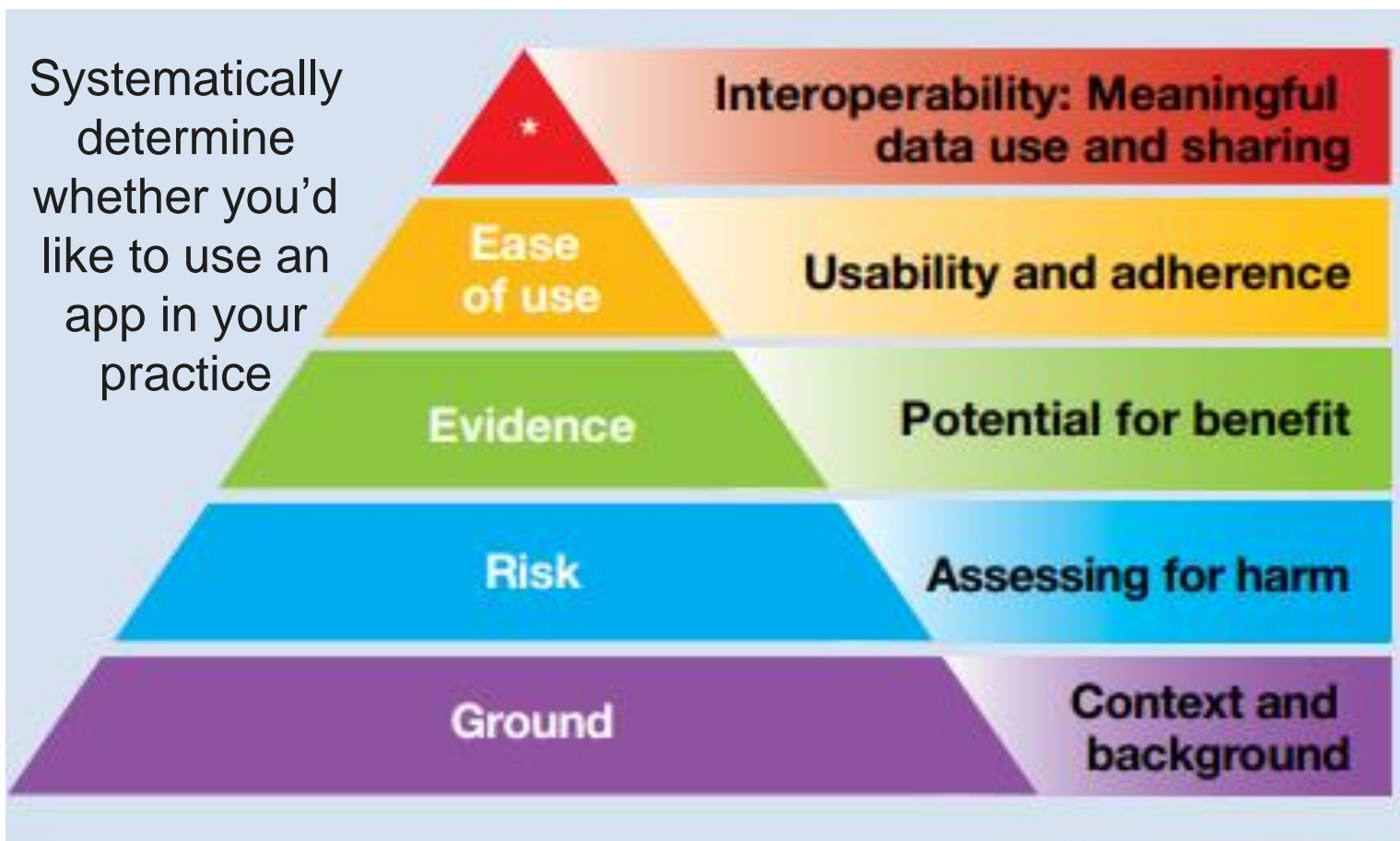
Mental Health apps: What to tell patients

- Apps used to enhance mental health are increasingly popular
- Lack of evidence of efficacy
- Some offer advice that is harmful and can compromise patient privacy
- Some apps may be helpful
- the **American Psychiatric Association App Evaluation Model** can help guide discussion with patients and provide informed decision-making



App Evaluation Model

Systematically
determine
whether you'd
like to use an
app in your
practice



✓ Step 1: Gather Background Information

✓ Step 2: Risk/Privacy & Security

✓ Step 3: Evidence

✓ Step 4: Ease of Use

✓ Step 5: Interoperability

Telepsychiatry – in evolution

One to one
One to Many
OTN

- 3,801 people had a total of 5,635 telepsychiatry visits
- 7% (138) of Ontario psychiatrists provided telepsychiatry
- Of the 48,381 people identified as in-need of psychiatric care, 60 per cent saw a local psychiatrist, 39 per cent saw no psychiatrist, and fewer than 1 per cent saw a psychiatrist through telepsychiatry only or telepsychiatry in addition to local psychiatry, within a year
- Three northern regions had more than 50 per cent of in-need patients fail to access psychiatry within one year
- **Implementation and Utilisation of Telepsychiatry in Ontario: A Population-Based Study**

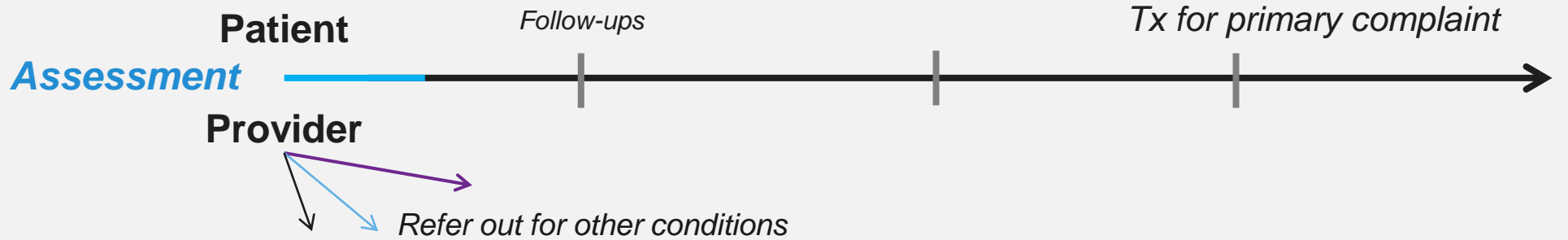
Eva Serhal, MBA, Allison Crawford, MD et al 2017

Technology Enabled Collaborative Care- System 1

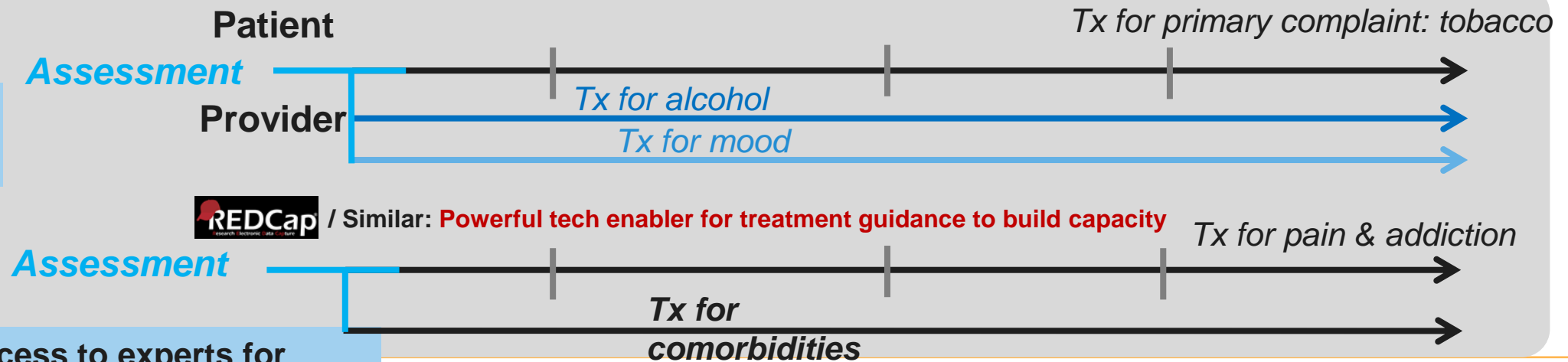
Designed for smoking cessation studies but now enables multiple disease and risk factor screening and intervention at any healthcare setting

Innovation and Opportunities in Care Delivery

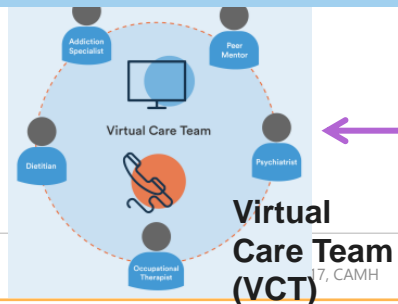
Analogue



Hybrid- CDSS- Synchronous locally



Add asynchronous access to experts for both patients and providers



Health Coach



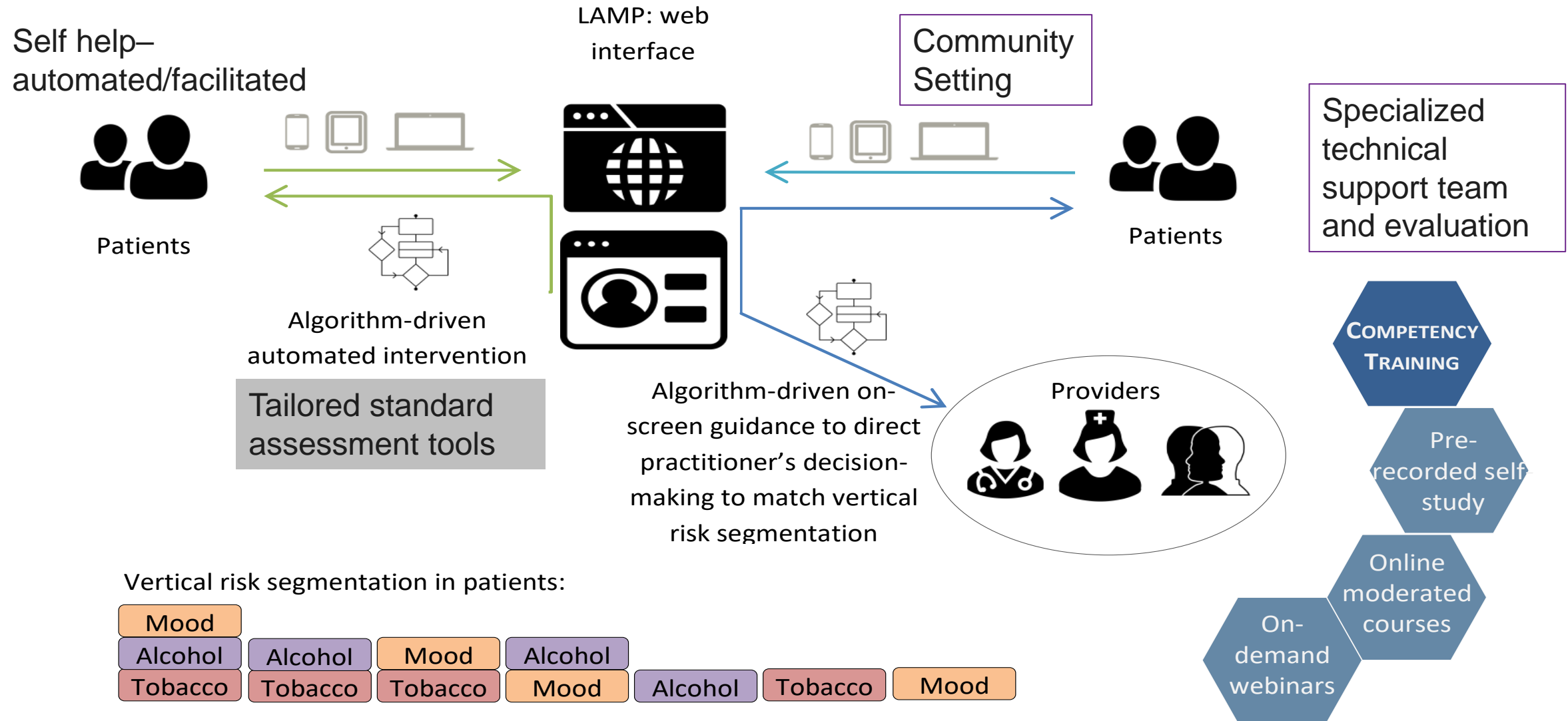
Patients

Providers

HC engages patients & channels recommendations from VCT throughout Tx

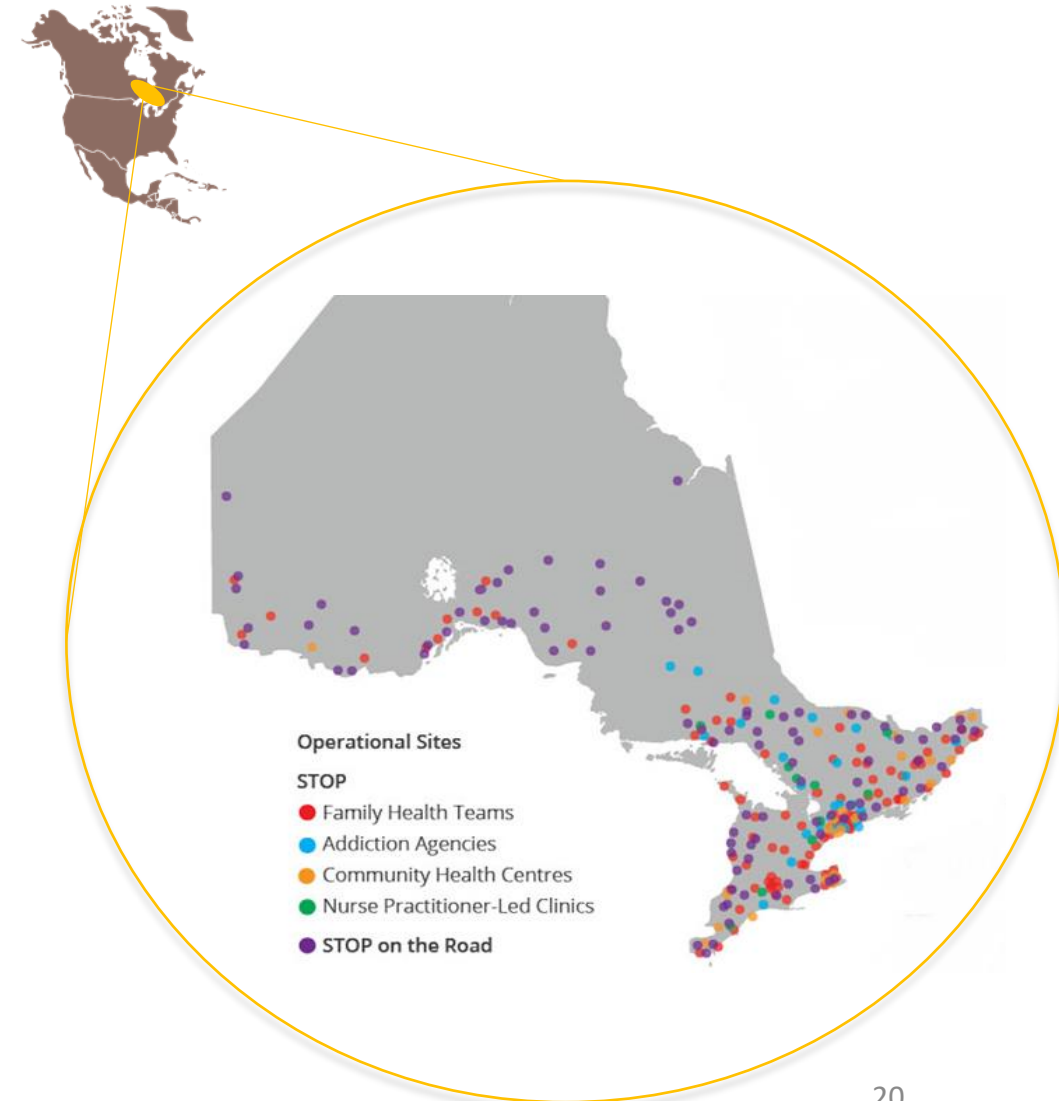
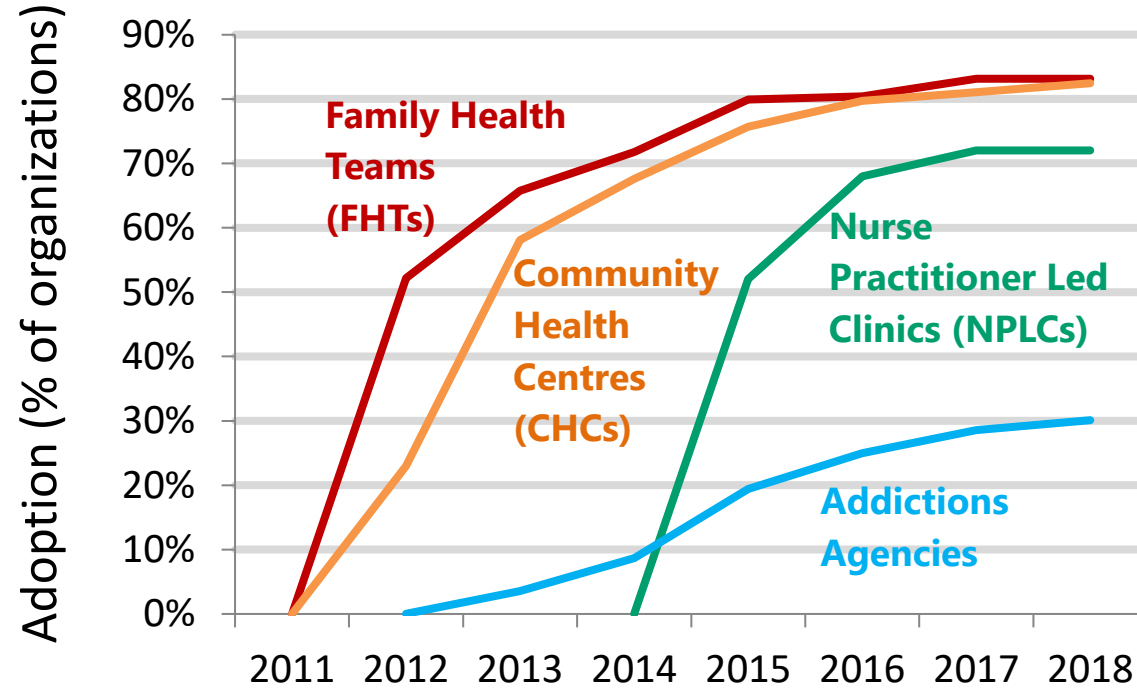
HC connects Providers to VCT expertise, e.g., case conferences

Technology enabled Collaborative Care



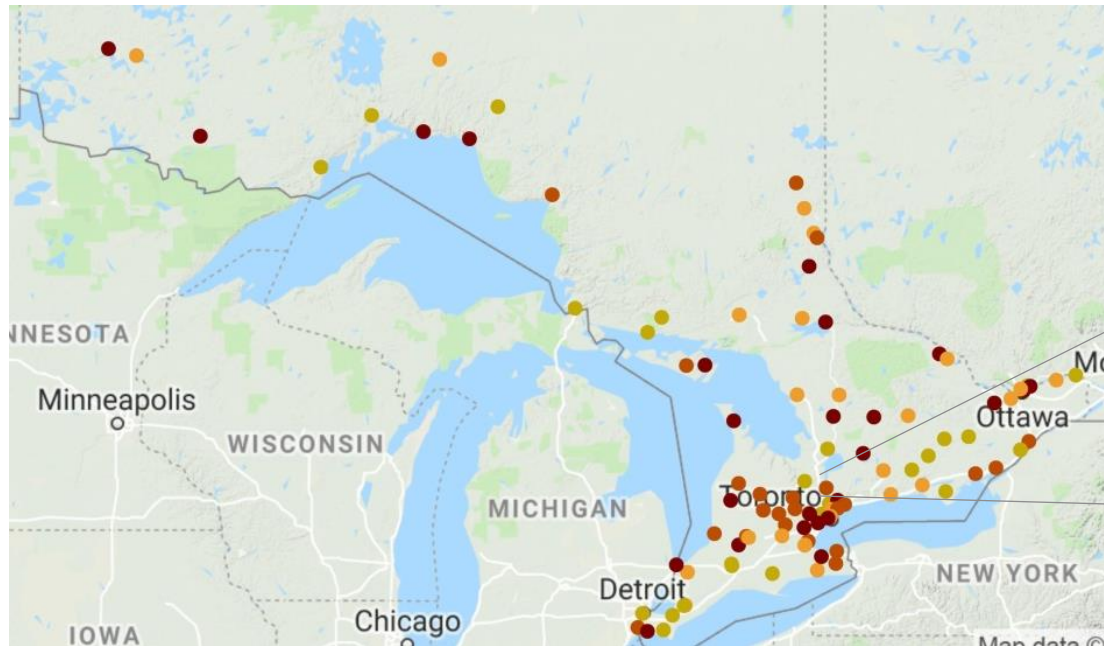
Operational is 300plus sites in Ontario currently- 27k per year added N=250K

> 83% FHTs > 81% CHCs, 100% AHACs
> 75% NPLCs > 26% Addictions Agencies

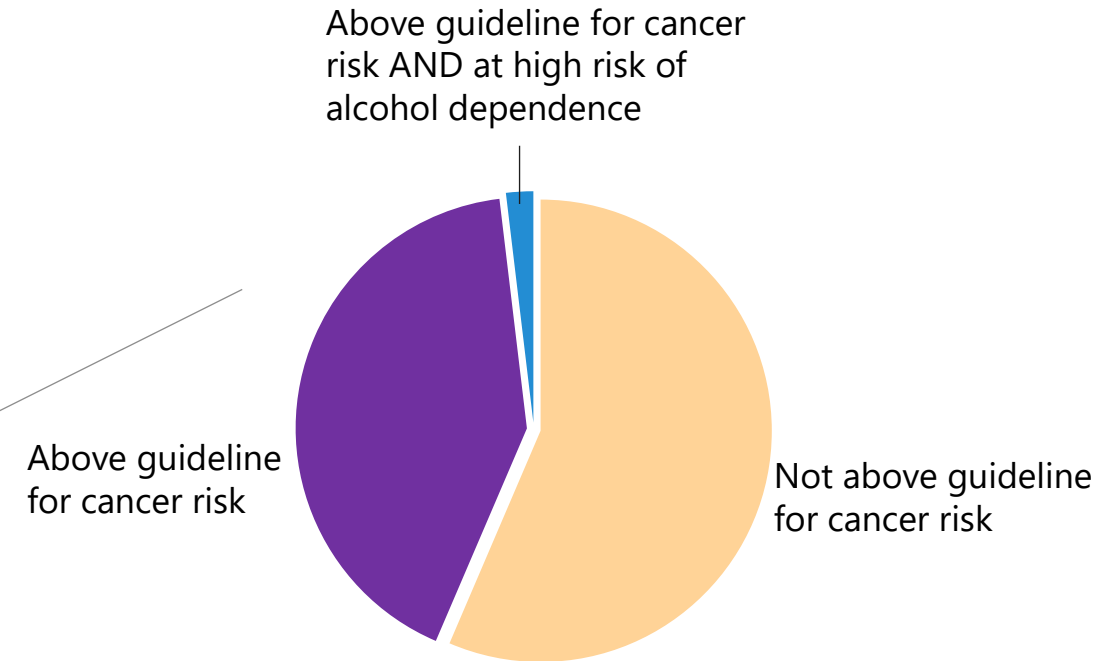


How do provide targeted interventions- alcohol

STOP FHT sites with eligible participants
over Audit C cut-off for **hazardous drinking**

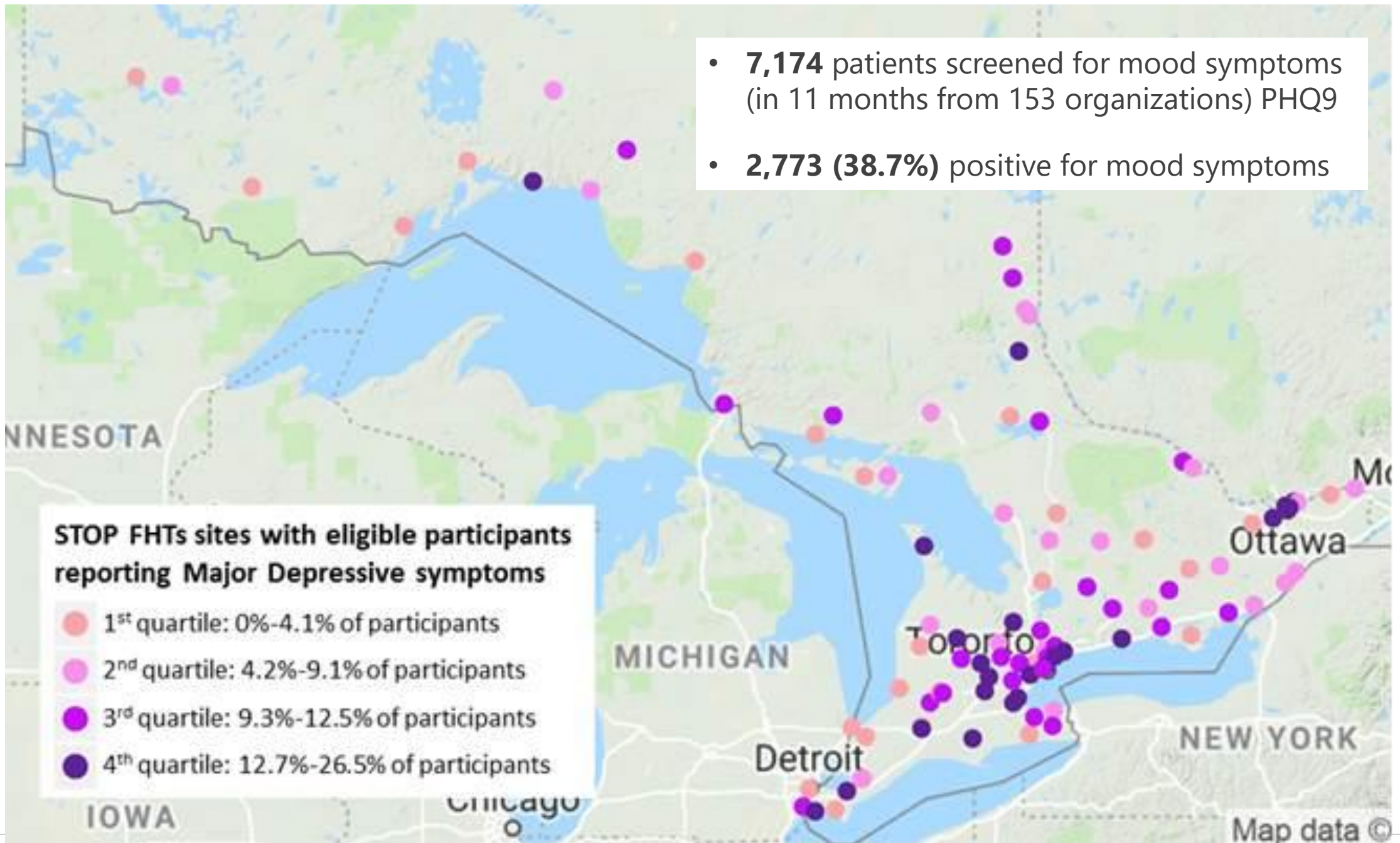


- 1st quartile: 0%-25.0% of participants
- 2nd quartile: 25.2%-33.8% of participants
- 3rd quartile: 34.0%-43.6% of participants
- 4th quartile: 43.9%-62.5% of participants



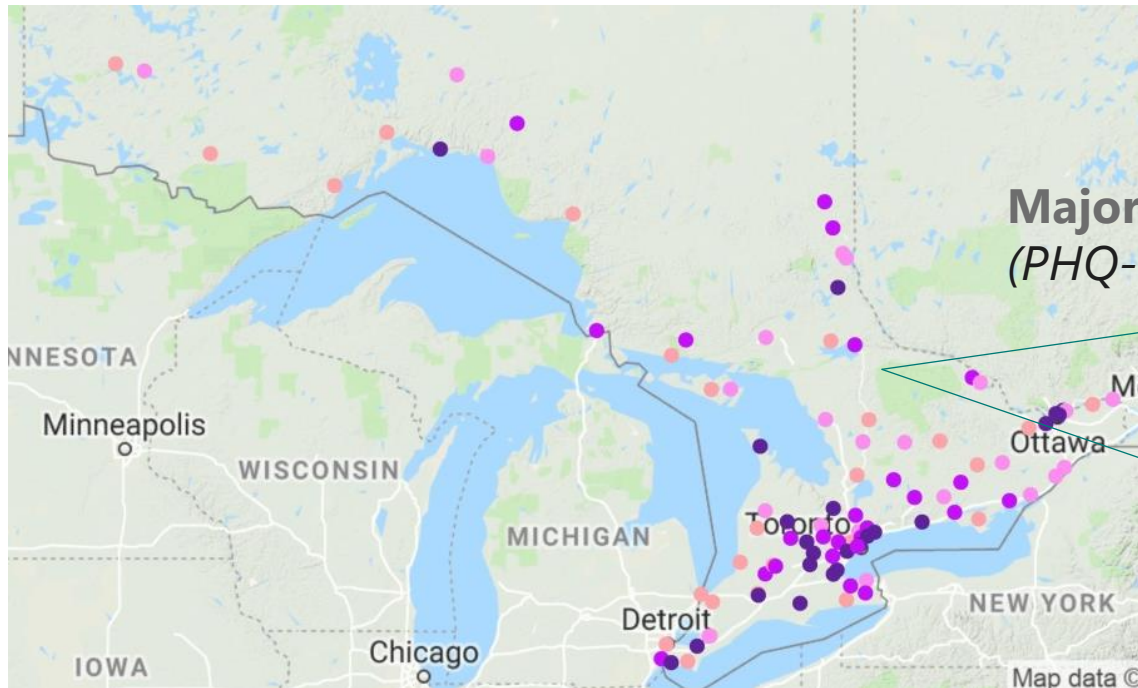
- **15,222** smokers screened for alcohol use (in 17 months)
- **5,715 (37.5%)** drink above recommended guidelines

- **7,174** patients screened for mood symptoms (in 11 months from 153 organizations) PHQ9
- **2,773 (38.7%)** positive for mood symptoms

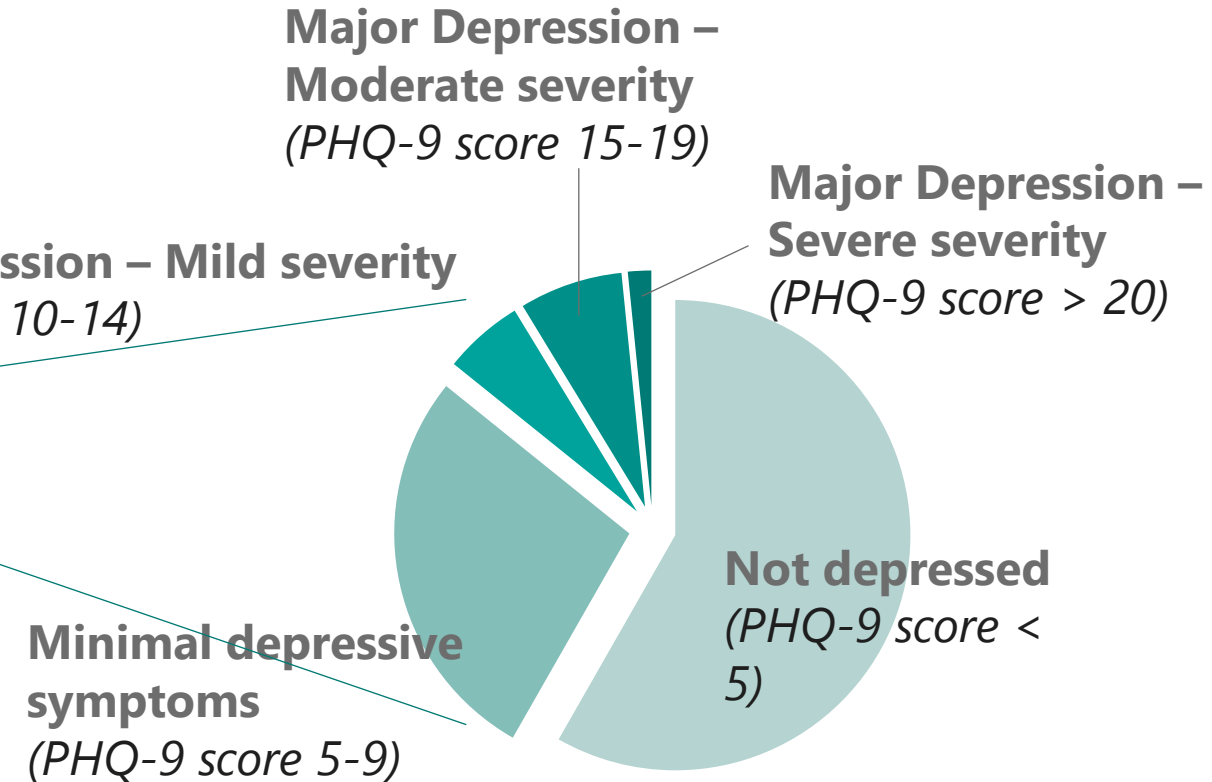


Where to provide targeted interventions: depression

STOP FHT sites with eligible participants reporting current **Major Depressive** symptoms



- 1st quartile: 0%-4.1% of participants
- 2nd quartile: 4.2%-9.1% of participants
- 3rd quartile: 9.3%-12.5% of participants
- 4th quartile: 12.7%-26.5% of participants



DEIMP

Opioid De-Implementation Project-

Assisting team-based primary care practices with improving the stewardship of opioids by replacing low-value practices with evidence-based approaches

Opioid Deimplementation Pathway

Record Status Dashboard

- View data collection status of all records

Add / Edit Records

- Create new records or edit/view existing ones

Record ID 27 [Select other record](#)

Applications [+](#)

Project Bookmarks [Edit](#) [-](#)

- Nicotine Dependence Services
- CAMH's Do you Know...Prescription Opioids
- CAMH's Making The Choice, Making It Work
- The 2017 Canadian Guidelines for Opioids for Chronic Pain
- CRISM National Guideline for the Clinical Management of Opioid Use Disorder

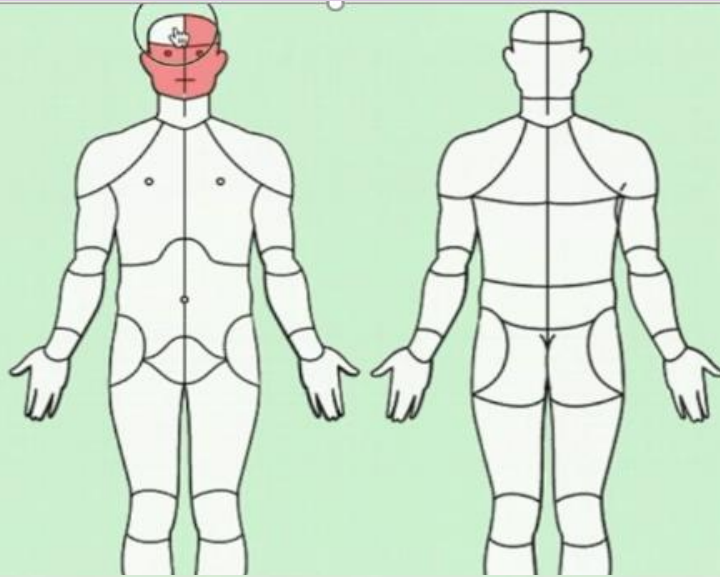
Help & Information [-](#)

- Help & FAQ
- Video Tutorials
- Suggest a New Feature

[Contact REDCap administrator](#)

NEW Record ID 27

Data Collection Instrument	Baseline	Month 1	Month 2	Month 3	Month 4
Enrollment Form (survey)	<input type="radio"/>				
Consent Form (survey)	<input type="radio"/>				
Demographics (survey)	<input type="radio"/>				
Brief Pain Inventory (BPI-SF) (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pain History and Treatments (survey)	<input type="radio"/>				
Global Appraisal of Individual Needs - Short Screener (GAIN-SS) (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GAIN-SS Ale (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Patient Health Questionnaire - 9 (PHQ-9) (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PHQ-9 Alert (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Generalized Anxiety Disorder 7-item Scale (GAD-7) (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health Conditions and Medications (survey)	<input type="radio"/>				
Additional Substance Use (survey)	<input type="radio"/>				
Alcohol Use Disorders Identification Test (AUDIT) (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adverse Effects of Opioid Use (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prescription Opioid Misuse Index (POMI) (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
World Health Organization Disability Assessment Schedule (WHODAS) (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Assessment Report (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opioid Use (Practitioner Form) (survey)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



3. Please rate your pain by marking the circle beside the number that best describes your pain at its worst in the last 24 hours.

☐ 0 (No pain) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 (Pain as bad as you can imagine)

reset

4. Please rate your pain by marking the circle beside the number that best describes your pain at its least in the last 24 hours.

☐ 0 (No pain) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 (Pain as bad as you can imagine)

reset

5. Please rate your pain by marking the circle beside the number that best describes your pain on average.

☐ 0 (No pain) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 (Pain as bad as you can imagine)

reset

6. Please rate your pain by marking the circle beside the number that tells how much pain you have right now.

☐ 0 (No pain) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 (Pain as bad as you can imagine)

reset

7. Mark the circle below the number that describes how, during the past 24 hours, pain has interfered with your:

- Patient-centred

- Can be completed by the user at home, or anywhere

- Patient data capture asynchronous to practitioner schedule




Opioid Deimplementation Pathway



CamH
mental health is health

Participant ID: abc123

Risk Assessment: Summary

Legend

-  Risk not identified
-  Risk identified
-  Caution - Insufficient Information (Patient or practitioner did not complete all questions, and/or responded with "Don't know" or "Prefer not to answer" to one or more questions)

Demographics	
Age	
Opioid Use	
Prescription opioid use	

Automated
advice and
connection
to experts
for coaching

3

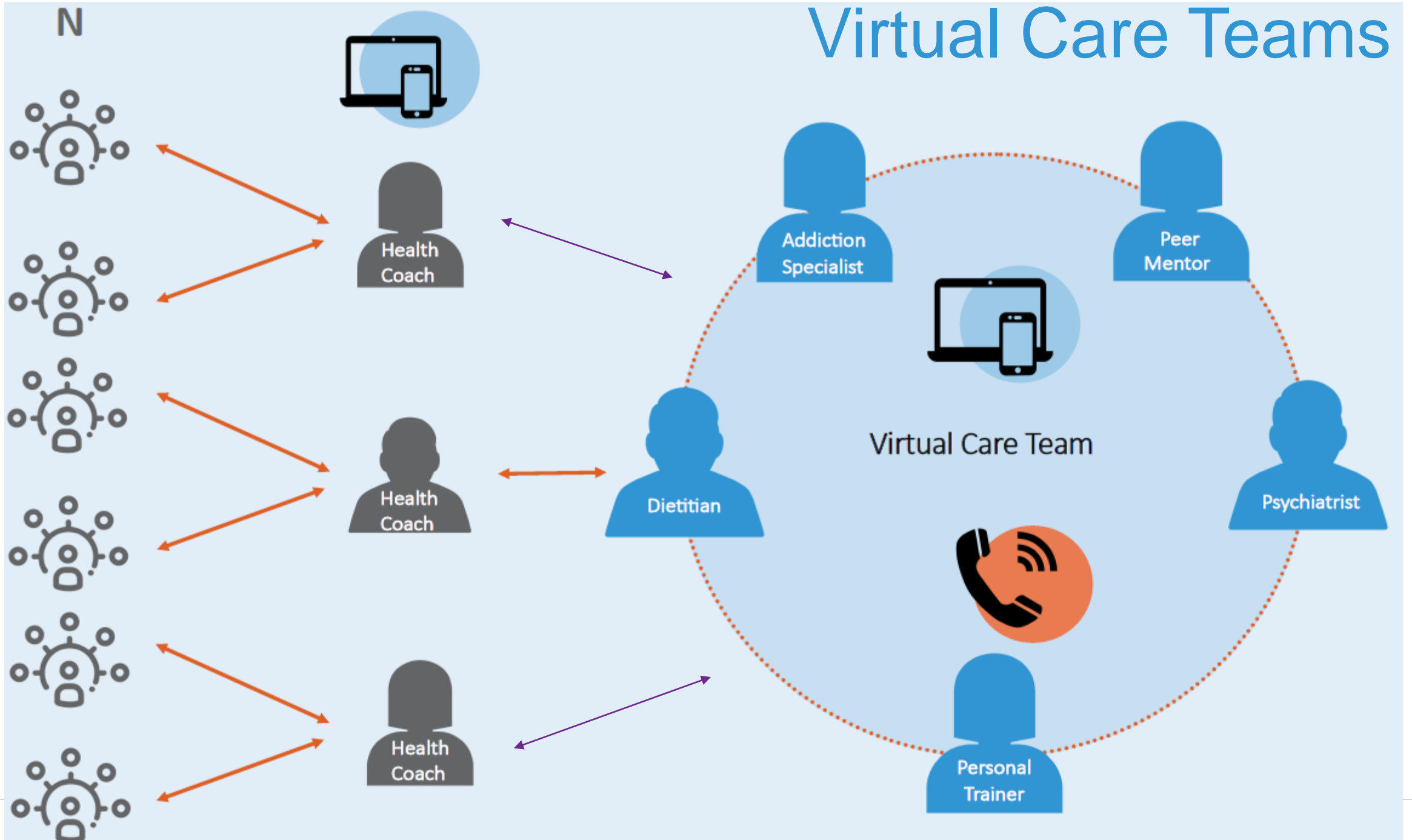
Locate Technology Enabled
Collaborative Care projects within
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TECC-Y

Technology Enabled Collaborative
Care for Youth

Virtual Care Teams



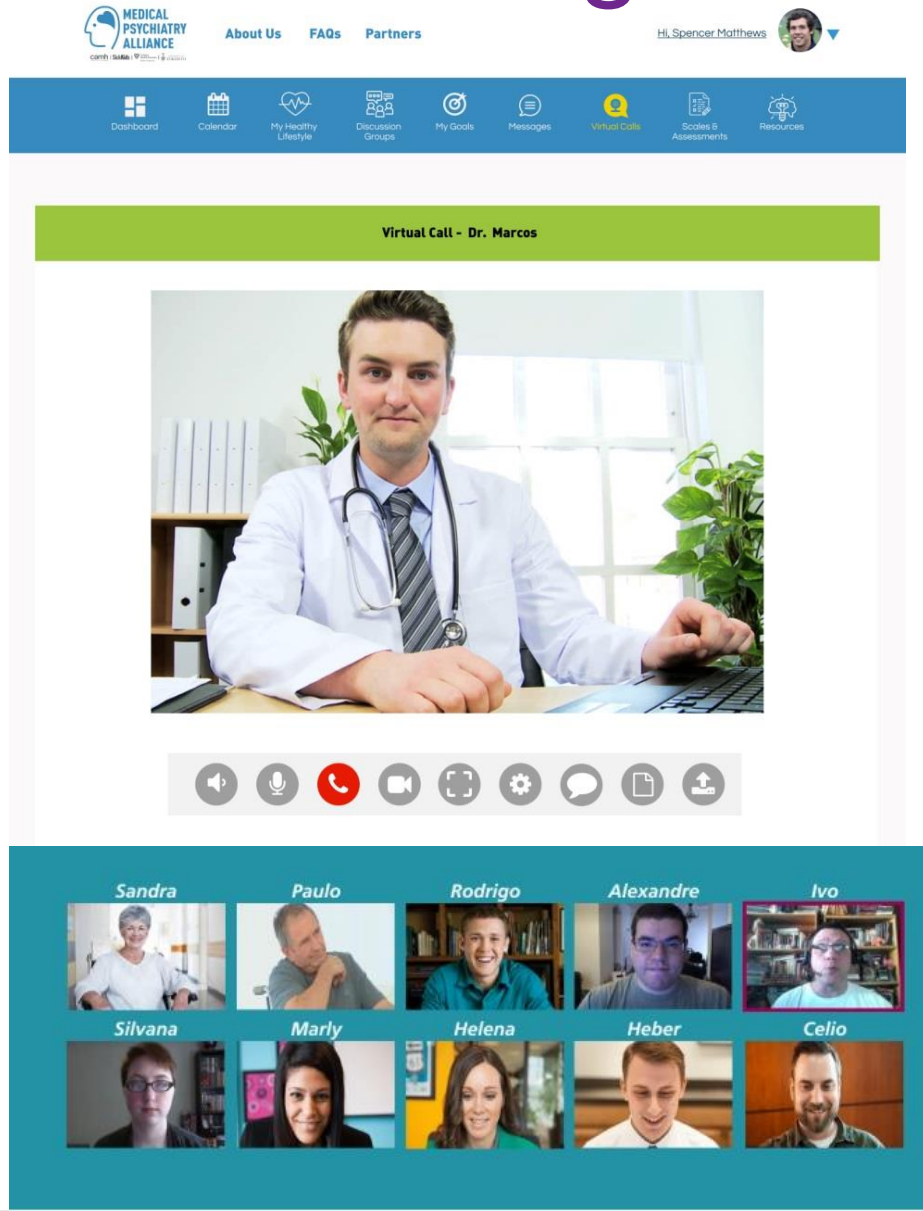
Care Coordinator

CC's Role in Participants' Care

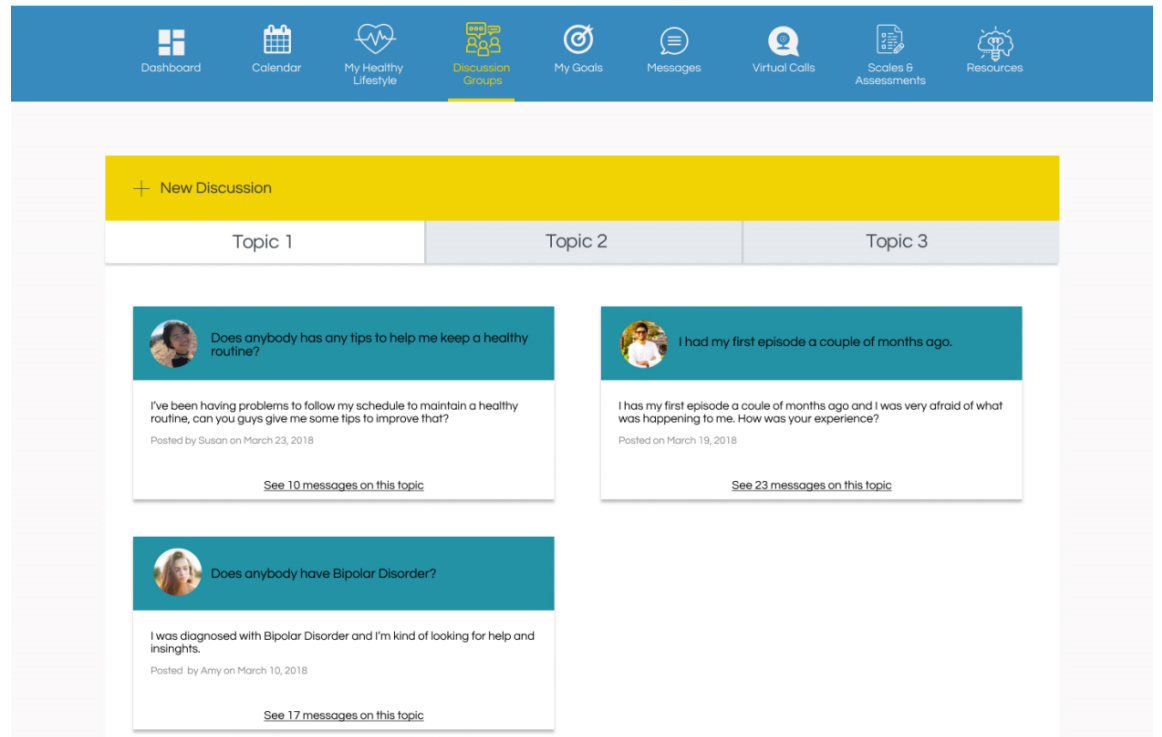


***virtual calls to assess progress, enhance motivation, review information, communicate recommendations from VCT**

Virtual Calling/measurement based care



Discussion Groups

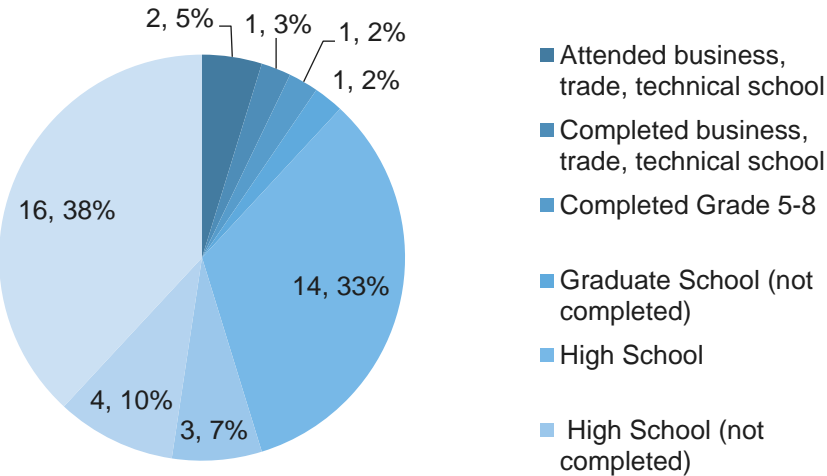


Baseline Data: participant demographics 43/63

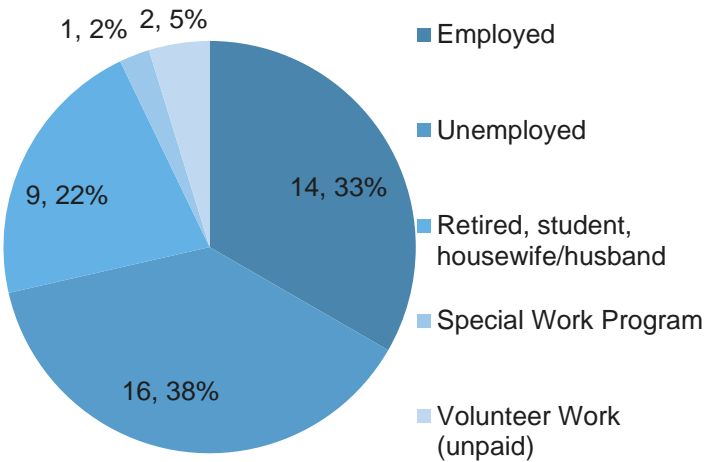
	Low Intensity	High Intensity	Total
Age (years)	24.1 (SD=3.1)	22.2 (SD=2.4)	23.2

	Low Intensity	High Intensity	Total
Male	9 (45%)	13 (57%)	22
Female	11 (55%)	10 (43%)	21

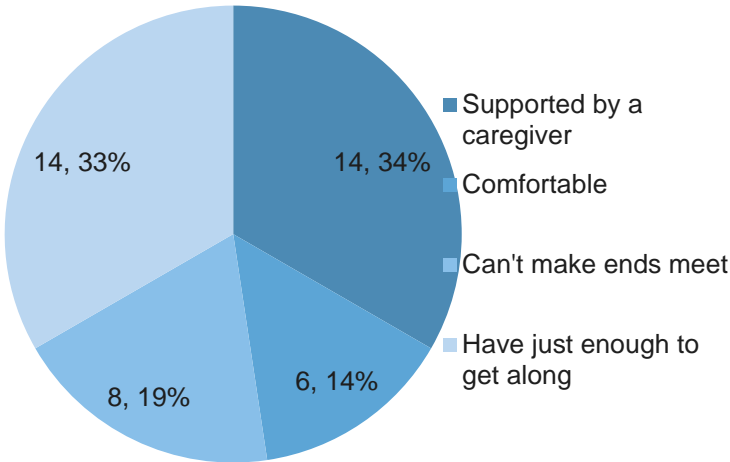
Highest Level of Education Completed



Employment Status



Financial Situation



Summary

1. Rapidly changing landscape
2. Technology can be a boon and a curse
3. Harness for good and integrate in health system
4. Allows for force multiplication for impact given maldistribution of resources and high need

Questions & Discussion



Thank You

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