

# Advancing the Learning Health System in Ontario

## Part 2: Analytics and population insights

HSPN Monthly Webinar

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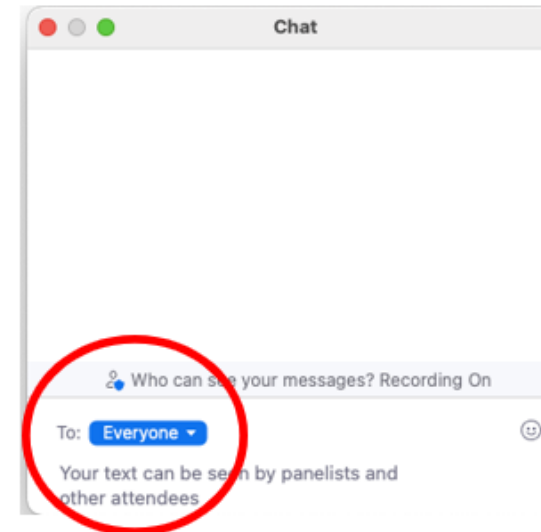
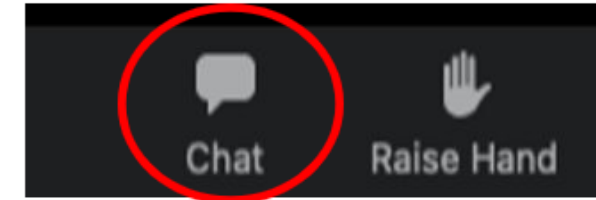
May 28, 2024

# Welcome & thank you for joining us!

Please let us know who you are by introducing yourself (name & OHT or other org)

➤ Open Chat

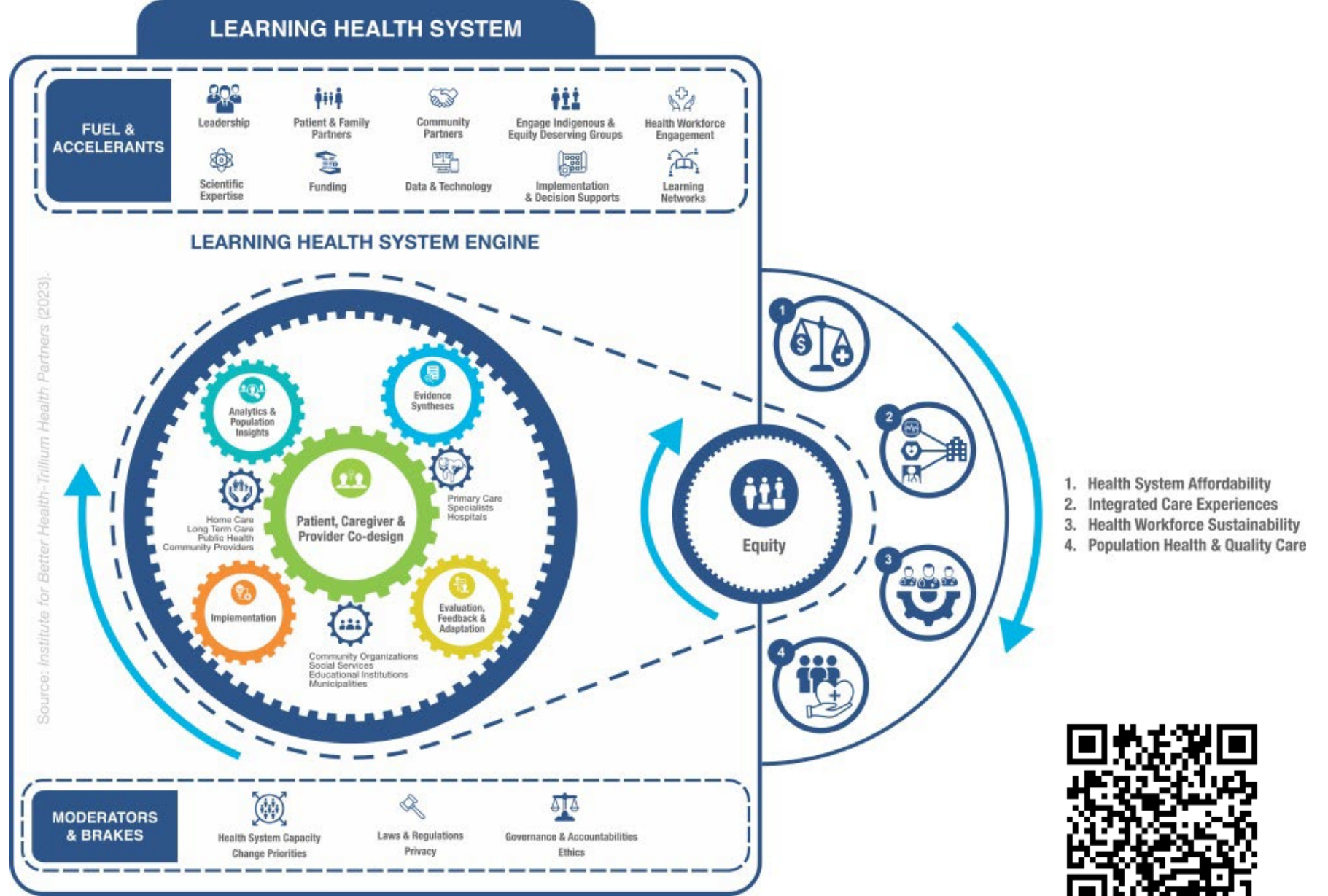
➤ Set response to **everyone** in the chat box



# Land Acknowledgement

We wish to acknowledge this land on which the University of Toronto operates. For thousands of years it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.

# LEARNING HEALTH SYSTEM ACTION FRAMEWORK



SOURCE: *Institute for Better Health-Trillium Health Partners* (2023).

# Learning Gear 1: Analytics & Population Insights



**Description:** Using comprehensive data (quantitative & qualitative) and advanced analytic approaches on populations served to understand health service needs, gaps, inequities, preferences & aspirations.

**Sample Questions:** Where are system gaps & what's driving them? Where are the inequities? What priorities are we addressing (or what problems are we solving)? What are patient, caregiver, community preferences & aspirations?

**Health System Affinities:** business intelligence functions, data decision & analytics supports, program planning groups, clinical informatics, patient and family advisory councils, etc.

# Poll 1

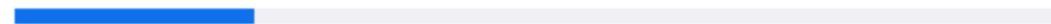
1. Have you joined us for an HSPN webinar previously? (Single Choice)

71/71 (100%) answered

Yes. I have participated previously (55/71) 77%



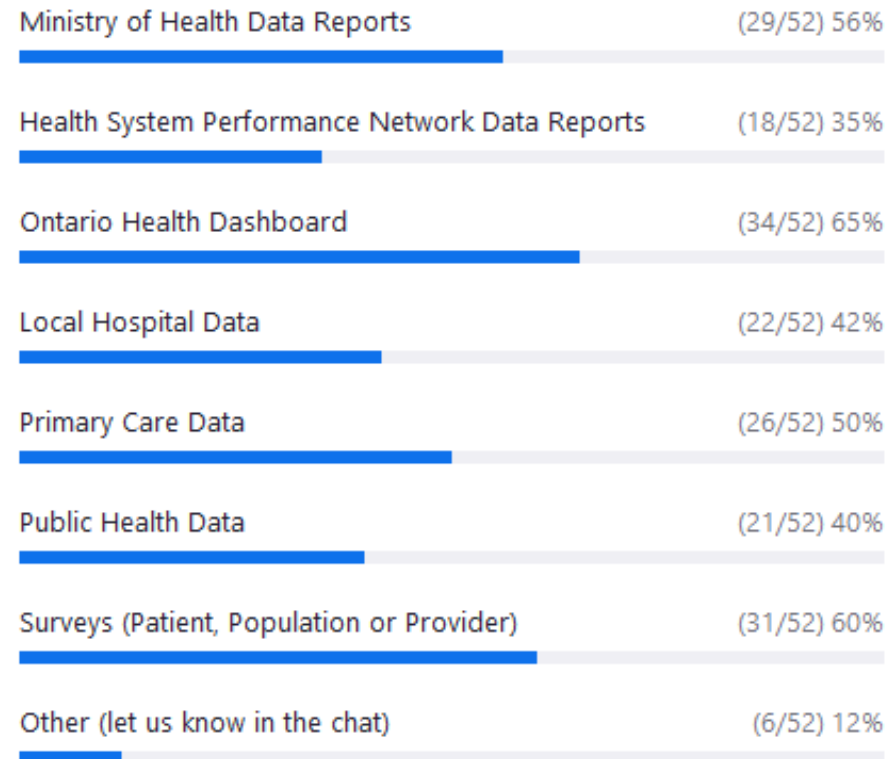
No. This is my first event (16/71) 23%



# Poll 2

1. What sources of data have you used to understand your OHT population? (check all that apply) (Multiple Choice)

52/52 (100%) answered



# Today's event LHS Analytics and Insights

**Presenters**



**Dr. Matthew Meyer**  
Senior Director of Population  
Health Management  
London Health Sciences and  
London-Middlesex OHT



**Emmi Perkins**  
Director of Transformation  
Guelph-Wellington OHT



**Dr. Sara Shearkhani**  
Scientist  
Michael Garron Hospital and  
East Toronto Health Partners



**Sarah-Grace Bebenek**  
Project Manager  
South Georgian Bay OHT

**Host**



**Dr. Walter Wodchis**  
Principal Investigator  
HSPN



# AGENDA

Intro to using analytics from the HSPN

and more in-depth OHT examples:

1. Understanding our population needs : Middlesex London
2. Understanding our neighbourhoods: East Toronto
3. Using patient experience data: South Georgian Bay
4. Going deep with linked data: Guelph-Wellington

# **Understanding our population needs : Middlesex London**

Presenter: Matt Meyer

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May 28, 2024



MIDDLESEX  
LONDON  
Ontario Health Team

# Advanced analytics and Population Insights

Experiences of a growing OHT

May 28<sup>th</sup>, 2024



# Outline

- Brief introduction to the MLOHT and our philosophy
- Illustration of how we've used population data
- Key insights
- How we've supplemented the numbers with other information



# What is our Middlesex London Ontario Health Team's (OHT) Shared Purpose?

PATIENTS/CLIENTS/CARE  
PARTNERS & PROVIDERS

## Improving our healthcare experience together -

IMPROVEMENT,  
ACTION-ORIENTED

COLLABORATION,  
CO-DESIGN,  
CO-CREATION

## where people are heard, care is connected, and

PATIENTS/CLIENTS/CARE  
PARTNERS & PROVIDERS

WE ASK AND WE LISTEN,  
BECAUSE WE CARE

SEAMLESS, DIGITAL HEALTH  
ENABLERS, CARE MANAGEMENT

## whole health is possible for everyone.

PHYSICAL, SPIRITUAL, MENTAL,  
EMOTIONAL, ENVIRONMENTAL,  
SOCIAL, CULTURAL, ECONOMIC

EQUITY, INCLUSION,  
DIVERSITY





# What We Know

Slides shared with the MLOHT  
(then Western OHT)  
Coordinating Council in 2019

Our attributed population (MoH data unless otherwise stated)

- 514,024 people
  - 92,045 (17.9%) >65yrs
  - 199,332 (38.7%) >50
  - 23,011 Frail Adults >65 (Canadian Frailty Network projection)
- 148,784 (28.9%) live outside of London
- 9,252 (1.8%) Francophone (SW LHIN)
  - Arabic most common language besides English
- 87,384 (17%) visible minority (SW LHIN)
- 88,412 (17.2%) living in poverty (SW LHIN)



# What We Know

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## Our Indigenous Population (SOAHAC)

- 17,108-22,155 Indigenous adults in London (2x census)
  - ~ 26% >45 yrs
- 51% in London reported 1+ chronic condition
- 28% Indigenous adults (20 years +) in London were experiencing multimorbidity (2+ chronic health conditions)
- 15% diagnosed with diabetes by their provider
- 7% COPD
- 6% Heart Disease
- 17% High Blood Pressure
- 16% Arthritis
  
- 90% live in poverty (below LICO)



# What We Know

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## MoH OHT Data:

### Health Conditions present:

- COPD – 6,389
- Heart Failure – 4,836
- Chronic Disease – requires further assessment

### Acute care (total population)

- 29,083 patients admitted
- Acute days 221,672
- ALC days 23,624

### Inpatient Rehabilitation

- 1,019 patients
- Rehab days 33,589

### Complex Continuing Care

- 495 patients
- 33,823 days

### Long-Term Care

- 3,284 residents
- 757 people on wait list



# What We Know

OHT Top 10 HPG Ranked by Total Cost

Top #	Top HPG	HPG Population A	HPG Total Cost B	OHT Cost/User C-B/A
1	Q007	3,883	\$147.9M	\$38,100
2	S001	2,596	\$132.3M	\$50,974
3	E004C	1,685	\$50.7M	\$30,061
4	R002	1,302	\$43.9M	\$33,705
5	Q009	1,538	\$38.7M	\$25,142
6	J003C	1,281	\$34.3M	\$26,747
7	I002C	747	\$33.2M	\$44,469
8	P002A	1,155	\$32.2M	\$27,918
9	Q002	722	\$32.2M	\$44,534
10	J032A	15,732	\$31.5M	\$2,001

## Legend for Top 10 HPGs' Description

1	Dementia (incl. Alzheimer's) w sig comorbidities
2	Palliative State (Acute)
3	Heart failure with CAD/Arrhythmia w sig comorbidities
4	Metastatic Cancer w sig comorbidities
5	Delusional Disorder (incl. Schizophrenia) w sig comorbidities
6	Diabetes/hypoglycemia with PVD/Oth Chronic Vasc Dx w sig comorbidities
7	Skin Ulcer (incl. Decubitus) w sig comorbidities
8	Sepsis w sig comorbidities
9	Mental Disorder Resulting from Brain Injury or Other Illness w sig comorbidities
10	Diab/hypoglyc w/o Chronic Kidney Dis or PVD/Chronic Vasc Dx w/o sig comorbidities

- 8/10 include sig comorbidities
- Total spend on these 8 = \$413.1M



# What We Know

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## LHSC Decision Support data from IDS (16/17-18/19)

- Residents of Middlesex County >40 yrs admitted to hospital with 1 of 5 Chronic Conditions (CHF, COPD, Diabetes, Cancer, Ischemic Heart Disease)
- Average annual values
  - Patients admitted to hospital 7,934
    - 98% LHSC, SJHC, MHA
  - Admissions/patient 1.4
  - Conservable bed days (19,067)
  - ALC bed days (10,640)

# Key lessons – by the numbers

- 514, 024 – Our population consists of people, yet we don't know who they are
- ~~6,389~~ COPD, ~~4,836~~ CHF – Population-based prevalence estimates suggest closer to 30,000 and 10,000
- Approx. 65,000 – the estimated number of people in our population who don't have Primary Care



# Outline

- Brief introduction to the MLOHT and our philosophy
- Illustration of how we've used population data
- Key lessons learned
- **How we've supplemented the numbers with other information**





# Population Selection Process

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OHT signing partners were emailed about this process on August 1<sup>st</sup>

**August 1-7<sup>th</sup>** Partners asked to communicate with staff, patients, and partners about potential populations

**August 8-14<sup>th</sup>** Dr. Matthew Meyer and Dr. Shannon Sibbald met with interested partners

**August 15<sup>th</sup>** The Population Health Coalition met to select up to 3 populations for further exploration.

**August 16-28<sup>th</sup>** The Population Health Coalition to work with partners to better describe the proposed populations

**August 29<sup>th</sup>** Final proposals brought to the Coordinating Council for decision.



# Results

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- 7 population suggestions were received
  - 1 – Parents and infants up to 12 weeks postnatal (4<sup>th</sup> trimester), especially high-risk and marginalized
  - 6 – Older Adults with Chronic Disease requiring system-level care coordination/navigation



# Population Health Coalition

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- Community researchers, system experts and patient/caregiver representatives with no formal affiliation to any of the partner organizations. They represent the following groups:
  - Schulich School of Medicine and Dentistry (Departments of Family Medicine, Epidemiology and Biostatistics, Public Health)
  - Western's Indigenous Health Laboratory
  - IVEY's International Centre for Health Innovation
  - The Centre for Research on Health Equity and Social Inclusion
  - Patient and Caregiver advocacy groups
- Met August 15<sup>th</sup>
- Recommendation: Consider **Older Adults with Chronic Conditions requiring system-level care coordination/navigation**



# Population Recommendation

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1. Who will you be accountable for at Maturity?
  - Our attributed population (514,024 people)
2. Who will you focus on in Year 1?
  - **Older adults with Chronic Conditions in need of system-level *care coordination and navigation***
  - *Sub-populations:*
    - ***High-risk patients with COPD and/or CHF***
    - ***Older adults at risk of institutionalization***
3. Are there specific equity considerations within your population?
  - Francophone, Indigenous, Visible minorities, Non-ESL families, New comers to Canada, Rural residents, People living in poverty or homeless



# INVOLVING PATIENTS, CLIENTS & CARE PARTNERS



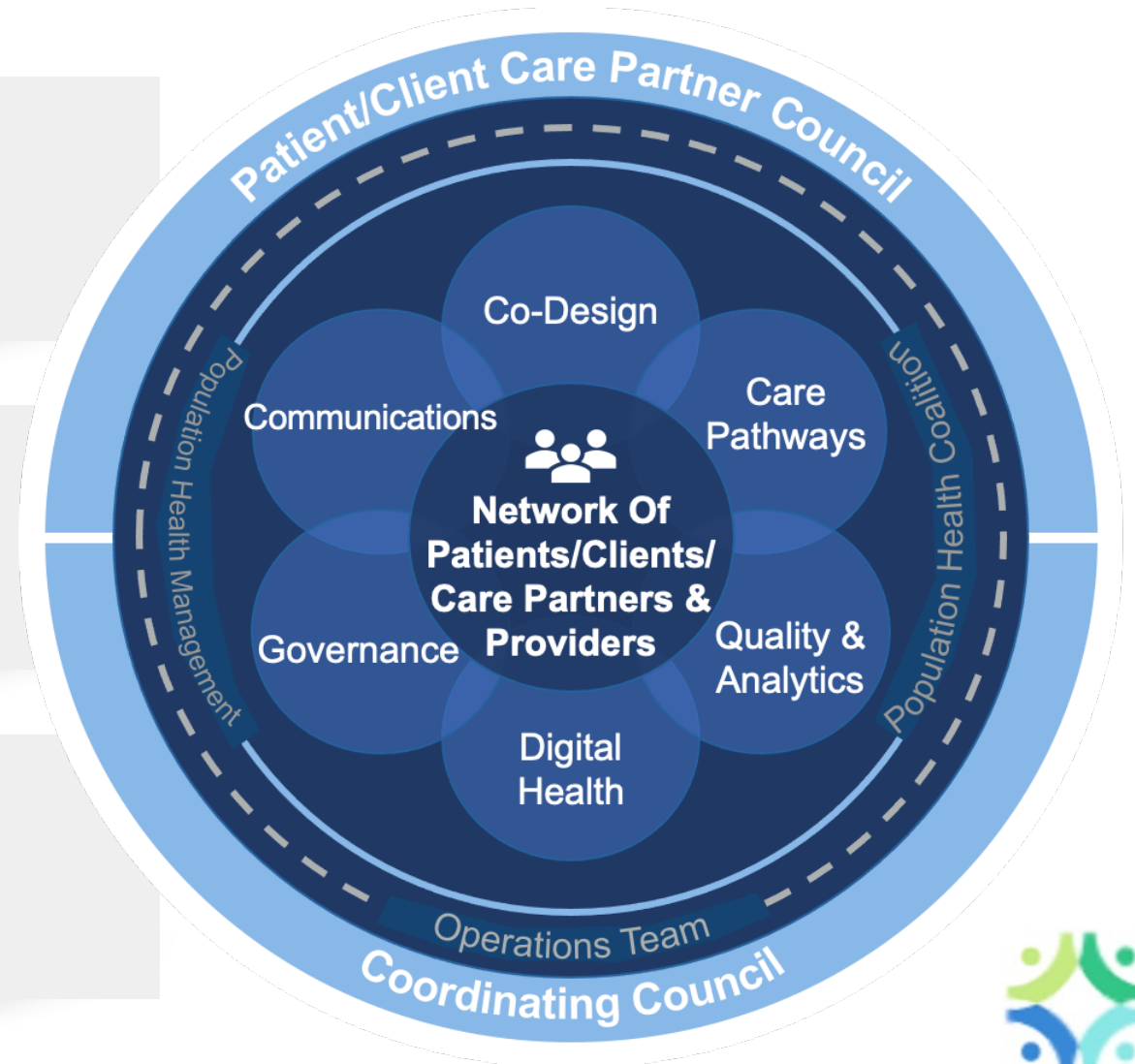
Development of a Patient/Client Care Partner Council



Meaningful engagement of patients/clients and care partners in all aspects of work



Development of a 'Network' of patients/clients, care parents and providers



# PATIENT, CLIENT, CARE PARTNER MATRIX

## PATIENT & CARE PARTNER GROUPS











- Urban and rural
- Immigrants and newcomers
- Various age categories
- Various genders
- Various sexual orientations
- Various racial or ethnic groups
- Various languages
- Various income level
- People with disabilities
- People who act as care partners
- People without access to personal transportation
- People without access to care partners
- People with various states of disease severity

## PROVIDER GROUPS

- Primary Care
- Community Care
- Addiction and Mental Health
- Home Care
- Acute Care
- Rehabilitation
- Long-Term Care
- Palliative care
- Emergency Medical Services
- Social Services
- Emergency Department
- Pharmacy

# EMERGING THEMES: CHALLENGES

Through our interviews with patients, care partners, and providers, we identified system challenges that our Ontario Health Team and partners can build solutions for, including:

	<b>Access to and Awareness of Services</b>	Patients and care partners are not regularly being referred to available community supports and programs. Providers have difficulty keeping track of all available services and programs in our community.
	<b>Care and Action Planning</b>	Care plans ( <i>documents that include important health and social information about the patient, including goals and next steps in care</i> ) are not always provided to patients. Providers found that accessing key information about patients can be time-consuming and challenging.
	<b>Care Partner Support</b>	Care partner (family/friend caregiver) needs are not always considered in care planning and management for the patient. Care partners want more education and information.
	<b>Case Management and Coordination</b>	Care coordination and navigation is essential for many <u>patients</u> , <u>but</u> is not always available.
	<b>Communication Between Providers</b>	Providers don't always have access to the information they need to support patients and care partners, and sometimes information is difficult to find. Providers find it challenging to connect with other colleagues in the system to discuss a patients' care.
	<b>Early Diagnosis Process</b>	Patients are regularly diagnosed only after a significant health event. Providers need tools to identify patients earlier who may have Chronic Obstructive Pulmonary Disease and/or Congestive Heart Failure
	<b>Promoting Self-Management</b>	Patients value programs and education that can help them manage their own care, but some patients do not find out about these programs early enough.
	<b>Patient-Centred Care</b>	Providers need to understand individual patient circumstances, preferences, and home environment in order to plan their care effectively.
	<b>Goals of Care</b>	Patient goals of care need to be regularly assessed, incorporated into care plans, and communicated across care teams.
	<b>Sustained Care Relationship</b>	Patients, care partners and providers talked about the importance of establishing strong care relationships as patients move through the system.

# Our Decision Tool

- At the MLOHT we have adopted a decision tool for project/initiative selection that includes request for description/context and alignment with:
  - Quintuple Aim
  - Purpose
  - Co-design themes
  - Prioritized populations
  - Scalability
  - UN sustainability goals
  - Collaboration



# Takeaways

- You can learn a lot from the numbers
- You can also learn a lot from the absence of numbers
- Context matters





# Thank you!

For more information, please contact [Matthew.Meyer@LHSC.on.ca](mailto:Matthew.Meyer@LHSC.on.ca)



# **Analytics from the HSPN**

A review of HSPN data and analytics for OHTs

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# 1 Powerpoint Presentation & 3 Excel Spreadsheets

**HSPN** Health System Performance Network

**IC/ES** Data Discovery Better Health

## HSPN OHT Improvement Indicators & Population Segmentation

“Your OHT” Results

January 2024

**HSPN** Health System Performance Network

**IC/ES** Data Discovery Better Health

Official Project Title (as per PIA)

HSPN Evaluation of Ontario Health Teams (OHT): Segmentation Results for FULL OHTAM DATASET using the PATIENT ENROLLMENT MODEL methodology

Prepared By  
Chris Bai, Senior Research Associate UOIT / Appointed Analyst ICES UOIT

Submitted Date  
December 2023

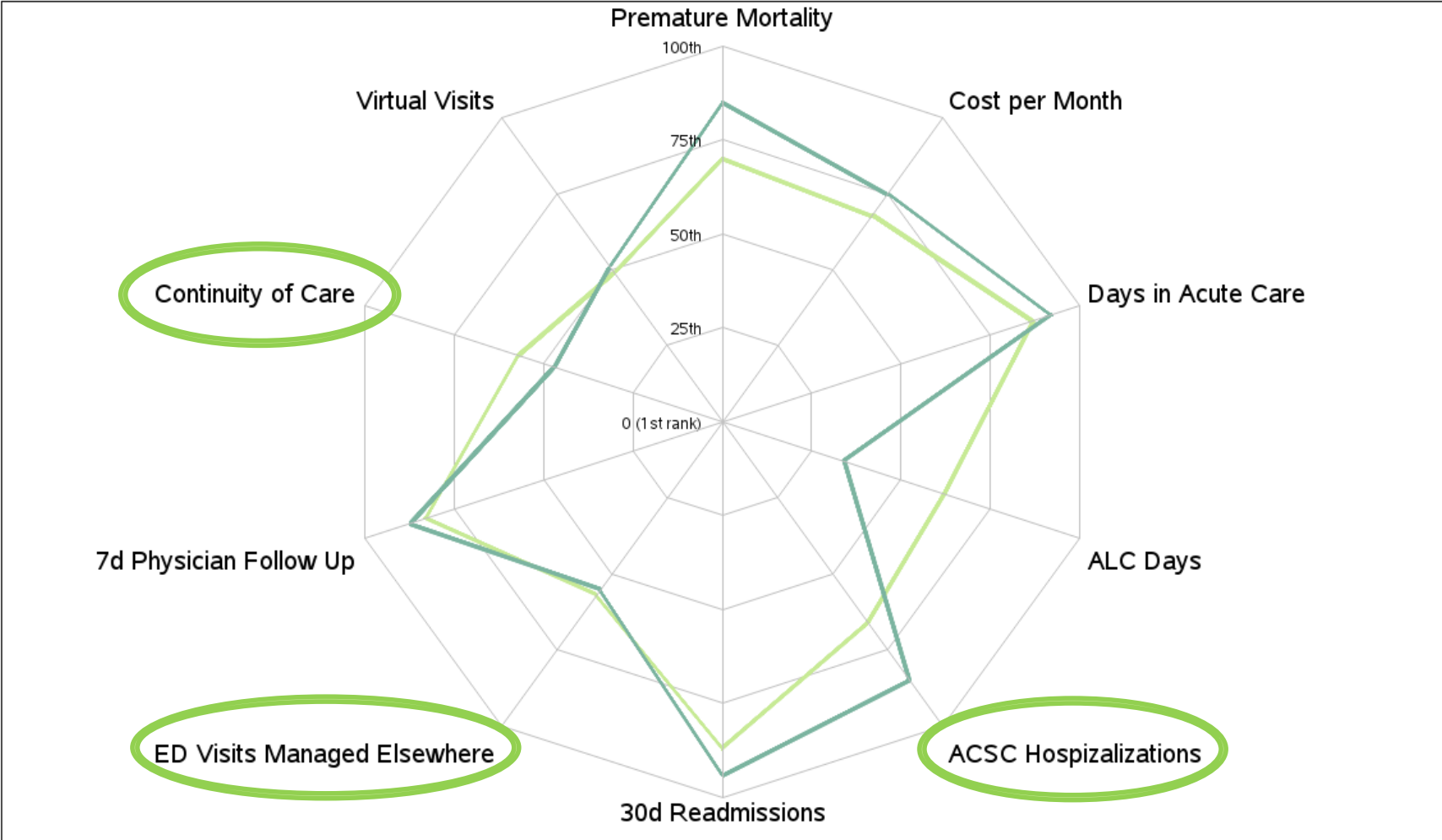
Submitted To  
Water P Wochins

value	2021/22	2022/23
N=	14,156,738	13,965,771
Palliative	8,218 (0.1%)	8,597 (0.1%)
Major Mental Health	381,046 (2.7%)	362,581 (2.6%)
Major Cancer	509,130 (3.6%)	513,388 (3.7%)
Major Chronic	27,257 (0.2%)	939 (0.0%)
Major Acute	278,667 (2.0%)	280,809 (2.0%)
Moderate Chronic	213,714 (1.5%)	222,081 (1.6%)
Other Cancer	927,760 (6.6%)	904,366 (6.5%)
Moderate Acute	1,469,751 (10.4%)	1,451,664 (10.4%)
Obstetrics	247,508 (1.7%)	259,199 (1.9%)
Major Newborn	1,058,208 (7.5%)	1,081,169 (7.7%)
Other Mental Health	313,392 (2.2%)	298,342 (2.1%)
Minor Chronic	4,956,515 (35.0%)	4,467,750 (32.0%)
Minor Acute	1,452,831 (10.3%)	1,405,072 (10.1%)
No Health Conditions	77,538 (0.5%)	0 (0.0%)
Non-users	770,391 (5.4%)	871,009 (6.2%)
Healthy Newborn	1,464,812 (10.3%)	1,838,805 (13.2%)

Segment Label	OHT	ACSC	Per 100K
End of Life	ON	214.25	153.80
Long Term Care	ON	1789.00	3070.47
High Chronic with Frailty	ON	4182.00	3882.00
Frail in Community (Home Care)	ON	627.00	7044.00
High Chronic Conditions	ON	5734.00	3449.00
Mental Health & Substance Abuse	ON	1287.00	1548.00
Medium Chronic Conditions	ON	5713.00	873.00
Adult Major Age 18+ yrs	ON	277.00	325.00
Child and Youth Major <18 yrs	ON	149.00	504.00
Healthy (No Users)	ON	120.00	204.00
Healthy (No Users)	ON	7915.00	3642.00
Healthy (No Users)	ON	4219.00	49.00
Healthy (No Users)	ON	27.00	37.00



# Spider Diagrams for Total Population Indicators

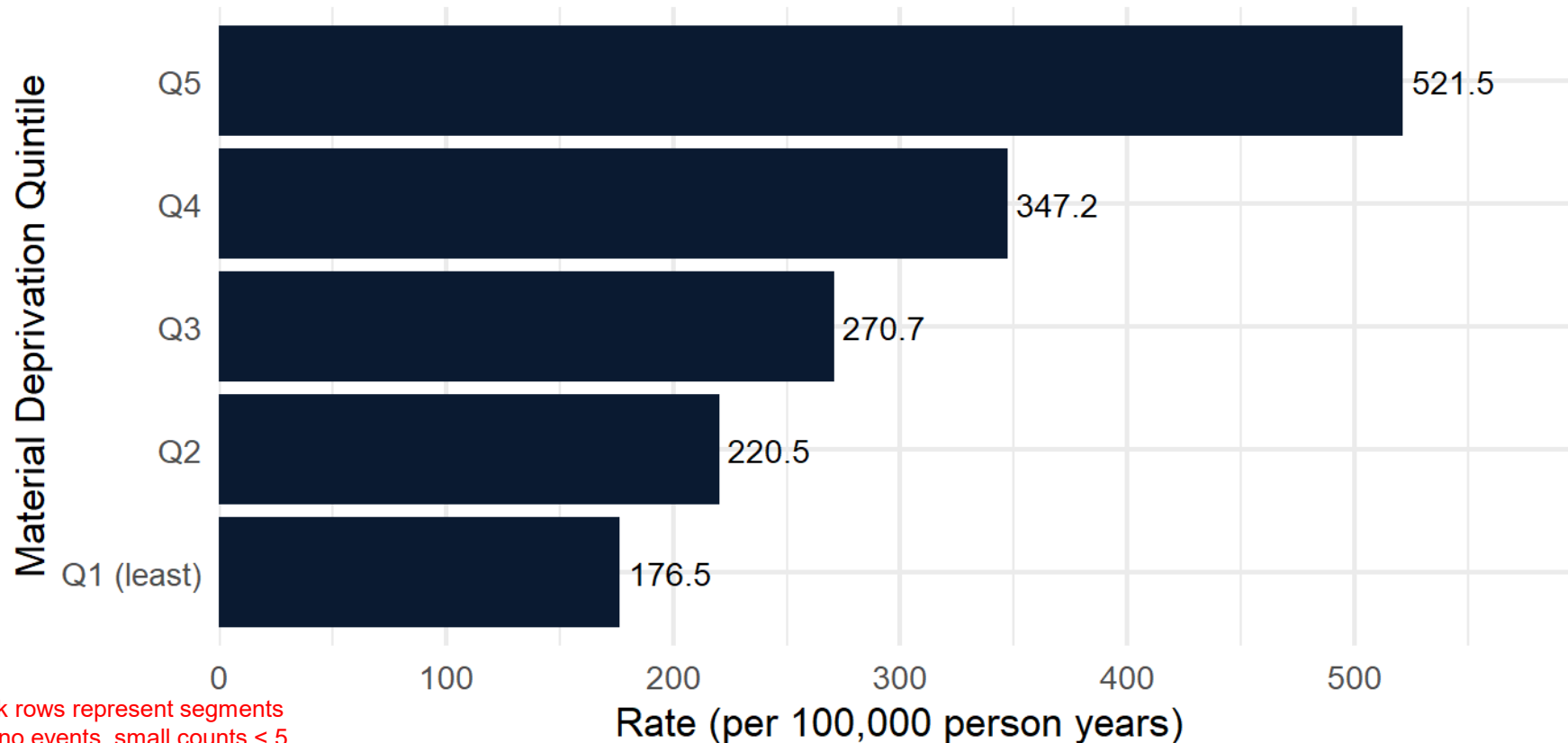


Reporting period 2021/22 2022/23

# 2022/23 Rate of hospitalization for ambulatory care sensitive conditions (ACSC) per 100k by Material Deprivation Quintile

## ACSC Hospitalization 2022/23

Ontario



Horizontal axis presents rate of hospitalization for ambulatory care sensitive condition per 100k:

- Ontario average indicated in figure footnote.

Blank rows represent segments with no events, small counts < 5, or with < 30 patients in denominator.

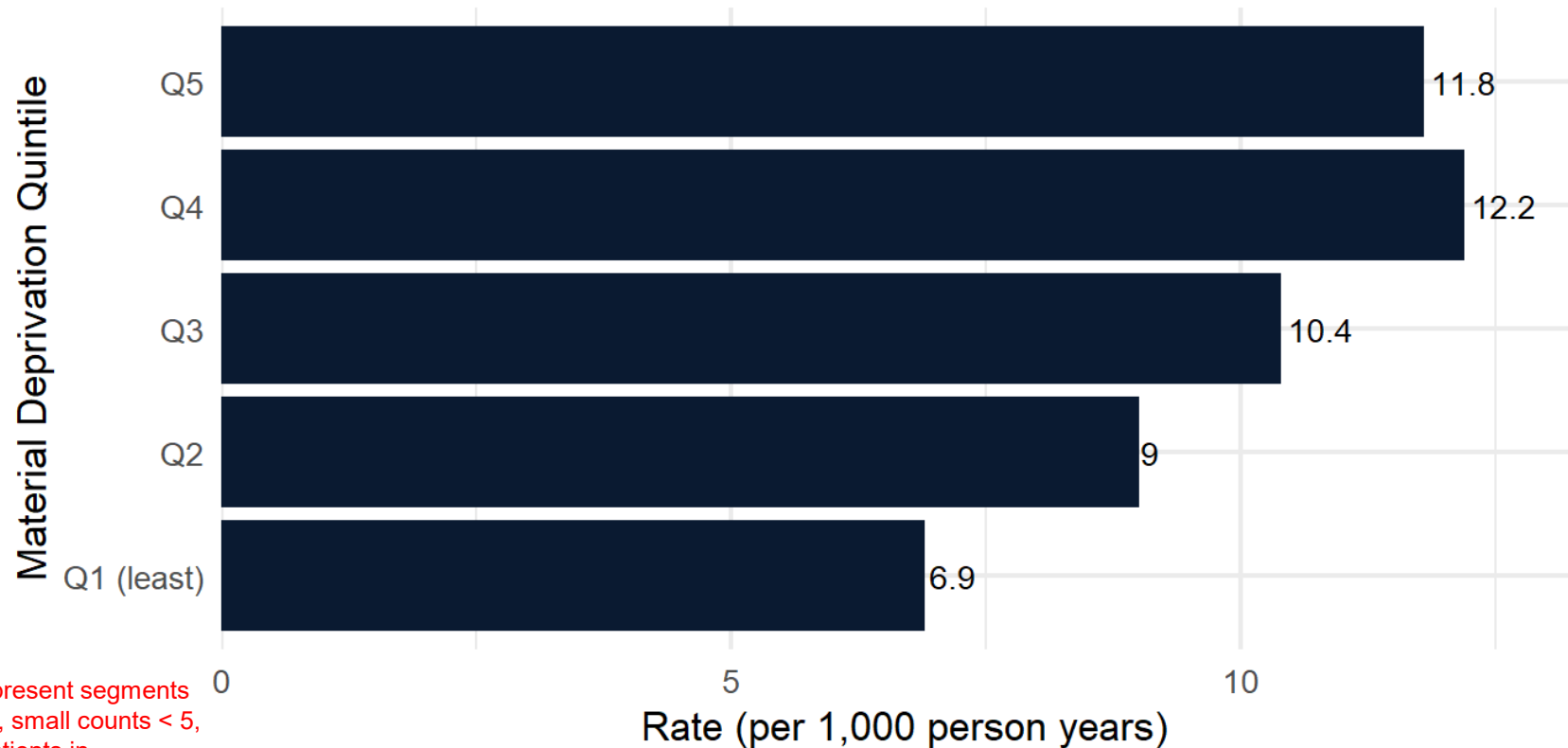
Notes:

- \*Rate of ACSC hospitalization per 100,000 person years is shown at the end of the bar.
- \*Data are suppressed for segments with small counts.
- \*Overall rate per 100,000 person years in Ontario = 300.1.

# 2022/23 Rate of ED Visits best managed elsewhere by Material Deprivation Quintile

## ED Visits best managed elsewhere 2022/23

Ontario



Horizontal axis presents rate of ED visits per 1000 person years that could be treated in alternative primary care setting.

- Ontario average indicated in figure footnote.

Blank rows represent segments with no events, small counts < 5, or with < 30 patients in denominator.

Notes:

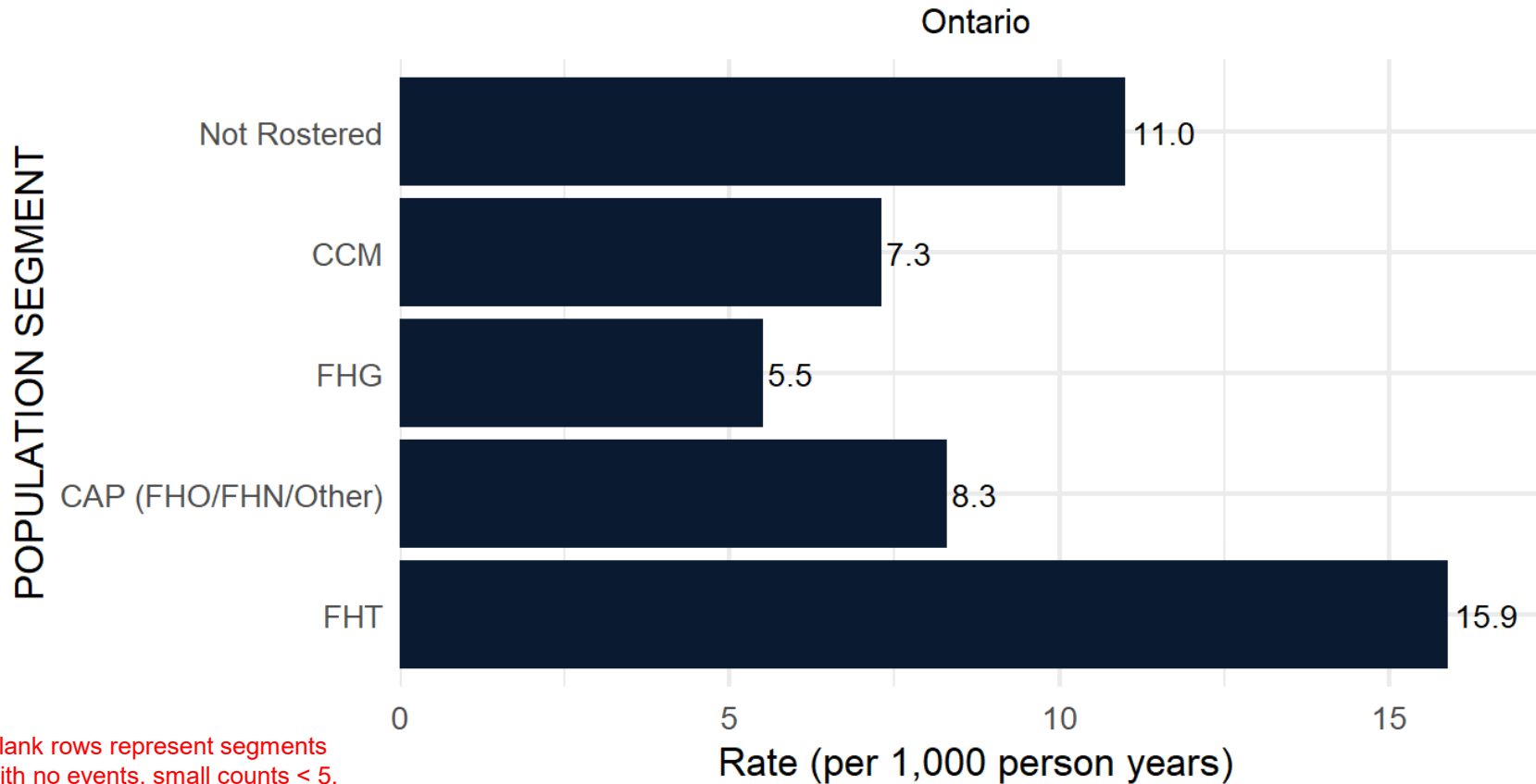
\*Rate of ED visits per 1000 person years is shown at the end of the bar.

\*Data are suppressed for segments with small counts.

\*Overall rate per 1000 person years in Ontario = 10.1.

# 2022/23 Rate of ED Visits best managed elsewhere by Primary Care Model

## ED Visits best managed elsewhere 2022/23



Horizontal axis presents rate of ED visits per 1000 person years that could be treated in alternative primary care setting.

- Ontario average indicated in figure footnote.

Blank rows represent segments with no events, small counts < 5, or with < 30 patients in denominator.

### Notes:

\*Rate of ED visits per 1000 person years is shown at the end of the bar.

\*Data are suppressed for segments with small counts.

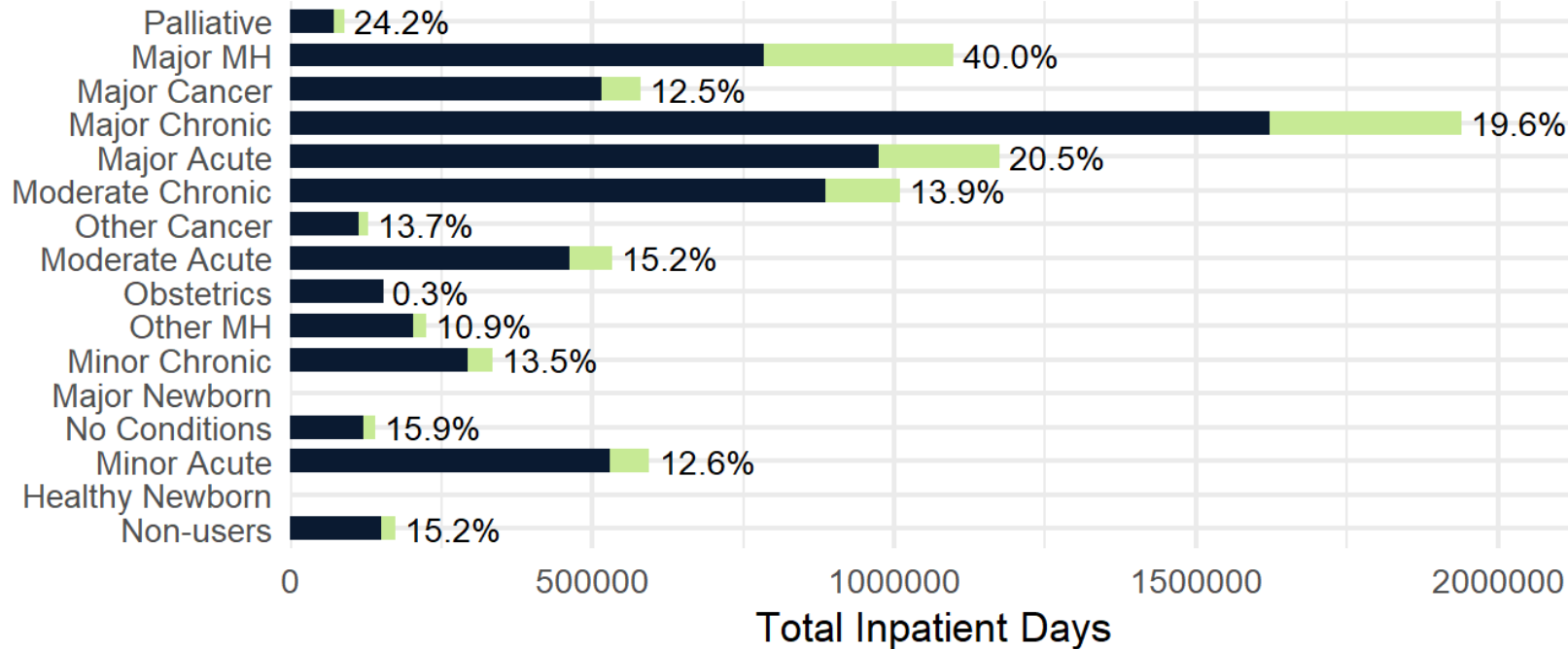
\*Overall rate per 1000 person years in Ontario = 10.1.

# 2022/23 ALC Days (percent of acute days) in acute hospitals by CIHI Population Grouping Methodology

## ALC Days 2022/23

Ontario

POPULATION SEGMENT



Horizontal axis presents total inpatient days:

- Bright green indicates ALC days;
- Dark blue represents non-ALC inpatient days;
- Percentage to the right is the proportion of inpatient days designated as ALC.
- Ontario average indicated in figure footnote.

Blank rows represent segments with no events, small counts < 5, or with < 30 patients in denominator.

■ Other Inpatient Days ■ ALC Days

Notes:

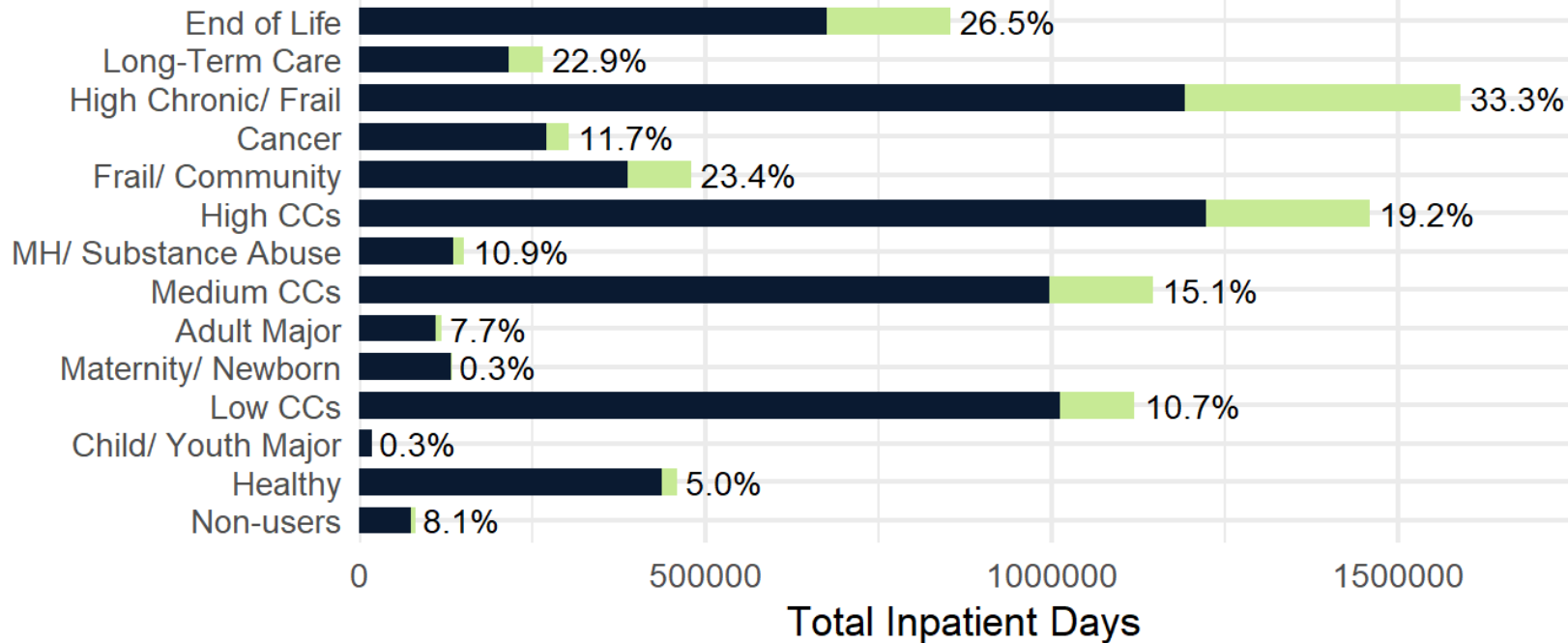
- \*Proportion of inpatient days designated as ALC is shown at the end of the bar.
- \*Data are suppressed for segments with small counts.
- \*Overall ALC Days in Ontario = 18.8%.

# 2022/23 ALC Days (percent of acute days) in acute hospitals by BC Matrix Segment

## ALC Days 2022/23

Ontario

POPULATION SEGMENT



Blank rows represent segments with no events, small counts < 5, or with < 30 patients in denominator.

■ Other Inpatient Days ■ ALC Days

Notes:

- \*Proportion of inpatient days designated as ALC is shown at the end of the bar.
- \*Data are suppressed for segments with small counts.
- \*Overall ALC Days in Ontario = 18.8%.

Horizontal axis presents total inpatient days:

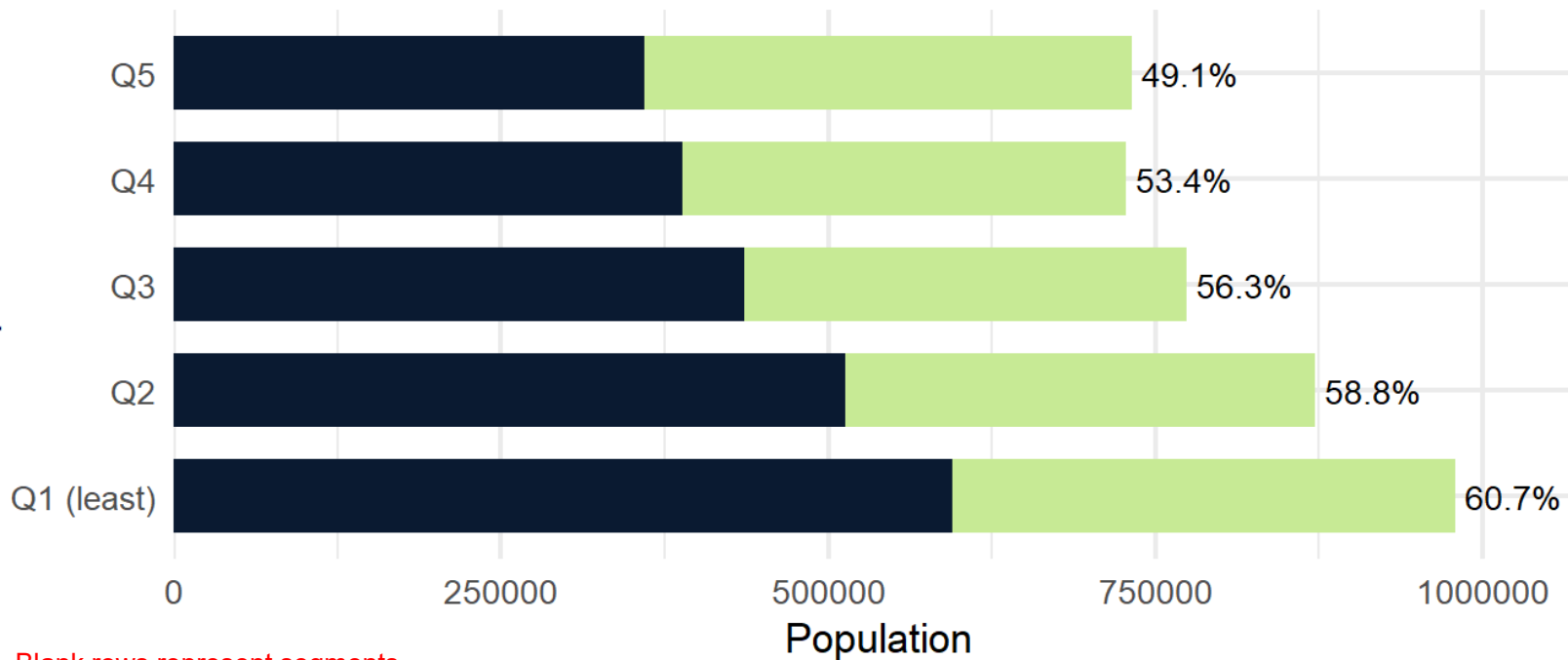
- Bright green indicates ALC days;
- Dark blue represents non-ALC inpatient days;
- Percentage to the right is the proportion of inpatient days designated as ALC.
- Ontario average indicated in figure footnote.

# Percentage of screen-eligible patients (women 23-69 yrs of age) up to date with Cervical Cancer Screening (Papanicolaou/Pap tests) on March 31, 2023 by Material Deprivation Quintile

Up-To-Date Pap Test 2022/23

Ontario

Material Deprivation Quintile



Blank rows represent segments with no events, small counts < 5, or with < 30 patients in denominator.

■ N screened ■ N not screened

Notes:

\*Proportion of segment screened is shown at the end of the bar.

\*Data are suppressed for segments with small counts.

\*Overall proportion screened in Ontario = 56.0%.

Horizontal axis shows the number of women 23-69 years

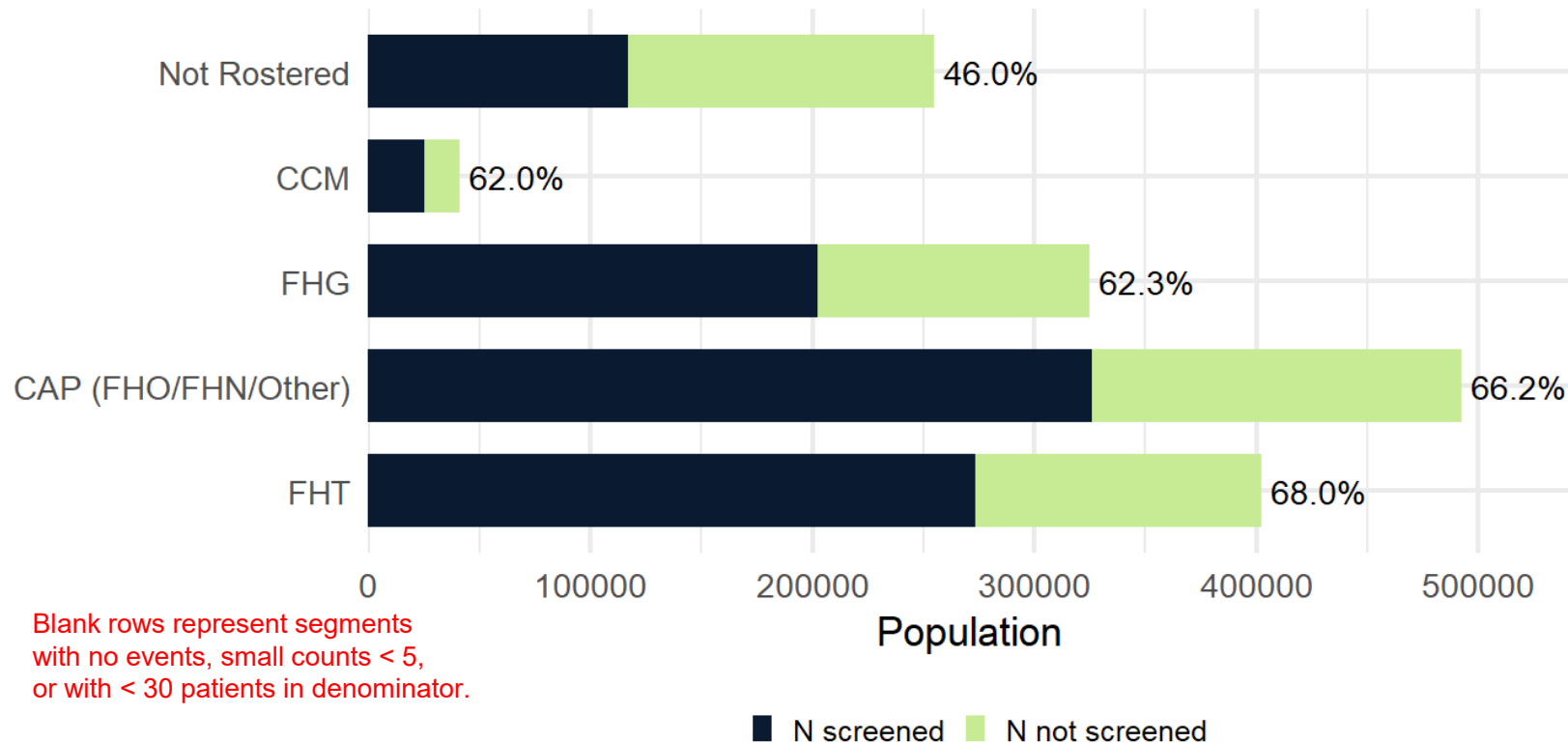
- Bright green indicates number of women not screened;
- Dark blue represents number of women screened;
- Percentage to the right is the proportion of each segment screened.
- Ontario average indicated in figure footnote.

# Percentage of screen-eligible patients (women 52-69 years of age) up to date with a Breast Cancer Screening (Mammogram) on March 31, 2023 by Primary Care Model

## Up-To-Date Mammogram 2022/23

Ontario

POPULATION SEGMENT



Blank rows represent segments with no events, small counts < 5, or with < 30 patients in denominator.

Notes:

\*Proportion of segment screened is shown at the end of the bar.

\*Data are suppressed for segments with small counts.

\*Overall proportion screened in Ontario = 62.3%.

Horizontal axis shows the number of women 52-69 years:

- Bright green indicates number of women not screened;
- Dark blue represents number of women screened;
- Percentage to the right is the proportion of each segment screened.
- Ontario average indicated in figure footnote.



# Central OHT Evaluation Team

Team Members



Dr. Gaya Embuldeniya



Trisha Martin



Chris Bai



Vijay Kunaratnam

Co-Leads



Dr. Walter P. Wodchis



Dr. Kaileah  
McKellar



Nusrat S. Nessa



Priyanka Gayen



Emily Charron

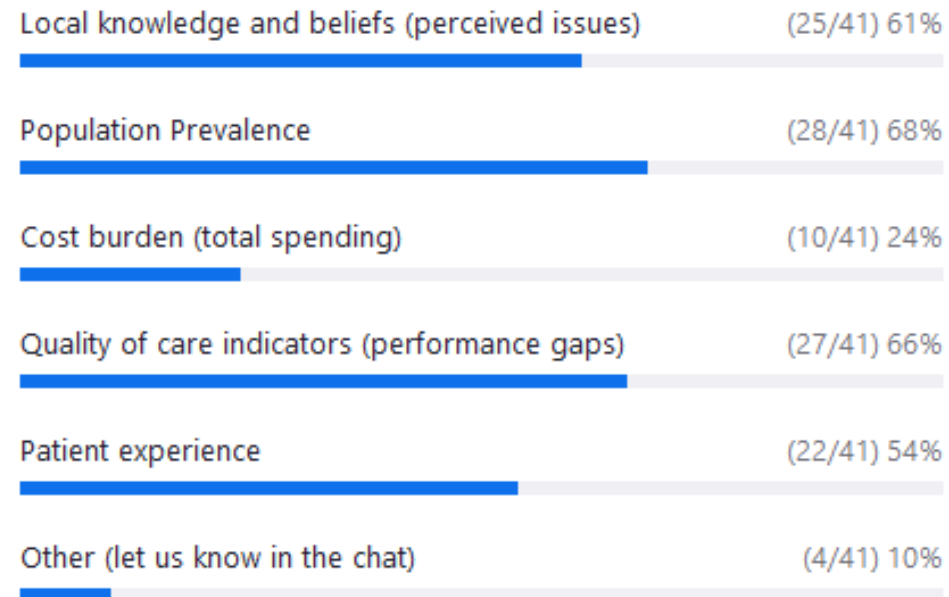


Victor Rentes

# Poll 3

1. What type of information have you used to choose priority populations? (check all that apply) (Multiple Choice)

41/41 (100%) answered



# **Understanding our neighbourhoods: East Toronto**

Presenter: Sara Shearkhani

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May 28, 2024



East Toronto  
**Health Partners**

## **Data for Improvement**

A collaborative effort to improve  
cancer screening rate in East Toronto

# OHT cQIP Indicators & Population Segmentation



## BC's Population Segmentation: 14 Health Status Groups

Broad Category	Population Segment	representing 'highest' need for care in year
Towards the End of Life	End of Life	In a palliative care or end of life program
	Frail in Residential Care	Living in Licensed residential care
	Frail with High Complex Chronic Conditions	High chronic conditions with supports for activities of daily living
	Frail living in the community	With supports for activities of daily living, without high chronic conditions
Staying Healthy	High Complex Chronic Conditions, not Frail	High chronic conditions, without supports for activities of daily living
	Cancer	Population with cancer diagnosis and treatment
	Severe Mental Health/ Substance Abuse	Population with MH or SU in 5 year period
	Medium Complex Chronic Conditions	Population with High Chronic Conditions or



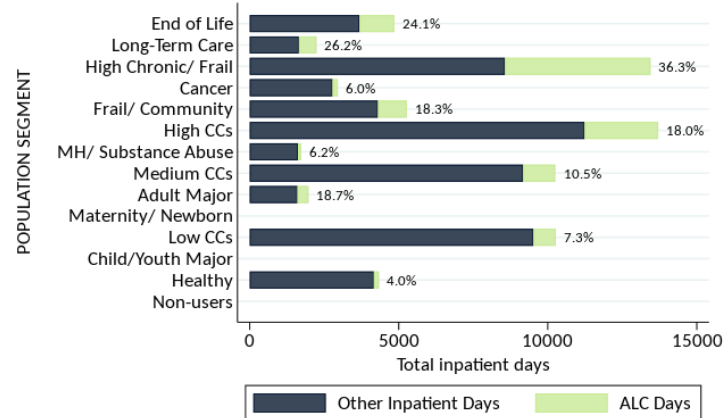
HSPN Health System Performance Network

### OHT cQIP Indicators & Population Segmentation

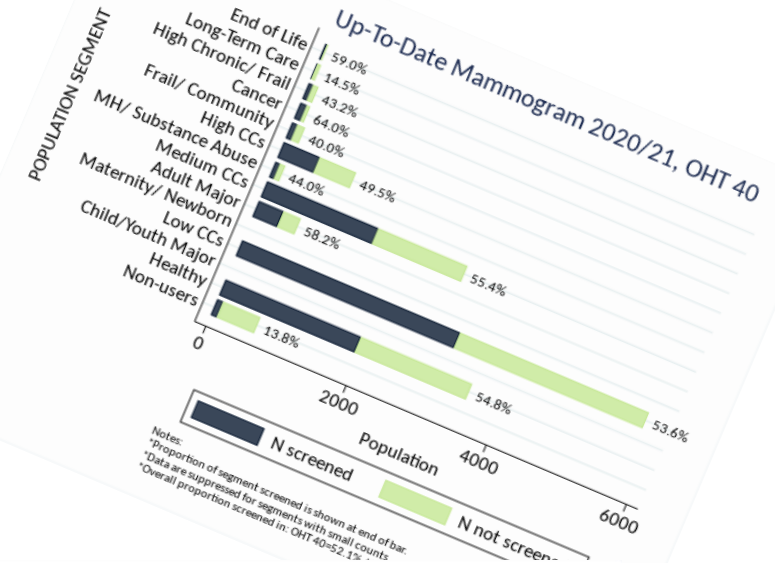
Health System Matrix 6.0



ALC Days 2020/21, OHT 40

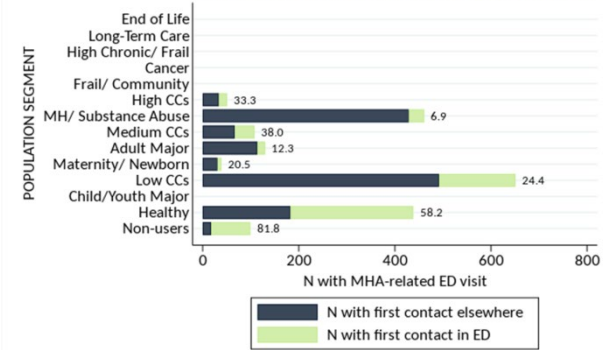


Notes:  
 \*Proportion of inpatient days designated as ALC is shown at end of bar.  
 \*Data are suppressed for segments with small counts.  
 \*Overall ALC days in: OHT 40=17.2% / Ontario=18.0%



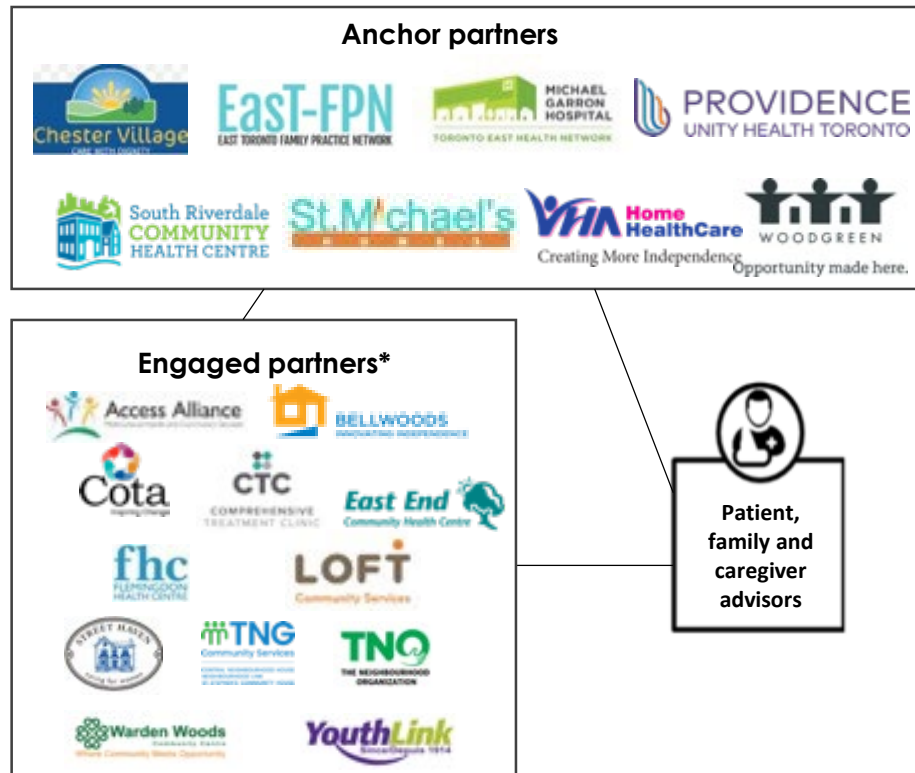
Notes:  
 \*Proportion of segment screened is shown at end of bar.  
 \*Data are suppressed for segments with small counts.  
 \*Overall proportion screened in: OHT 40=52.1%

ED as First Contact for MHA 2020/21, OHT 40



Notes:  
 \*Rate of ED as first point of contact for MHA is shown at end of bar.  
 \*Data are suppressed for segments with small counts.  
 \*Overall rate per 100 in: OHT 40=30.1 / Ontario=32.3

# It takes a community. We are #OneEastToronto



## East Toronto Health Partners (ETHP)

- Group of **100+ community, primary care, home care, hospital and social services organizations** in East Toronto working together to create an integrated system of care across our communities
- Patients, family members and caregivers are partners in every aspect of the development of ETHP, working together to **improve the way East Toronto residents find and get care close to home**
- Together, we are East Toronto's **Ontario Health Team**

\*See a full list of ETHP members at [ethp.ca/partner-organizations](http://ethp.ca/partner-organizations)



# East Toronto: Who we serve



We serve  
**350,000+**

people who live in East Toronto  
and who choose to receive care  
here



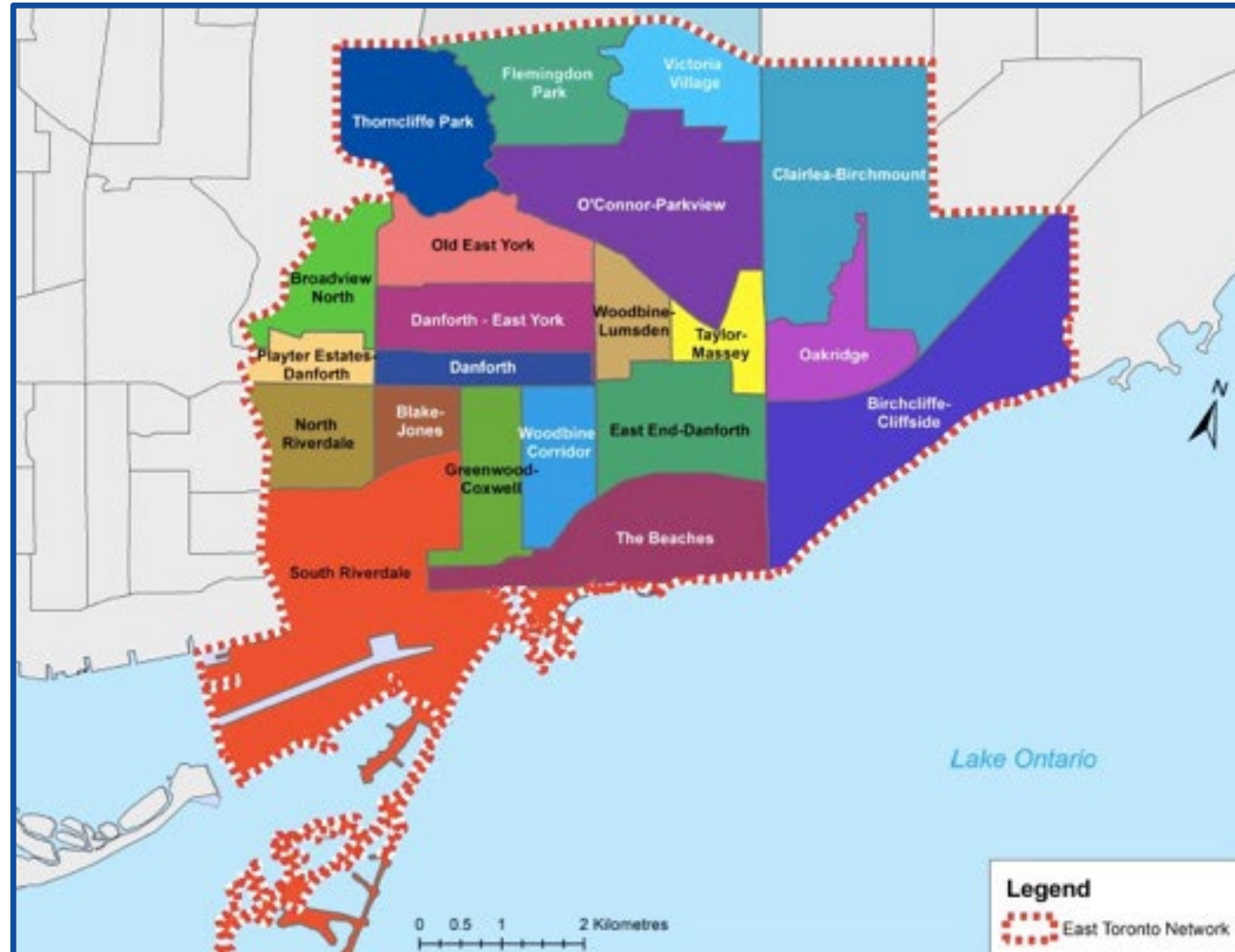
Child/Youth (age 0-19): **23.1%**  
Seniors (ages 65+): **13.7%**  
Seniors living alone: **32%**



**21 Diverse  
Neighbourhoods**

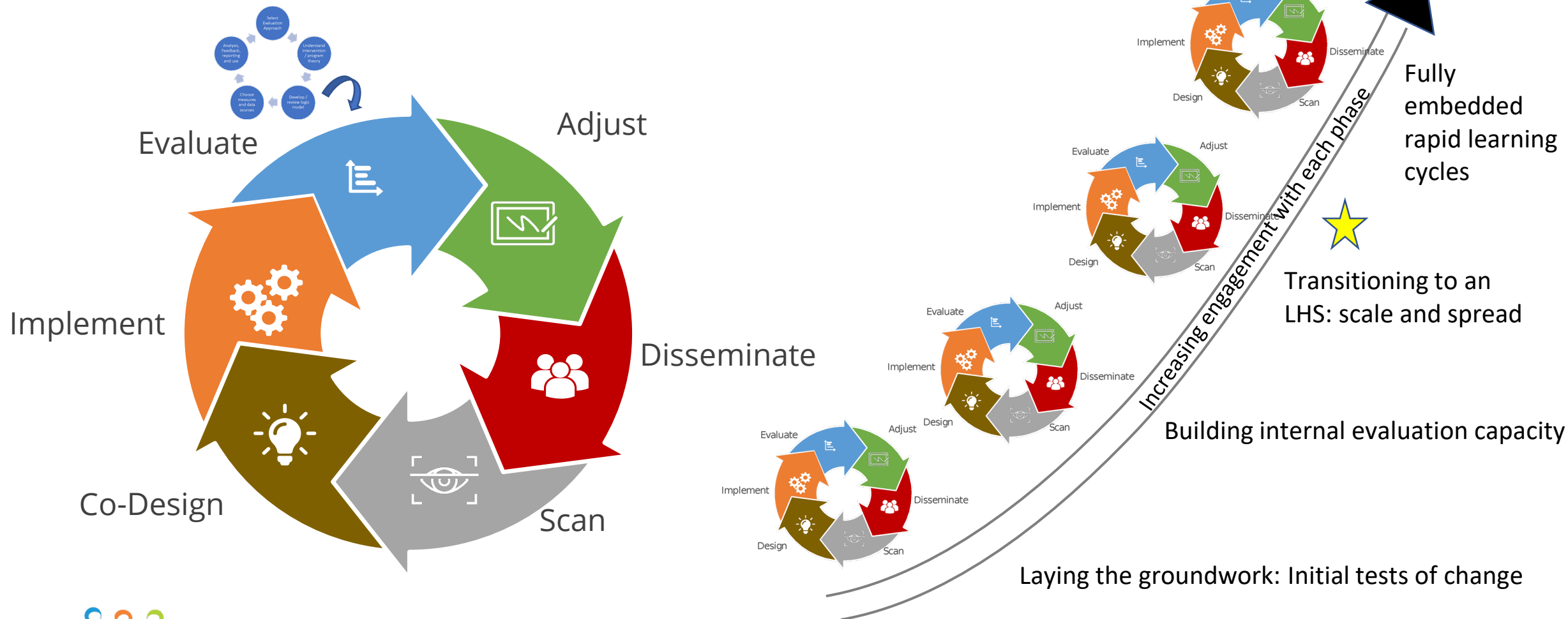
50+ languages spoken

**5 Designated  
Neighbourhood  
Improvement Areas**



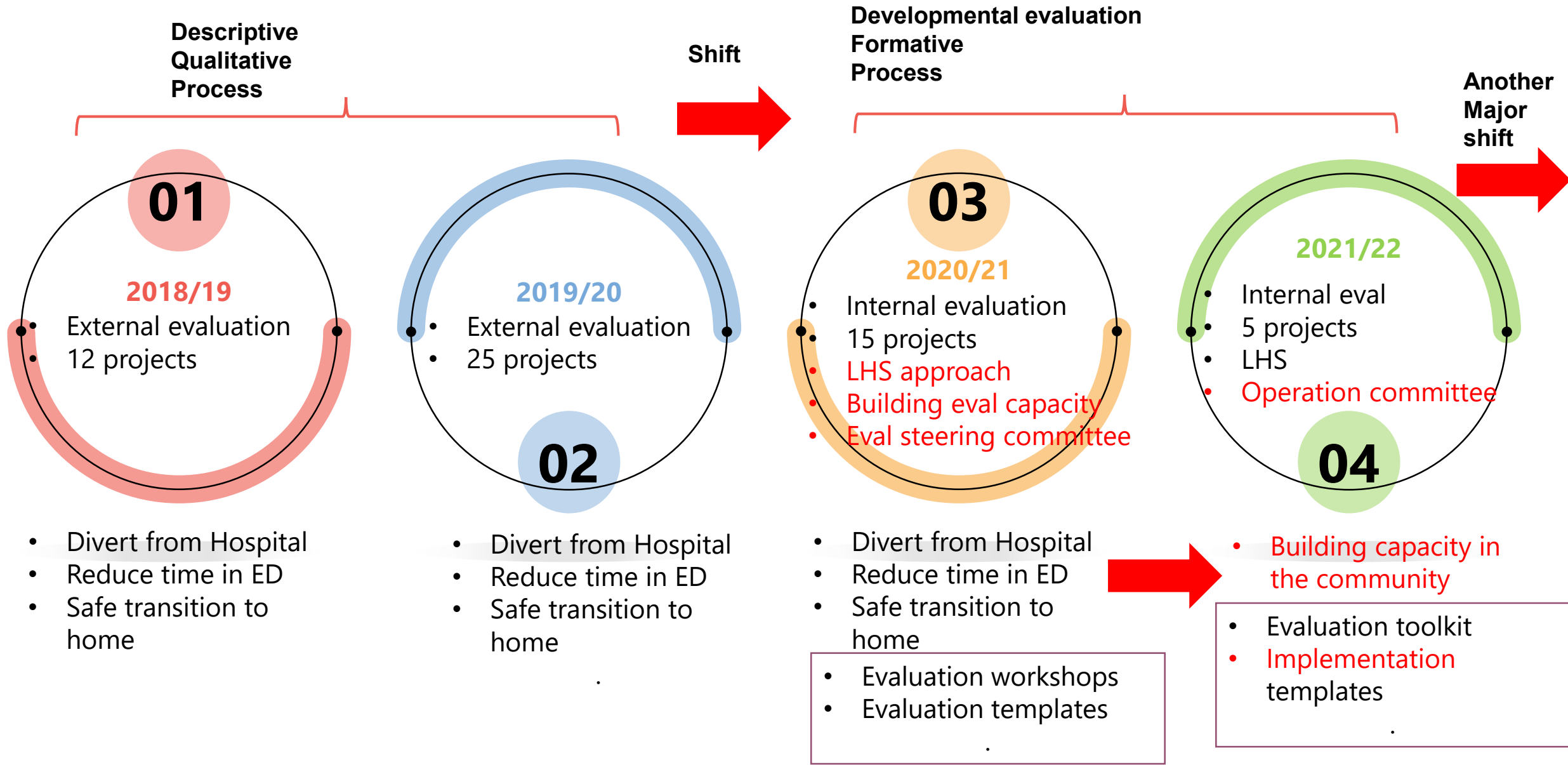
# Building a Learning Health System

## The Six Phases of a Rapid-Learning Health System





# Rapid Cycle Evaluation





# Data for Improvement



# Data for Improvement



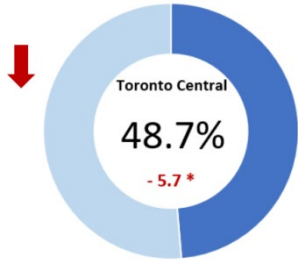
# Cancer Screening



DATA



Cervical Cancer Screening Participation %  
December 2021



SORTED



ARRANGED



PRESENTED VISUALLY



**Population Segmentation**

**Co-design**





# Data for Improvement





# Data Knowledge Translation



# Pickleball!



# Pickleball in my Community Centre



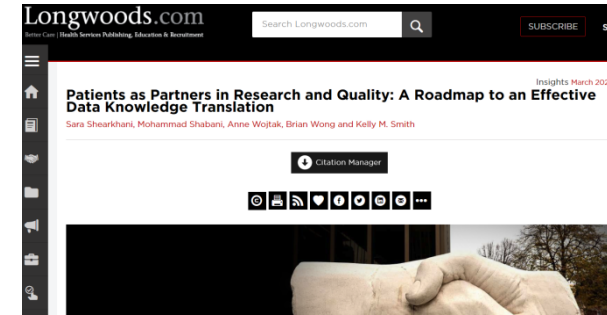




# What is data?

- Information, such as facts and numbers, collected to be examined and considered and used to help decision-making
- Quantitative and qualitative
- Data represents people's encounters with the care system
- By the time we have access to data, conduct our analyses, and discover trends, people have already lived through those experiences.

# Data for Improvement



## Key Principles

- Co-design
- Understanding the data
  - What is data?
  - Tell a compelling story using data
  - Facilitate participants to draw connections to their lived experience
- Understanding the approach
  - Simplify
  - Explain complex concepts using simple visualizations

## Summary of the Key Messages

- **Challenge:**
  - The cancer screening participation has decreased during COVID19
  - While participation is increasing, there are still opportunities for improvement
- **Aim:** We would like to co-design strategies to increase the cancer screening participation
  - One size does not fit all- different strategies are needed for different populations
  - We need to identify:
    - Different patients/clients populations with lowest cancer screening rate
      - Those who are relatively healthy (unattached; nonusers)
    - Different neighborhoods with lowest cancer screening rate
      - Priority neighborhoods



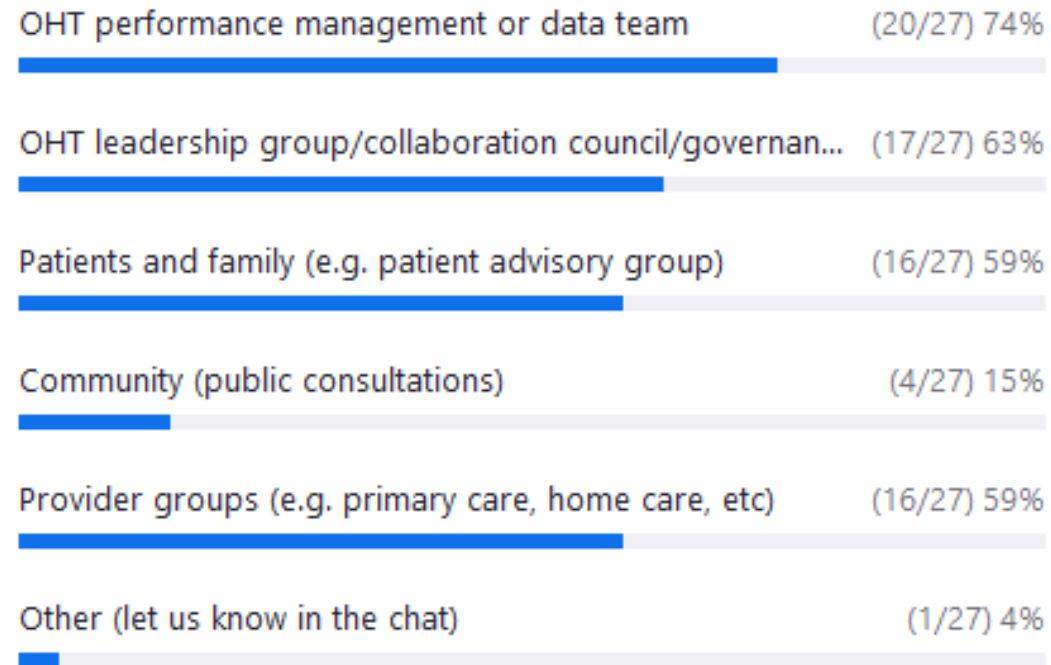
# Co-designing Interventions

- 2 workshops focused on data, quality improvement, evaluation
- Use the knowledge and expertise in the community
- Partnership with external partners (cancer screening)
- MaRS Innovation Challenges:
  - plans to expand an existing community health ambassador program to educate target populations about colorectal cancer. This approach also incorporates bot technology to identify eligible clients and send screening reminders to those with a primary care physician.

# Poll 4

1. Who have you involved in interpreting data? (check all that apply)  
(Multiple Choice)

27/27 (100%) answered



## Discussion Topic

1. What is your biggest barrier to using data for population insights? (use “-” as leading text in the chat. E.g. “- no access”)
2. What is your biggest enabler for using data for population insights? (use “+” as leading text in the chat. E.g. “+ Business Intelligence team”)

# Using patient experience data: South Georgian Bay

Presenter: Sarah Grace Bebenek

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May 28, 2024



# South Georgian Bay Patient Experience Survey

Sarah Grace Bebenek, SGB OHT

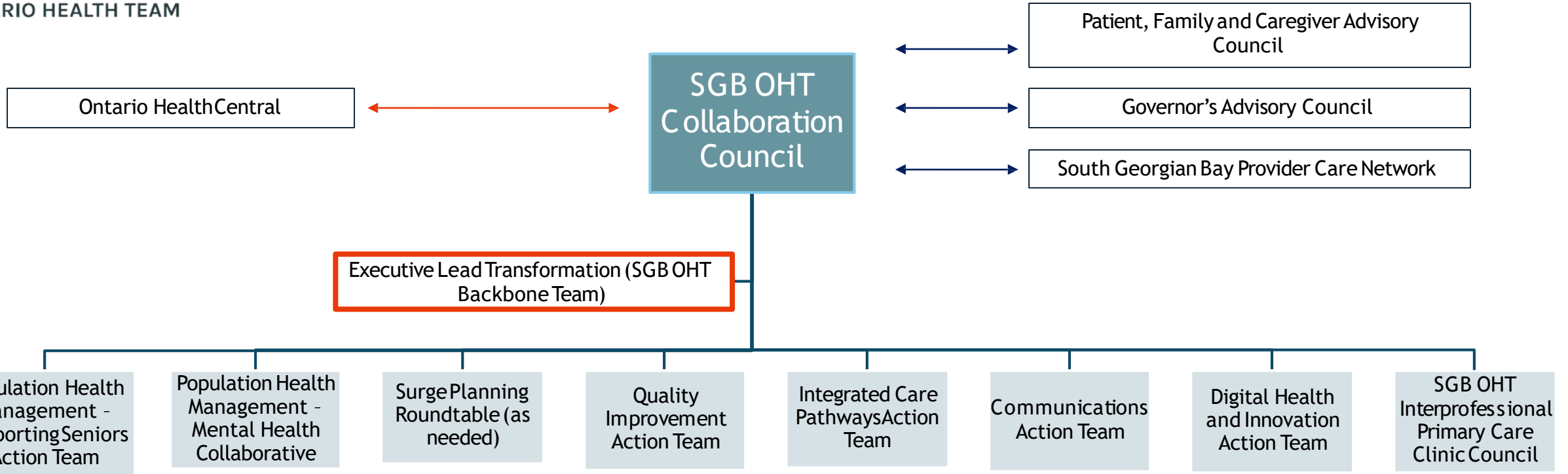
# Objectives

- Overview of the SGB OHT
- Understand the background behind the Patient Experience Survey
- Review a summary of survey results
- Understand how these results have informed the work of the SGB OHT PFAC and the broader OHT





ONTARIO HEALTH TEAM





ONTARIO HEALTH TEAM

# 2022 Patient Experience Survey Background





# 2022 South Georgian Bay Survey Responses

**38164**

SURVEYS EMAILED  
SECURELY THROUGH OCEAN

**350**

SURVEYS SENT BY MAIL TO  
THOSE WITH NO EMAIL

**6018**

SURVEY ENTRIES/CLICKS

**3600+**

COMPLETE SURVEY  
RESPONSES

# Planning for the Second Patient Experience Survey



- After receiving the results from the 2022 Patient Experience Survey, the PFAC was engaged to review the survey results and provide feedback to be incorporated into the next survey.
- The SGB OHT worked with HSPN to add customized questions to the survey to reflect localized services.
- Patients who accessed unattached services such as cancer screening clinics were included in the survey distribution list for 2023.



# 2023 Survey Responses

**35,000+**

**SURVEYS EMAILED  
SECURELY THROUGH  
OCEAN**

**350**

**SURVEYS SENT BY  
MAIL TO THOSE WITH  
NO EMAIL**

**3000+**

**COMPLETED SURVEY  
RESPONSES RECEIVED**

# Patient Experience Survey Outcomes

## Survey Themes

- How to help support patients who are marginalized/vulnerable
- Assessing the patient experience for those with no family doctor or nurse practitioner
- Access to services/care
- Patient/caregiver involvement as a member of the care team
- Use of digital tools to support care
- Understanding the demographics of our population



## Actions

- SGB OHT Clinic for unattached population
- Development of a patient handbook
- Furthering patient and caregiver advocacy work
- Patient tools to support use of digital tools
- Improving accessibility to communications around services
- Data to inform SGB OHT decision making and resource allocation

Questions?





## Discussion Topic

*How are you engaging with patients/family/caregivers and/or community in understanding patient needs or priorities?*

# Going deep with linked data: Guelph-Wellington

Presenter: Emmi Perkins

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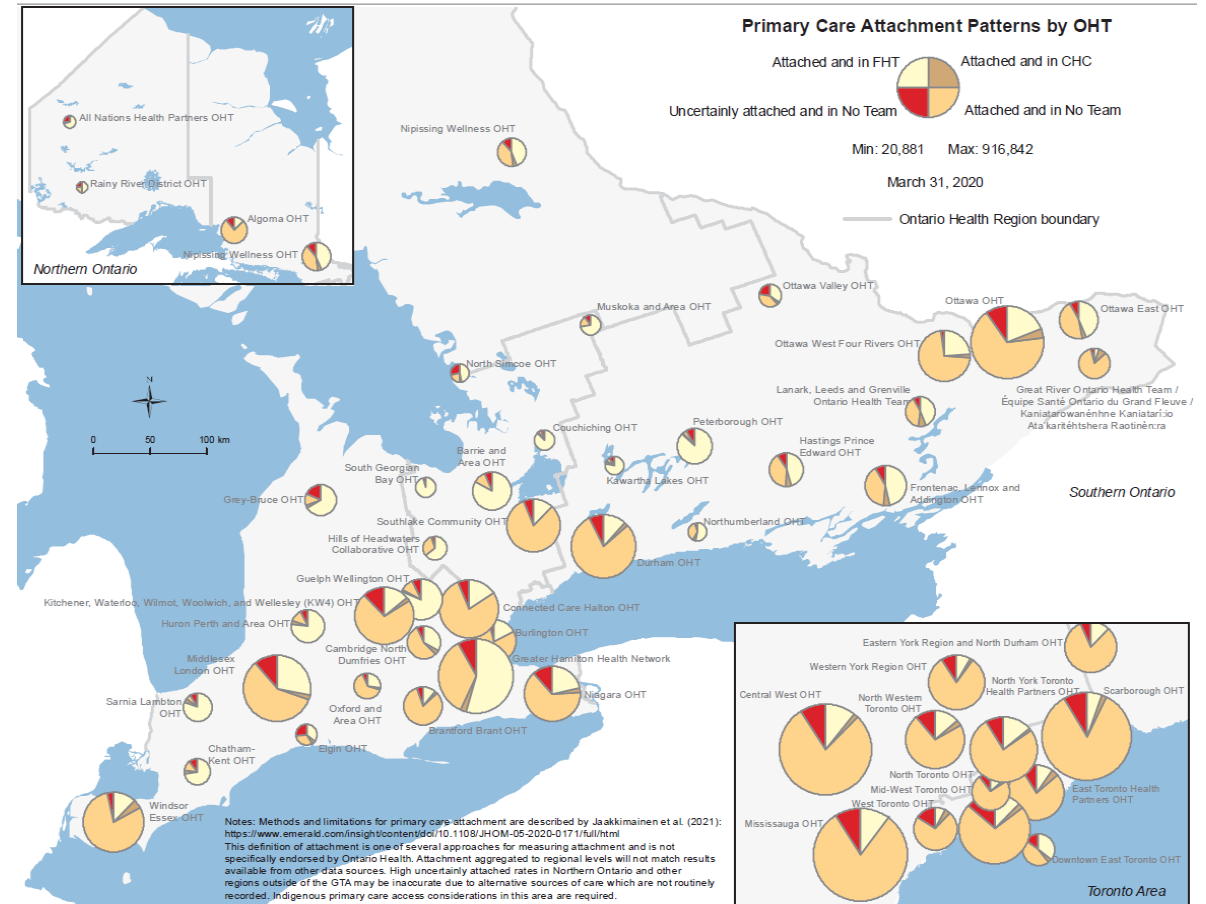
May 28, 2024

# Advancing Primary Care-Based Population Health Management in Guelph Wellington OHT

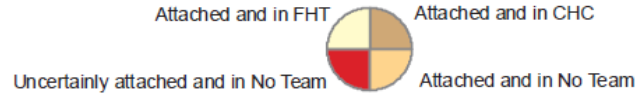
May 2024

# Our Story

- ~ 95% of primary care physicians practice in team-based models – 5 Family Health Teams, 1 Community Health Centre
- All primary care physicians use the same EMR (albeit unique, separated instances)
- Relatively high primary care attachment rate
- Champions for improving data



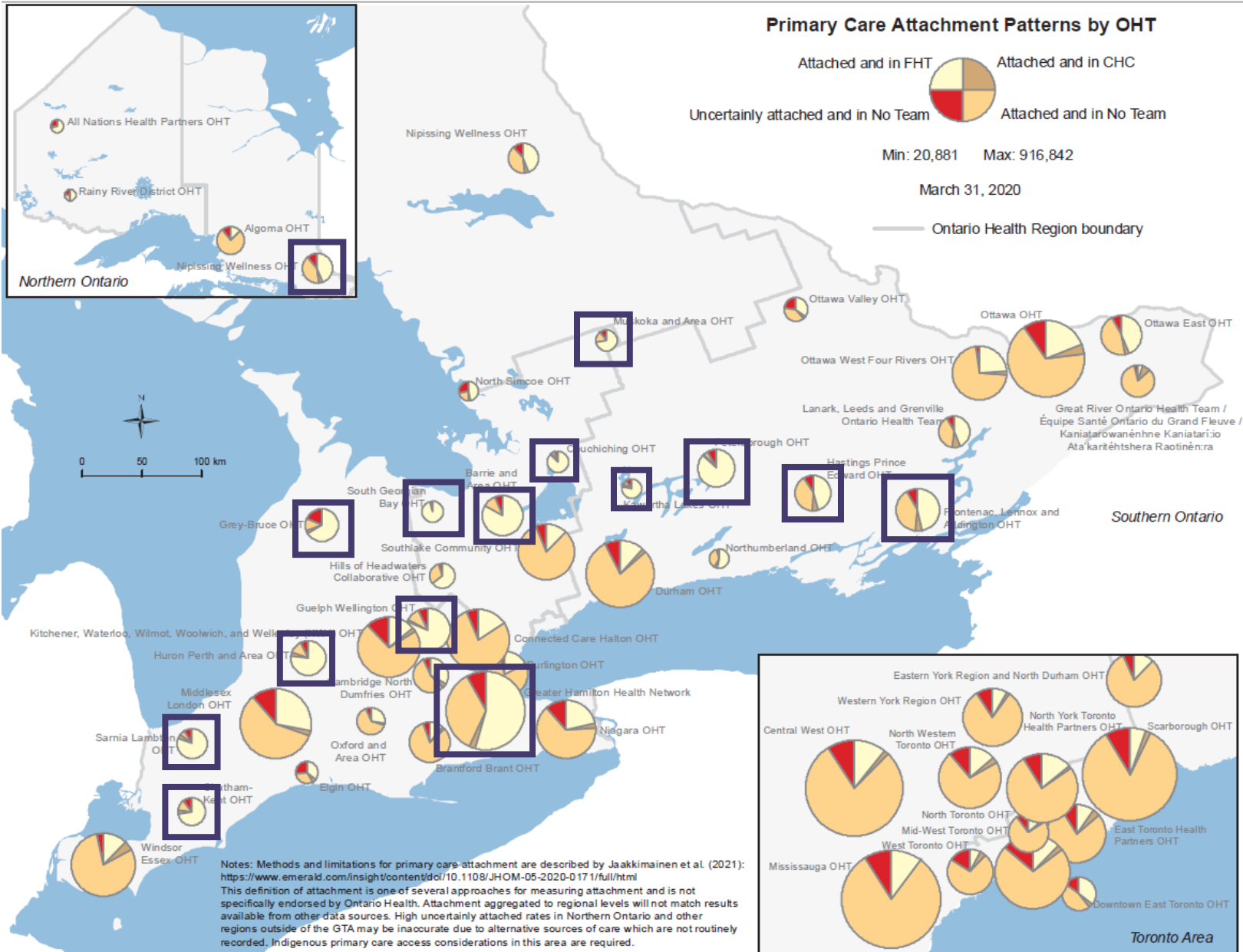
## Primary Care Attachment Patterns by OHT



Min: 20,881    Max: 916,842

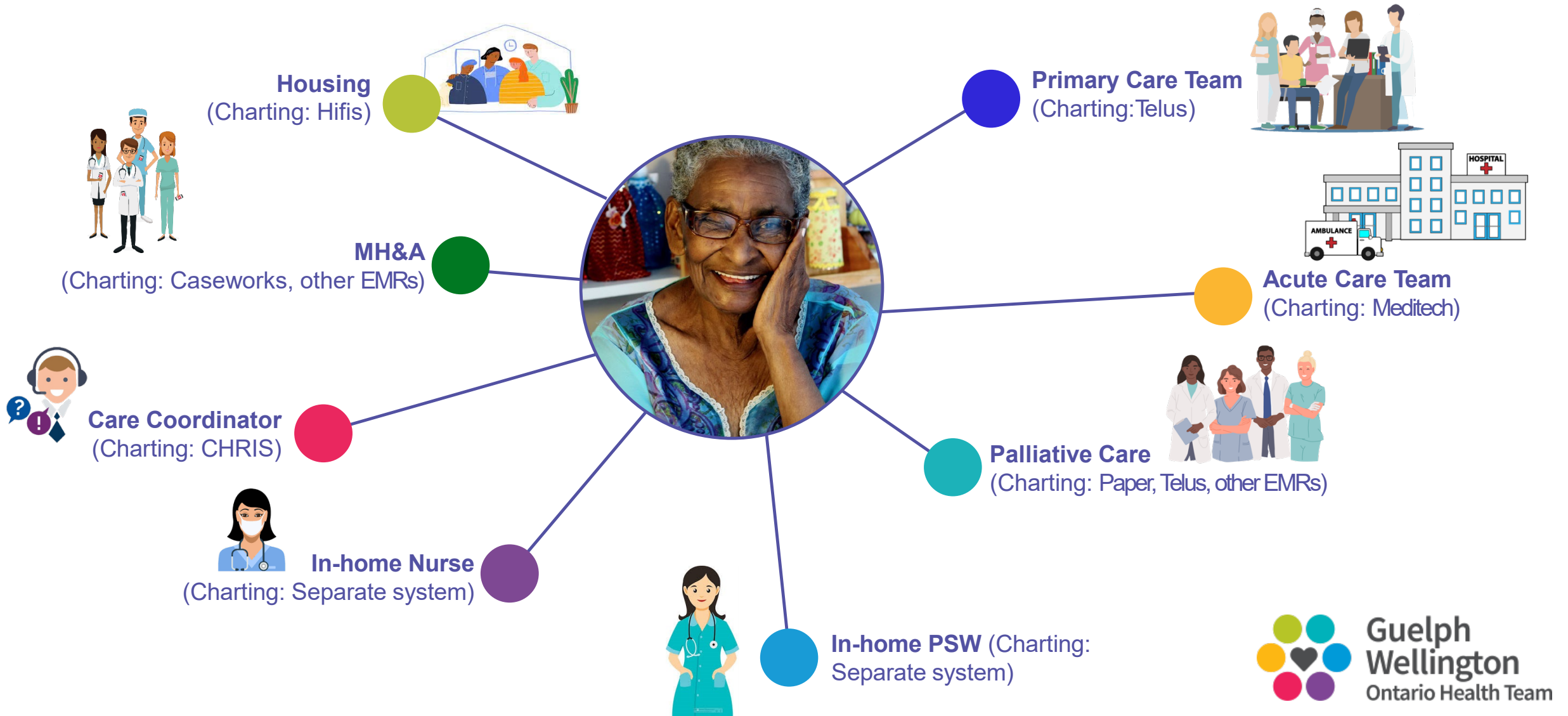
March 31, 2020

— Ontario Health Region boundary



# Patient Scenario

## Jane's Care Team Pre-Integrated Patient Care Team (IPCT)



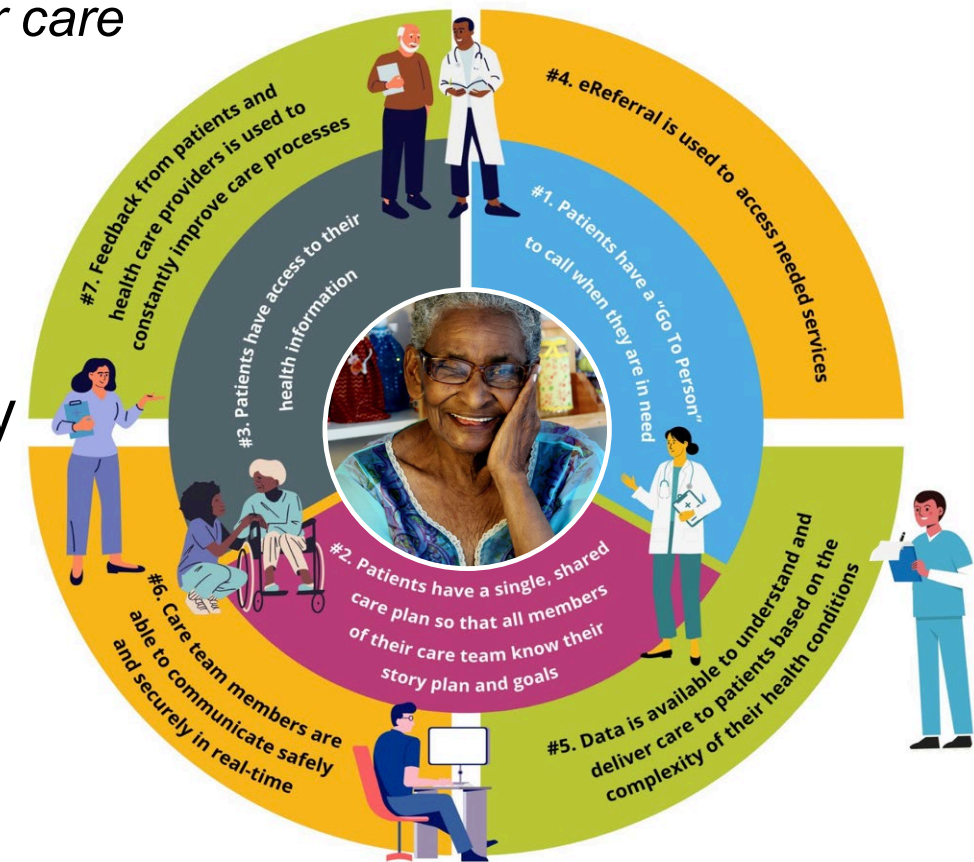
# Jane's Integrated Patient Care Team (IPCT)

*Jane experiences a single care team of dedicated, integrated providers who are collectively dedicated and accountable to meet all her care needs. Jane is a central member of her care team.*

## Comprehensive primary care including:

- ✓ Palliative care
- ✓ MH&A
- ✓ Care coordination
- ✓ In-home service delivery
- ✓ Acute care
- ✓ Housing, etc.

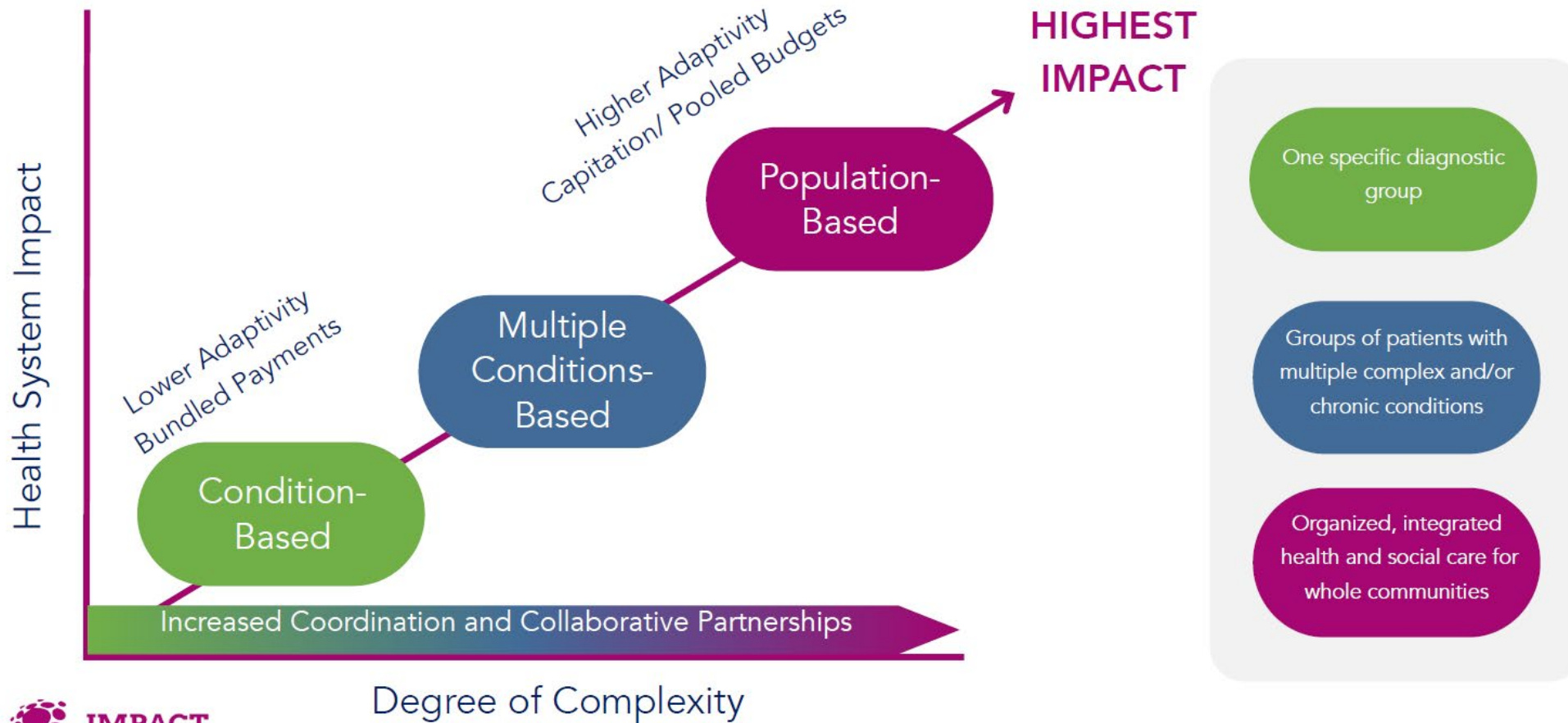
Integrated Documentation, Harmonized Privacy Policies & Practices





# Integrated Health Systems

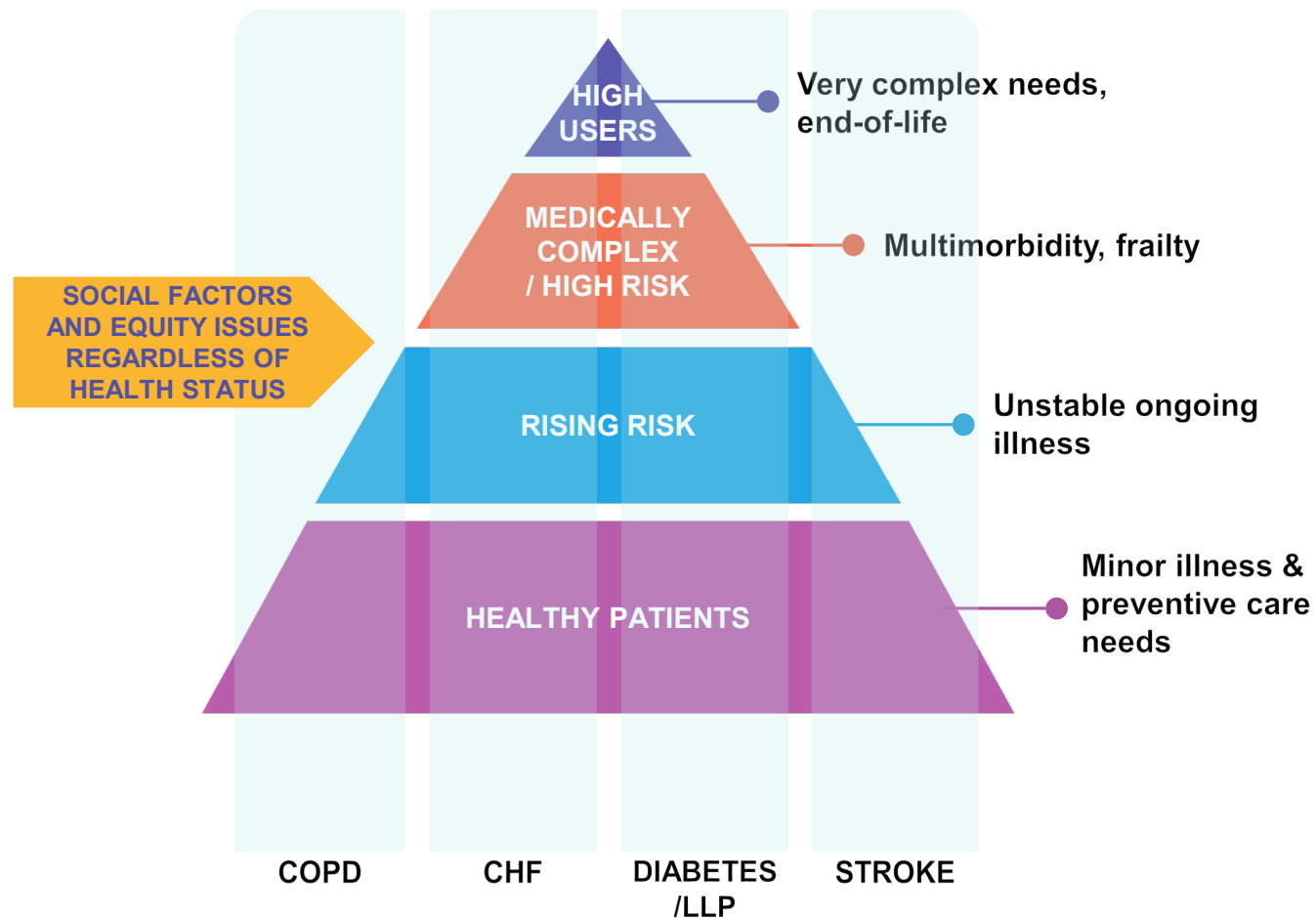
## Transition from Health Conditions to Population-Focused





# GW OHT Approach to Segmentation

## Integrated Care for Full Attributed Population



## Segmenting Based on Complexity of Needs

- The CIHI Population Health Grouper methodology was chosen to segment each IPCT population. This is done via IDS at the team, physician and patient level.
- Each physician's roster is segmented according to the most complex/high users, medically complex/high risk, moderate/rising risk and healthy.
- The complexity of a person's care needs change over time – so should the intensity of their care.

# The Problem

- Primary care data is not easily accessible, and therefore, often missing from system-level, population health analyses.
- Available data is disease-specific and at the OHT/neighbourhood level. Segmentation based on holistic complexity at the patient and provider level was needed.
- **The solution:** Invest in Integrated Decision Support (IDS)



# Our Investment in Population Health Segmentation

Guelph Wellington (GW) OHT acute and post-acute hospitals, home care, community health centres, and public health all shared into IDS when the GW OHT was created.

GW OHT has invested in:

- The development and annual costs for an EMR (Telus) extraction tool/report to enable the contribution of primary care data to IDS
- CIHI Population Health Grouper license
- IDS on-boarding fees for early adopter primary care sites/physicians
- IDS on-boarding fees for CMHA WW
- Annual IDS license fees are paid by the provider/organization
- Other partners are considering the contribution of their data to IDS



# Benefits of IDS Data

**IDS combines data from multiple health system sectors** to enable a comprehensive population health planning and management approach.

This allows OHTs to understand both the overall health of their population and the health status of individual patients.



Hospitals



Home Care



Primary Care



CHC



Paramedic/EMS



CMHA



Community Support Services  
(CSS)  
**Pilots**



LTC



Ontario-Marginalization  
Index



Population and  
Geography

# Benefits of IDS Data

## Clinical Value

### Health Assessment and Targeted Interventions

IDS data can be used to identify/prioritize patients on a physician's roster who are most complex/highest risk and enables clinicians to target prevention and self-management interventions to those who are less complex/healthy.

## Organizational Value

### Risk Stratification and Development of Equitable Models of Care

IDS data enables the segmenting of patients according to the population health triangle and the subsequent development of care models that equitably distribute available resources across the rostered population (e.g., according to complexity of need).

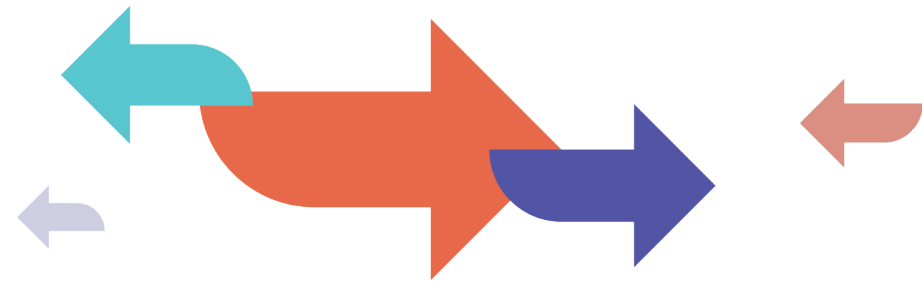
## System Value

### Population Health Management/ Quintuple Aim

IDS data enables collaborative leadership/shared decision-making regarding resource allocation to optimize health and well-being and equitable outcomes for an attributed population.

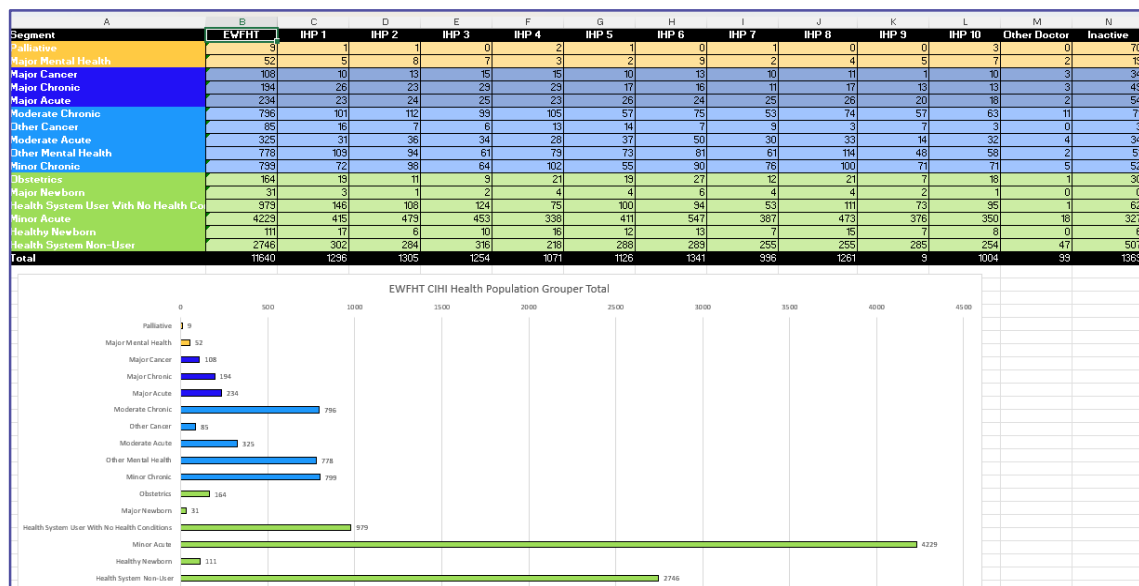
# Considerations

- **Variable HIC models** across primary care teams (e.g., FHT is the HIC in some, physicians are the HIC in others). **HIC level agreement is required** in to order to share primary care data with IDS
- **Costs**
- **Privacy** – Monitoring for PHIPA compliance

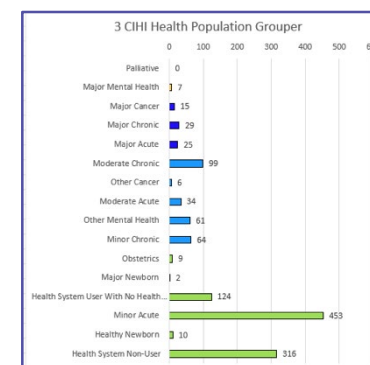
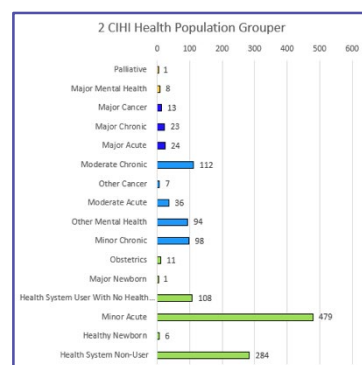
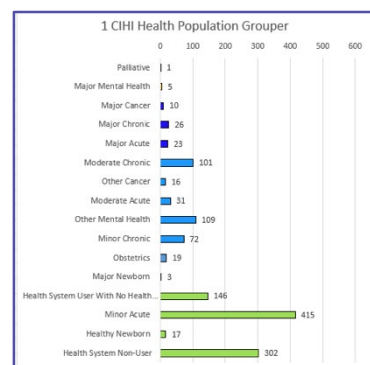


# IDS in Action

## Step 1: Segmentation by Complexity

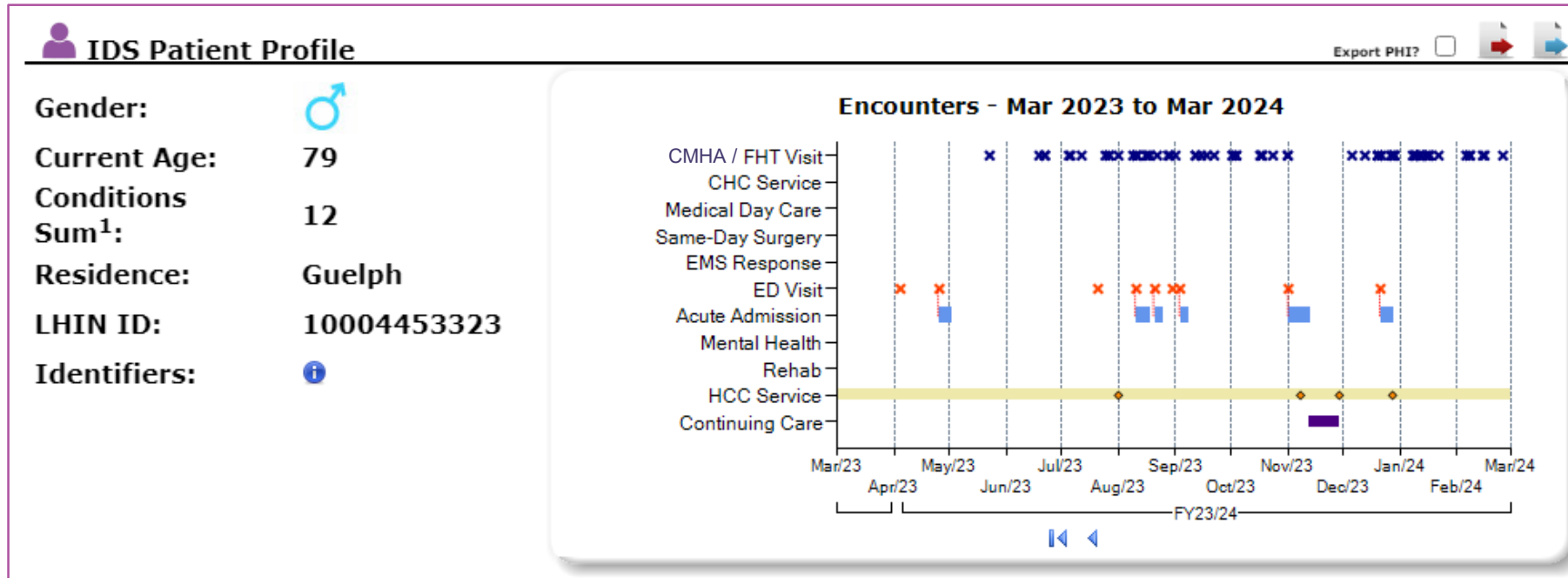


Using the CIHI Population Health Grouper, the most complex clients' health profile on each primary care physician roster are identified and then validated via a chart review by the team and/or by a discussion with the physician.



# IDS in Action

## Step 2 : Patient Journey Map



Once clinically validated (the CIHI classification matches the clinical profile of the patient), an IDS ‘Patient Journey Map’ is created to identify other services that the patient is receiving (i.e., other members of the patient’s care team) and better coordinate care.



# IDS in Action

## Step 3: Shared Care Planning

- Appropriate providers from the identified services/organizations are then brought together to review the client's case and current treatment plans.
- A single, shared care plan is created by the team of providers. This shared care plan is “quarter-backed” by the patient’s “Go-To-Person”.
- The shared care plan is shared via Robotic Process Automation (RPA) between the primary care EMR (Telus) and CHRIS.



# IDS in Action

## Predicting Palliative Care Needs

- Through IDS, the HOMR tool (Hospital One Year Mortality Ratio) is being used to identify patients who are likely to die in the next year and who would benefit from a palliative approach to care.
- Once identified, the primary care physician and team validate against the patient's clinical profile, and if appropriate, initiate an integrated care plan that includes all aspects of a palliative approach to care, including advanced care planning, serious illness and symptom management conversations, etc.
- Beneficial at both patient level (to address person-centred needs) and the system level (to predict required palliative care capacity to meet palliative care needs across the GW population).
- HOMR score is now also available to the IDS network of subscriber via IDS's 'once for many' approach.



### What is HOMR?

The HOMR tool is an algorithm that uses data routinely collected by hospitals to accurately and reliably calculate a patient's risk of dying within the next 12 months.



**Thank you**

## Discussion Topic

*How are you engaging with front line providers (physicians, nurses, community workers) in determining what to do about emergent/identified patient needs or priorities?*

# Up Next

- HSPN webinar series
  - 4<sup>th</sup> Tuesday of the Month: 12:00 – 1:30 pm

Upcoming June to October 2024:

Advancing the Learning Health System in  
Ontario: Parts 3 - 5

**Can you share some feedback? Scan here! (or click link in chat)**



# THANK YOU!



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The Health System Performance Network



hspn.ca