HSPN Health System Performance Network

Stories from the Field Part 3:

Population Segmentation in Chatham Kent, KW4 & North Toronto

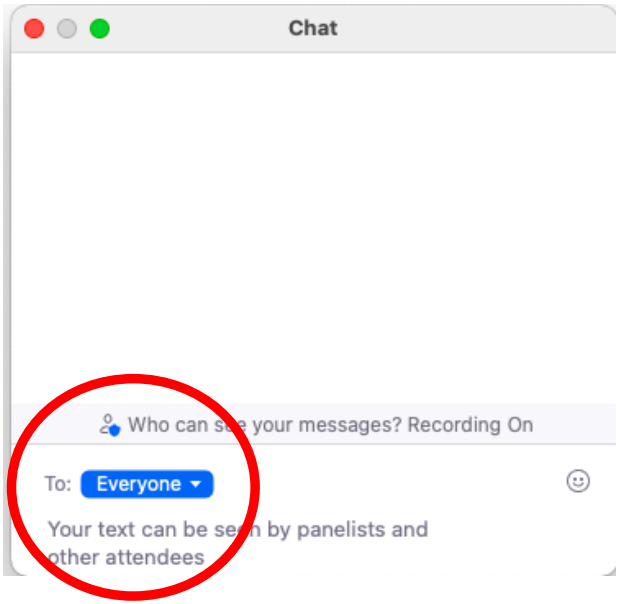
HSPN Monthly Webinar

February 22 2022

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.

Poll 1

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

140/140 (100%) answered

Yes	(109/140) 78%
No, this is my first event	(31/140) 22%

HSPN Health System Performance Network

Today's event

Stories from the Field – Part 3

Host

Dr. Walter Wodchis
Principal Investigator
HSPN

Presenters

Lauren Tessier
Chatham Kent OHT
OHT Impact Fellow

Caitlin Agla
KW4 OHT
Director, Hospice Waterloo

Holly Opara
North Toronto OHT
Population Health Analyst, Quality & Operations Committee

Darren Gerson
North Toronto OHT
Co-Chair, NT OHT Quality Committee & Vice President, Quality, Risk and Performance

February 22 2022

Agenda

HSPN evaluation update

I. OHT-specific segmentation and indicator data including cQIP
II. Organizing for Ontario Health Teams Survey : Follow-up Survey
III. Patient and Provider Surveys

Stories from the field – Part 3

I. Chatham-Kent Ontario Health Team
II. KW4 Ontario Health Team
III. North Toronto Ontario Health Team

HSPN Evaluation Update

OHT-specific segmentation and indicator data including cQIP

1. Each Ontario Health Team Evaluation Contact will receive an email from one of the following leads (representing HSPN):
    - RISE Population Health Coach
    - Ontario Health Team Impact Fellow
    - HSPN Evaluation Co-lead
2. Choose a date to review and discuss results
    - Data package with 4 files will be sent for OHT team review
3. Organize questions and prepare for discussion

HSPN Evaluation Update

What's in the package ?

- Powerpoint presentation with results for population segmentation and cQIP indicators for 2020/21
  - Population Segments using BC Health System Matrix
  - cQIP indicators by BC Health System Matrix Segments
  - cQIP indicators by Material Deprivation quintile (Equity)
  - cQIP indicators by Primary Care Patient Enrolment Model
  - Population Segments and cQIP indicators using CIHI Population Grouper

HSPN Evaluation Update

What's in the package ?

- 3 Excel Files
  1. All HSPN Improvement Indicators + cQIP Indicators + Physician visit counts by BC Health System Matrix AND Material Deprivation Quintile for 2019/20 and 2020/21

  2. All Indicators by CIHI Population Grouper AND Material Deprivation Quintile for 2019/20 and 2020/21

  3. All Indicators by Primary Care Patient Enrolment Model for 2019/20 and 2020/21

HSPN Evaluation Update

Why is it taking so long?

Individualized Data for 51 OHTs…

- 2 population pyramids with cost and mortality data
- 20 additional graphics

Total = **1,122** images to create and insert

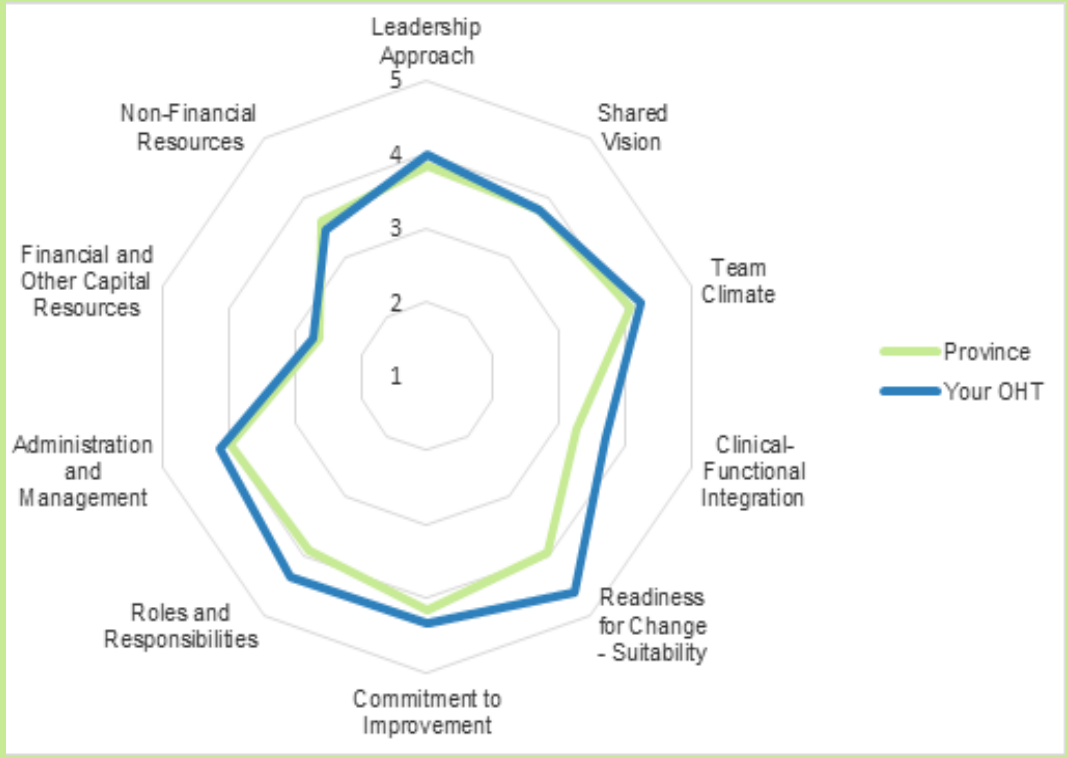
- 33 data tables
- Data for 2019/20 and 2020/21

Total = **10,098** data tables to clear for re-identification risk

- OHTs will be contacted between February 28 and March 4

Organizing for Ontario Health Teams

Follow-up Survey



HSPN

BEFORE:

- Wave 1 OHTs completed in January 2020
- Wave 2 OHTs completed in January 2021

NOW:

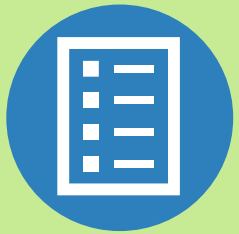
- Wave 3 OHTs complete in March 2022
- Wave 1 & 2 OHTs update in March 2022

NEW:

- 6 New items regarding Governance and Decision-making

- Survey links will be distributed on March 1st
- Respondents include 1 (one) representative from each OHT signatory organization

Patient Survey



➢ Eight domains:

- Easily access health & social care
- Having someone to count on
- Being heard
- Knowing how to manage health
- Independence & Well-being
- Feeling safe
- Transitions
- Overall Patient-Reported Health
- Sociodemographics

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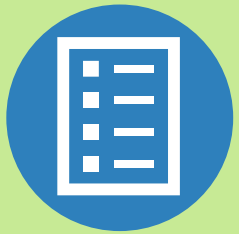
Provider Survey



- **Five domains:**
  - Care coordination
  - Workplace culture
  - Autonomy
  - Burnout/satisfaction
  - Digital/virtual care

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Our Process for Administering Surveys

Survey package from the HSPN OHT Evaluation Team:

- a general user link to Experience Surveys;
- a DOCX file with suggested wording for the survey invitation email to providers;
- a PDF of the information letter for informed consent of research participants;
- a PDF document of the steps and procedures to follow.

Participating OHTs will receive anonymous individual response data.

Check out the website: https://hspn.ca/evaluation/oht/provider-and-patient-experience-surveys/

Contact OHT.Evaluation@utoronto.ca to inquire about using the surveys.

HSPN

*

Stories from the field

I. Chatham-Kent Ontario Health Team
   - Lauren Tessier

II. KW4 Ontario Health Team
   - Caitlin XXX

III. North Toronto Ontario Health Team
   - Holly Oposa & Darren Gerson

Chatham - Kent OHT
ONTARIO HEALTH TEAM

Building the Plane Before Flying It: On the Journey to Population Health Management

Lauren Tessier, PhD

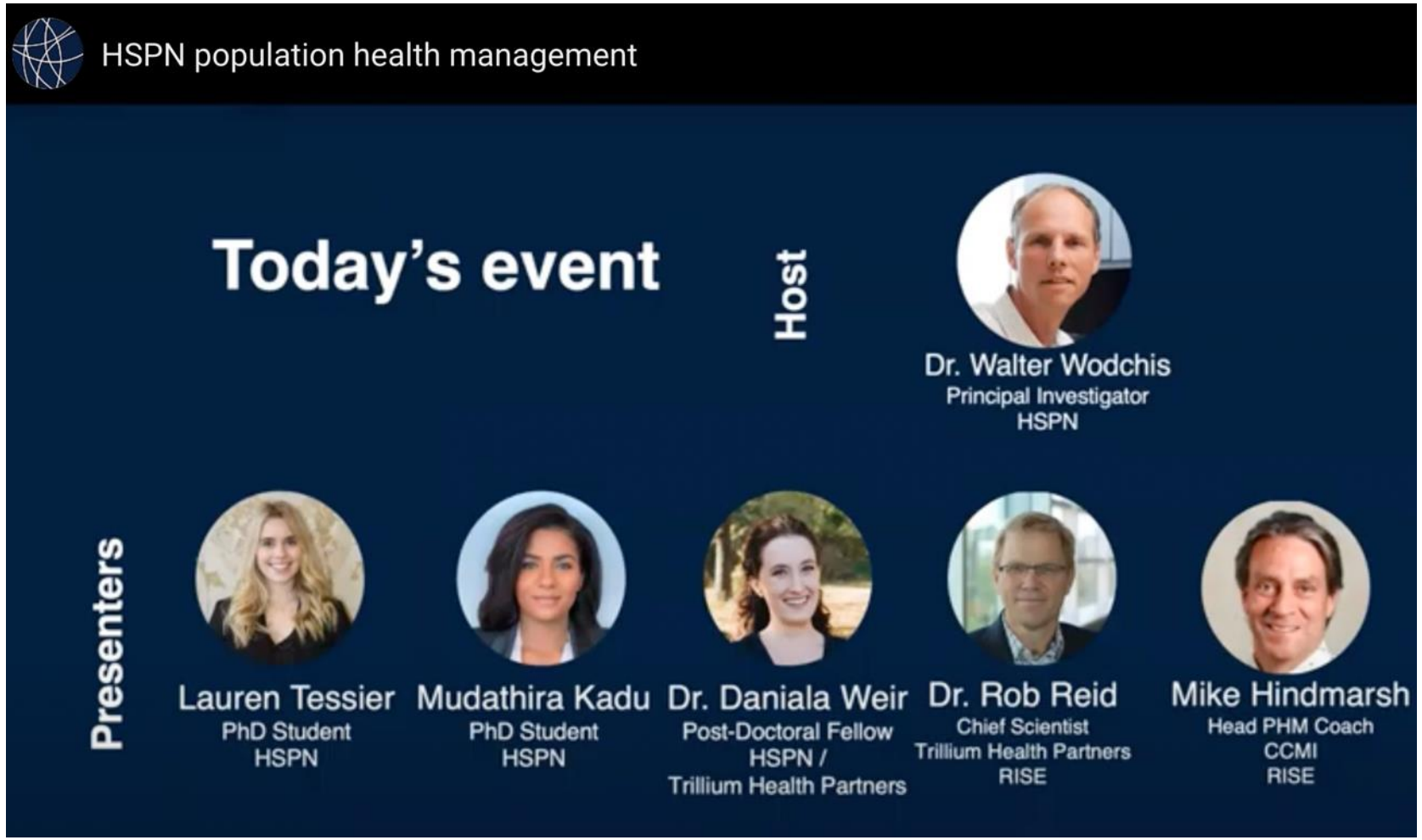
CKOHT Impact Fellow

February 22nd, 2022

Agenda

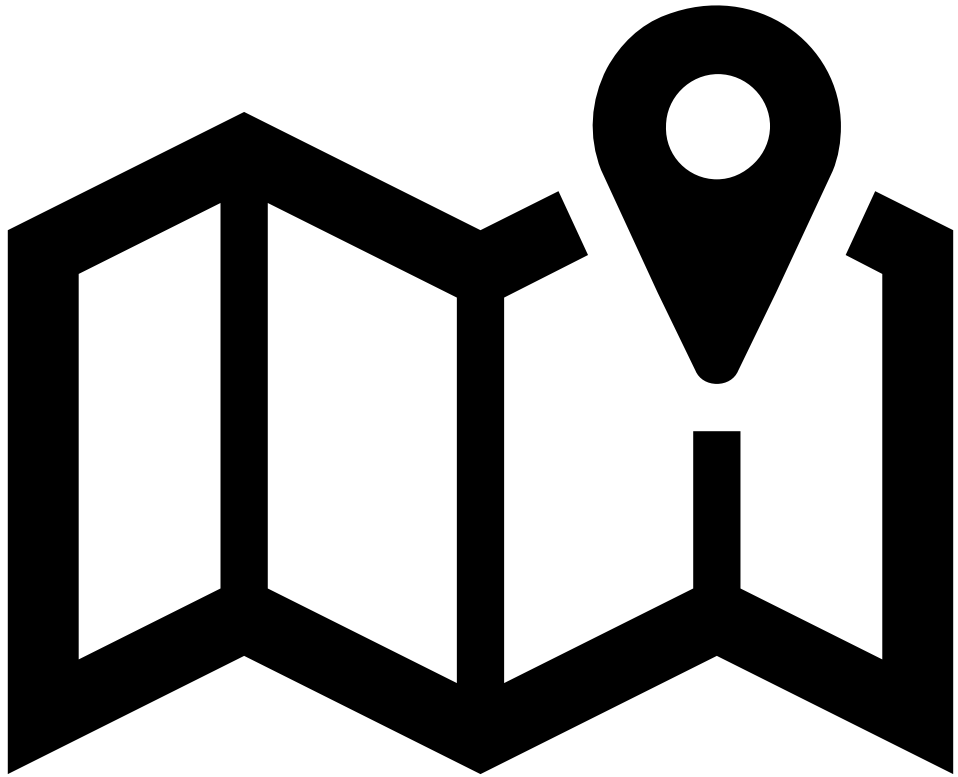
- Background
- Context
- Segmentation approach & key learnings
- Next steps

Background



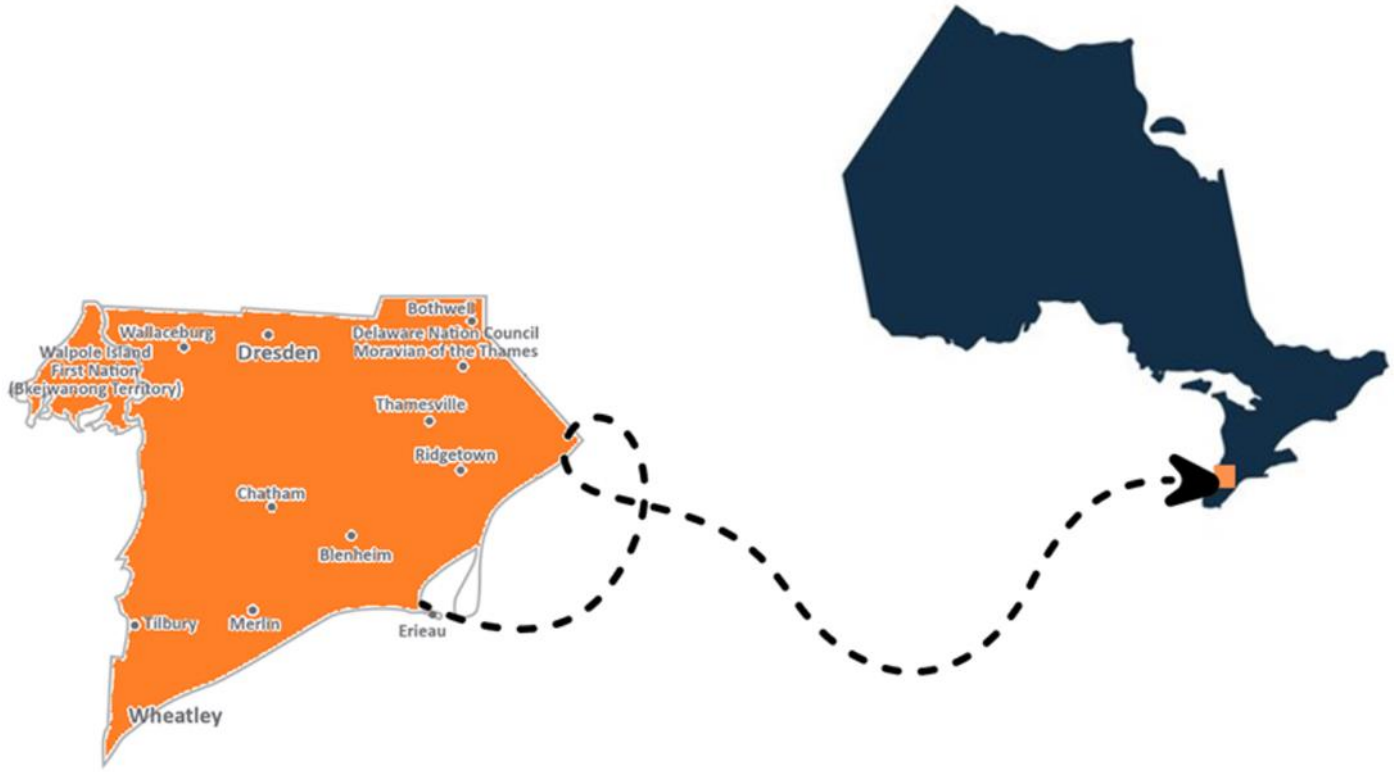
HSPN Monthly Webinar February, 2020

Context



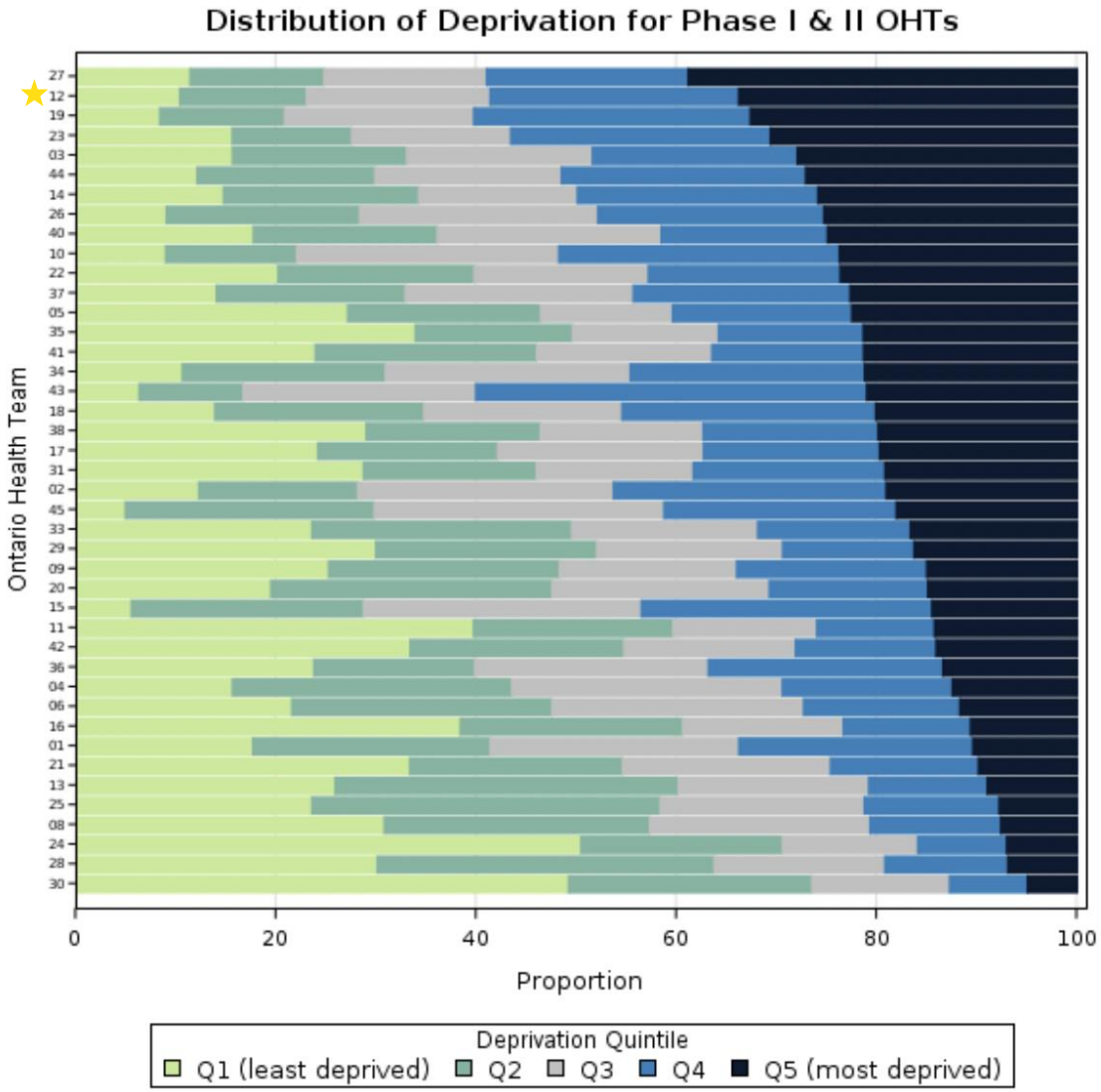
Context

- Attributable population **~105,000**
- Priority population: individuals aged 55 years or older who have one or more of the following: COPD, CHF, Angina, Diabetes, Dementia, and/or are complex, as per the current Health Links definition (4+ CCs)
- Priority population **~10,000-14,000** (depending on data source)



Context

- Of all OHTs, CK has second highest proportion of its attributable population living in the most deprived quintiles



Segmentation Approach & Key Learnings

Segmentation was iterative and flexible

My Expectations

- Segmentation would be based on linked data with multiple inputs
- All individuals in priority population could be straightforwardly identified
- Process would be rapid

Our Reality

- It took time to land on our (simple) segmentation approach
- Decisions had to be made about imperfect data
- Process was not as iterative as we initially intended for

Segmentation was iterative and flexible

- **COPD** (and to a lesser extent heart failure) **in younger seniors driving ACSC hospitalizations**

ACSC diagnosis group	Age			
	55-64	65-74	75-84	Total
COPD	125	202	23	350
Heart Failure	81	106	11	198
Angina	43	42	3	88
Diabetes	30	30	2	62
Total	**279**	**380**	**39**	**698**

- **Individuals living in Q4 & Q5 account for 71% of ACSC hospitalizations**

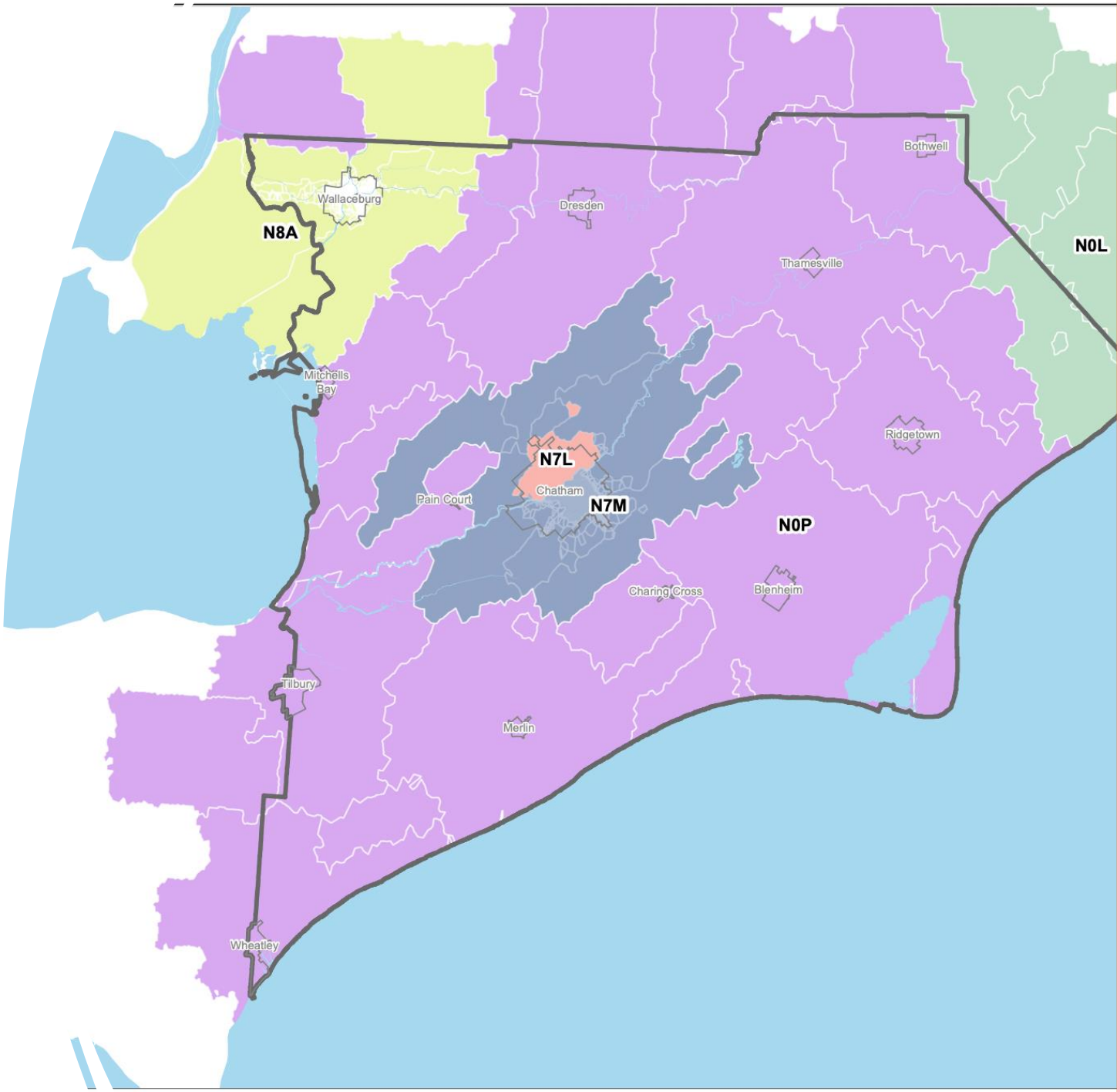
ACSC diagnosis group	Material deprivation quintile					
	Q1	Q2	Q3	Q4	Q5	Total
COPD	14	28	52	108	148	350
Heart Failure	10	12	31	70	75	198
Angina	9	7	24	22	26	88
Diabetes	2	5	9	17	29	62
Total	**35**	**52**	**116**	**217**	**278**	**698**

Don’t let perfect be the enemy of good

- NO data is perfect
- Focus on what you can **learn** from your data rather than seeking perfection
- Let your context inform the decisions you make

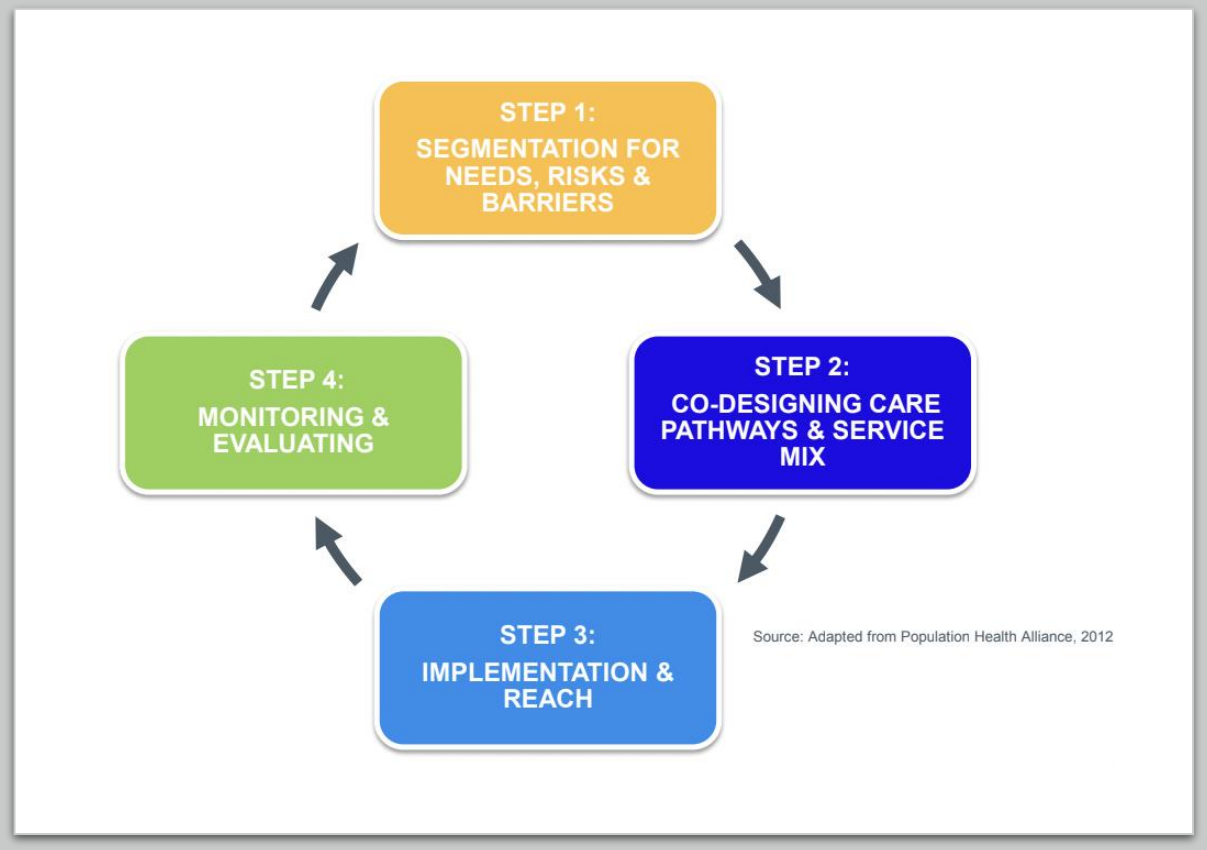
Don’t let perfect be the enemy of good

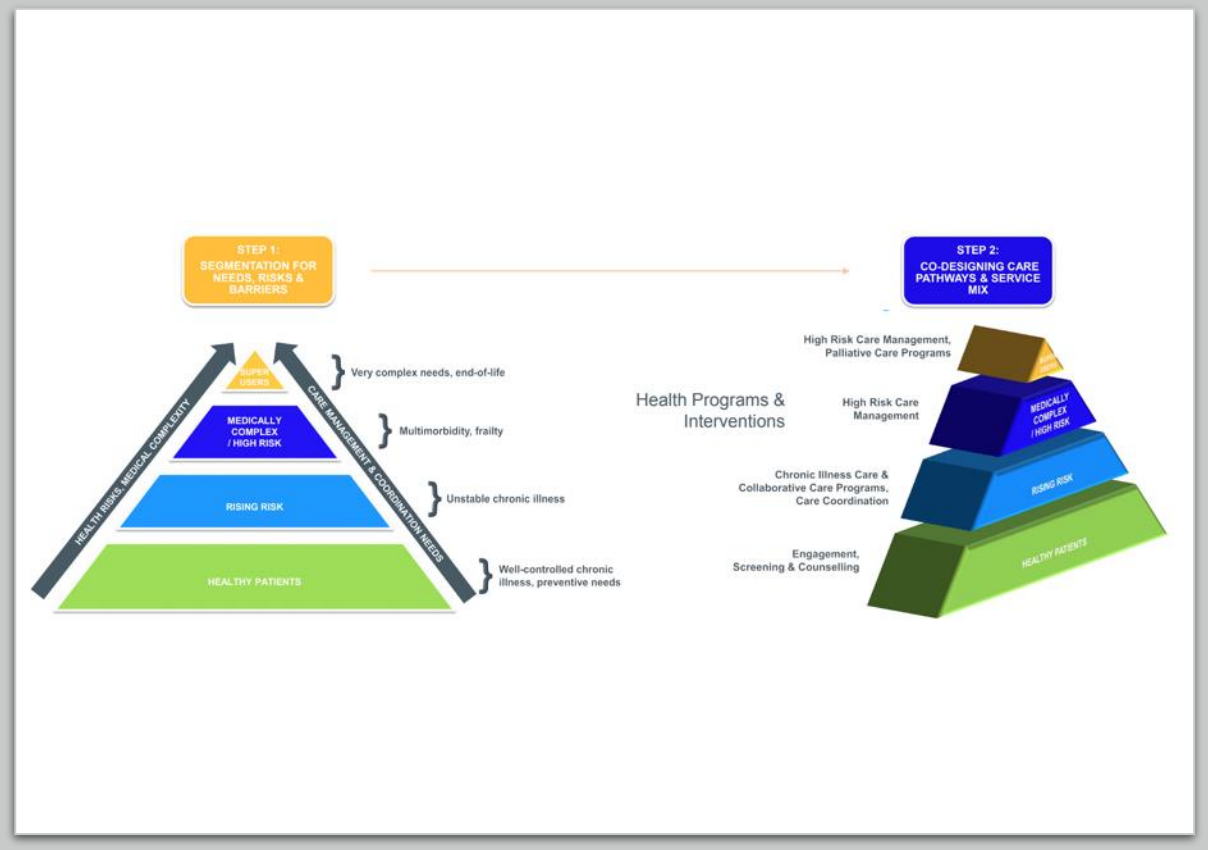
- Of individuals living in Q4, 52% are rural (N0P)
- Of individuals living in Q5 (most deprived), 60% are urban (N7L & N7M)



Don’t jump to solutions

- Followed an evidence-based approach to population health management





Don’t jump to solutions

npj | Primary Care Respiratory Medicine
www.nature.com/npjpcrm

ARTICLE OPEN

The impact of integrated disease management in high-risk COPD patients in primary care

Madonna Ferrone[1,2], Marcello G. Masciantonio[1,3], Natalie Malus[1,3], Larry Stitt[4], Tim O’Callahan[5], Zofe Roberts[1], Laura Johnson[6], Jim Samson[7], Lisa Durocher[7], Mark Ferrari[8], Margo Reilly[9], Kelly Griffiths[10], Christopher J. Licskai[1,3,4] and The Primary Care Innovation Collaborative

- Based on the data, we are **focusing co-design of population health management on younger seniors with COPD**
- Meets the most pressing needs of our priority population
- But means we are not starting from scratch given that there is an existing program in place that has been shown to **decrease utilization and improve outcomes**

Next Steps

Codesign

- Build patient pathways and systems of care for people with COPD
  - Connect to successful program
- Determine what we need to do to build on success
  - How do we spread?
  - How do we improve?
  - **How do we integrate?**
- Have the **right voices at the table** (including patients with lived COPD experience)

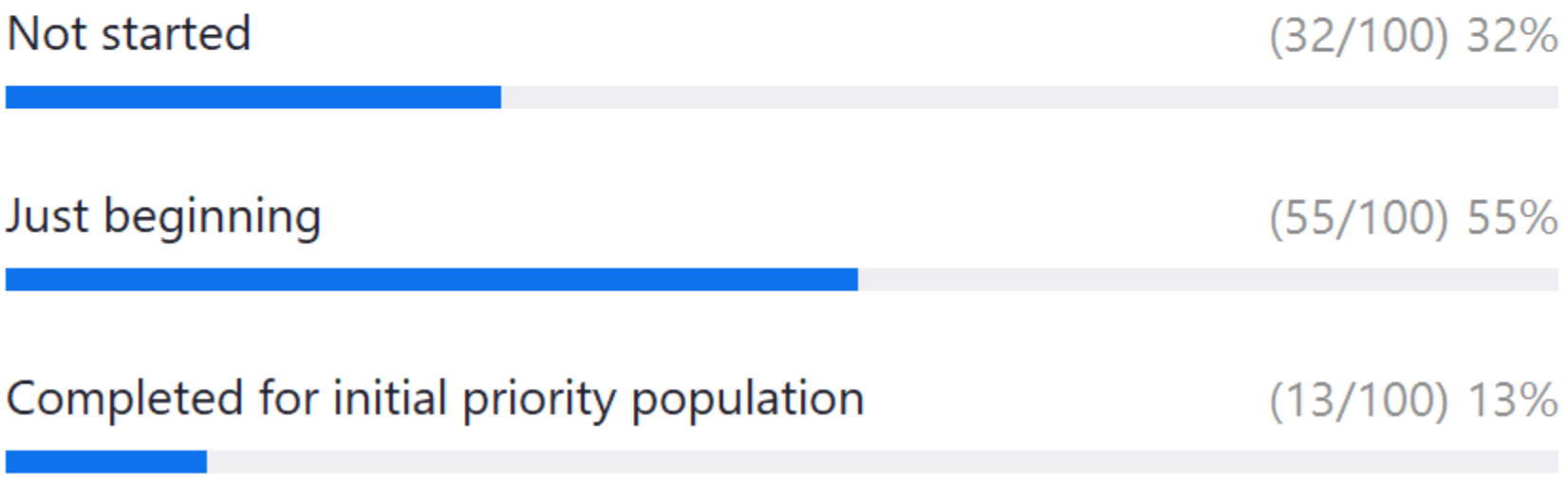
Q & A

lauren.tessier@mail.utoronto.ca

Poll 2

1. 2. Where are you in your segmentation efforts? (Single Choice) *

100/100 (100%) answered



Discussion

Have you tried to quantify the magnitude of the problem that you aim to address (counts of adverse events/size of at-risk population) ?

What data sources are you using?

Segmentation in OHT's: A Look at the Frail Elderly Plans in KW4

HSPN Webinar February 22, 2022

Caitlin Agla

Population:

- Woolwich: 25,006 (2016)
- Wilmot: 20,545 (2016)
- Wellesley: 11,260 (2016)
- Kitchener: 242,368 (2017)
- Waterloo: 113,520 (2017)

https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E

Urban vs. Rural:

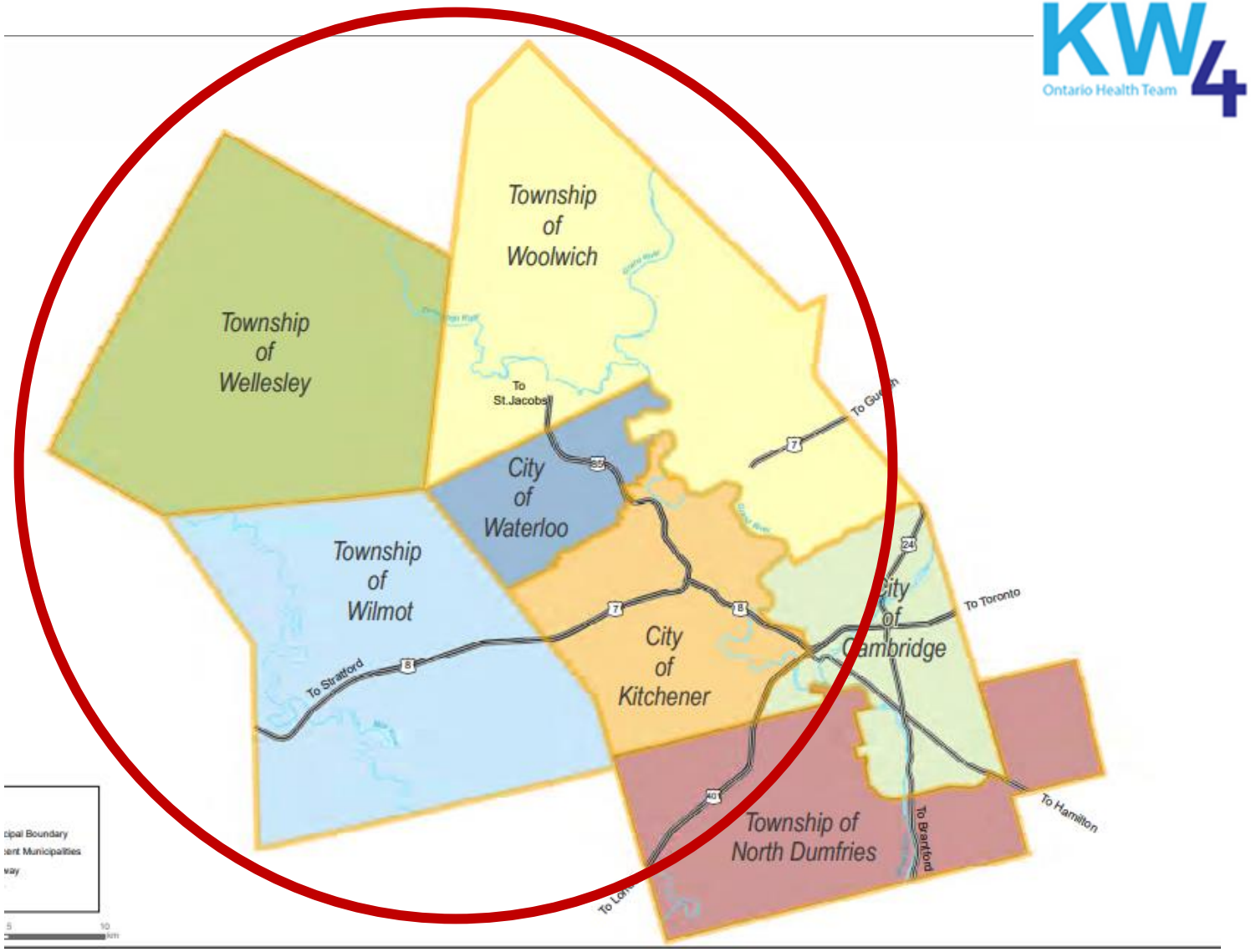
- Rural communities have higher proportions of older adults (65+); barriers to accessing health services in rural communities include transportation difficulties, social isolation and financial constraints (Goins et al., 2005)

https://regionalhealthprogramsww.com/Files/AUA%20Assess%20and%20Restore%20Year%202_Final%20Report%20April%202016.pdf

Primary Care:

- Over 245 primary care physicians serving the community
- 90% of physicians located in Kitchener and Waterloo
- Less than 20% of primary care providers work in models of care with interdisciplinary health team support

http://www.kw4primarycare.com/KW4-Region.htm

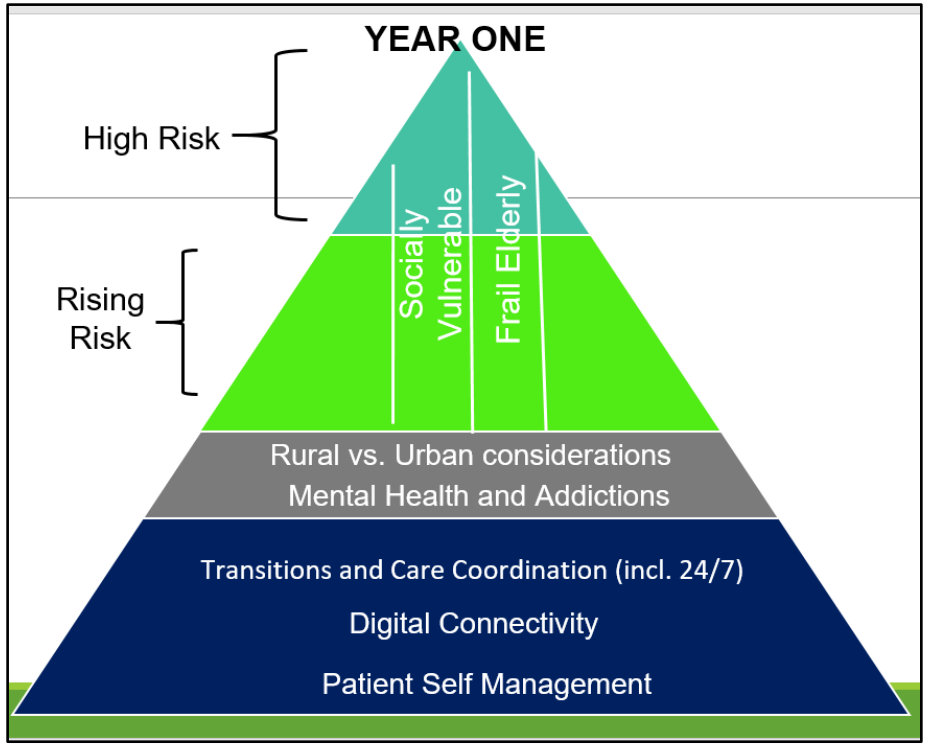


https://www.regionofwaterloo.ca/Modules/News/index.aspx?feedId=928b711d-2b23-416c-b47b-b674c929bab6,95abcc5b-2e79-4c15-9386-e36865f55f5a,ab159244-c732-45c7-b4c9-67b38b43eed5&newsId=353d93e9-d276-4d45-98ae-707deff3cd58

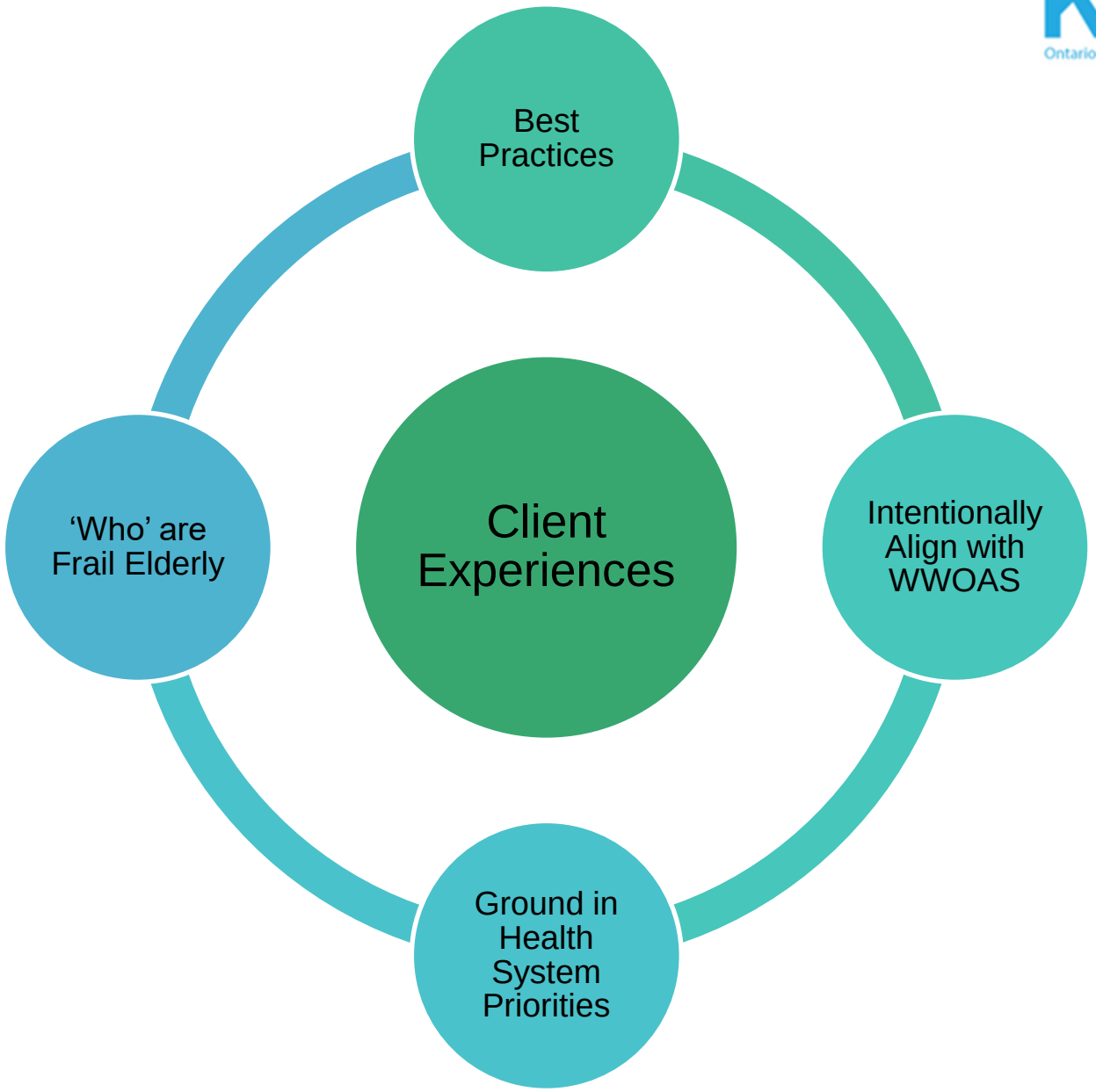
Frail Elderly Priority Population

- KW4 confirmed three patient populations: refugees, frail elderly, and those who are homeless
  - Overarching lenses of Urban-Rural, Mental Health, Home and Community Care, and Digital Enablement
- Frail Elderly Patient Population:
  - 15.8 % of the attributed population is over 65 years; projected to have over 100% growth in seniors over 2018-2046
  - More likely than others to experience chronic illness in the form of Dementia, COPD, CHF in addition to more concurrent or episodic care needs
  - Palliative and Dementia care costs are the largest of all HPG's accounting for 20% of all KW4 costs
  - Healthcare for Frail Elderly has been characterized by barriers to access, integration and transition challenges, and/or limitations in social determinants of health

Taken from KW4 OHT Full Application, Submitted September 18, 2020



How to get started?



Alignment with Health Care System Priorities

KW4 Ontario Health Team

- # older adults hospitalized for conditions better managed elsewhere
- Caregiver distress among home care clients
- Total expense/HPG population for frail elderly population (focus on dementia and palliative care)

Waterloo Wellington Older Adults Strategy

- Goal 3: Health System Capacity. Designed and coordinated in a way that realizes deep functional integration and the appropriate use of health resources to achieve optimal system capacity
- Goal 4: Collaboration and Coordination. Fully leverages and capitalizes on intra & intersectoral collaboration, offering a whole-of-community orientation to health

Senior Friendly Care Framework (RGP)

- Assessment be holistic and identify opportunities to optimize the physical, psychological, functional and social abilities of older adults
- An interprofessional model of care is preferred especially when older adults are frail
- Care is integrated and provides continuity especially during transitions

KW4 Ontario Health Team

There is ongoing research and conversation on frailty definition, concepts, and assessment.

The following principles will be used to guide our work, and build a shared understanding of the needs of older adults living with frailty and their caregivers.

In primary care, approx. 25% of adults 65+ are at risk for frailty (AUA 3-4), and 5-7% are frail (AUA 5-6) *https://regionalhealthprogramsww.com/Files/AUA%20Assess%20and%20Restore%20Year%202_Final%20Report%20April%202016.pdf*	Medical condition of reduced function and health in older individuals. Risk of becoming frail increases with age, but the two are not the same	Inactivity, poor nutrition, pain management, social isolation or loneliness, and multiple medications, etc. can all contribute to frailty	When frail, body does not have the ability to cope with minor illnesses which would minimally impact you if healthy. With frailty, these minor stressors may trigger rapid and dramatic deterioration	More likely to need hospital, LTC, or die when frail; experience chronic illness such as Dementia, COPD, CHF; concurrent or episodic care needs	Holistic and integrated approaches that recognize entire person; offered in a coordinated and caring manner with recognition of socio-economic factors	Impact of frailty on a person's health trajectory not well understood; frailty should be considered and managed as a chronic condition	Mental health and addictions can contribute to early onset of frailty, and similarly frailty can impact an individuals mental health or well-being.	Functional ability is a key consideration as it correlates with multi-morbidity

KW4 Ontario Health Team

Guiding Principles

Transitions

Focus on Person, not Programs

Embed in Existing Systems

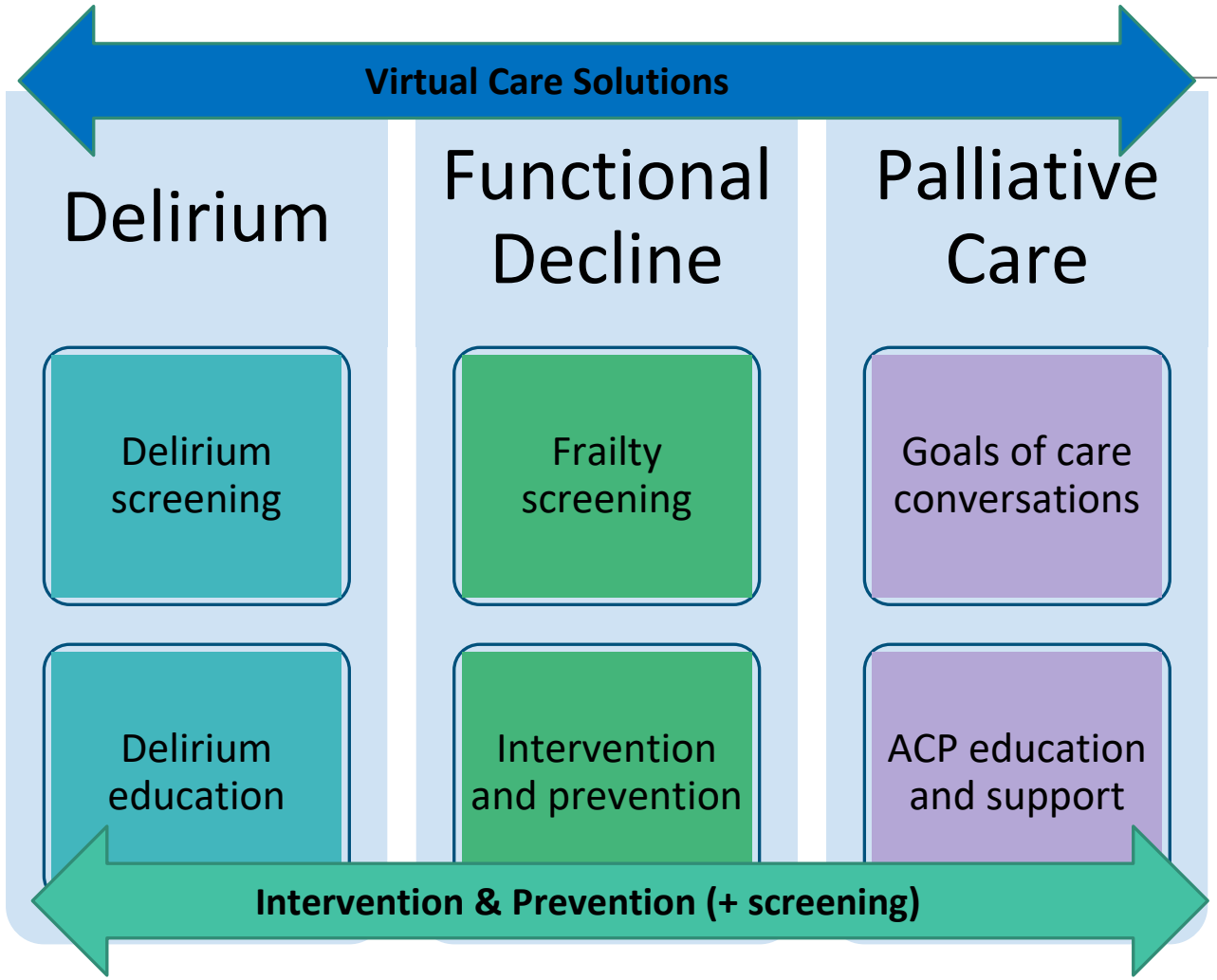
Senior Friendly Care Approach

Information Sharing Improvements

Ongoing Transformational Education

“How Are Stories Being Told?”

System Level Approach



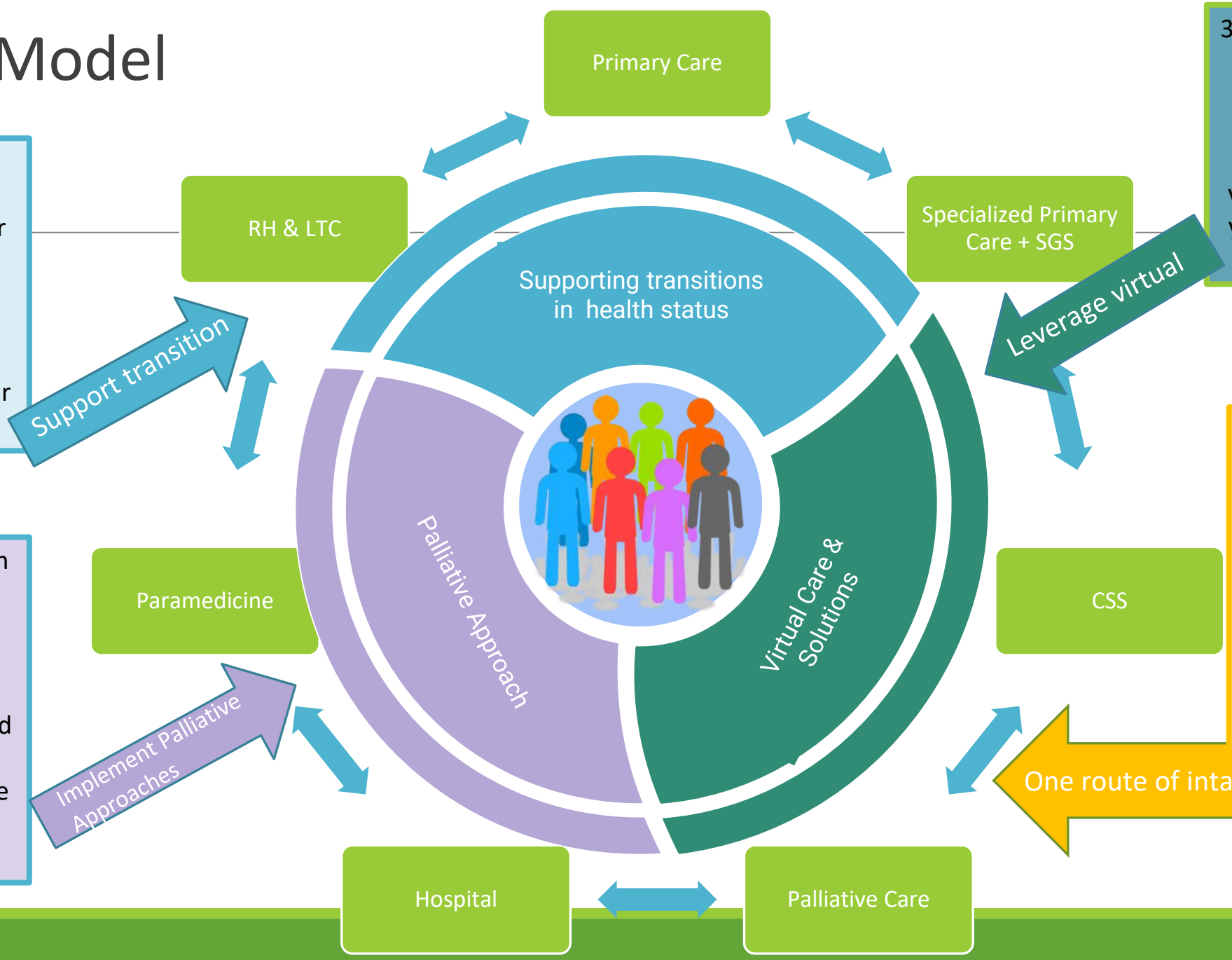
Demonstrated through Year 1 Projects

- Best Care COPD
- KW Paramedicine Program
- Geriatric Med + Psych
- Complex Care Program (New Vision)
- Rural Expansion of Regional Memory Clinic

Working Model

1. Transitions in healthcare and/or status (case finding for frailty instability) are supported by sfCare teams, which are staffed with clinicians from the system & year 1 projects

2. People living with an incurable illness can receive a palliative approach to improve quality of life. This should be implemented early, irrespective of time left to live, and be incorporated into all aspects of care.



3. Virtual & in-person visits are offered, virtual consults are available between care providers, and virtual solutions link year 1 projects/care providers together.

4. One central referral route for frail elderly through existing and expanded Central Intake. This route would note primary concerns, and not specific programs

KW4 Ontario Health Team

Quality Improvement Test Implementation Project

Purpose: Build new care pathways; Begin to align MINT Memory Clinics, Geriatric Medicine Clinic, SGS, and CSS (+ lay foundation for Geriatric Psychiatry)

Tasks: Wrap supports around clinics; Create new Integrated Care Teams in primary care; Embed palliative care, advanced care planning, and navigation; Develop digital solutions and supports

Target Population: patients on the waiting list for Specialized Geriatric Services

Timeline: Approx. 6 weeks

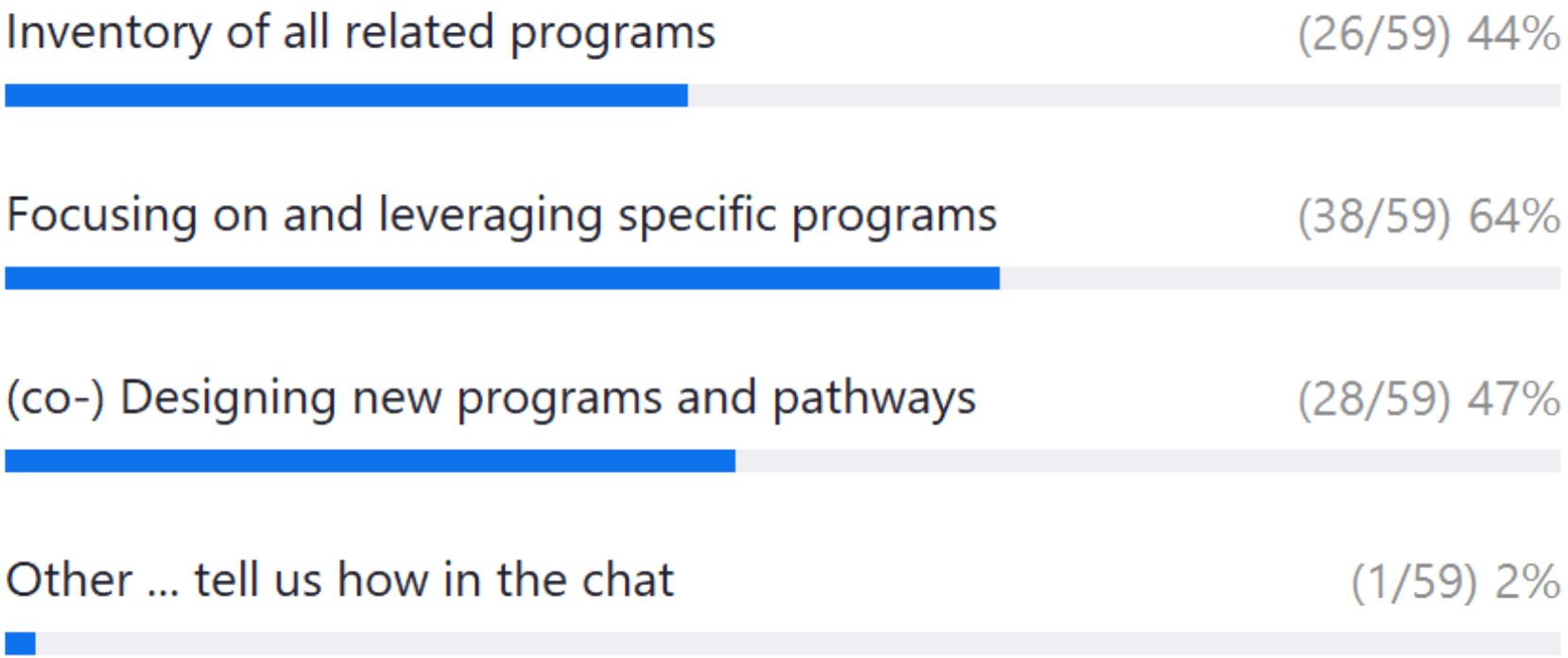
Alignment: Senior Friendly Care Teams; chronic care approach; grounds the care of the frail elderly in primary care; and quadruple aim

Thank you!

Poll 3

1. How are you working to match programs / interventions to meet population health needs? (Multiple Choice) *

59/59 (100%) answered



Discussion

How are you going about deciding upon and implementing programs to address the problems of your priority populations ?

Using the CIHI Population Health Grouper to Improve our Understanding of Population Health in the North Toronto

Darren Gerson and Holly Opara

Caregivers / Patients (People)

Primary Care Providers

Introduction

Darren Gerson
Sunnybrook Health Sciences Centre
Co-Chair of the NT OHT Quality Committee &
Vice President, Quality, Risk and Performance

Holly Opara
North Toronto OHT
Population Health Analyst, Quality
& Operations Committee

North Toronto Ontario Health Team (NT OHT)

Our Vision

Our vision is to become ***one connected system*** of health care for our attributed population

- This means working together to ***connect a complete continuum*** of care that meets the needs of local citizens
- In the eyes of our community, care will be simple to access, it will be coordinated, and providers will communicate as One Team
- We are committed to coordinating care around the people in need of care

Our Partners

Baycrest

LOFT

Primary Care Providers

Sunnybrook HEALTH SCIENCES CENTRE

VHA Home HealthCare Creating More Independence

Vibrant HEALTHCARE ALLIANCE

Caregivers / Patients (People)

Ontario

SPRINT Senior Care

Unison Health & Community Services

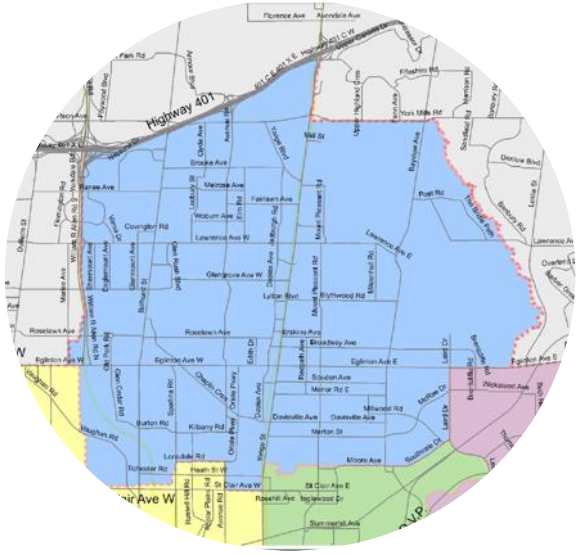
Health

NT OHT Attributed vs. Geographic Population

~187,000

Patients attributed to the North Toronto OHT

vs.



~230,000

Residents in North Toronto Sub-Region

(2016/17 data pulled from the CIHI Population Health Grouper in Intellihealth)

Using the CIHI Population Health Grouper dataset to segment the North Toronto Sub-Region

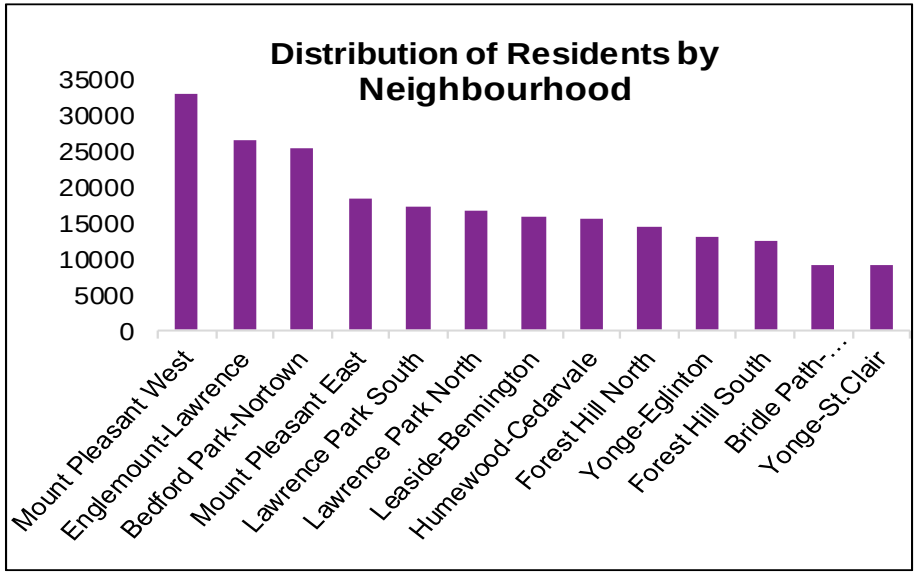
We used a segmentation approach to help answer key questions such as:

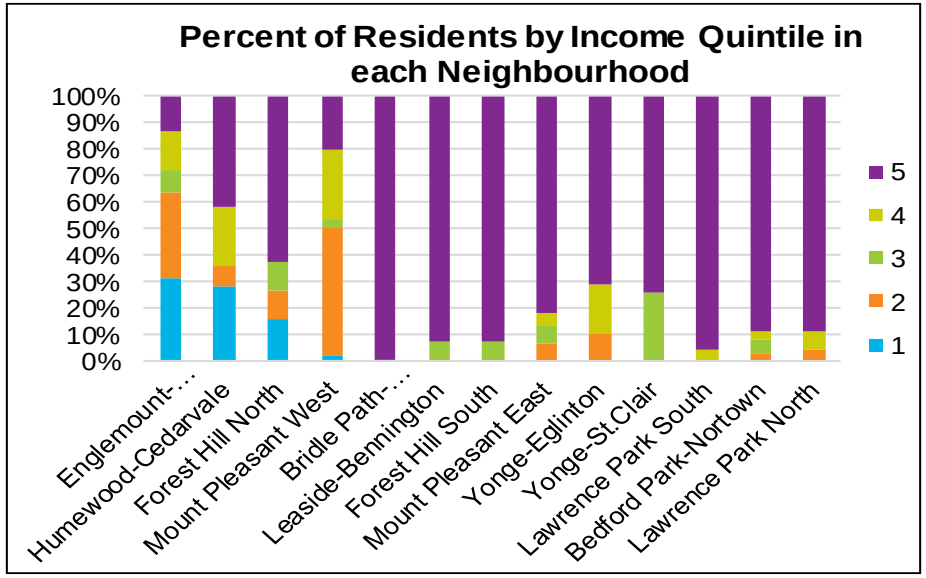
1. *Who accesses health care services?*
2. *What are the most common health care conditions?*
3. *What are the future health care needs of residents based on cost?*
4. *Are there specific priority populations that require unique partnerships and services?*

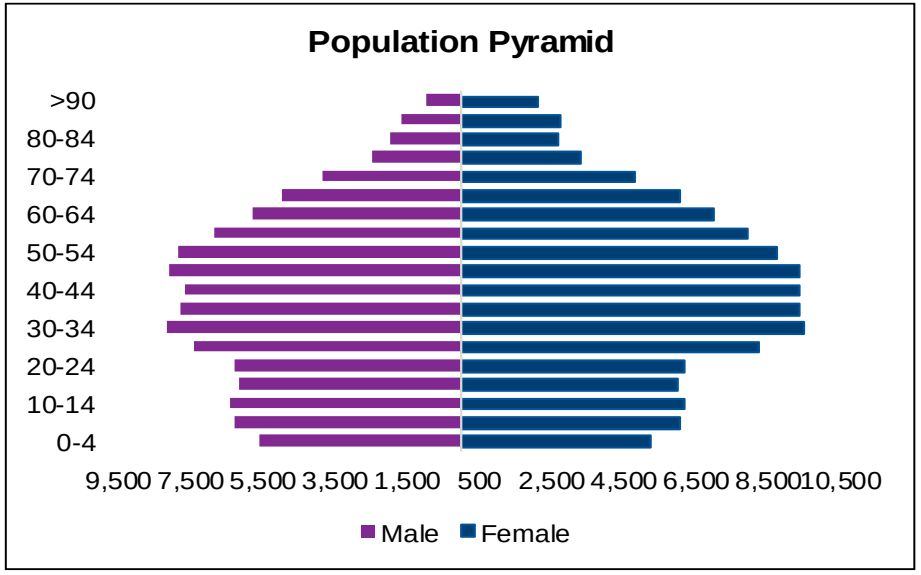
Our Segmentation Approach

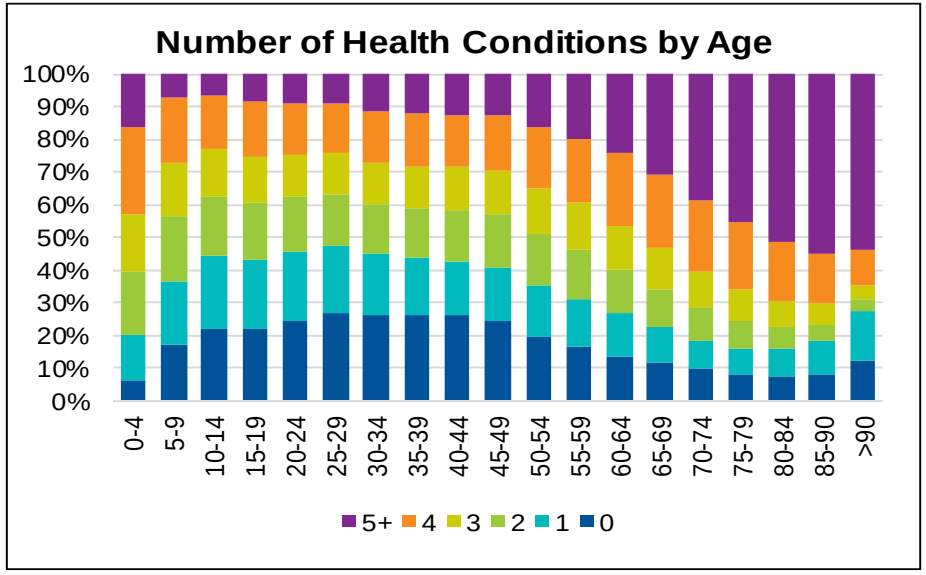
1. **Demographics**
   - Age (5 year increments)
   - Sex (Female; Male)
2. **Geography**
   - Postal codes
   - FSA
   - Neighbourhood (per sub-region boundaries)
3. **Equity**
   - Income Quintiles
4. **Users and Non-Users**
   - Health Profile Groups (HPGs) according to usage
5. **Health Condition**
   - Health Profile Groups and Categories
6. **Current and Future Costs**
   - Health Profile Groups and Resource Intensity Weights (RIW)

Segmenting by Demographics, Equity, and Geography

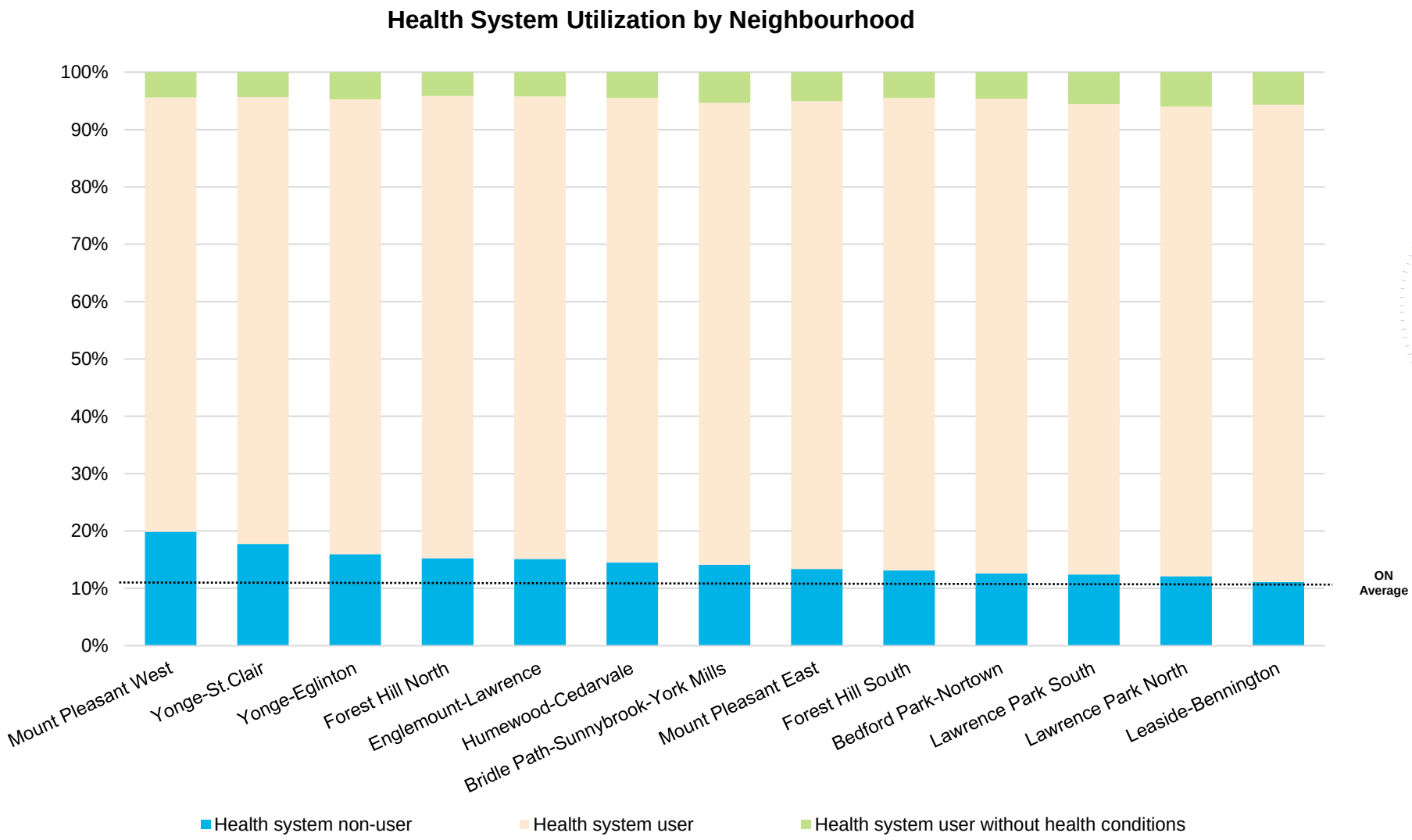








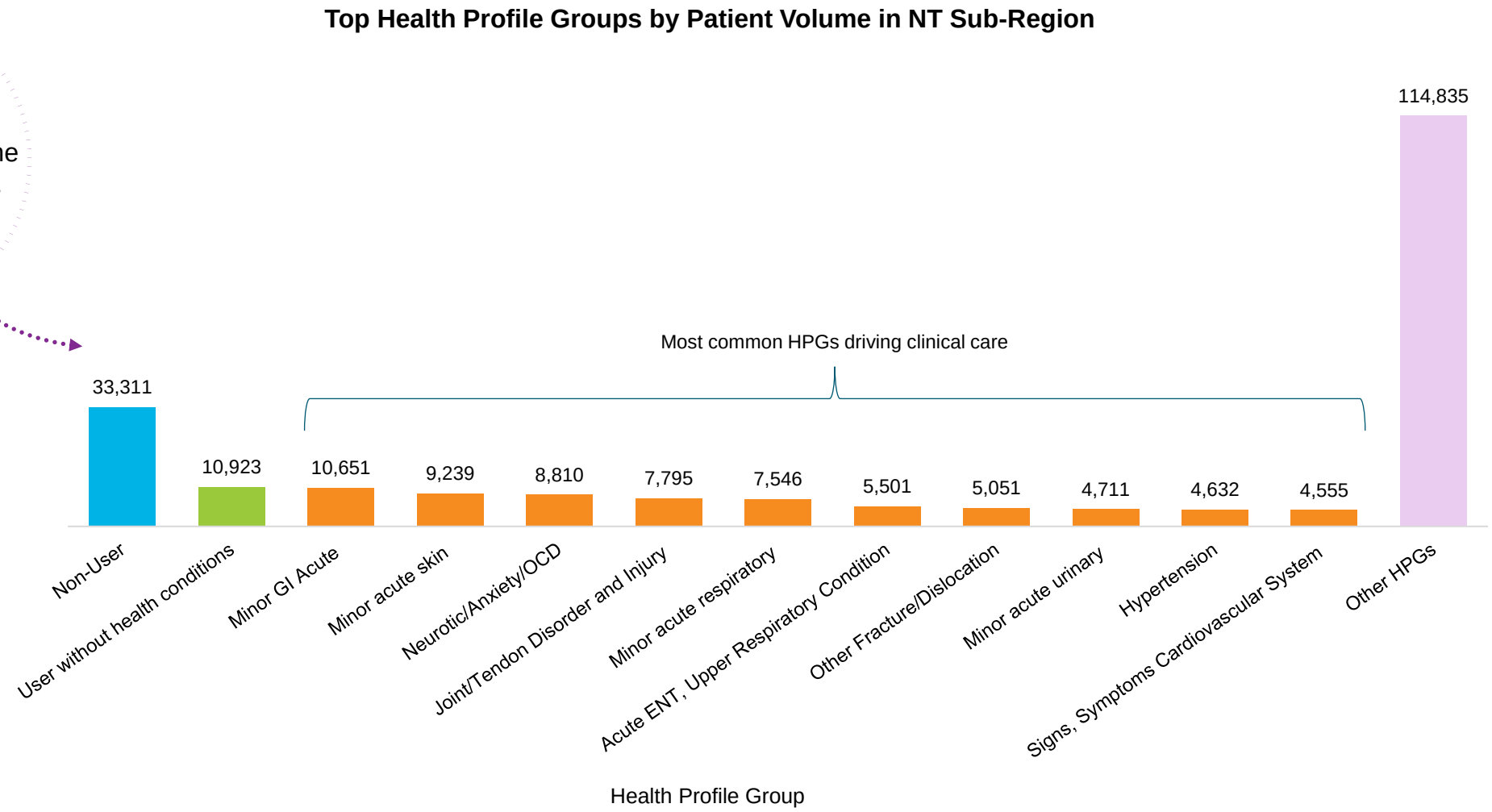
Segmenting by User and Non-Users



Non-users account for 15% of North Toronto residents, compared to 11.6 % across Ontario.

Segmenting by Health Condition

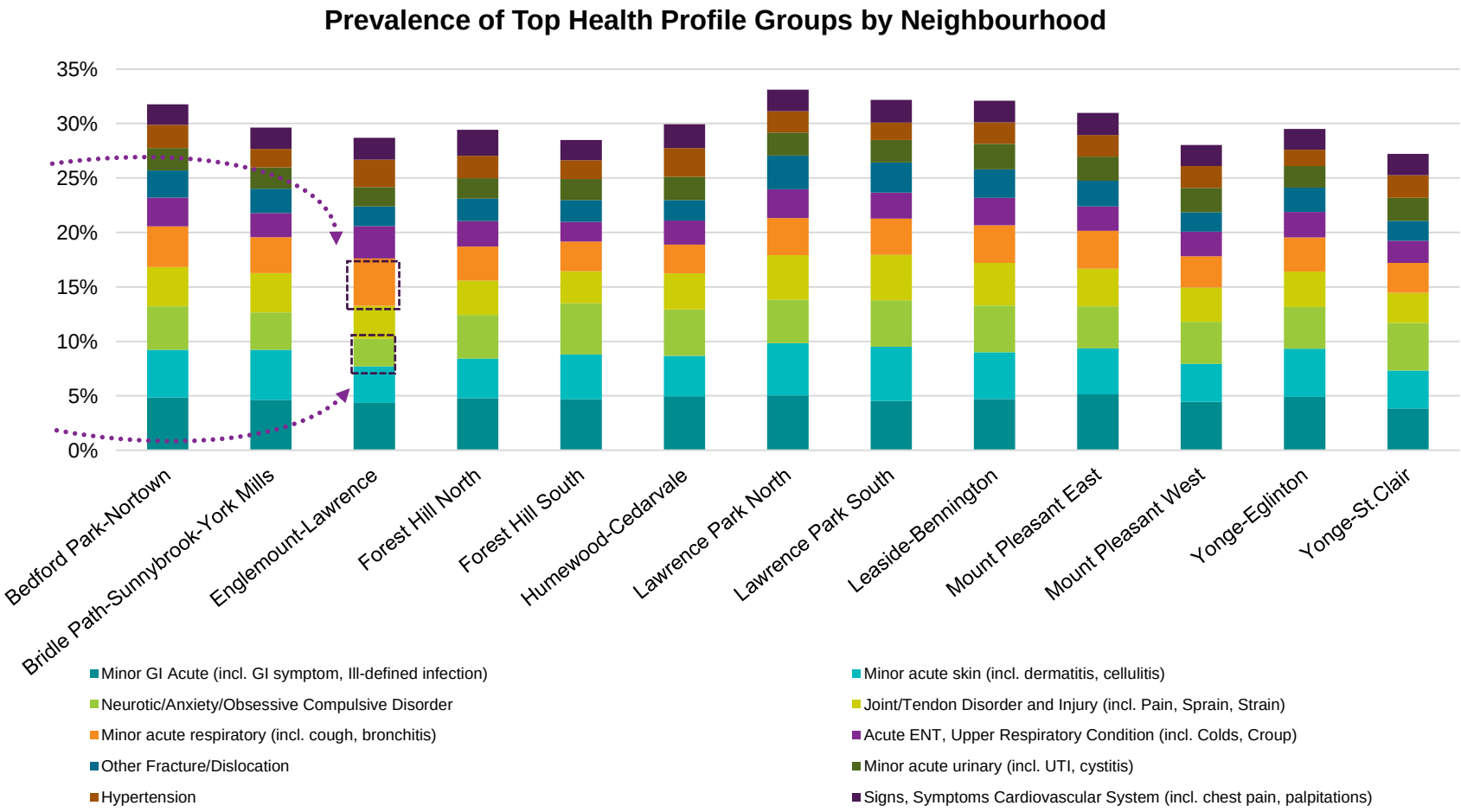
30% of North Toronto residents have one of the top HPGs driving their clinical care



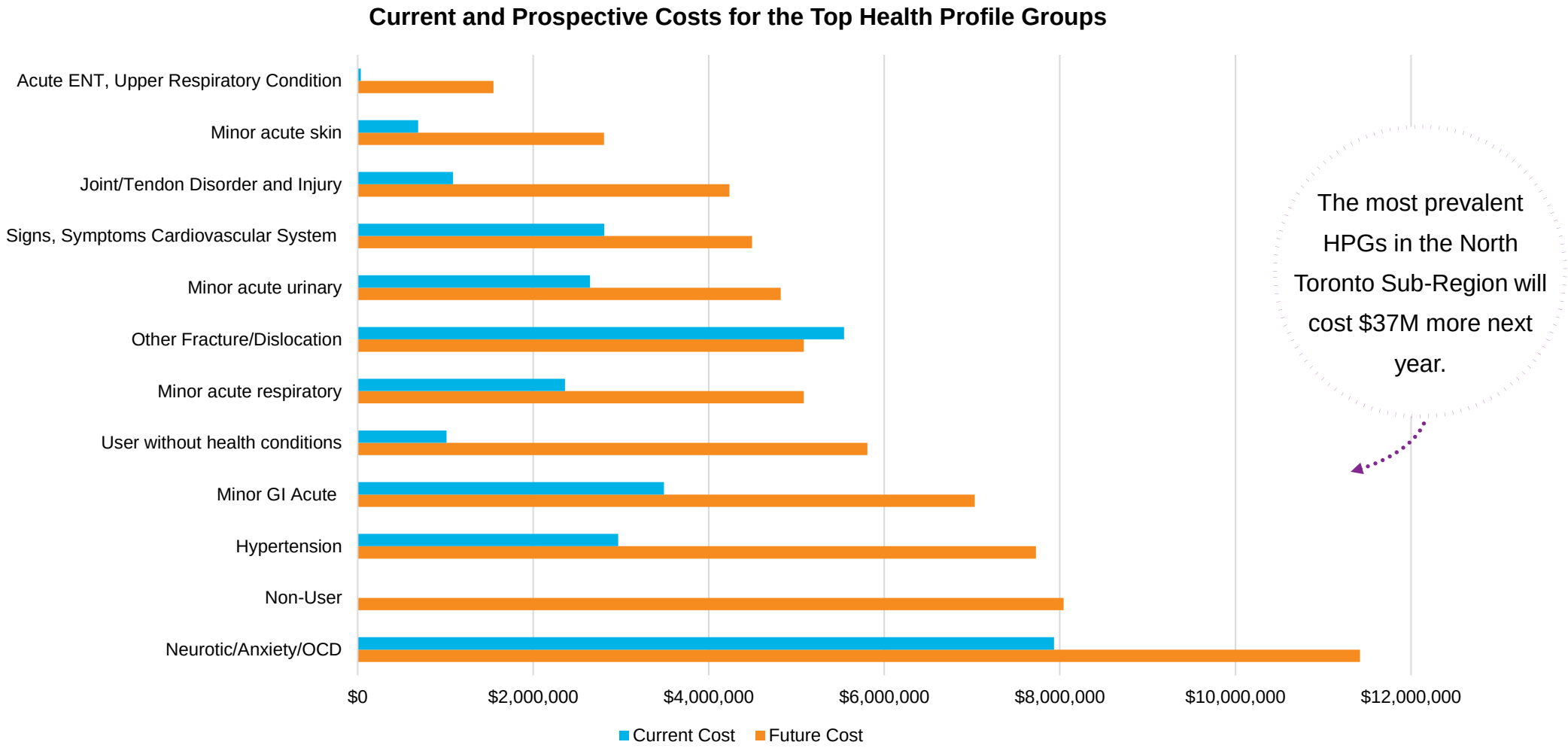
Segmenting Health Conditions by Neighbourhood

Englemount Lawrence has the highest prevalence of **Minor Acute Respiratory** (4.3% vs. 3.25%)

Englemount Lawrence has the lowest prevalence of **Neurotic, Anxiety, and OCD** (2.5% vs. 3.95%)



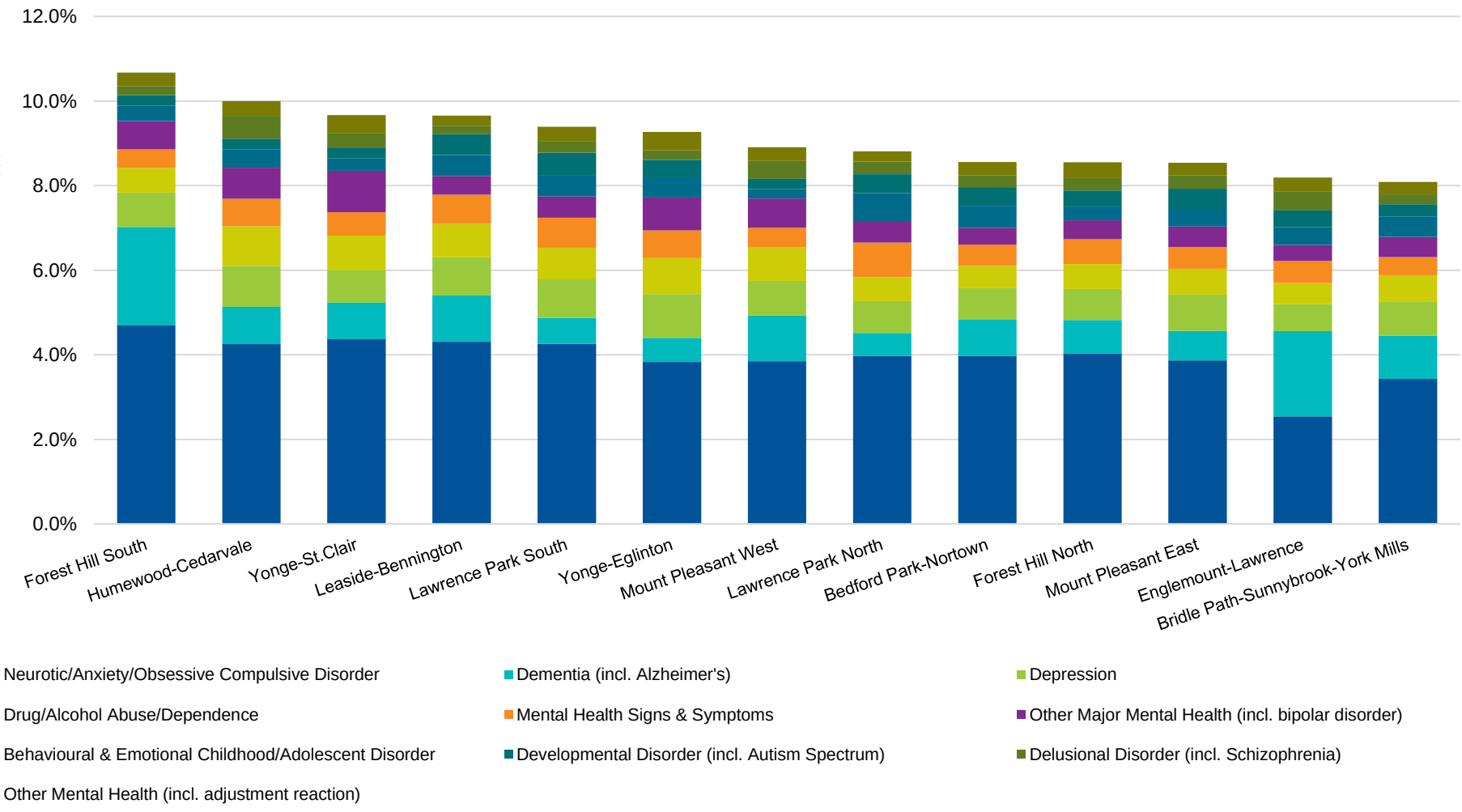
Segmenting Health Conditions by Costs



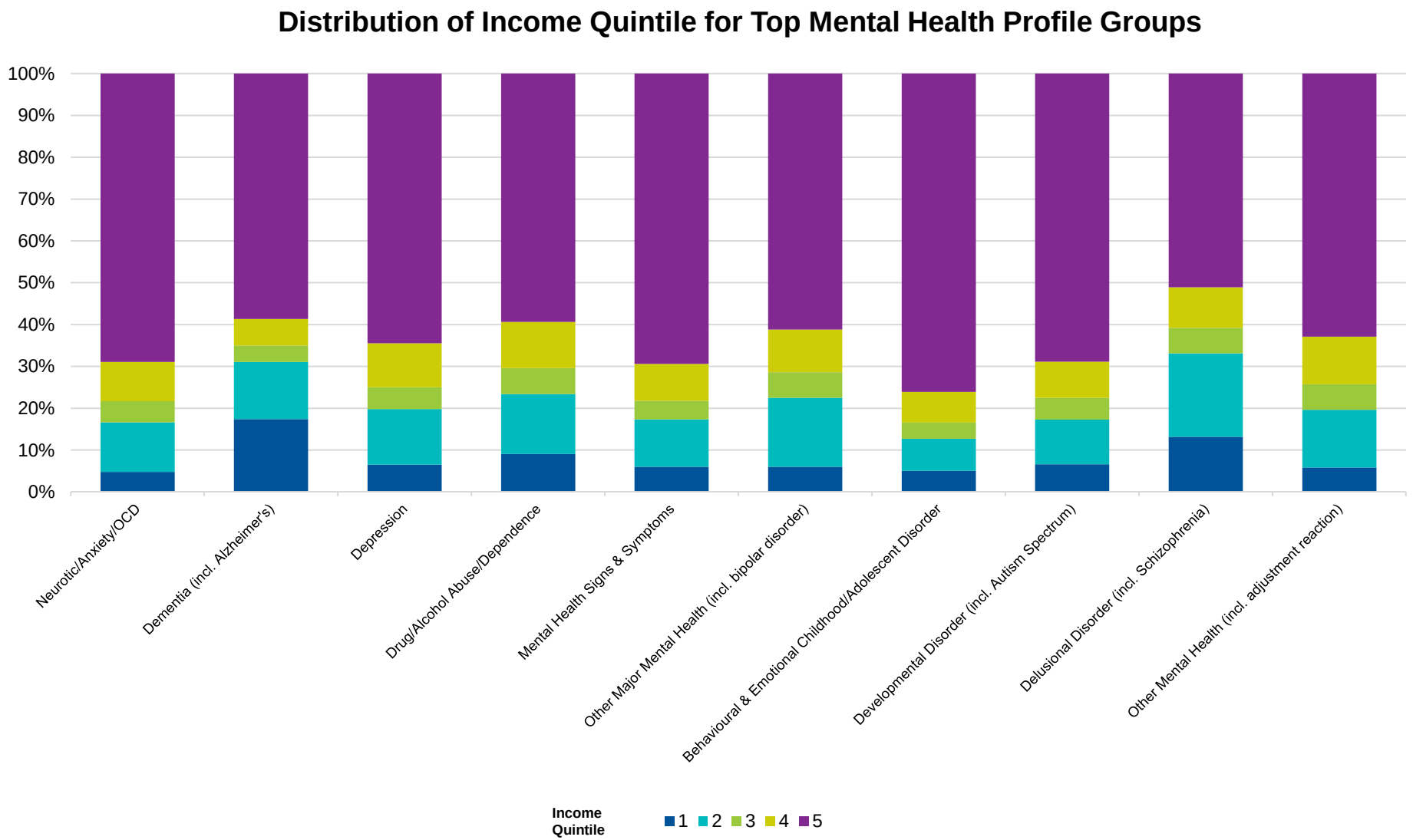
*Note: Costs are noted on an annual basis.
**Analysis is only directional – gives insight into future care needs and cost drivers

Segmenting Specific Health Conditions by Neighbourhood

~20,000 residents (~9% of all NT sub-region residents) have a MH&A condition driving their clinical care



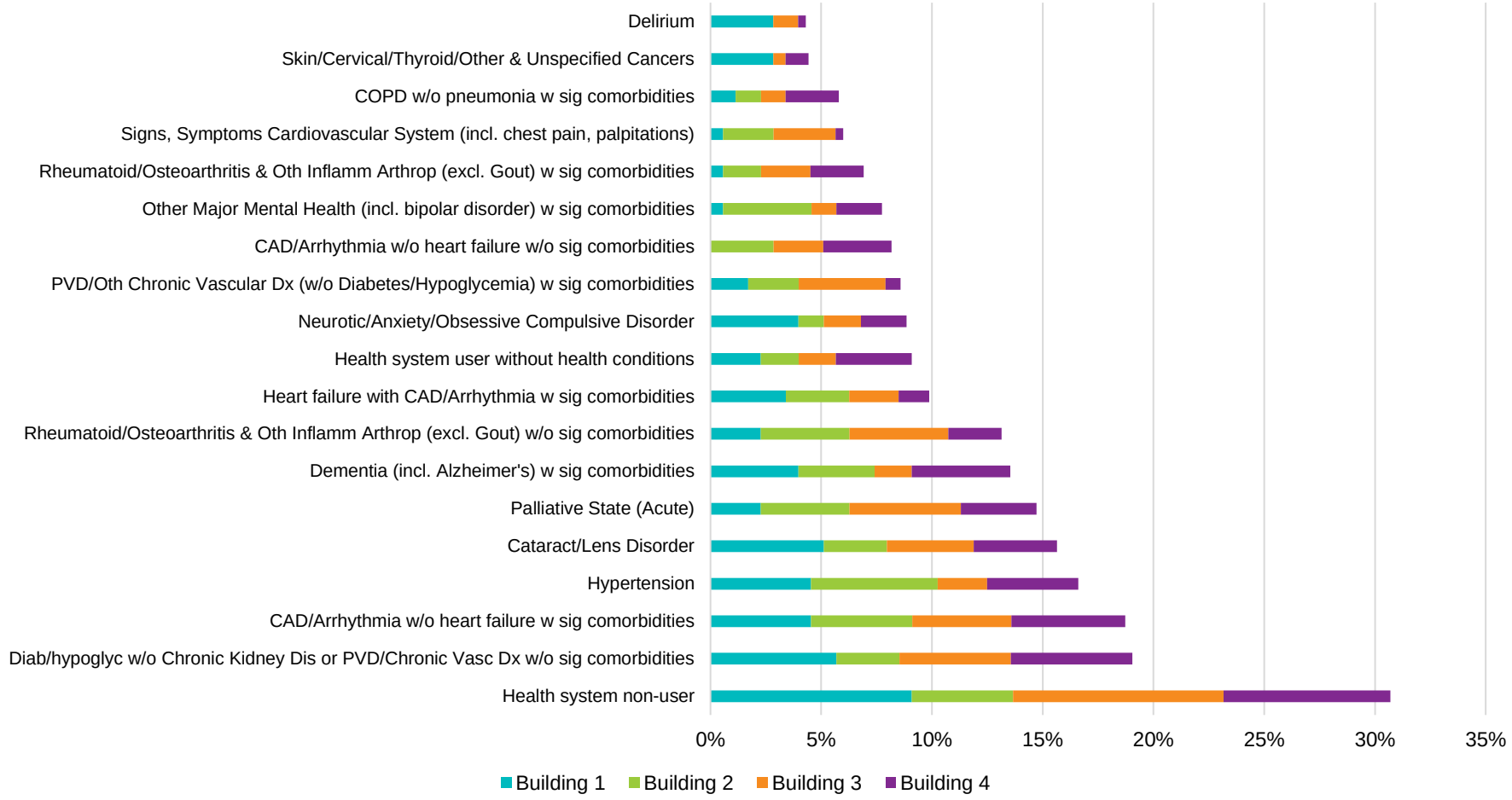
Segmenting Specific Health Conditions by Income Quintile



Higher rates of **Dementia** in residents who are **most deprived**, whereas there are **higher rates** in **Behavioural & Emotional Childhood/Adolescent Disorder** in those who are **least deprived**.

Segmenting Health Condition by Unique Postal Code

Prevalence of Top Health Profile Groups by Proposed Neighbourhood Care Team Buildings*



While there is overlap in HPGs, the **prevalence of these conditions varies by building** and may require specifically tailored interventions.

* Postal code level data is available through Intellihealth. Each building is represented by a single postal code.

Key Learnings

Using the CIHI Population Health Grouper dataset has enabled our OHT to:

- ✓ Identify **overall health trends** in the North Toronto sub-region;
- ✓ **Understand specific priority populations** in alignment with our OHT areas of focus, including identify hyper-local areas that could benefit from targeted interventions and partnerships (e.g. neighbourhood care teams);
- ✓ **Complement our analyses with other data** (such as hospital data) to create a more robust view of health care utilization within specific populations or neighbourhoods; and,
- ✓ Foster conversations within our Operations Committee to help affirm what our frontline providers are experiencing and to **use data to help inform future planning needs** (e.g. collaborative QIP).

Future Data and Analytics Needs

To complete a robust analysis of our attributed population using the CIHI Population Health Grouper dataset, OHTs require:

1. Access to up-to-date data; and,
2. Creation of a flag in IntelliHealth that assigns each Ontario resident to an OHT (in a de-identified manner).

Additionally, in order for OHTs to become successful *population health managers,* OHTs require:

1. The ability to independently analyze our own data;
2. Clarity on data sharing across the system, including primary care partners; and,
3. Creation of solutions to enable OHTs to understand the health care interactions of our attributed population when they access care outside their OHT network.

Poll 4

What sources of data are you using to segment your population / identify important subgroups ?

- Local data from health providers (primary care, hospital, home and community etc)
- Primary data collection (surveys etc)
- IntelliHealth Ontario
- Integrated Decision Support (IDS)
- Other … describe in the chat

Discussion

What kinds of data sources and measures are you wanting to use to monitor and report on for your priority populations ?

Up Next:

HSPN Webinar Series

- 4th Tuesday of the Month: 12:00 – 1:30pm

Upcoming Topics:

Series in Population Health Management

- Segmentation: Examples in OHTs
- Understanding chronic disease management (e.g. diabetes)

Series in Learnings from OHT Development

- Early learnings from OHTs in Developmental Evaluation
- Patient and Provider Surveys
- Organizing for Ontario Health Teams survey 2.0

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THANK YOU!

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