


# An Organizational Case Study of Mental Models among Health System Leaders during Early-Stage Implementation of a Population Health Approach

Braeden A Terpou<sup>1</sup>, Marissa Bird<sup>1,2</sup>, Diya Srinivasan<sup>1</sup>, Shalu Bains<sup>3</sup>, Laura C Rosella<sup>1,4</sup>,  
Laura Desveaux<sup>1,2</sup> 

<sup>1</sup>Institute for Better Health, Trillium Health Partners, Mississauga, Ontario, Canada; <sup>2</sup>Institute of Health Policy, Management, and Evaluation, University of Toronto, Toronto, Ontario, Canada; <sup>3</sup>Mississauga Hospital, Trillium Health Partners, Mississauga, Ontario, Canada; <sup>4</sup>Dalla Lana School of Public Health, University of Toronto, Toronto, Ontario, Canada

Correspondence: Laura Desveaux, Institute for Better Health, Trillium Health Partners, 2085 Hurontario Street, Mississauga, ON, L5B 1B8, Canada, Tel +1 437772-6836, Email Laura.Desveaux@thp.ca

**Purpose:** As the COVID-19 pandemic recedes, the importance of population health has come into sharp focus, prompting many health systems to explore leveraging population health data (PHD) for operational planning. This approach requires that healthcare leaders embrace the dual priorities of maintaining excellence in patient care while promoting the overall health of populations. However, many leaders are new to population-based thinking, posing a threat to successful operationalization if mental models are not aligned.

**Patients and Methods:** This qualitative case study explored the alignment of mental models among 13 senior leaders at Trillium Health Partners (THP), one of Canada's largest community hospitals, as they embark on embedding PHD within operational workflows.

**Results:** All leaders recognized the necessity of adopting a population health approach amid resource constraints and growing pressures. When discussing the operationalization of PHD, two distinct mental models emerged among leaders: one focused on patient care and the other on population health. While executive leaders demonstrated a fluidity in their thinking between the two, programmatic leaders favoured one over the other. For example, some viewed the organization's focus on PHD as competing with their patient care responsibilities, while others saw the use of PHD as a solution to the organization's operational pressures. Despite these divergences, leaders unanimously stressed the importance of increasing the organization's risk tolerance and devolving decision-making as a necessary precursor to realizing the transformation to a PHD-driven approach.

**Conclusion:** These divergent mental models highlight a need to clarify the shared vision for the use of PHD along with its impact on leadership roles and accountabilities. These findings illustrate the current state from which THP aims to evolve and underscore the importance of aligning leaders' mental models as a critical step to facilitating successful integration of PHD and advancing a collective vision for healthcare transformation.

**Keywords:** health equity, population health management, healthcare leaders, qualitative study

## Introduction

In recent decades, healthcare's overarching mission has undergone a subtle yet significant transformation.<sup>1,2</sup> Driven by system-level vertical integration and the shift toward value-based reimbursement,<sup>3,4</sup> health systems have evolved their focus beyond optimizing care for individual patients to include improving the overall health of populations.<sup>5-7</sup> While the COVID-19 pandemic temporarily required health systems to adopt a more reactive state of operating,<sup>8,9</sup> it also highlighted widespread inequities and the pressing need to proactively prepare for the rapidly growing healthcare demands of an aging population.<sup>10-13</sup> This, along with the ever-evolving complexity of the healthcare environment, necessitates a coordinated, strategic response from health system leaders.

In Ontario—Canada’s most populous province—current projections indicate that cumulative health system pressures are likely to overwhelm the acute care sector if the current trajectory persists.<sup>14–17</sup> In an effort to proactively mitigate future demand, some healthcare organizations are looking to operationalize the use of population health data (PHD) to inform strategic planning and decision-making.<sup>6,7,18–20</sup> Community hospitals, owing to their embeddedness within the communities they serve, are emerging as leaders in this space.<sup>21,22</sup> This evolution to a population health approach is defined by its dual prioritization of acute care alongside the active promotion of population-level health outcomes and reduction of health inequities.<sup>6,7</sup>

As with any organizational evolution, successfully operationalizing the use of PHD hinges on the ability and willingness of individuals who must integrate it into their workflows. Normalization Process Theory (NPT)<sup>23,24</sup> provides a framework to understand the dynamics of adopting a new process by focusing on the individual and collective behaviours shown to be critical to successful implementation. NPT emphasizes the role of sense-making—both at the individual and group level—as a key mechanism during the early stages of implementation, reinforcing the idea that leaders’ mental models (ie, their comprehension of how things work or should work) significantly shape the trajectory of healthcare transformation.<sup>25–31</sup> Shared mental model theory posits that collective performance is shaped by a shared understanding of tasks and roles among interdependent individuals, for better or for worse.<sup>32</sup> NPT is well-suited to explore the complex dynamics between individuals, interventions, and implementation contexts within health systems and has been effectively applied to both intervention development<sup>24,33–35</sup> and implementation planning.<sup>33–37</sup>

This qualitative study examines how leaders in one of Canada’s busiest hospital systems are making sense of and collectively engaging in the work of population health. The findings highlight how organizational structures and individual experiences influence leaders’ perceptions of their roles in healthcare transformation, offering key insights for aligning their thinking with broader organizational priorities.

## Material and Methods

### Study Design

This qualitative case study was designed to contribute to the ongoing strategic planning and organizational transformation efforts at Trillium Health Partners (THP) as they move towards a population health approach. This study was reviewed and granted delegated approval by THP’s Research Ethics Board on December 20, 2022. Delegated approval was granted on the grounds that the research was determined to not constitute human subjects’ research.

### Setting

THP, Canada’s largest community hospital, has committed to embracing a population health approach as part of its mission to achieve a new kind of healthcare for a healthier community. THP serves one of the fastest growing and most diverse populations in Canada, home to many newcomers and structurally marginalized groups.<sup>15,17</sup> This presents a complex challenge, as limited resources,<sup>14</sup> population aging,<sup>15,17</sup> and varying degrees of health literacy and trust at the community level require a strategic plan that appreciates the variability of health needs and how people access care.

THP is located in Mississauga, Ontario, and is one of Canada’s busiest hospital systems by patient volume, providing nearly 1.7 million patient visits annually.<sup>38,39</sup> THP comprises three hospital sites: the Mississauga Hospital, Credit Valley Hospital, and Queensway Health Centre, employing a workforce of over 15,000 individuals.<sup>39</sup> These hospitals maintain a robust presence in and a deep commitment to the communities they serve. The delivery of these services is supported by a fully-fledged academic teaching centre, with embedded research and innovation.

By 2041, the size of the population of Mississauga is projected to increase by 45%,<sup>15,17,39</sup> adding approximately one million new residents. Concurrently, the population over the age of 65 is expected to rise by 133%,<sup>14,15</sup> making it one of the fastest-growing segments of the population. Over half of THP’s resources are currently dedicated to caring for seniors, the majority of whom live with two or more chronic diseases.<sup>40</sup> In addition, social inequities are widening, with nearly 51% of the neighbourhoods in THP’s service area now classified as low or very low income, marking a 30% increase from figures in 2000.<sup>39,41</sup>

THP's adoption of a population health approach is a direct response to these trends, as outlined in their 10-Year Strategic Plan.<sup>39</sup> To enable this approach, THP is developing an equity-based PHD and analytics platform. This platform aims to empower leaders with data-driven insights to inform population health-based planning and decision-making.

## Participants

This study used a purposive sampling strategy targeting members of THP's executive leadership team as well as senior leaders with clinical programmatic accountabilities involved in early conversations around using PHD. Potential participants were identified by the organizational co-leads of THP's population health approach and included those who were directly involved in iterating on and operationalizing early examples of a population health approach within THP. Senior leaders without current exposure to or accountabilities related to the early implementation of the population health approach, including those in corporate strategy, human resources, privacy, and financial services, were excluded. Senior leaders affiliated with the research institute were also excluded to mitigate potential bias. Three Program Chief and Program Director dyads from distinct clinical programs were invited to participate based on their early involvement in discussing or reviewing PHD.

All included leaders and their administrative assistants were contacted by the research team via email, enclosing a Letter of Information and Invitation to Participate. Leaders were offered a \$50 gift card as remuneration for their time, which they could direct to a colleague or team member of their choosing as recognition for their efforts and impact. All leaders contacted for this study agreed to participate.

## Data Collection

Data was collected through semi-structured interviews conducted between February 6th and June 26th, 2023. The semi-structured interview guide was informed by NPT<sup>23,24</sup> to ensure questions explored the individual and collective mechanisms known to influence early implementation (see Table 1). NPT proposes four constructs that represent the different kinds of work required when implementing a new practice:

1. **Coherence:** This pertains to the sense-making work that people do individually and collectively when faced with the problem of operationalizing a new practice.
2. **Cognitive Participation:** This refers to the relational work people do to foster a community of practice around the new practice, emphasizing the importance of active engagement and collaboration among stakeholders.
3. **Collective Action:** This pertains to the operational work that people do to enact a new practice, emphasizing the tangible steps and actions required for successful implementation.
4. **Reflexive Monitoring:** This refers to the appraisal work people do to assess how the new practice affects them and others in terms of outcomes and impacts.

**Table 1** Sample Questions from the Interview Guide

NPT Domain	Sample Questions
Coherence	<ol style="list-style-type: none"> <li>1. What do you think a population health approach looks like in your role?</li> <li>2. Where do you think integrating PHD will have the greatest impact, eg, patient outcomes (eg, clinical team), corporate-level (savings), community-level (population health indicators, etc.)?</li> </ol>
Cognitive Participation	<ol style="list-style-type: none"> <li>1. Who (which role) do you think will be responsible to drive the inclusion of PHD into routine operations and decision-making?</li> <li>2. How does the social context and culture of THP need to evolve to support the routine use of PHD?</li> </ol>
Collective Action	<ol style="list-style-type: none"> <li>1. What additional training might be needed to understand PHD indicators and their meaning?</li> <li>2. What difficulties might THP team members have in determining how to action on the data?</li> </ol>
Reflexive Monitoring	<ol style="list-style-type: none"> <li>1. From your experience, do you think that most senior leaders are aligned on the vision for the use of PHD at THP?</li> <li>2. What are some changes you would make to better normalize the practices around the use of PHD?</li> </ol>

Given that interviews were held during the early stages of implementation, conversations organically focused on early-stage sense-making (Coherence) and relational aspects (Cognitive Participation) of the work of implementation, with references to operational work (Collective Action and Reflexive Monitoring) being speculative in nature.

Interviews with the Chief Executive Officer, Chief of Staff, and Executive Vice Presidents were carried out by the study principal investigator, while the remaining interviews were conducted by a Research Associate trained in qualitative interviewing. Standardized and open-ended questions and neutral language were used to mitigate potential interviewer bias.

All participants provided verbal, informed consent before participating. Participants informed consent included the publication of anonymized responses and direct quotes from the interviews. Interviews were audio-recorded, transcribed, and de-identified by an independent third party. Three rounds of member checking, including one round of individual review and two group conversations, were conducted to ensure accuracy of the findings.

## Data Analysis

A deductive-inductive approach was used for data analysis, adhering to the principles of thematic analysis.<sup>42,43</sup> Two independent coders performed the coding in Microsoft Word, aiming to capture leaders' perceptions, beliefs, and assumptions that influence the sense-making, relational, and operational aspects of implementation.

The initial coding iteration deductively coded data according to NPT's four constructs. Codes distinguished whether leaders were discussing sense-making (eg, clarifying goals, expected outcomes, and roles and responsibilities), relational (eg, aligning accountabilities, removing barriers for involvement), or operational aspects of the work (eg, training and capacity building, aligning resources). No codes were generated discussing appraisal work (ie, NPT's Reflexive Monitoring) due to the early stage of operationalization. The research team then reviewed the data within each NPT construct, generating inductive codes to capture leaders' perceptions, beliefs, and assumptions about the different kinds of work necessary to advance a population health approach. Deductive codes characterized insights relating to the mechanisms that drive implementation, while inductive codes described *how* leaders were interpreting their involvement with this work along with the organizational changes needed to support it.

Once all transcripts were coded, codes were consolidated into themes by identifying where leaders' perceptions, beliefs, and assumptions converged and diverged, forming central organizing concepts. The research team met biweekly to refine the themes and derive the overall narrative.

## Results

Thirteen interviews were conducted with senior leaders, ranging from 40 minutes to 56 minutes in duration (average = 50 minutes).

In the following three sections, we explore leaders' alignment (Section 1) and divergence (Section 2) in how they were making sense of a population health approach, as well as their perspectives on the organizational changes necessary to support its implementation (Section 3).

### Alignment Among Healthcare Leaders

Leaders unanimously recognized the necessity of adopting a population health approach for the organization, citing numerous benefits aligned with the Quintuple Aim, including patient experiences, provider experiences, population health, health equity, and cost efficiency.<sup>44</sup>

All leaders reported promoting population health and reducing health inequities as key aims, while only a few discussed the aims of improving patient and provider experiences and cost efficiency.

Leaders demonstrated a broad and varied understanding of how a population health approach would impact the evolution of their work. They acknowledged the imperative for finding new ways of working with and learning from the communities they serve. This shared perspective emphasized the belief that much of what constituted the work of population health extends beyond the defined patient population that actively seeks care to include the population at large. Nearly every leader expressed this sentiment, with many making the distinction between "who we're serving and who we're not serving" (ID01).

“We know who we’re providing care to. We don’t know who we’re not providing care to. We’ve worked with [the Research Institute] to try to understand who we’re missing, because we know they’re missing. And so, whenever we set a strategy [for our services], having those pieces of data is very important, and we just can’t access it yet.” *ID12*

Leaders highlighted two strategies they saw to enhance their understanding of community health needs: collaboration with community organizations and direct engagement with community members. Noted community organizations included health-promoting entities such as community health centres, local health departments, and health advocacy organizations, as well services addressing social determinants of health, such as local food banks, family resource centres, and places of worship. Partnership approaches varied depending on the type of organization, ranging from sharing community-based knowledge and data and optimizing scopes of practice for health-promoting organizations, to raising awareness and connecting patients with social determinants of health-serving organizations.

Leaders unanimously acknowledged building trust as crucial, with collaborative projects and providing resource support for partnering organizations cited as ways to demonstrate commitment to the community. Trust building was also a central theme for engaging directly with community members, especially those from structurally marginalized and equity-deserving groups. Leaders stressed the importance of establishing a presence within these communities as a prerequisite for meaningful engagement.

“At the end of the day, you’re going to need these individuals within the community that are your links, your voice, your way of communicating with these groups in a way that’s relatable. Which we don’t have right now because we don’t understand these communities. So, we need to self-educate quite a bit. How do they like to be taught to? What is it that they’re really concerned about? Because we think we know, but we don’t know, and I think that assumption would take you to a place of potentially failing big time. Because [if there is] one thing I’ve learned in healthcare, it’s that whenever you’re looking at any type of large-scale initiative, you have to engage deeply with that community to really find out what they want. You have to bring them in to help drive the solution.” *ID11*

## Divergence Among Healthcare Leaders

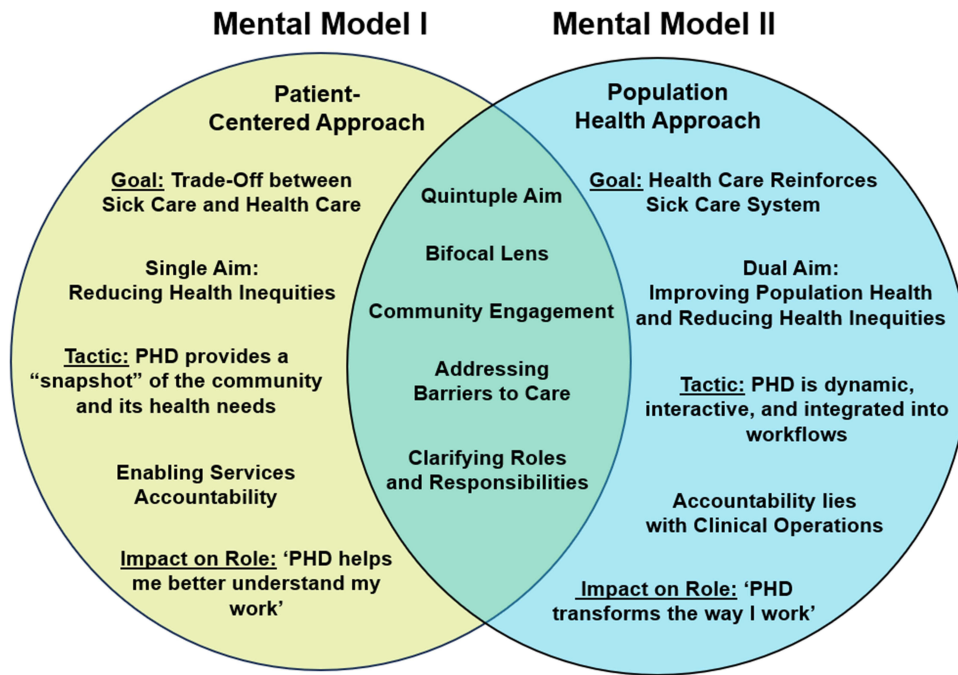
Two distinct mental models emerged that leaders anchored to when discussing population health. These mental models were distinct in terms of leaders’ perceptions of the goals, tactics, and resulting impact the work of population health would have on leadership roles (see [Figure 1](#)). Of note, these mental models are not mutually exclusive, as several leaders exhibited thinking aligned with both. This complexity appeared to reflect the paradoxical tension leaders experience as they shift from a patient-centred mindset focused on current state to a population-centred mindset focused on planning for future state.

### Mental Model I: A Focus on Operational Pressures and Acute Care

Mental Model I reflects a perspective that the primary role of leaders is to manage the organization’s operational pressures using a patient-centred approach. Leaders with this mental model held the underlying belief that there are trade-offs between patient-centred care and population health, and that focusing on one detracts from the other. Leaders aligned with Mental Model I saw their roles as unlikely to change to facilitate the operationalization of a population health approach. They saw the goal of this approach as extending access to structurally marginalized and equity-deserving groups while managing upstream health risks and conditions. These leaders perceived much of what constituted the work of population health as outside their individual scope. These leaders saw themselves engaging with this work but primarily by way of supporting other hospital teams, departments, or community-based organizations. They emphasized that their engagement would be weighed against the operational realities of running a clinical program, which was viewed as their primary priority.

### Mental Model II: The Reinforcing Roles of Population Health and Acute Care

Mental Model II reflects a perspective that a population health approach supports patient-centred acute care, with leaders holding the underlying belief that attending to population health and managing operational pressures in acute care are interwoven and interdependent demands. They saw a population health approach as a means of aligning health service



**Figure 1** Alignment and Divergence of Healthcare Leaders’ Mental Models.  
**Abbreviation:** PHD, population health data.

provision with the community’s health needs, emphasizing a broad range of community-focused strategies to address the dual aim of promoting health while reducing inequities. They viewed the adoption of a population health approach as a solution to—rather than detracting from—the organization’s operational pressures and challenges. These leaders positioned themselves at the forefront of this new approach, actively engaging with the community to understand their health needs and setting the strategy for addressing them. They asserted that the clinical operational side of the organization would need to drive the hospital’s population health efforts for them to be successful.

### Comparing and Contrasting Mental Models

#### Goals

Leaders unanimously highlighted operational pressures and challenges as a primary driver of adopting a population health approach. However, those aligned with Mental Model I viewed this adoption as a trade-off with the organization’s commitment to acute care, while those aligned with Mental Model II saw it as a solution to, rather than detracting from, efforts to manage these operational realities.

This distinction reflected leaders’ beliefs about the types of services hospitals provide and their expectations for the evolution of these services to accommodate this new way of working. Those aligned with Mental Model I viewed the hospital primarily as an acute care system, while classifying the work of population health as predominantly health-promoting care (thereby placing it out of scope). This sentiment underscored a perceived dichotomy between addressing illness (acute care) and promoting health and well-being (health promotion).

“Many of us [leaders] have clinical responsibilities, and what I really want is stuff that’s going to help me do the job I’m doing, which is as I say, looking after the system that provides care for sick people.” *ID06 (Mental Model I)*

Leaders aligned with Mental Model II perceived acute care and health promotion as mutually reinforcing health services. By promoting the health of the community, they saw the acute care system as being relieved of the pressures of overcrowding, which would allow patients requiring acute care to flow through the system more efficiently and return to the community with a lower burden of hospital-associated deconditioning. This connection was less clear for leaders



aligned with Mental Model I, as evidenced by their expressed concerns about doing things differently unless “they’re going to offer solutions to the hard and fast operational issues that we’re dealing with” (ID06).

One leader associated the operational focus of Mental Model I with leaders’ clinical training, stating that the “ability to sort of stay elevated and think ‘population health’ may be different for [clinician leaders]” (ID04). This claim was supported by a review of mental model categorization by participant, which revealed that Mental Model I was only found among leaders with direct programmatic responsibilities (eg, Program Chief, Program Director). Within this group, exactly half were aligned with Mental Model I and half with Mental Model II, which differed from the unanimous alignment among executive leaders with Mental Model II. This finding likely speaks to the difficulty of shifting between patient-centred and population health perspectives for these leaders. In roles where both perspectives are necessary, leaders appeared to gravitate to the one they have more experience with. For example, leaders with clinical training (ie, providing direct care to patients, one by one) resonated with Mental Model I, as it was more connected to the day-to-day operational realities of care delivery.

### Tactics

A key enabler of the organization’s adoption of a population health approach is the anticipated establishment of an equity-based PHD and analytics platform. However, leaders’ perceptions of the intended use of this platform varied. Those aligned with Mental Model I viewed the platform as providing a snapshot of the demographics, locations, and health needs of the population. They envisioned leveraging this information to extend access for existing services to structurally marginalized and equity-deserving groups.

In contrast, leaders aligned with Mental Model II perceived the platform as a dynamic tool integrated directly into operational planning. These leaders provided detailed examples of how they intended to use the platform, such as strategically locating services based on the prevalence of community conditions, predicting service demand shifts based on population trends, and evaluating service effectiveness based on patient- and population-level outcomes.

“If we knew our community in the way that we are now starting to come to know them, location of services starts to matter. Where are the pockets of inequity? What are the conditions that we reliably predict are active or will become issues? Those are some basic questions. Because we have those aspirations. [If we’re planning] to pop up a health hub over here, where matters and what goes in it matters—the programming matters.” ID13 (*Mental Model II*)

This depth of thinking demonstrated a comprehensive understanding of a population health approach among leaders aligned with Mental Model II, including the implications it had for the evolution of their work. While all leaders mentioned leveraging the platform to address health inequities, only those aligned with Mental Model II offered examples of using the platform to promote health at a population level, emphasizing the dual aims of a population health approach.

### Impact on Role

Leaders aligned with Mental Model I tended to view the work of population health as primarily the responsibility of another team or department. They referred to the “population health people” as distinct from the “clinical team people” (ID04). This distinction further emphasizes the challenge some clinician leaders face when conceptualizing a population health approach from a clinical operational perspective.

In terms of the evolving nature of work, leaders aligned with Mental Model I perceived minimal changes to their individual roles. They regarded the work of population health as providing an additional layer of understanding for their longer-term, strategic responsibilities.

“I think there’s a million ways you could slice and dice who’s coming and who’s not coming. Would that be helpful? Totally. Does my team have the expertise to do that? Not on your life. Does my team have the time to, you know, slice and dice and, no. But would my team and I make the time to talk to somebody about what we should be looking at in small chunks of data to bring it back and [evolve] some of our services? Oh yes, we would.” ID03 (*Mental Model I*)

In contrast, leaders aligned with Mental Model II perceived the work of population health as transforming the way they work. They saw themselves as leading the organization's population health efforts, as expressed by one leader, stating, "I don't believe that a population health approach can reside within [the Research Institute], or the non-delivery side of the organization. It has to be [the clinical platform], or it won't move the needle one millimeter" (ID07).

"When it comes to the big question of how we integrate population health into what we do, it has to be part and parcel of the expectation and competency of leaders to pursue that level of understanding at a population level. Challenge the status quo where it's necessary and forge the path to a new or different way of doing things." ID05 (*Mental Model II*)

## Healthcare Leaders Perceived Necessary Organizational Changes

To foster a population health-oriented shared mental model, leaders perceived certain aspects of the organizational culture as needing to evolve. Although leaders acknowledged progress over the years, they unanimously believed that substantial change remained necessary.

"We're a hospital, although we aspire to be more population health-focused, we are very much a hospital. And I say that because before I came [here], I worked for many, many years [at a regional level]. And when I came here, I was struck to see how deeply [fragmented] we are. How much we think like a hospital even though we think we don't." ID05

Related to the tremendous shifts that accompany reorienting to a population health approach, several leaders underscored the importance of clarifying the organization's tolerance of risk within individual roles. One leader described the current state as "a bit of a permission culture" (ID01). According to them, the organization needed to empower leaders to take risks aligned with population health by "setting the, 'It's your job' expectation to do things that advance the mission of the organization". Another leader echoed this sentiment, emphasizing that "none of the [Program Directors] could go and do something without making it very clear to the organization that we were trying something different" (ID07). This tension spoke to a broader need to clarify the roles and responsibilities regarding the work of population health, with one leader stating, "I think we're all a little bit unsure of where the guardrails are" (ID12).

The need to clarify roles and responsibilities became clear as leaders discussed their perceptions of accountability for operationalizing this new approach. Leaders considered three possibilities: a programmatic accountability, an enabling services accountability, or a hybrid of the two. A programmatic accountability would carry the expectation that clinical programs embed the work of population health into their operations, raising concerns of the daunting task of training and upskilling staff as well as determining who would be responsible for building these competencies. Conversely, an enabling services accountability would appoint a specific team or department to oversee the organization's population health efforts. However, some leaders expressed concern that this accountability would undermine the reach of this work, with one leader stating, "If somebody has that title, then it becomes one of those, 'Oh, that's their job and not my job' kind of things" (ID07). Moreover, one leader underscored that existing enabling services accountability structures sometimes work against programs being involved.

"In our structure, we have, for example, [one portfolio] focused on community partnerships, which is great and necessary, but I think it may also detract [programmatic leaders] from being encouraged to be sitting at working tables with other stakeholders in the community." ID05

Complementing the acknowledged need to adopt a more risk-tolerant stance and clarify accountability, leaders also perceived a need to empower those "who are closer to the work" to take part in operational decision-making (ID13). This sentiment underscored the need to shift away from a predominantly top-down decision-making structure to one that involves the knowledge and expertise of frontline staff, which was seen as having the benefit of "creating some time for middle- to senior-level leaders to think about the partner[ship] and shape aspects of our Strategic Plan" (ID13).

## Discussion

This study explored the early-stage implementation of a population health approach from the perspective of leaders within a large Canadian hospital system. While leaders unanimously recognized the importance of this approach,



differing views emerged regarding its goals, strategies, and the resulting shifts in leadership accountability. In the following section, we emphasize the need to align mental models and present strategies to advance healthcare transformation. These strategies aim to support both individual and collective sense-making while fostering a community of practice that reinforces the new approach.

Our study contributes to the growing body of literature supporting NPT as an effective framework for understanding and identifying strategies to facilitate early-stage implementation.<sup>45,46</sup> Executive leaders cited annual strategy sessions as a key pre-implementation activity, where they come together for a full-day break from their operational responsibilities to focus on the future of the organization. These sessions provide an opportunity for social interaction and shared dialogue, fostering both sense-making through the development of a common language and community-building through discussions around the benefits of a population health approach.<sup>47,48</sup> One explanation for the greater degree of alignment among executive leaders is their higher level of connectivity outside these sessions, suggesting a need for more routine opportunities for the broader group of senior leaders to convene and discuss the benefits of a population health approach, its connection to operational pressures, and its impact on their roles.

Middle managers play a key role in shaping change,<sup>49</sup> yet their role during transformation is often underemphasized in comparison to senior executives.<sup>50</sup> The implications of divergent senior leader beliefs on the role of middle managers remains unclear, and may limit their ability to serve as implementation champions and directors of change.<sup>49</sup> Without dedicated time for leaders at all levels to focus on the big picture, implementation initiatives are likely to suffer from inconsistent leadership engagement, as demonstrated by the US Department of Veterans Affairs' adoption of a collaborative care model for primary care patients.<sup>51,52</sup> Successful implementation was most evident at sites where leaders understood the link between care management plans and patient outcomes and thus prioritized them for this reason,<sup>51,53</sup> emphasizing the importance of creating routine time for leaders to focus on long-term strategic objectives and coming together to foster a shared understanding of their collective "why."

To ensure alignment across all leadership levels, organizations can employ a combination of informational, empowerment, and support-based strategies.<sup>54,55</sup> Informational strategies aim to clarify goals, expected outcomes, and the necessary knowledge for effective implementation, including clear expectations about which outcomes should change and within what timeline.<sup>56</sup> Empowerment strategies focus on encouraging participation by facilitating group discussions among staff,<sup>57</sup> sharing success stories, and conducting peer-led co-creation workshops.<sup>57–59</sup> As PHD becomes more embedded within program objectives and reporting structures at THP, co-creation workshops provide a promising evidence-based approach to foster collaborative problem-solving among leaders, deepening individual engagement and promoting collective organizational learning. Supportive strategies include training, resource allocation, and aligning organizational structures and incentives. Organizations might consider role-specific training sessions and the development of consensus documents that outline shared goals, expected outcomes, and practical examples of the work being undertaken.<sup>55</sup> Regardless of the strategy, organizations must clearly assign roles, outline accountabilities, and incentivize participation. Additionally, executives should (re)organize teams to align with desired objectives, as formalized structures promote coordinated interactions and help sustain a community of practice around implementation efforts.<sup>60</sup>

THP is actively working to operationalize several organizational strategies. For example, as part of its informational approach, THP has begun integrating PHD and insights into the performance dashboards used by senior leaders.<sup>61</sup> These dashboards are accompanied by clear guidelines to ensure leaders understand their responsibilities in managing key indicators. Furthermore, THP is leveraging existing structures, such as patient and family advisory groups, to help leaders engage with and better understand the communities they serve. While these initiatives have contributed to a shared understanding of how and why a population health approach will be implemented, THP recognizes the need for further investment in leadership training. Creating opportunities for engagement is just the first step—leaders must also be motivated to seek out these opportunities and feel competent in navigating the complex, sometimes challenging conversations involved.<sup>62,63</sup>

Advancing a population health approach demands more than coordinated efforts across leaders within an organization—it requires system-wide alignment and active collaboration from partners across the health system.<sup>64–67</sup> While structural and system-level factors are often seen as obstacles to implementation,<sup>68–70</sup> they can become powerful catalysts when alignment is not only achieved within an organization but extends beyond it to a broader coalition of partners. For

example, the Camden Coalition of Healthcare Providers, a non-profit committed to improving health outcomes for patients with complex needs in New Jersey, partnered with three local hospital systems to create a unified all-payer hospital claims dataset.<sup>71</sup> This collaborative data-sharing initiative provided partners with insights into the health status, healthcare utilization, and hospital costs associated with high-need populations, enabling a deeper understanding of the impact of high users and driving investment in focused interventions to address their needs within the community. Similarly, Gesundes Kinzigtal in Germany, a regional health management company, entered into shared savings contracts with statutory health insurers as a mechanism to provide managers and healthcare providers a chance to collectively benefit from system-level efficiency gains.<sup>72</sup> The model, through incentivizing preventive care, chronic disease management, and reducing unnecessary treatments, translated into shared savings for all partners. Additionally, a portion of these savings were reinvested in preventive care programs to address health concerns before they escalated into costly treatments. These examples highlight that advancing a population health approach demands changes in both organizational practices and partnerships to reshape care models across the health system.

## Limitations and Future Directions

The findings from this study are based on data from a single healthcare organization at a specific point in time, precluding the ability to understand whether, how, and under what circumstances mental models evolve. The study aimed to inform organizational strategies by considering the needs and current state of implementation. Although not within the scope of this study, future research should analyze the effectiveness of organizational implementation strategies and their mechanisms of action, which would provide instructive and actionable insights for other health systems and organizations facing similar challenges. Given that our interviews were conducted in the tail end of the COVID-19 pandemic, our study highlights the need for further investigation into whether and how organizational implementation efforts are influenced by the stability of operating conditions. Variability in our results may be influenced by desirability bias, whereby senior leaders may have felt compelled to provide responses perceived as favourable or aligned with organizational objectives. Finally, this work surfaces a core paradox in healthcare—managing for today while innovating for tomorrow. Future work should leverage organizational paradox theory to further explore these mental models, seeking to understand whether and how health system leaders cope with and navigate the reality of conflicting and persistent demands, and its impact on implementation.<sup>73</sup>

## Conclusions

In the coming years, escalating healthcare needs and widening inequities among patients and populations pose a threat to acute care systems globally.<sup>11,74,75</sup> As health systems contemplate new approaches to healthcare that prioritize both the needs of patients and populations, it is imperative to align leaders' comprehension of the approach and their role in its operationalization, making explicit who does what differently and *why*. While aligning leaders' thinking is crucial, the most effective way to bring a shared vision to life is by harnessing the organizational setting and broader health system as a catalyst.<sup>76</sup>

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## Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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The authors report no conflicts of interest in this work.

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