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# RISE population-health management:

## Overview of core concepts, principles and RISE supports for OHTs

**January 21, 2021**


Dr. Robert Reid, RISE Co-lead

**Hazel McCallion Research Chair in Learning Health Systems**

**Chief Scientist, Institute for Better Health, Trillium Health Partners**

Guest presentations from:

**Georgia Whitehead,** Mississauga OHT

Director, Strategy Management and Major Projects, Trillium Health Partners

**Ruth Hall,** Co-Lead, Health System Performance Network

Ministry Lead, Institute for Clinical Evaluative Sciences (IC/ES)

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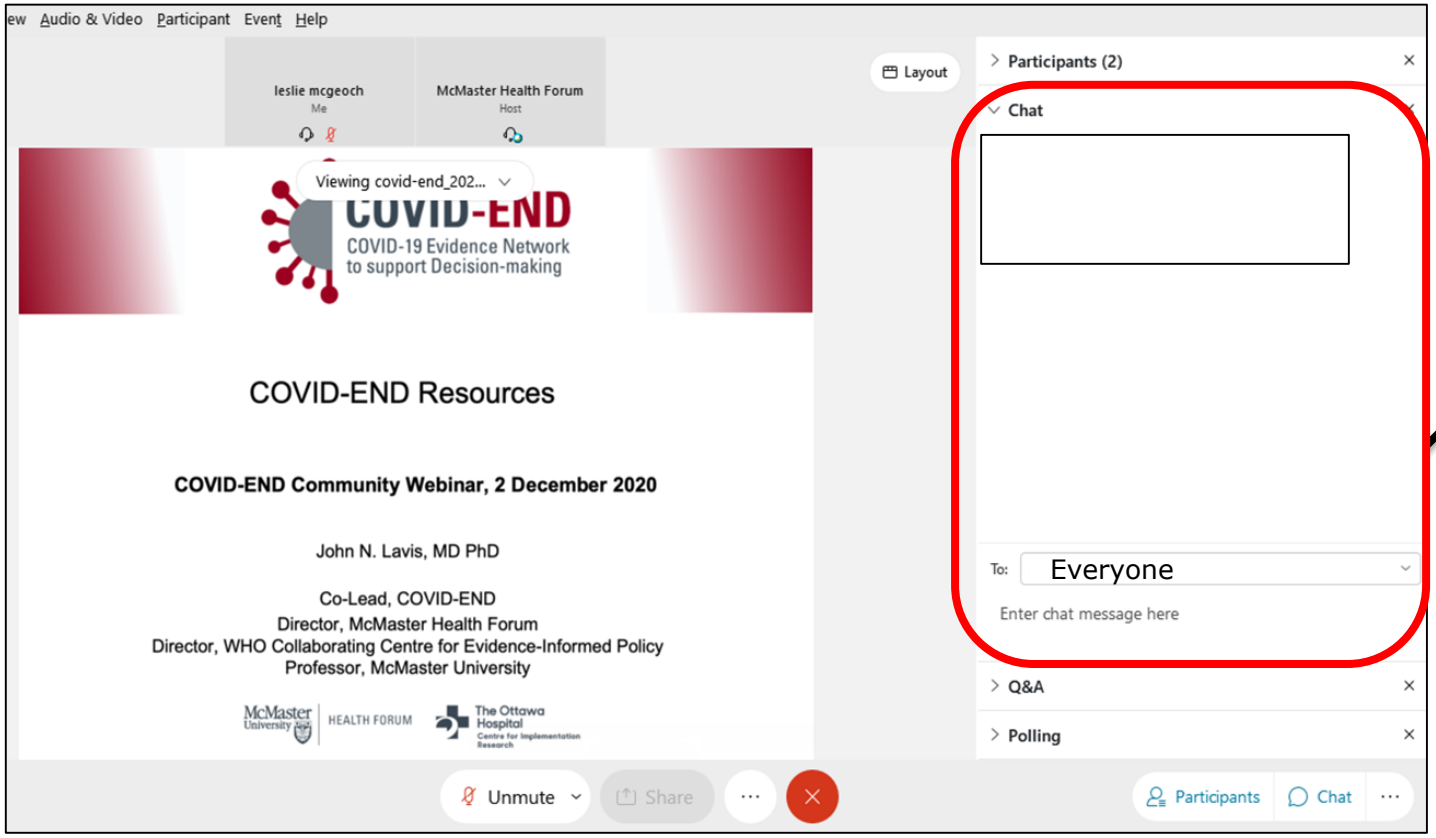
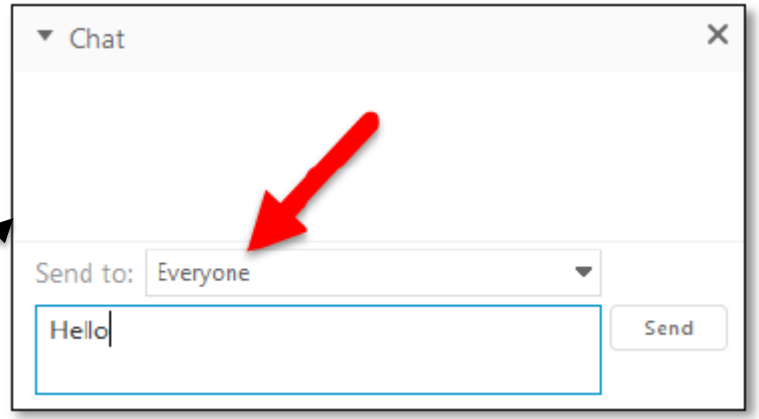
# Welcome!

In the chat box, please select "everyone" tell us your name and your organization/OHT




You can also follow us on twitter @ OHTrise to learn about upcoming events and to post about population-health management!

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# Land acknowledgement

*“As we meet here today, we are in solidarity with Indigenous Peoples of Turtle Island and would like to begin by acknowledging that the land on which we gather is part of the Treaty Lands and Territory of the Mississaugas of the Credit, and before, the traditional territory of the Haudenosaunee, Huron and Wendat. We also acknowledge the many First Nations, Inuit, Métis and other global Indigenous Peoples who now call this area their home. We are grateful for the opportunity to be working on this land”.*

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# Today's webinar

## Purpose

- Develop awareness of RISE's population-health management supports for OHTs
- Review concepts and principles underlying population-health management
- Create a place for an OHT to share their learnings, successes, challenges

## This session helps support OHTs in achieving the following OHT TPA milestones

- Re-designing care for patients in your priority population(s)
- Helping every patient in your priority population(s) to experience coordinated transitions between providers

Hosts

**Leslie McGeoch,**
RISE Focal Point

**Steven Lott,**
RISE Communications Lead

Presenters

**Dr. Rob Reid,**
RISE Co-Lead

**Georgia Whitehead,**
Mississauga OHT

**Ruth Hall,**
Health System Performance Network

# RISE will be providing three main supports for population-health management (PHM)


1

## Webinars

**What:** foundational PHM concepts and principles

**Who:** open to all

**When:** monthly (1hr)

2

## Coaching sessions

**What:** one on one PHM coaching

**Who:** OHT admin leads/priority population working group lead

**When:** bi-weekly (1hr -OHTs decide with coach)

3

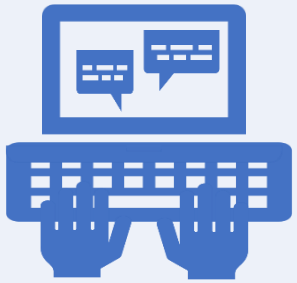
## Virtual collaborative meetings

**What:** facilitated discussion by priority population to share learnings and solve problems with other OHTs and coaches

**Who:** OHT admin leads/priority population working group lead

**When:** monthly (1.5 hrs.)

## Online PHM collaborative discussions



**What:** by priority population, share learnings and solve problems together as a group

**Who:** OHT admin leads/priority population working group lead

**When:** anytime

**Where**: OHT Collaboratives https://quorum.hqontario.ca/oht-collaboratives

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# Introducing the population-health management (PHM) coaches

**Mike Hindmarsh**

**Connie Davis**

**Christina Clarke**

**Christina Southey**

**Lorri Zagar**

Helping OHTs by facilitating change, offering improvement techniques and connecting to key resources

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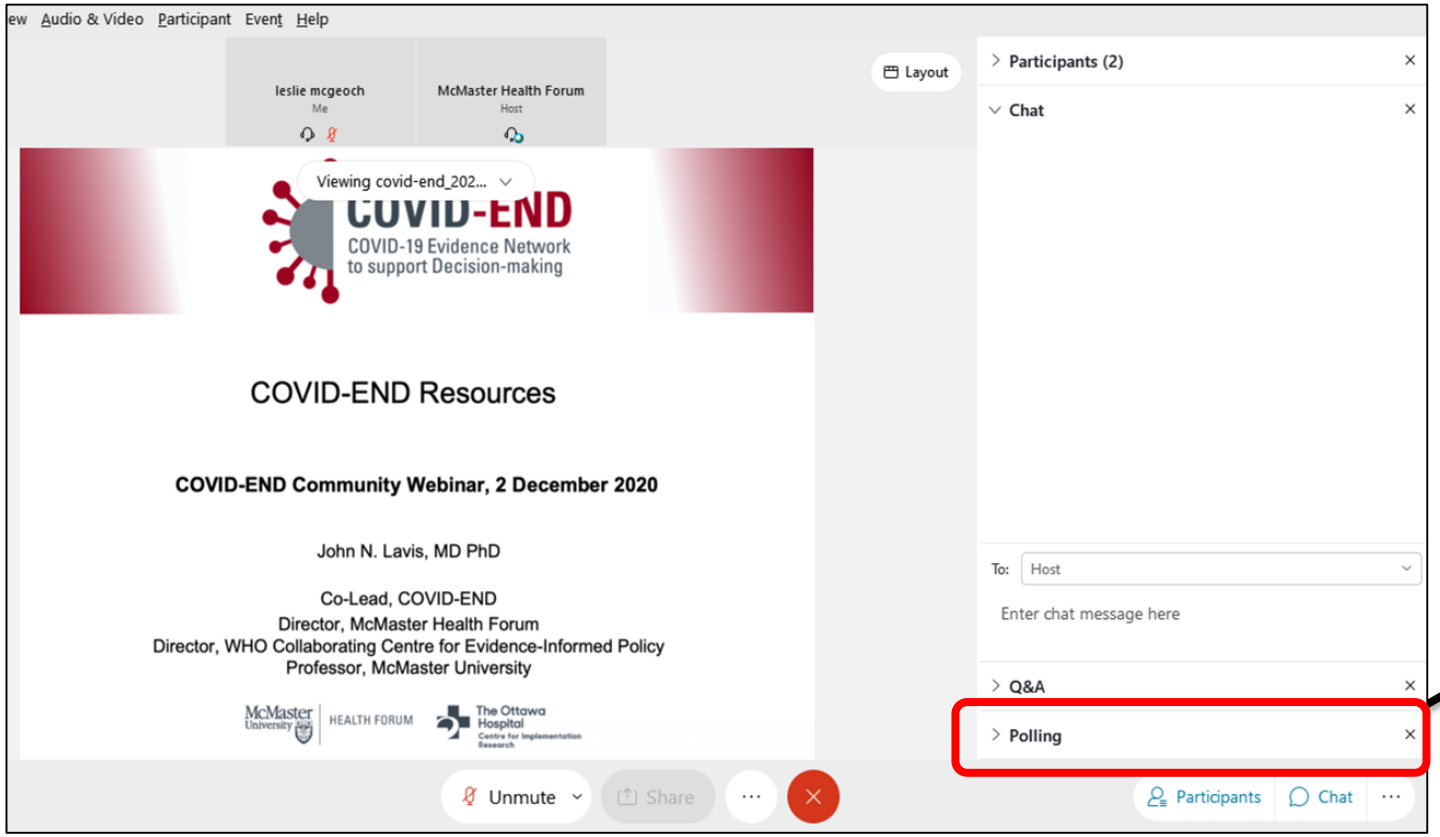
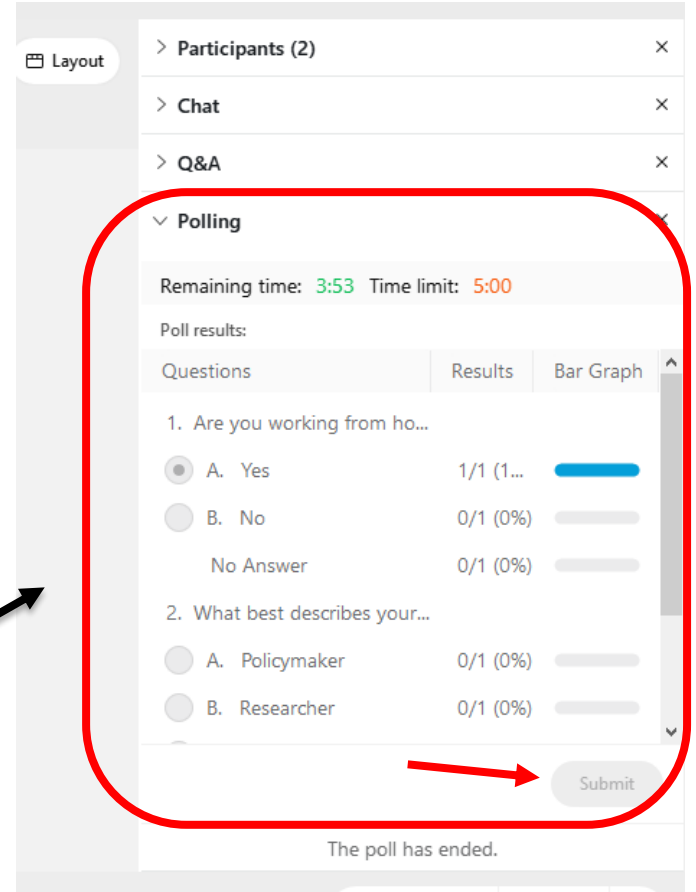
# Poll

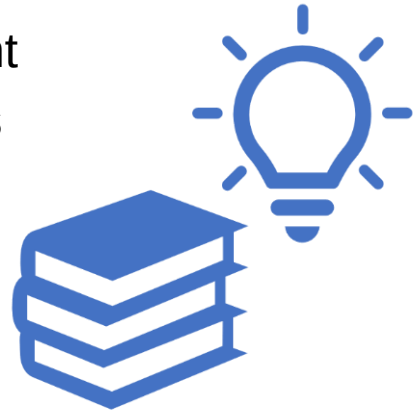
- **Question 1**: Please rate your level of familiarity of population-health management concepts
(1- being low and 5 being high)



# Today's population-health management learning objectives

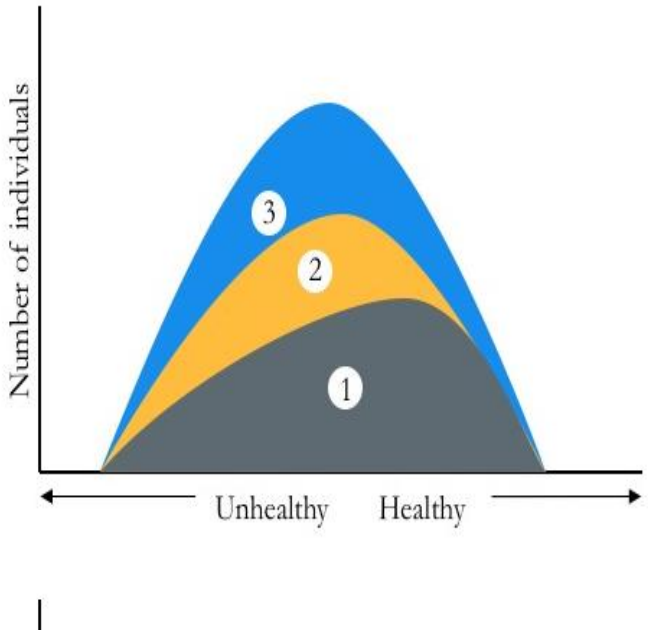
1. Understand the concepts and principles of population health management
2. Understand the steps to design population health management programs
3. Understand how to apply these steps for COVID-19



This session helps support OHTs in achieving the following OHT TPA milestones:

- Re-designing care for patients in your priority population(s)
- Helping every patient in your priority population(s) to experience coordinated transitions between providers

# Recall the “3 Curves” of Population Health




## ❶ 1st Curve – Care for Acute Health Problems

- Timely access to high-quality acute care services (e.g., stroke care)
- Reacts to acute health needs ‘one-by-one’

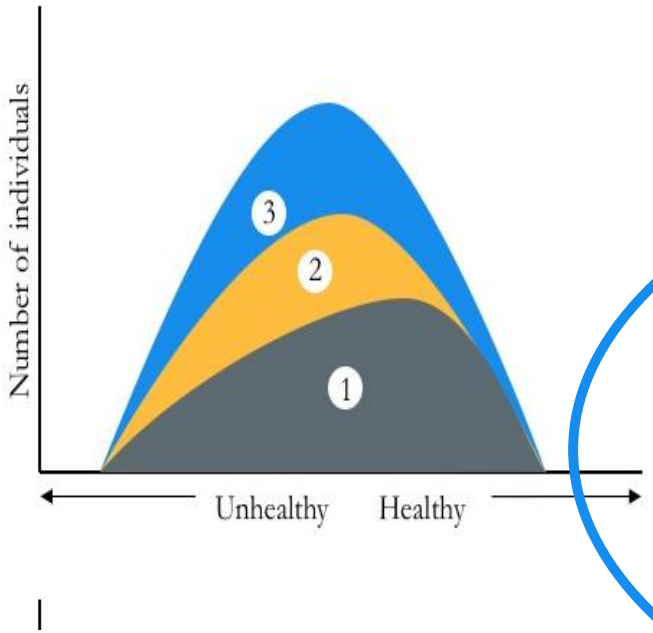
## ❷ 2nd Curve – Clinical Population Health Management

- Proactive management of health risks & ongoing conditions
- Focus is on all individuals with risks & conditions (users & non-users)
- Apply “good clinical care” consistently to everyone with common needs
- Uses an equity lens & addresses barriers

## ❸ 3rd Curve – Population-based Policies & Interventions

- Focus is  on non-medical determinants of health
- Oriented longitudinally over the lifespan across large populations
- Health care community’s role can be to provide, facilitate or advocate

# Recall the "3 Curves" of Population Health




## ❶ 1st Curve – Care for Acute Health Problems

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- Reacts to acute health needs 'one-by-one'

New focus of OHTs

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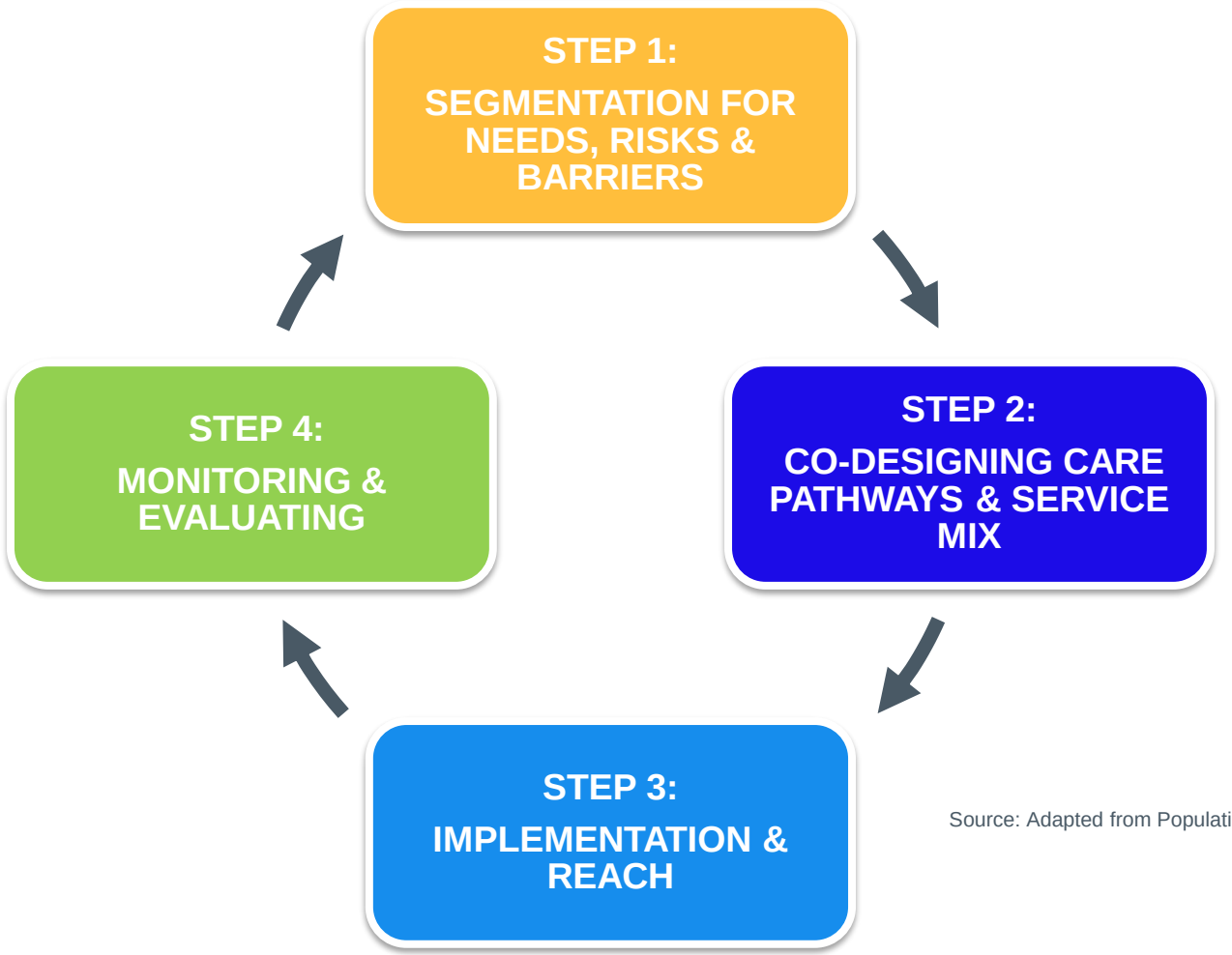
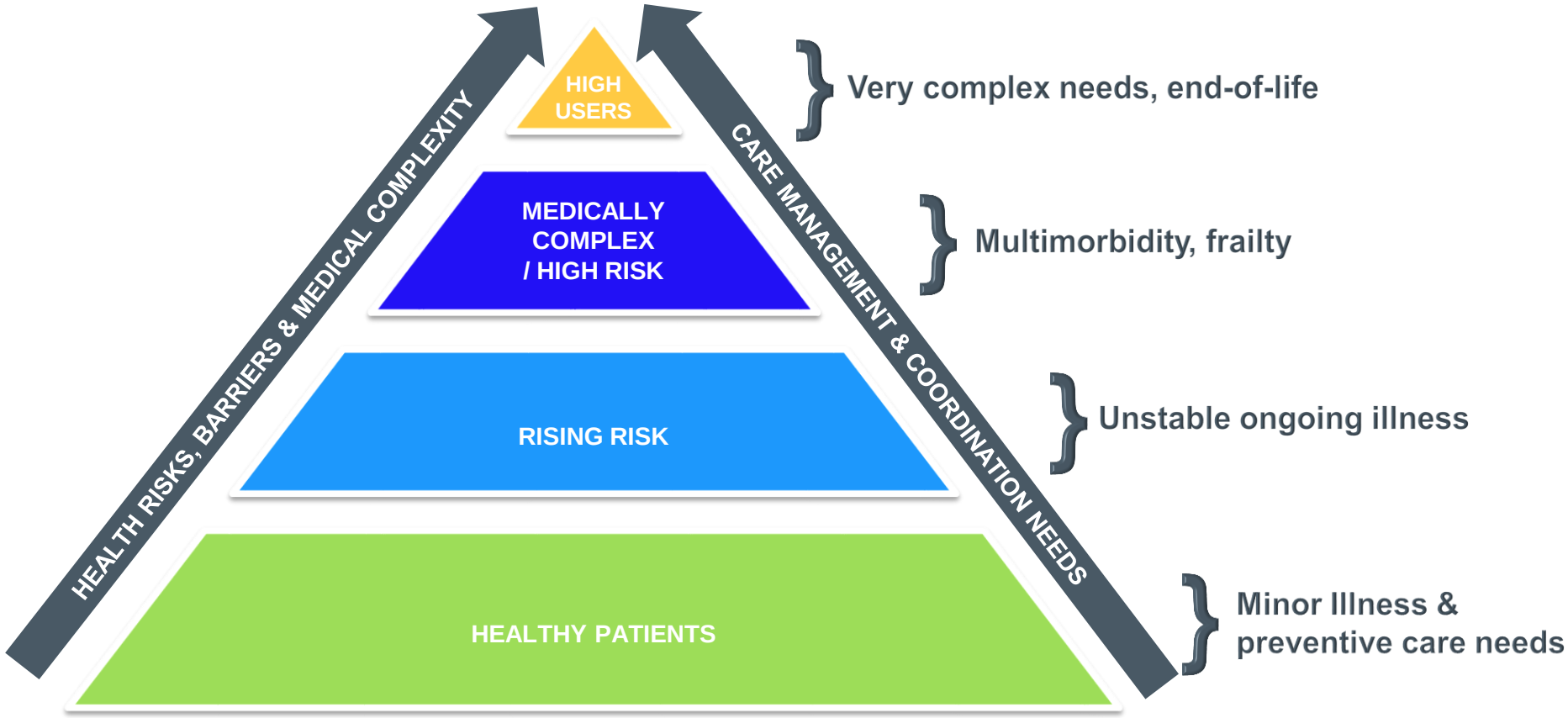
# Recall the 4 steps of Population Health Management




Source: Adapted from Population Health Alliance, 2012

# Step 1: Using Data for Segmentation & Understanding Risks/Barriers



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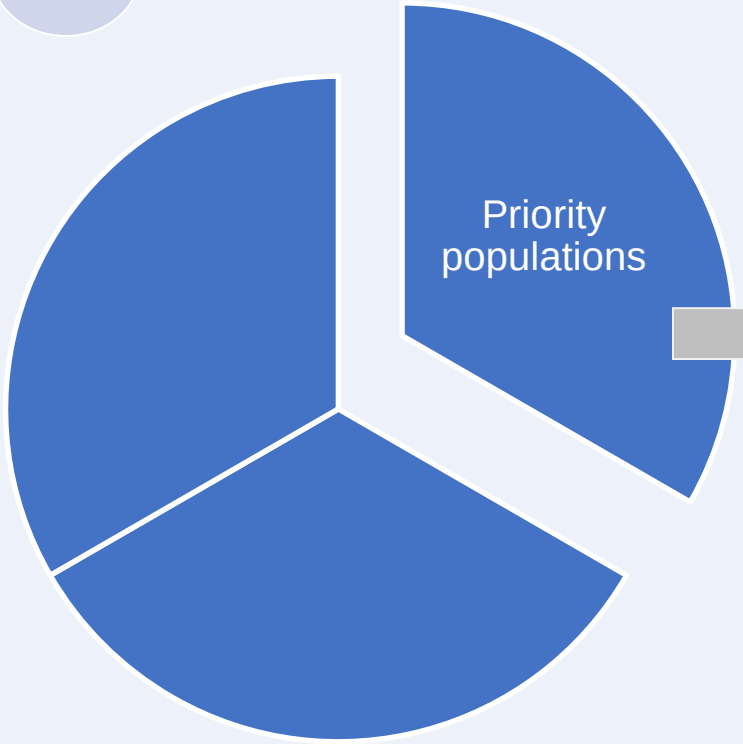
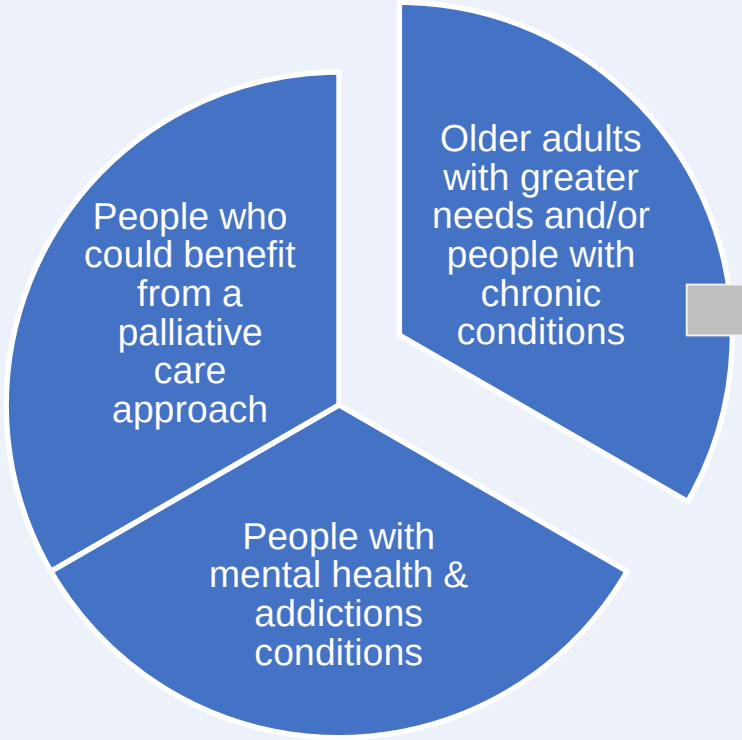
# Population segmentation

## 1 Attributed Population



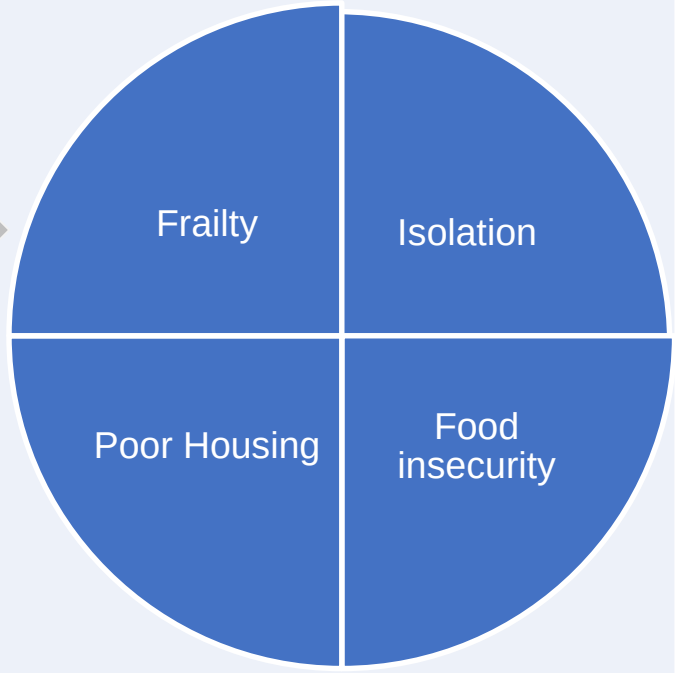

First step is to segment **ATTRIBUTED** population into priority populations

## 2 Priority Populations



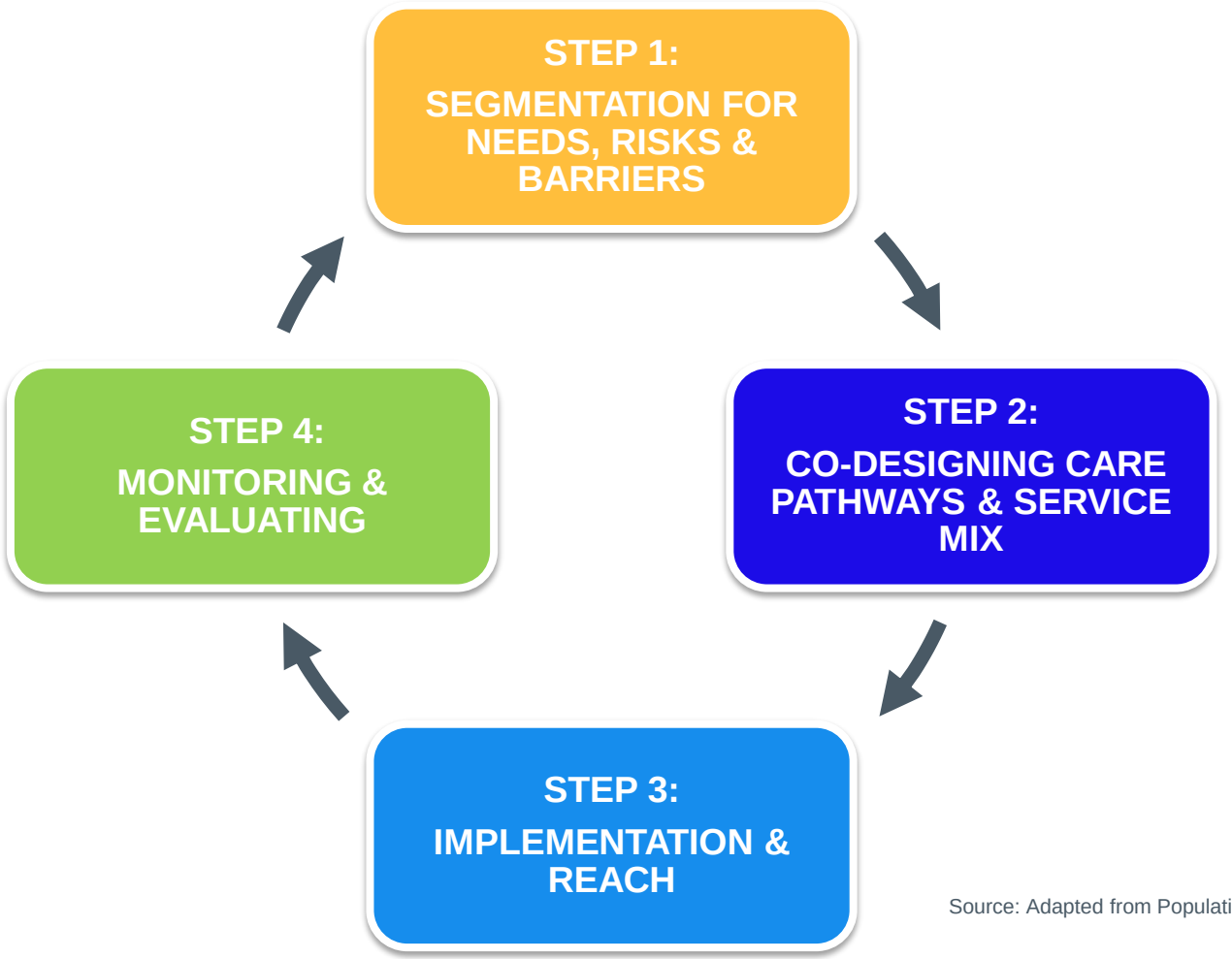

2nd step is to segment your **PRIORITY** population in groups with common needs

## 3 Risk Factors/Barriers




3rd step is to characterize sub-populations on key risks

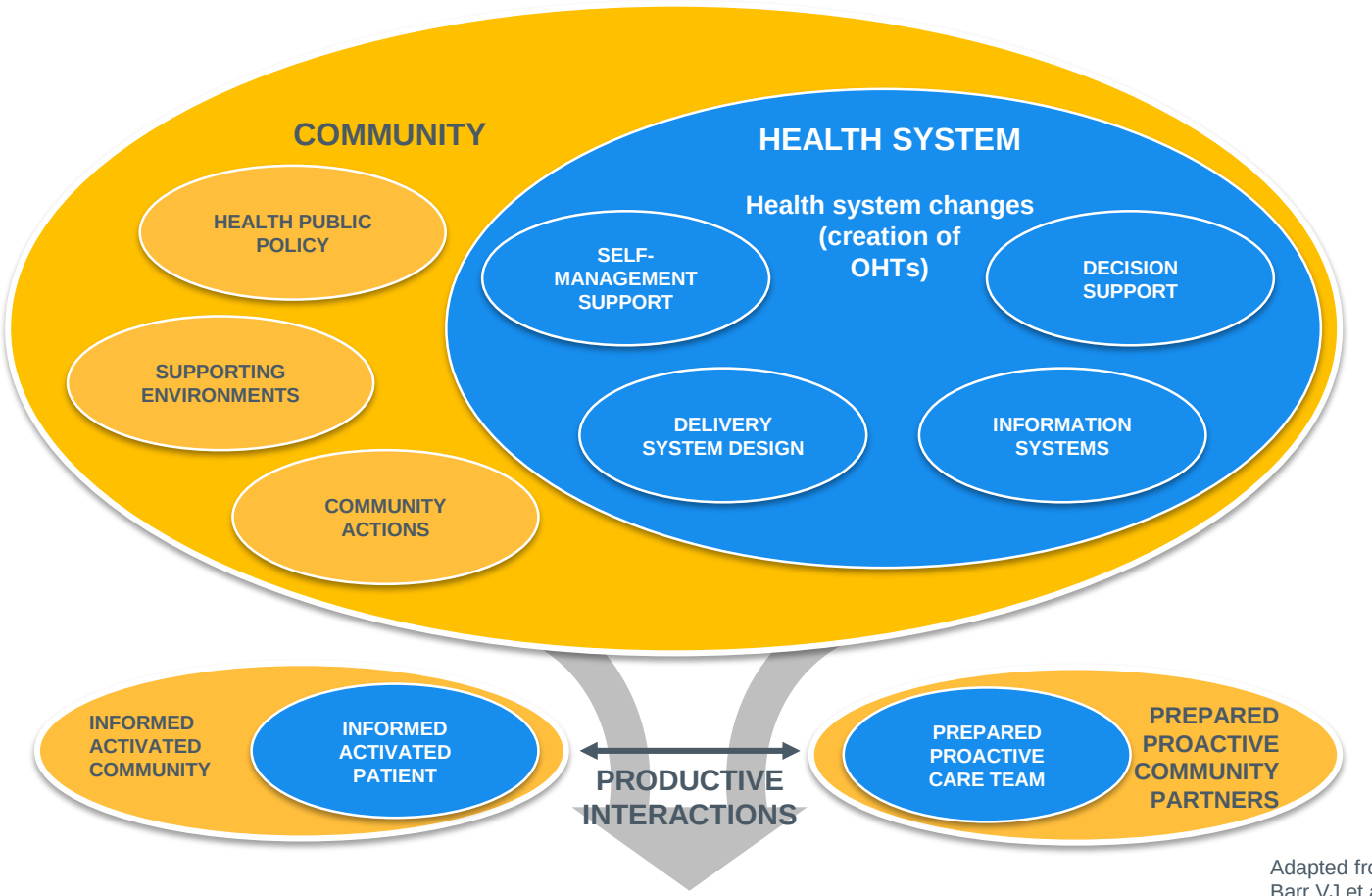
# Recall the 4 steps of Population Health Management




Source: Adapted from Population Health Alliance, 2012

# Step 2: Co-designing Care Pathways & Service-mix

## Expanded Chronic Care Model for Population Health




Adapted from:
Barr VJ et al. Healthcare Q 2003:7(1):73-82.
Wagner EH et al. Milbank Quarterly 1996; 74(4): 511-44.

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# Step 2: Co-designing Care Model & Pathways

- Delivery System Redesign
  - **New roles** & **new tools** across OHT
  - Proactive **In-reach** & **out-reach** functionalities
  - Mechanisms to identify & address **barriers to care**
- Clinical Decision Supports
  - Agreed upon **clinical pathways** & **practice guidelines**
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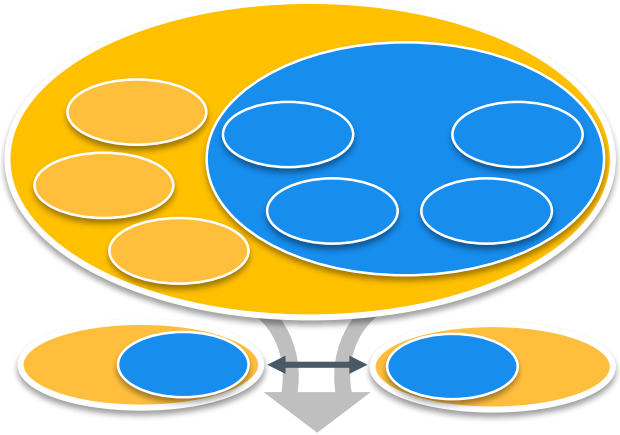
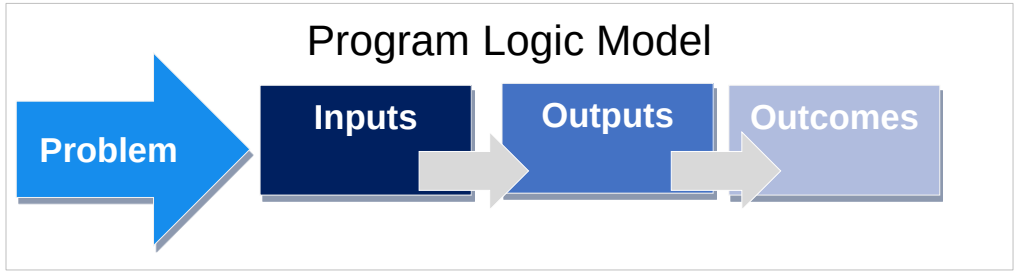
  - Interventions to build **motivation**, **skills**, **capabilities** for **behaviour change**

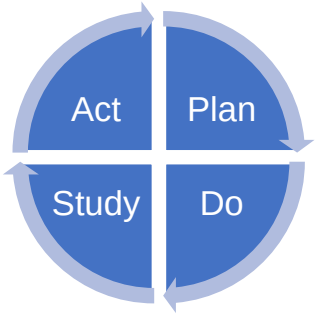


# Step 3: Implementation & Reach

- Develop a logic model that **connects inputs, activities** and short-term and long-term **outcomes**




- Test new care pathways, tools and approaches **with a small number of patients**, **over a short period of time**



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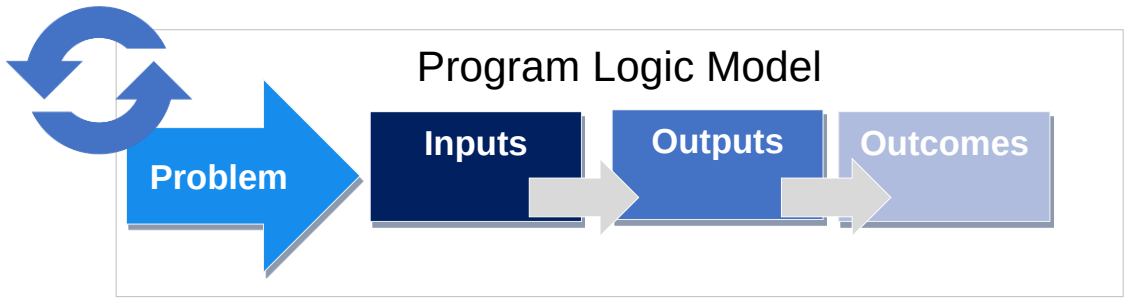
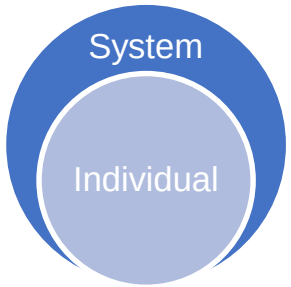
# Steps 4: Monitoring & Evaluation

- Revise logic model based on your initial work




- Choose outcomes that **clinically relevant**, **easily extractable** (from EHR) and are measurable as **part of routine care**

- Perform on-going monitoring and evaluation at an **individual-level** and **system-level**




- Share findings with leadership and others serving the priority population

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HSPN RISE

# RISE & HSPN overlapping supports by population-health management step

## Population Segmentation & Understanding Barriers to Care

1 HSPN Health System Performance Network

- Understanding how to segment your **ATTRIBUTED** population into priority populations

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- Taking your **PRIORITY** population and learning how to segment into **sub-populations**

## Monitoring & Evaluating

1 HSPN Health System Performance Network

- Identifying and calculating metrics for each OHT's **ATTRIBUTED** populations
- Identifying and calculating broader metrics which all OHTs can use for the common **PRIORITY** populations (e.g. palliative, mental health, frail seniors)
- Uses administrative databases (e.g., DAD, NACRS,NRS, HCD, LTC, OHIP billings)

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- Learning how to build metrics for your **PRIORITY sub-populations**
- Uses OHT specific data sources as well as administrative databases.

# An Example of a Population-Health Management Approach: the COVID-19 Pandemic Response

Early lessons in the management of COVID-19 is that it requires a population based approach to:

- **reduce transmission** and the **risk for infection**,
- Provide **clinical care** for those with COVID-19,
- **Integrate** across service sectors (hospitals, LTC, public health, etc.) and shift to virtual care models

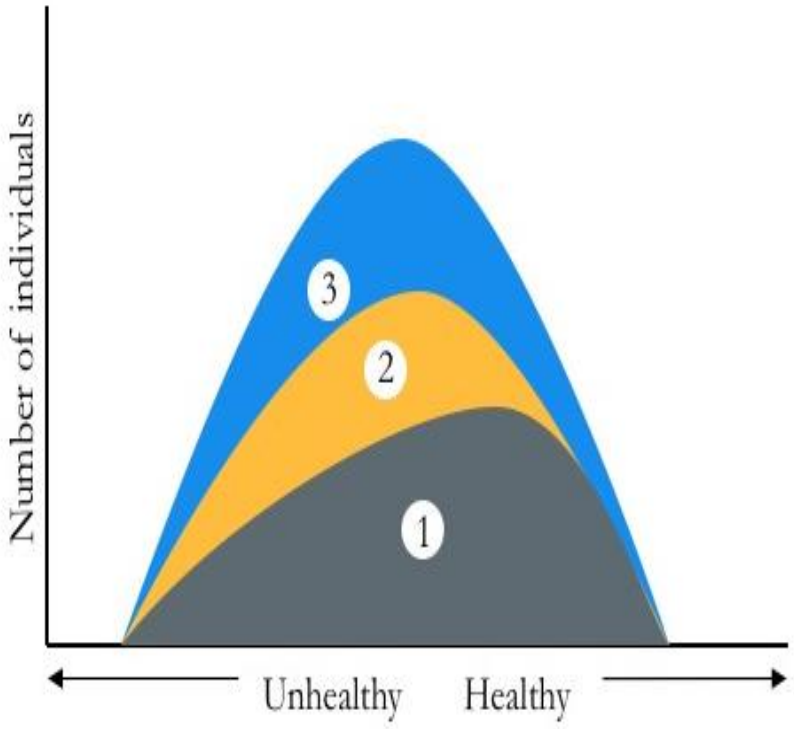
Learning objectives:

- Review the population-at-risk for transmission & severe disease
- Learn to apply a population health management approach to managing the “3 curves” of COVID-19



Image source: un.org

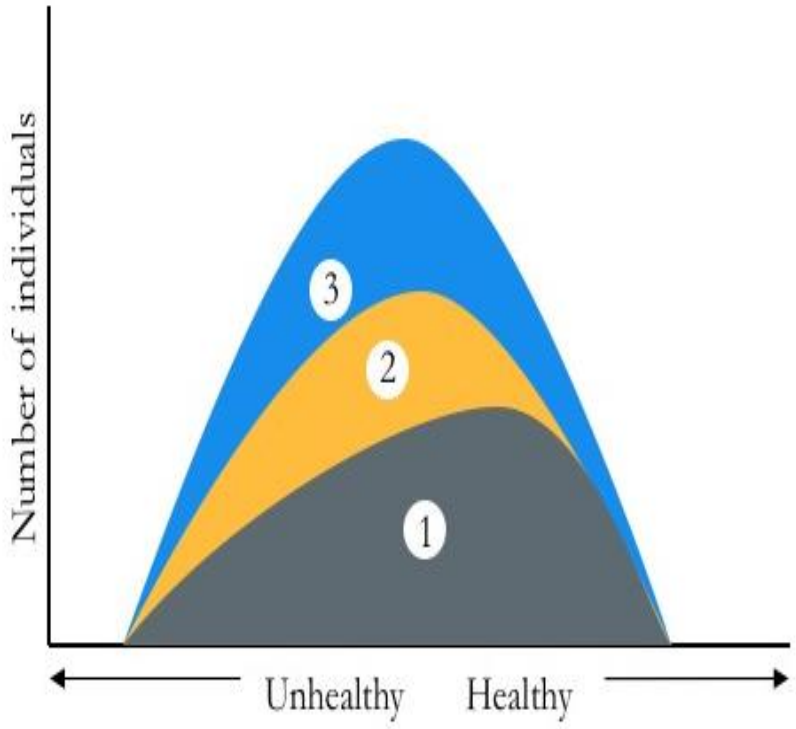
# Applying the "3 Curves" of Population Health for COVID-19




## ❶ 1st Curve – Caring for those with moderate to severe COVID-19 symptoms

- Provide **timely access to hospital care** for patients with moderate to severe disease (e.g. oxygen, medications, intensive care)
- Focus has been to **maintain sufficient & responsive resources** (e.g. ICU capacity, front-line workers, PPE etc.)
- **Population-based modeling** of predicted use is key for capacity planning
- Good **IPAQ practices** are essential to prevent in-hospital & LTC transmission and outbreaks

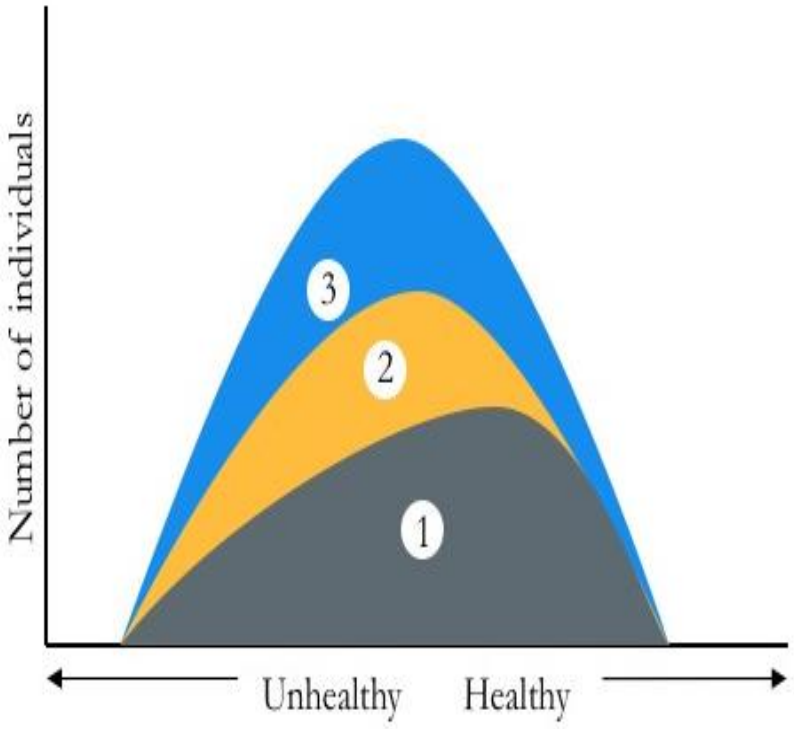
# Applying the "3 Curves" of Population Health for COVID-19




## 2 2nd Curve – Caring for those with asymptomatic infection or mild COVID-19 symptoms

- **Test** individuals promptly with symptoms & **identify COVID-19**
- Provide **supportive clinical care** virtually & **monitor for deterioration** or persistent disease
- **Limit spread** to others (e.g. family members, colleagues etc.) with preventive measures (e.g., isolation, PPE etc.)
- **Trace close contacts** and ensure they are informed, quarantined and tested
- Apply an **equity lens** & **address barriers** (e.g., work leave, child care, income support, PPE)

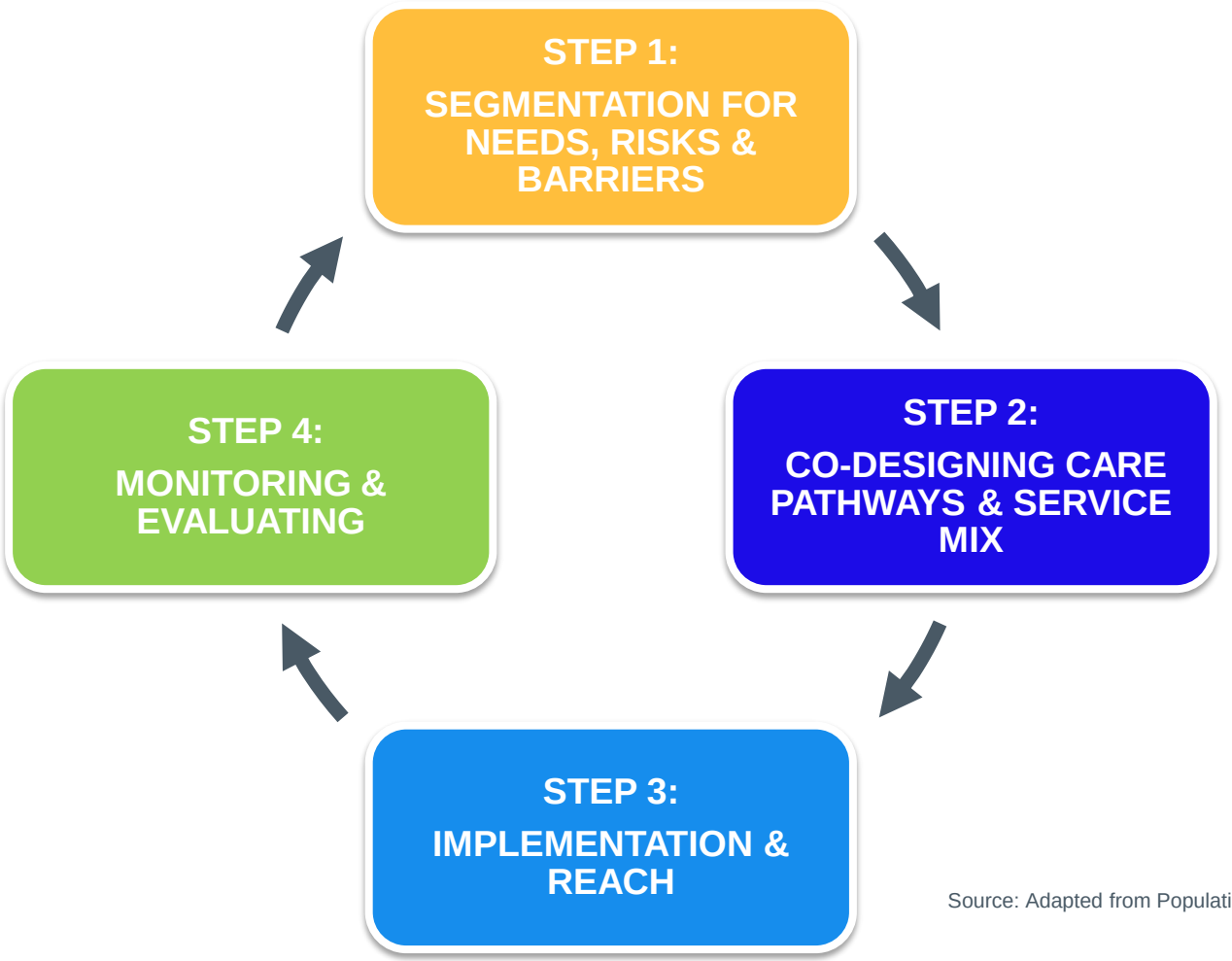
# Applying the "3 Curves" of Population Health for COVID-19




## ❸ 3rd Curve – Population Policies & Interventions

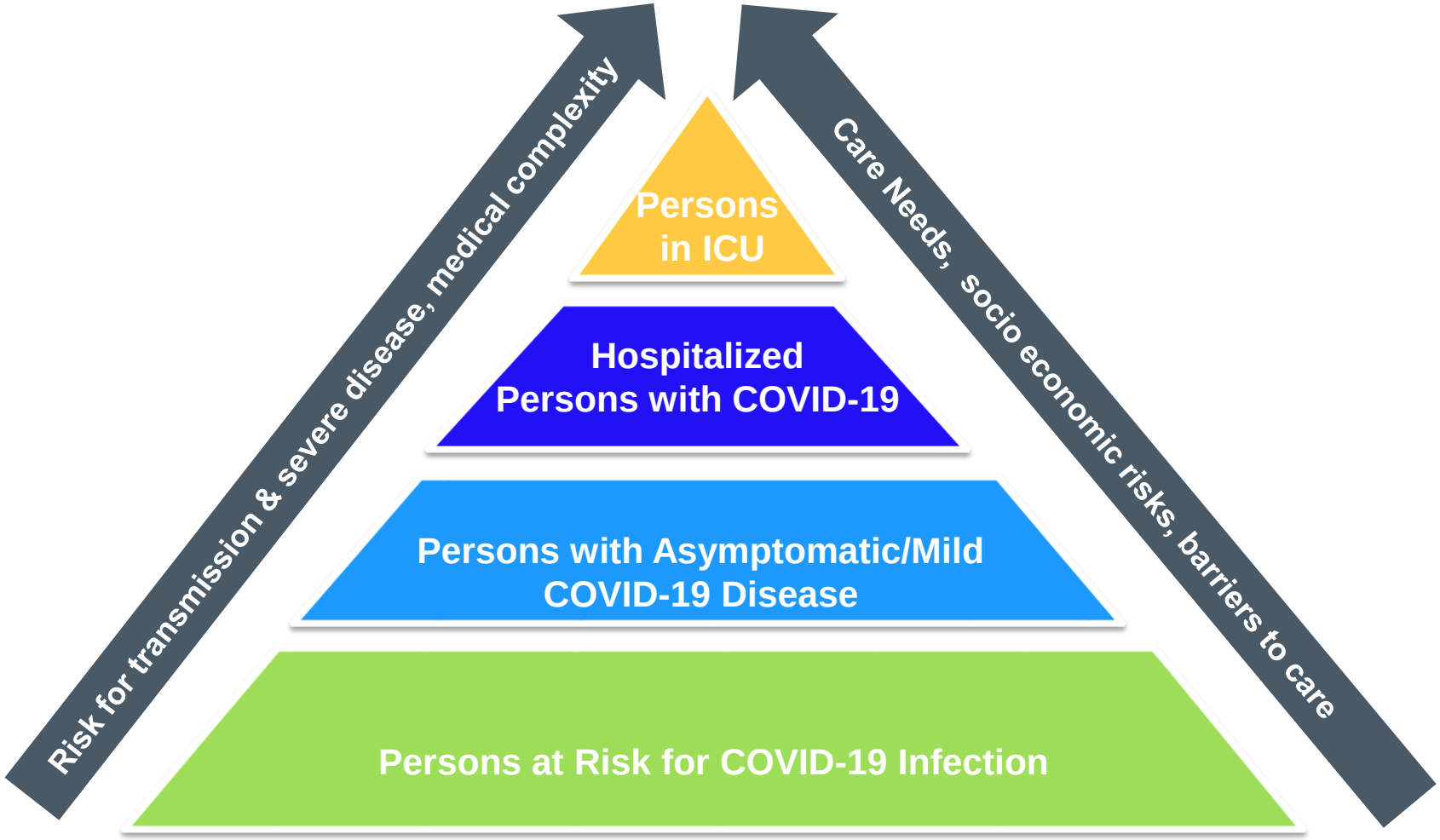
- Educate on **public health behaviors** (e.g. physically distance, wear a mask, socially bubble, wash hands, etc.)
- **Distribute & promote vaccine uptake**, including addressing **vaccine hesitancy**
- **Non-medical strategies are key** (e.g. community engagement, education campaigns, travel restrictions, mask mandates, capacity limits, lockdowns etc.)
- Address underlying **socioeconomic risks** (e.g. inadequate housing, sick pay) & **barriers to care** (e.g. mobile testing centers, vaccination outreach)
- Healthcare community's role is to work with public health, social services, and other community agencies to **align/provide/advocate** for services.

# Population Health Management Approach



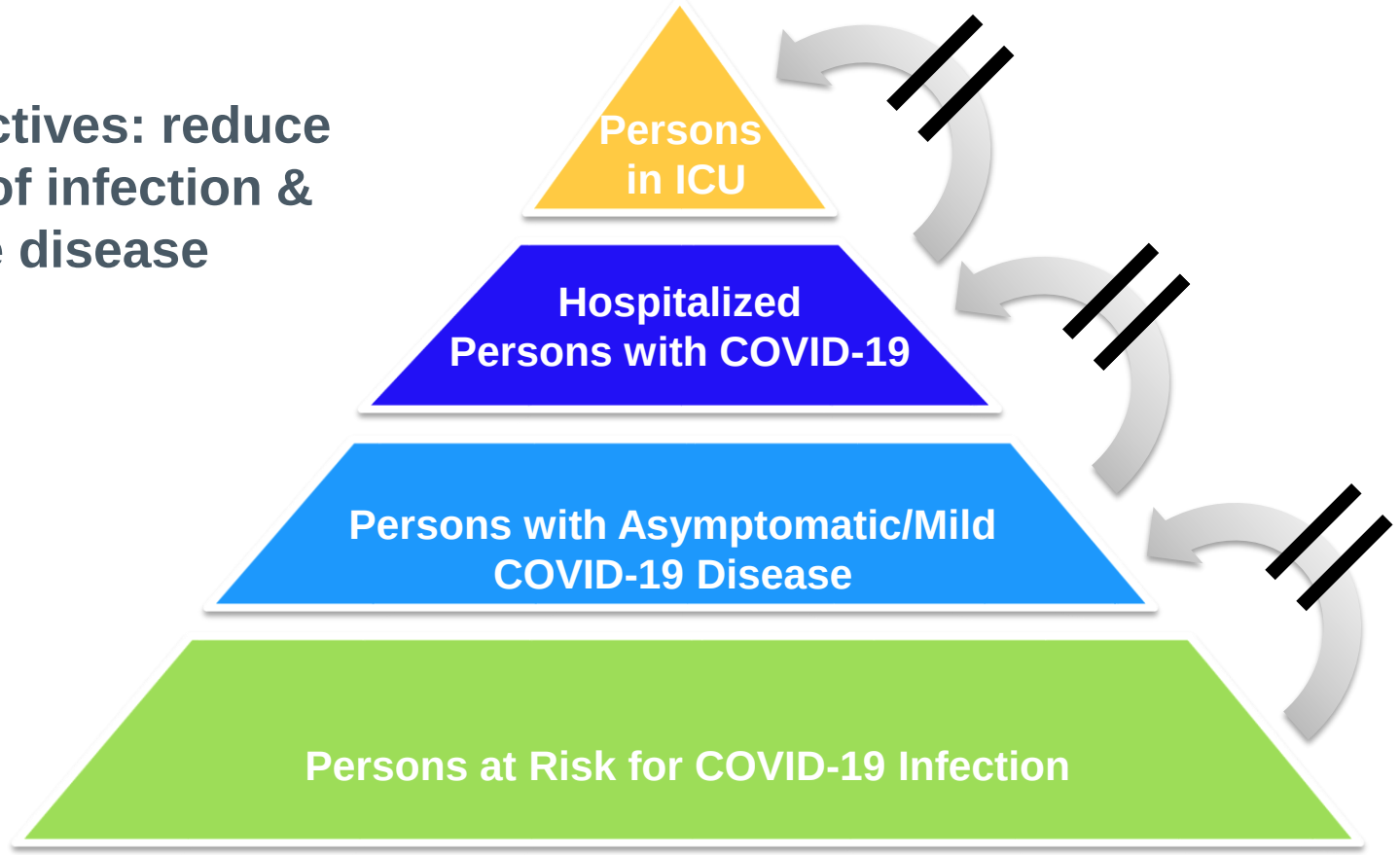

Source: Adapted from Population Health Alliance, 2012

# Step 1: Population Segmentation for COVID-19



# Step 1: Population Segmentation for COVID-19

**Prime objectives: reduce likeliness of infection & severe disease**



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# Population Health Segmentation Framework for COVID-19

## Personal Experience with COVID-19

### No Documented Disease

### Acute Disease

- Asymptomatic/Mild
- Moderate
- Severe

### Recovered

- No sequelae
- Sequelae (i.e. COVID long)

## Risk factors for COVID-19 Infection & Severe Disease

### Risk for Infection

- community prevalence
- level of exposure (e.g. duration, close contact, crowds)
- certain occupations
- living circumstances (e.g. congregate living, homelessness)
- other social factors (e.g. ability to avoid public transit, group daycare, discrimination etc.)
- public health behaviors

### Risk for Severe Disease

- Individual factors (e.g. older age, chronic illness, weak immune system, pregnancy, obesity, certain medications)

## Non COVID-19 Needs

### Type of Care Needs

- Acute illness (primary care, emergency, hospital)
- Chronic illness care (moderate, multimorbidity, complex)
- Mental health & addictions care
- Preventive care (e.g. immunization, screening)
- Child & maternal care
- Palliative care
- Special populations (e.g. CRF)

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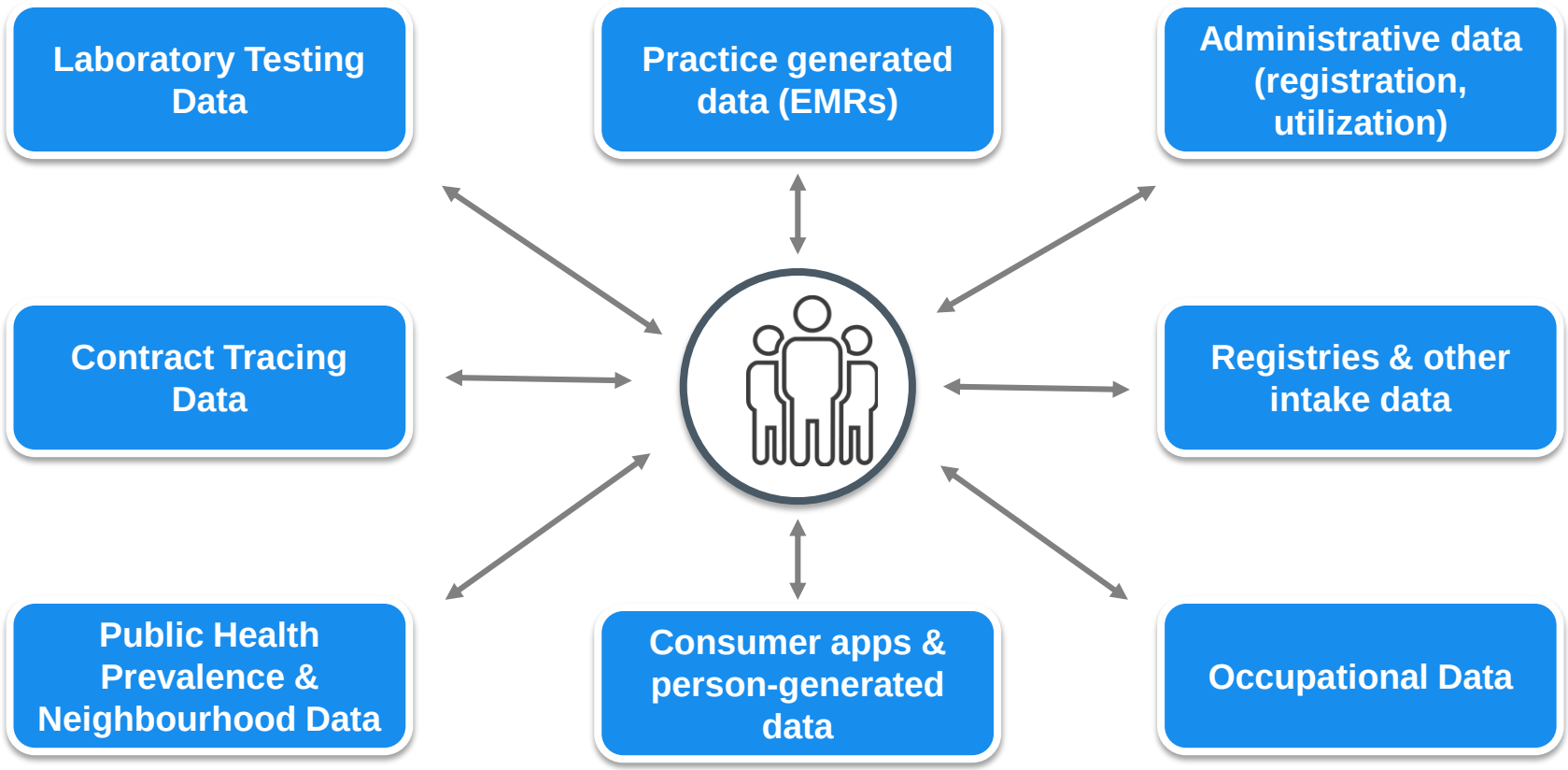
# Population Segmentation for COVID: Where can data come from?



# Step 2: Co-designing Care Model & Pathways

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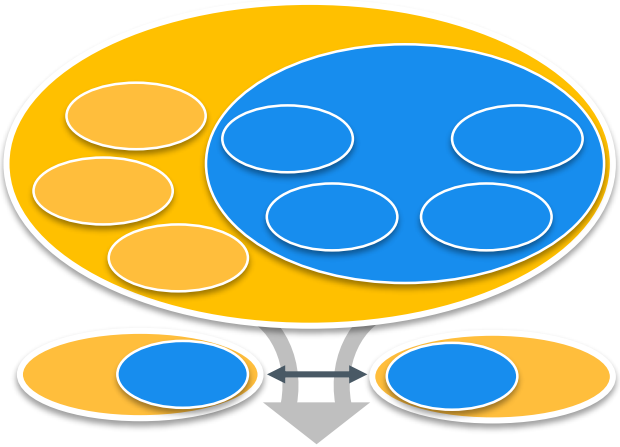
  - Mechanisms to identify & address **barriers to care**



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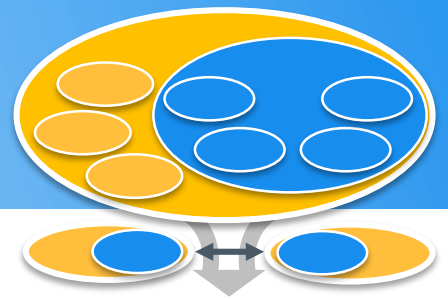

# Co-designing Care Model & Pathways

| Curve 1 – Moderate/Severe COVID-19 (Hospitalised) | Curve 2 – Asymptomatic/Mild COVID-19 (Isolating at home) | Curve 3 – No COVID-19 |
|---|---|---|

## Delivery System Redesign

- Virtual ED & Hospital COVID-19 Wards
- Airway Teams & IPAQ Protocols
- Virtual Visiting
- Post-Acute Followup

## Clinical Decision Supports

- COVID-19 CPGs
- Contact Tracing/Testing CPGs & Prompts
- Followup Prompts & Vaccination CPGs

## Clinical Information Systems & Registries

- Patient Trackers & Case Reporting

## Self-Management Support

- Education/Training on Protective Behaviors
- Visitor Guidelines

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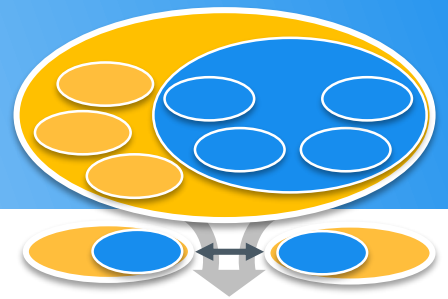

# Co-designing Care Model & Pathways

| Curve 1 – Moderate/Severe COVID-19 (Hospitalised) | Curve 2 – Asymptomatic/Mild COVID-19 (Isolating at home) | Curve 3 – No COVID-19 |
|---|---|---|
| **Delivery System Redesign** | | |
| • Virtual ED & Hospital COVID-19 Wards<br>• Airway Teams & IPAQ Protocols<br>• Virtual Visiting<br>• Post-Acute Follow-up | • Assessment Centers & ILI Clinics<br>• Virtual care (telephone, messaging, video)<br>• Monitoring for Worsening Symptoms<br>• Post-acute Follow-up | |
| **Clinical Decision Supports** | | |
| • COVID-19 CPGs<br>• Contact Tracing/Testing CPGs & Prompts<br>• Follow-up Prompts & Vaccination CPGs | • COVID-19 Mgmt Apps & CPGs<br>• Contact Tracing/Testing CPGs<br>• Follow-up Prompts & Vaccination CPGs | |
| **Clinical Information Systems & Registries** | | |
| • Patient Trackers & Case Reporting | • Case Reporting & Contact Tracing | |
| **Self-Management Support** | | |
| • Education/Training on Protective Behaviors<br>• Visitor Guidelines | • Information on Symptom Mgmt & Care Seeking/Followup<br>• Isolation guidelines, tools, & techniques | |

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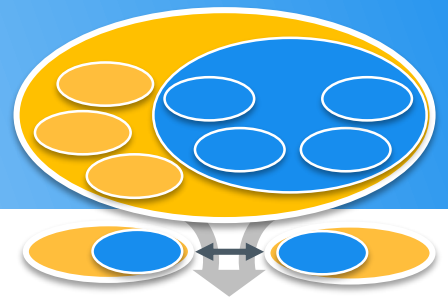

# Co-designing Care Model & Pathways

| Curve 1 – Moderate/Severe COVID-19 (Hospitalised) | Curve 2 – Asymptomatic/Mild COVID-19 (Isolating at home) | Curve 3 – No COVID-19 |
|---|---|---|
| **Delivery System Redesign** | | |
| • Virtual ED & Hospital COVID-19 Wards<br>• Airway Teams & IPAQ Protocols<br>• Virtual Visiting<br>• Post-Acute Followup | • Assessment Centers & ILI Clinics<br>• Virtual care (telephone, messaging, video)<br>• Monitoring for Worsening Symptoms<br>• Post-acute Followup | • Virtual Care for Non-COVID-19 conditions<br>• COVID-19 Screening in High risk settings<br>• Testing & Vaccination Strategies |
| **Clinical Decision Supports** | | |
| • COVID-19 CPGs<br>• Contact Tracing/Testing CPGs & Prompts<br>• Followup Prompts & Vaccination CPGs | • COVID-19 Mgmt Apps & CPGs<br>• Contact Tracing/Testing CPGs<br>• Followup Prompts & Vaccination CPGs | • Testing CPGs & Prompts<br>• Vaccination CPGs & Prompts |
| **Clinical Information Systems & Registries** | | |
| • Patient Trackers & Case Reporting | • Case Reporting & Contact Tracing | • COVID-19 Apps & Population Trackers<br>• Risk Factor Tracking (e.g., community prev) |
| **Self-Management Support** | | |
| • Education/Training on Protective Behaviors<br>• Visitor Guidelines | • Information on Symptom Mgmt & Care Seeking/Followup<br>• Isolation guidelines, tools, & techniques | • Guidance for Testing & Vaccination<br>• Public Health Measures (e.g., masking, travel, social mixing) |

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SUMMERVILLE
Family Health Team

Mississauga Health
Partnering for your health

# Cough and Flu Clinic

January 21st, 2020

Metamorphosis
Building your Community Health Network, Neighbourhood by Neighbourhood

Primary Care Network
MISSISSAUGA HALTON

Trillium Health Partners
Better Together

# Cough and Flu Clinic in Mississauga

## CHALLENGE:

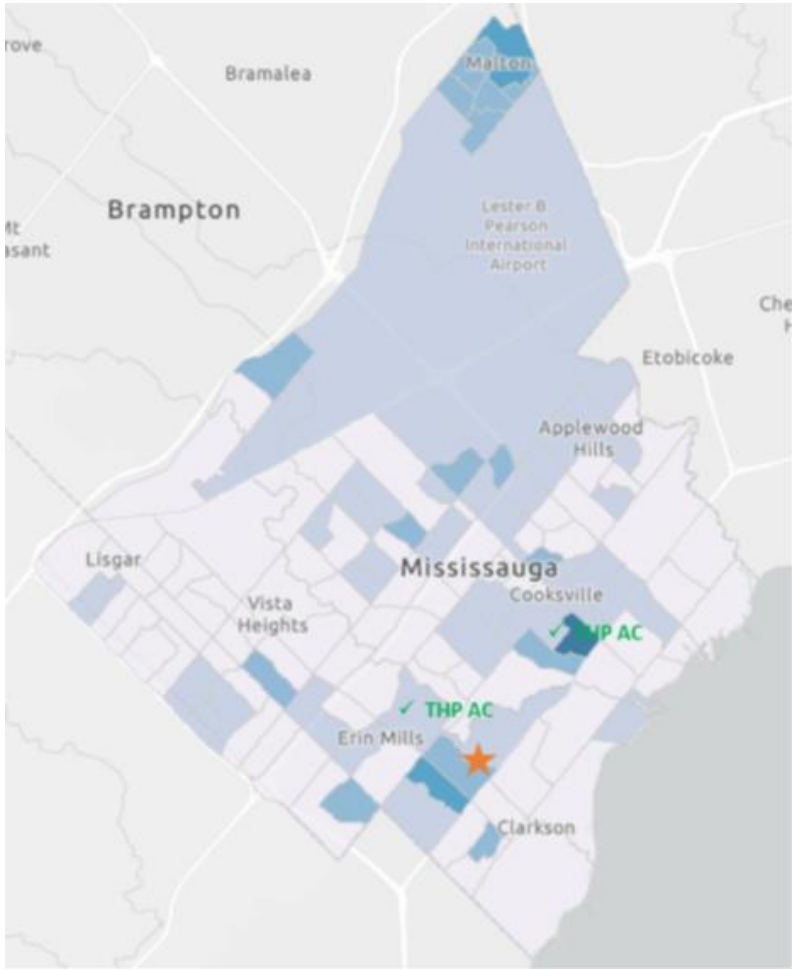
- Primary care physicians face barriers in providing in-person assessment/treatment for patients with COVID-19 symptoms (e.g. PPE, staffing, IPAC)
- For patients, this can mean:
  - Visiting the ER/after hours clinics
  - Trying to get a COVID-19 test before an in-person appointment
  - Waiting at assessment centres
  - Lack of continuity of care between alternative sites and regular providers

## OPPORTUNITY:

- Establish a community clinic for assessment/treatment of patients with respiratory illness who need to be seen in-person but are unable to see their own provider in-person
- For OHT, builds essential core foundations for future partnerships and clinical change

## Step 1: Population Segmentation & Understanding Barriers to Care

- Defined target population based on the above challenge/gap
- Clinic location determined based on COVID-19 hotspot areas
- Ensured clinic is accessible to any individuals (not just those rostered with the team) to allow patients who do not have a primary care provider to also seek treatment




*Peel Public Health Dashboard from time of initial planning, considering local hotspots.*

# Cough and Flu Clinic in Mississauga

## Step 2: Co-designing Care Pathways

- Primary care-led initiative established through partnership among five OHT members (founding primary care partners and acute care)
- Planning and engagement enabled by the Mississauga Halton Primary Care Network and Patient & Family Advisors
- Clinic launched Dec. 2, 2020; managed and staffed by Family Health Team (FHT); space & equipment provided by FHT; staffed by primary care physicians from community
- Patients can be referred by their own primary care provider (e.g. virtual visit) or can call the clinic directly
- Primary care providers will be notified when their patients visit (if possible) to enable continuity of care

## Step 3: Implementation & Reach

- Next steps: **enhanced access** (i.e. potential for new location(s) in hotspot areas)
- Opportunity to use postal code analysis to understand population/**target in-reach** strategies
- Infrastructure and partnerships can be leveraged to spread to additional populations

## Step 4: Monitoring & Evaluation

- KPI set: Proportion of individuals who receive same-day/next-day appointment
- Additional measures monitored: volumes, % swabbed, % positivity

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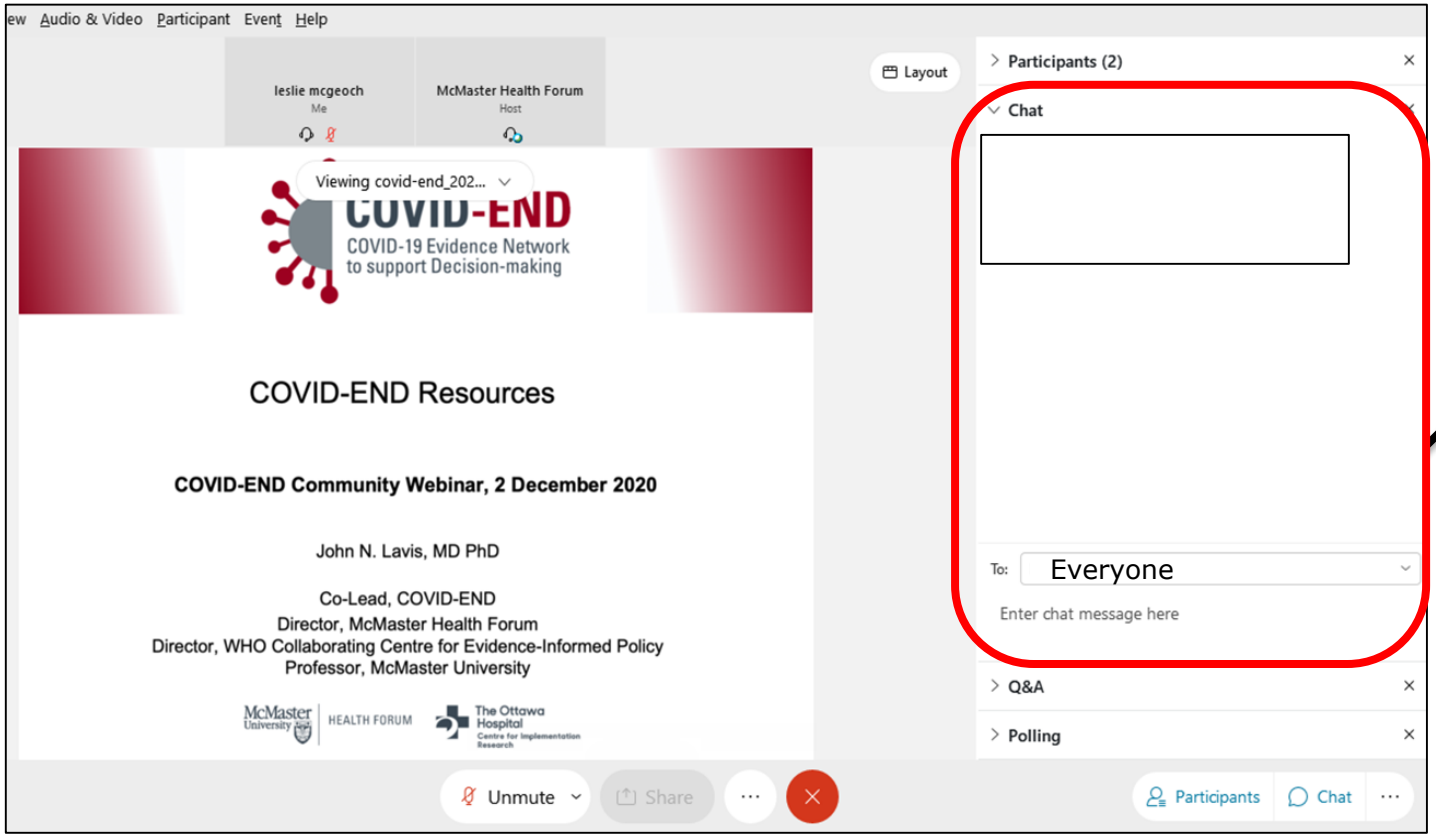
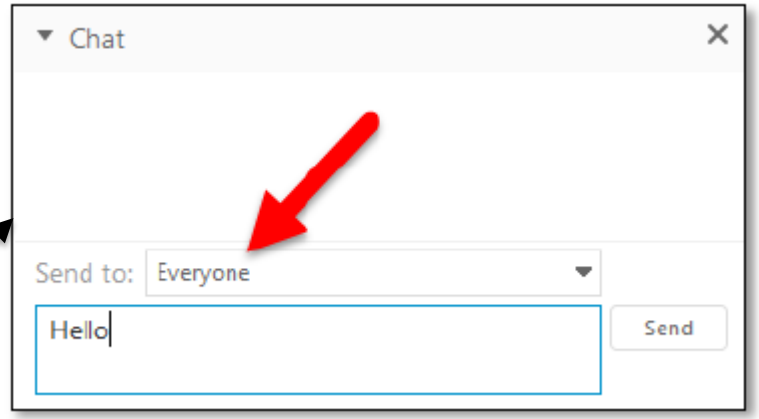
# Questions?

In the chat box, please select "everyone" and ask your questions.



# Population-health management (PHM) next steps

- Upcoming Webinars:
  - **HSPN OHT Evaluation (January 26)**
  - **RISE PHM core concepts for implementation and evaluation (March – date TBC)**

- Upcoming Cohort 1 activities:
  - **Admin leads to complete survey about RISE supports:** https://surveys.mcmaster.ca/limesurvey/index.php/849646?lang=en
  - **PHM Coaching (starting January 25)**
  - **Collaborative Meeting (February – date TBD):**
    - Poll being sent to confirm event date
    - **Focus:** segmenting priority populations into subpopulations.
    - **In advance:** choose ONE priority population and think about how you would like to segment it into subpopulations

# Additional Resources

## RISE

- Visit our website (www.OHTrise.org) to access additional resources and register for upcoming webinars
- Contact us with questions or requests for supports for OHTs (rise@mcmaster.ca)

## HSPN

- Visit their website (https://hspn.ca/evaluation/ontario-health-teams/) to access additional resources and register for upcoming webinars
- Contact them with questions (OHT.Evaluation@utoronto.ca )

## Mississauga OHT

- Visit their website for additional information (www.moht.ca )
- Contact them with questions (info@moht.ca )

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# THANK YOU!

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# APPENDIX

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# Other Population-Health Management (PHM) Supports

RISE supports each of the PHM four steps through providing rapid–learning and improvement resources such as webinars, collaboratives and coaching. In addition to RISE, other central program of support partners also support PHM, as outlined below.

| Steps in PHM approach | Supports available to OHTs |
|---|---|
| **Step 1**: Segmenting population into groups with shared health and social needs | • RISE<br>• Health System Performance Network (HSPN) |
| **Step 2:** Co-designing care pathways, in-reach and out-reach services for each population segment | • RISE<br>• Centre for Effective Practice<br>• Many health-system partners contributing to the collaboratives (one for each priority population) |
| **Step 3:** Implementing the pathways and services in ways that reach and benefit all who need them | • RISE |
| **Step 4**: Monitoring reach & other process measures and evaluating quadruple-aim metrics | • RISE<br>• HSPN<br>• ICES |