Health Policy and Applied Research Lab

From Downstream Care to Upstream Impact

A Population Health Primer for Hospitals

October 2026

Ontario Hospital Association

Table of Contents

3 Introduction

4 Why a Population Health Lens Matters

5 Understanding the Social Determinants of Health

7 Hospitals as Anchor Institutions

8 Local and International Examples of Upstream Approaches in Hospital Settings

10 Looking Ahead

11 Glossary of Key Concepts

13 References



Introduction

This **Population Health Primer** explores the concept of population health and the integral role hospitals play in shaping the health and well-being of their communities.

Recognizing that population health outcomes are deeply influenced by the social determinants of health and persistent inequities, this primer draws on local and international examples to demonstrate **how hospitals can reach beyond their walls** to address upstream factors that shape health. By leveraging their resources and place-based presence, hospitals can drive meaningful change and contribute to a broader high-performing health system.

Why a Population Health Lens Matters

Hospitals play a critical role in supporting the health and well-being of Ontario's communities.

While clinical care remains essential, evidence consistently shows that health outcomes are shaped largely by factors outside the health care system itself.[1] Social, economic, and environmental conditions – such as income, housing, education and employment – shape the vast majority of health outcomes across the lifespan.[1] Recognizing this, hospitals are increasingly engaging with population health approaches and exploring how they can act upstream – by tackling issues at their source rather than treating symptoms – to improve outcomes, reduce inequities, and support a high-performing, sustainable health system.

This primer provides a shared foundation for understanding population health, the social determinants of health, and what it means for hospitals to work upstream. It also clarifies related concepts and situates this work within the evolving role of hospitals as anchor institutions.

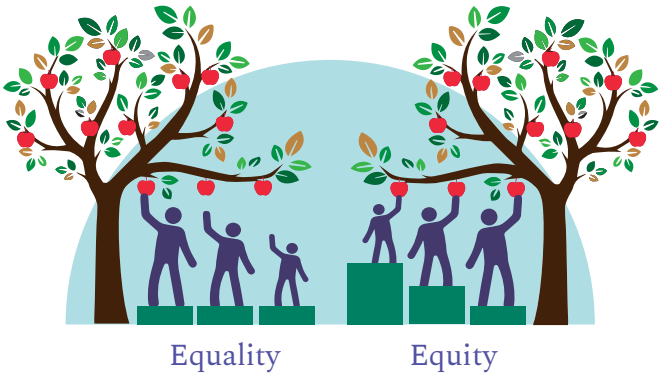
Defining Health and Population Health

The World Health Organization (WHO) defines health as "a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity."[2] This definition reflects a broad understanding of health that extends beyond medical conditions to include well-being and quality of life.

Population health builds on this understanding by focusing on "the health outcomes of a group of individuals, including the distribution of such outcomes within the group."[1] Populations may be defined geographically – such as by neighbourhood, region, or province – but can also be defined by shared characteristics such as employment, ethnicity, or connection to a health system.[1]

Key features of a population health approach include a broad conception of health, attention to measurable outcomes, and a focus on how those outcomes are distributed across a population.

Population health, by definition, is concerned with inequities – systematic and avoidable differences in health outcomes between groups.[3]



This example was adapted from Saskatoon Health Region, 2014.

What Shapes Health Outcomes?

Health is influenced by a wide range of factors, often grouped into five broad categories: genetics and biology, medical care, physical environment, social circumstances, and individual behaviours. While medical care is important, it accounts for a relatively small proportion of overall health outcomes.[5] More than 60 per cent of the factors that shape health are related to social circumstances and individual behaviours – commonly referred to as the social determinants of health.[5]

This evidence reinforces a critical insight for health system leaders: improving population health requires action beyond clinical care alone.

> **"Health inequalities and the social determinants of health are not a footnote to the determinants of health. They are the main issue."[6]**
>
> **– Sir Michael Marmot**
> Director of the UCL Institute of Health Equity

Understanding the Social Determinants of Health

The social determinants of health (SDOH) are the non-medical conditions that influence health outcomes. They include the circumstances in which people are born, grow, live, work, and age, as well as the broader forces that shape those conditions, such as economic policies, social norms, and political systems.[7]

The SDOH affect everyone. They are not attributes that individuals "have" or "lack," and they are not inherently positive or negative. Instead, they shape health in patterned ways. For example, higher income is associated with better health, while lower income is associated with increased illness and earlier mortality.[8]

There is a well-documented social gradient to health: people with lower socioeconomic status experience worse health outcomes and shorter life expectancy compared to those with greater social and economic advantage.[9] In Ontario, this gradient is evident in persistently higher rates of avoidable and premature mortality, a greater burden of chronic disease, and disproportionate substance-related harms among residents of lower-income and more marginalized neighbourhoods. Recent provincial data show that material deprivation, housing instability, and income inequality continue to be strongly associated with preventable death and illness, emphasizing the enduring influence of social conditions on population health outcomes.[8,10,11,12] Furthermore, the Projected Patterns of Illness in Ontario report, conducted in collaboration with the Ontario Hospital Association (OHA) and the Dalla Lana School of Public Health at the University of Toronto in 2024, found that while overall disease trends remain encouraging, rates of heart disease and cardiovascular risk factors have risen substantially among low-income Canadians in recent years, with the potential for broader population gains to reverse as socioeconomic inequalities continue to widen.[13]

In Canada, key social determinants of health include income, education, employment conditions, housing, food security, early childhood development, social inclusion, Indigeneity, gender, race, disability, geography, and immigration status.[14]



Working Upstream: Tracing Health to Its Root Causes

An upstream approach to health focuses on preventing illness and inequity by addressing the underlying conditions that give rise to poor health. A commonly used metaphor illustrates this idea: rather than continually rescuing people from a river downstream, upstream action seeks to understand and address why people are falling into the river in the first place.[15]

Health-related interventions can occur at different levels. Downstream interventions respond to immediate individual needs, such as clinical treatment or access to services. Midstream interventions address material circumstances, such as housing conditions or food security. Upstream interventions focus on the structural determinants of health, such as income distribution, public policy, systemic racism, and social exclusion, that influence how risk and opportunity are distributed across populations. Recent population health and health equity scholarship emphasizes that these upstream structural forces are the primary drivers of persistent health inequities, shaping both intermediary living conditions and downstream health outcomes.[16]

While all three levels are important, upstream action is essential for reducing health inequities and improving population health over the long term.

Population Health Management, Public Health, and Social Medicine

Population health management (sometimes referred to as *population medicine*) applies population health concepts within clinical settings.[17] It typically focuses on defined patient populations and includes activities such as measuring health outcomes, identifying risk factors, using data to inform care, investing upstream within clinical pathways, and partnering with community organizations.

Public health has traditionally led efforts to protect and improve population health through disease prevention, health promotion, and policy action. Community agencies, in turn, support the conditions needed for healthy living.[18] Increasingly, there is recognition that meaningful improvements in population health require coordinated action across sectors, including health care.[19]

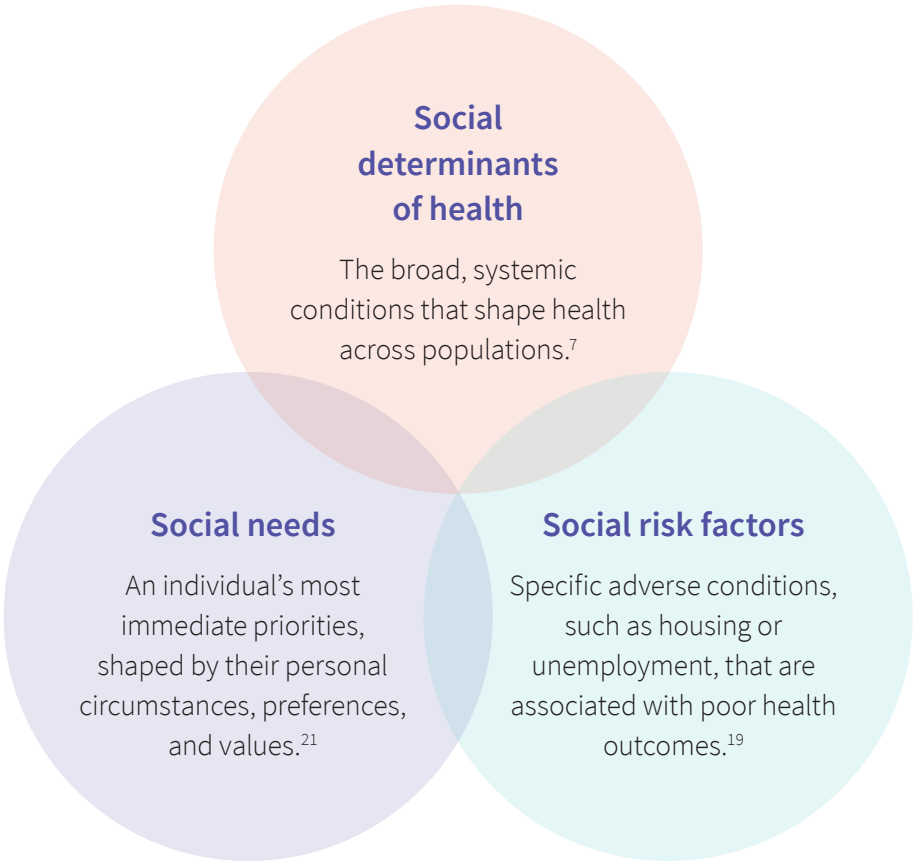
Social medicine is a related field that emphasizes the social, political, and economic foundations of health. It integrates perspectives from biology, economics, ethics, and the social sciences, and prioritizes community engagement, prevention, and action on the structural causes of disease.[20]



What's the Difference?

The terms *social determinants of health*, *social risk factors*, and *social needs* are related but distinct.

Interventions that address individual social needs (such as referrals to food programs) are important, but they do not, on their own, change the underlying social determinants.[19] Clear use of language helps ensure that the impact of interventions is accurately understood and communicated.



Hospitals as Anchor Institutions

Hospitals are significant, long-established organizations with deep roots in their communities. As major employers, purchasers, and partners, they have economic and social influence that extends far beyond health care delivery. When hospitals intentionally align these assets with community well-being goals, they are acting as anchor institutions.[22]

Ontario hospitals face significant challenges including constrained fiscal environments, population growth, aging demographics, and rising rates of chronic conditions.[13] These pressures require innovative approaches to health care delivery. The anchor model offers a strengths-based framework for hospitals to reimagine their role beyond clinical care and act as catalysts for community well-being.

Evidence from the *Projected Patterns of Illness in Ontario* report emphasizes the urgency of this shift. The analysis shows that Ontario is facing a significant increase in the number of people living with chronic disease and multimorbidity over the coming decades, driven by population aging and longer life expectancy. This trend is expected to place sustained pressure on hospitals and the broader health system if care continues to be organized primarily around acute, episodic treatment. The report highlights that new, upstream solutions are required – particularly those that strengthen prevention, chronic disease management, and community-based supports – to ensure system sustainability.

This is where the anchor model can be one of the avenues that respond to these challenges by addressing root causes of health and health system strain. By leveraging their economic power, workforce, procurement practices, data, and community partnerships, hospitals can advance upstream and preventative approaches that reduce avoidable demand for hospital services over time. This aligns with the finding that improving population health and managing illness earlier and closer to home will be critical to maintaining system performance under conditions of increasing demand and constrained resources.



Anchor missions provide a practical framework through which hospitals can work upstream – by improving local employment opportunities, supporting inclusive procurement, investing in communities, and partnering across sectors. In doing so, hospitals can contribute to population health, equity, and system sustainability while remaining grounded in their core mandate.

Local and International Examples of Upstream Approaches in Hospital Settings

While the drivers of health are complex, hospitals are increasingly demonstrating practical ways to engage upstream by addressing the social and structural conditions that shape population health. The following are a few examples to illustrate how hospitals can extend their impact beyond clinical care and contribute to broader community well-being.

Real-World Examples Across Ontario

Reducing food waste and supporting environmental sustainability and food security

Hamilton Health Sciences implemented a range of measures to **reduce food waste and associated greenhouse gas emissions across its operations**. These efforts include composting and dehydrating food waste, offering more diverse meal options, purchasing local produce, and donating food nearing its best-before date to charities that tackle food insecurity.

Leveraging hospital-municipal partnerships to support community well-being

Hôpital Glengarry Memorial Hospital, in partnership with the Township of North Glengarry, reopened its hospital pool following a prolonged closure. Through this collaboration, the **pool supports both clinical programming for patients and community-based activities** that promote physical activity and social connection among residents. This partnership reflects how hospitals and municipalities can align expertise and resources to enhance access to community assets, strengthen local engagement, and support population health beyond traditional care settings.

Enabling aging at home through integrated, place-based community care

The Community Wellness Hub model, developed by the Burlington Ontario Health Team, **embeds health, social, and housing services within seniors' living environments** to provide coordinated, preventative care. By proactively addressing health and social needs where people live, the model reduces barriers to access and helps prevent avoidable emergency visits and hospitalizations, supporting older adults to remain in their homes and communities for longer.

Upstream Models from Around the World

Population health management as a system enabler (United Kingdom)

NHS England describes *Population Health Management* as a core enabling function of integrated care systems, emphasizing a data-led approach to person-centered care, prevention, targeted interventions, and reducing health inequalities using methods such as population segmentation and risk stratification.[23] In parallel, The King's Fund highlights the importance of cohesive leadership across the NHS, local government, and partners to address stalled life expectancy and wide inequalities, drawing on case study sites and system learning from 2023-2024.[24]

"We're going through a lot of change and transformation in the NHS, and whilst the external environment is quite turbulent, it's even more important to be clear about our purpose and mission, especially as a system partner to different organizations in [the] service of our patients and communities."[25]

– Dominique Allwood
CEO of Imperial College Health Partners

Leveraging hospital procurement as an upstream economic lever (United States)

Kaiser Permanente's "impact purchasing" illustrates how a large non-profit health system can use procurement as a lever to improve community economic conditions that influence health (e.g., jobs, income). In 2023, Kaiser Permanente purchased over $22.2B in goods and services and cites an economic impact estimate of procurement supporting over 176,000 jobs and generating $11.8B in income.[26] The health system also frames this as part of an anchor-mission approach that aligns operational strategy with community health goals – an example of how "beyond clinical care" mechanisms can be embedded in core business functions.

Looking Ahead

This primer is intended to establish a shared understanding of population health and upstream action within Ontario's health sector.

It provides a common language and conceptual framework to support learning, reflection, and collaboration. Upstream approaches represent a critical opportunity to translate population health thinking into meaningful, community-oriented action. The Ontario Hospital Association's Health Policy and Applied Research Lab continues to explore hospitals' evolving role in civil society and fostering meaningful partnerships to advance population health and the well-being of their communities.



Additional Resources

CAMH Knowledge Mobilization Hub offers a plain-language resource further explaining the differences in upstream, midstream, and downstream interventions and what is needed for upstream work in the hospital setting.

The Upstream Lab is based at the MAP Centre for Urban Health Solutions focused on improving population health by addressing the social determinants of health and upstream prevention.

The Institute for Better Health, part of Trillium Health Partners, works to better understand and respond to the evolving needs of the community through generating and applying data, evidence, and knowledge.

We welcome contributions from across the field and invite readers to reach out to lab@oha.com if they have additional resources to share.

Glossary of Key Concepts*

Anchor Institution: A significant, long-established organization that is deeply rooted in its community and unlikely to relocate. Anchor institutions have significant economic, social, and institutional influence that can be intentionally leveraged to support community well-being and long-term population health outcomes.

Downstream Interventions: Actions that respond to immediate health needs, typically at the individual or family level. Downstream interventions often focus on treatment or access to services and aim to mitigate the consequences of health issues rather than their underlying causes.

Equity (Health Equity): The absence of unfair and avoidable differences in health outcomes between population groups. Advancing health equity involves addressing the social, economic, and structural conditions that systematically disadvantage certain populations.

Health: A state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity.

High-Performing Health System: A health system that delivers high-quality care, improves population health outcomes, reduces inequities, uses resources efficiently, and is sustainable over the long term. There is no single universal definition, but the concept emphasizes outcomes, equity, and value.

Midstream Interventions: Actions that address intermediary or material conditions that influence health, such as housing quality, employment conditions, or food security. These interventions typically occur at the community, organizational, or regional level.

Population Health: The health outcomes of a population, including the distribution of those outcomes within the group. Population health focuses not only on average outcomes, but also on differences in health outcomes across sub-groups, with particular attention to inequities.

Population Health Management: The application of population health principles within clinical or health care settings to improve outcomes for a defined patient population. Activities may include measuring population health status, identifying risk factors, using data to inform decisions, investing upstream, and collaborating across sectors.

Public Health: The organized effort of society to protect, promote, and improve health and to prevent injury, illness, and premature death across populations. Public health traditionally focuses on disease prevention, health promotion, and policy action.

Social Determinants of Health (SDOH): The non-medical conditions that influence health outcomes. These include the conditions in which people are born, grow, live, work, and age, as well as the broader economic, social, and political systems that shape daily life.

Social Gradient in Health: The consistent relationship between socioeconomic position and health outcomes, whereby individuals and groups with lower socioeconomic status experience worse health and shorter life expectancy than those with higher status.

Social Medicine: An interdisciplinary field that examines how social, economic, political, and cultural factors influence health and disease. Social medicine emphasizes community engagement, prevention, organization of services, political action, and investigation of the root causes of illness.

Social Needs: An individual's most immediate and personally prioritized social challenges, shaped by their circumstances, preferences, and values. Social needs may be influenced by broader social risks but are not synonymous with them.

* Glossary terms have been referenced appropriately within the brief.

Social Risk Factors: Specific adverse social conditions associated with poor health outcomes, such as housing insecurity, food insecurity, unemployment, or social isolation. Social risk factors can be identified at the individual level and targeted through interventions.

Structural Determinants of Health: The social, economic, and political mechanisms that generate and maintain social hierarchies and inequities, including income distribution, racism, social exclusion, and power relations. Structural determinants shape exposure to social risks and opportunities across populations.

Upstream Interventions: Actions that address the root social, economic, and structural causes of poor health and inequities. Upstream interventions aim to change the conditions that give rise to health risks, often through policy, systems, and cross-sector collaboration.

Well-Being: A broad concept encompassing physical health, mental and emotional health, social connectedness, and overall quality of life at both the individual and community level.

References

1. Kindig, D. & Stoddart, G. (2003). What is population health? American Journal of Public Health, 93(3), 380-383, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447747/
2. World Health Organization (WHO) (n.d). Constitution. https://www.who.int/about/governance/constitution
3. Public Health Agency of Canada (2018). Key health inequalities in Canada: A national portrait. Pan-Canadian health inequalities reporting initiative. https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/science-research/key-health-inequalities-canada-national-portrait-executive-summary/key_health_inequalities_full_report-eng.pdf
4. Northwestern Health Unit. Equity vs equality. Retrieved in May 2026: https://www.healthequitymatters.ca/health-equity/
5. Choi, E. & Sonin, J. (2018, February). Determinants of health. GoInvo. https://www.goinvo.com/vision/determinants-of-health/#methodology
6. Epimonitor.net. (2024). Highlights From an Australian Interview with Sir Michael Marmot and His Recent Canadian Presentation to Health Economists. Available at: https://epimonitor.net/Michael_Marmot_Interview.htm
7. World Health Organization (WHO) (n.d). Social determinants of health. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1
8. Health Quality Ontario (2016). Income and health: Opportunities to achieve health equity in Ontario. Retrieved from https://content.foodbankscanada.ca/wordpress/2022/03/health-equity-report-en.pdf
9. Marmot, M. (2015). The health gap: The challenge of an unequal world. Bloomsbury Publishing, USA.
10. Public Health Ontario. (2023). Health equity snapshot: Potentially avoidable mortality by material deprivation and marginalization in Ontario. Public Health Ontario. https://www.publichealthontario.ca/en/data-and-analysis/health-equity/avoidable-mortality-health-inequities
11. Public Health Ontario. (2024). Potentially avoidable mortality in Ontario: Snapshot (2014–2023). Public Health Ontario. https://www.publichealthontario.ca/en/data-and-analysis/mortality-overall-health/avoidable-mortality
12. Office of the Chief Medical Officer of Health of Ontario. (2024). 2023 annual report: Balancing act—An all-of-society approach to addressing substance use and harms. Government of Ontario. Retrieved from https://www.ontario.ca/files/2024-04/moh-cmoh-annual-report-2023-en-2024-04-02.pdf
13. Rosella LC, Buajitti E, Daniel I, Alexander M, Brown A. Projected patterns of illness in Ontario. Toronto, ON: Dalla Lana School of Public Health; 2024.
14. Raphael, D. et al. (2020). Social Determinants of Health: The Canadian Facts. 2nd edition. Oshawa: Ontario Tech University Faculty of Health Sciences and Toronto: York University School of Health Policy and Management.
15. National Collaborating Centre for Determinants of Health (2014). *Let's talk: Moving upstream.* https://nccdh.ca/images/uploads/Moving_Upstream_Final_En.pdf
16. Ray, R., Lantz, P. M., & Williams, D. R. (2023). Upstream policy changes to improve population health and health equity: A priority agenda perspective. The Milbank Quarterly, 101(Suppl. 1), 20–35. https://doi.org/10.1111/1468-0009.12640
17. Kindig, D. (2015, April 6). What are we talking about when we talk about population health? Health Affairs Blog. https://www.healthaffairs.org/do/10.1377/hblog20150406.046151/full/
18. Canadian Public Health Association (n.d). What is public health? https://www.cpha.ca/what-public-health#:~:text=Public%20health%20is%20the%20organized,the%20health%20of%20all%20Canadians
19. Green, K. & Zook, M. (2019, October 29). When talking about social determinants, precision matters. Health Affairs Blog. https://www.healthaffairs.org/do/10.1377/hblog20191025.776011/full/
20. Dalhousie University (n.d). What is social medicine? Social Medicine Network of Nova Scotia. https://www.dal.ca/sites/social-medicine/about/what-is-social-medicine-.html
21. Alderwick, H. & Gottlief, L.M. (2019, June). Meanings and misunderstandings: A social determinants of health lexicon for health care systems. The Milbank Quarterly. https://www.milbank.org/quarterly/articles/meanings-and-misunderstandings-a-social-determinants-of-health-lexicon-for-health-care-systems/

22. Ontario Hospital Association (2025). Hospitals as Community Anchors: Adopting an “Anchor Mission”. Research brief. https://www.oha.com/Bulletins/Anchor%20Institutions%20Brief_Final.pdf

23. NHS England (2026). Population health management. https://www.england.nhs.uk/integratedcare/phm/

24. Buck, D. et al. (2024). Public health and population health: Leading together. The King’s Fund. https://assets.kingsfund.org.uk/f/256914/x/d90fd1c682/public_health_population_health_leading_together_report_oct2024.pdf

25. Onyekachi, C. & Tollast, O. (2025). Improving population health and recognising kindness as a strategic asset. https://www.salzburgglobal.org/newsroom/latest-news/improving-population-health-and-recognising-kindness-as-a-strategic-asset

26. Healthcare Anchor Network (2026). Kaiser Permanente: Driving Community Health Through Impact Spending. https://healthcareanchor.network/2026/01/kaiser-permanente-impact-purchasing-case-study/

Ontario Hospital Association

oha.com