GUIDANCE REPORT

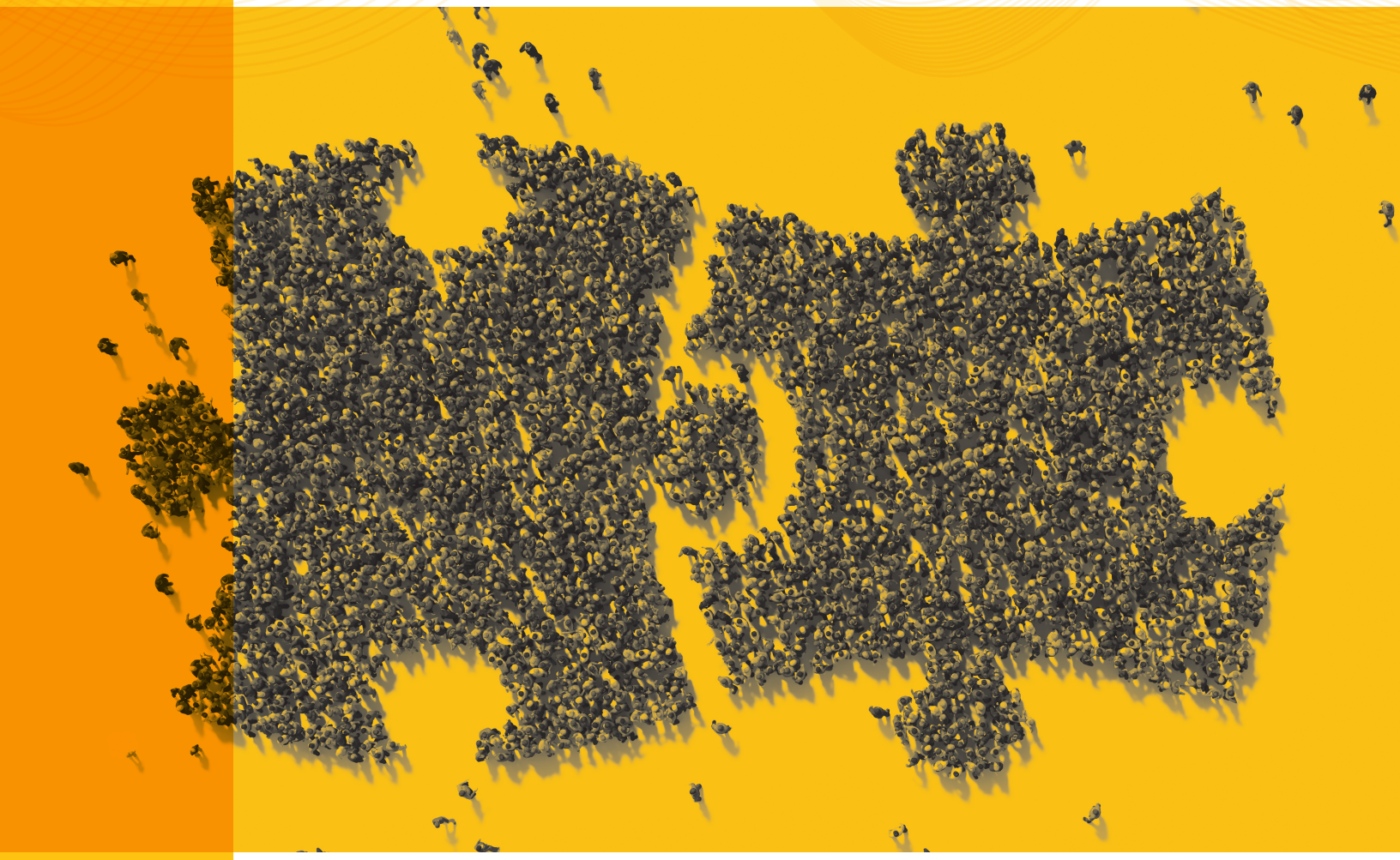
September 2020

Converge3

Integrating health, economic and equity evidence to inform policy

Understanding Social Determinants of Health to Address Hallway Medicine and Improve Population Health:

A Converge3 Guidance Report



About this Report
This report was prepared by Converge3. We appreciate the participation of Ontario-based experts and stakeholders in a roundtable discussion that informed the report. We also appreciate the participation of graduate students in the Dalla Lana School of Public Health's Public Health Policy Fall Institute who contributed to analyses that inform this work. Funding for this project was provided by the Dalla Lana School of Public Health. The views expressed in this report are those of Converge3 and do not necessarily reflect those of the Dalla Lana School of Public Health or the University of Toronto.

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About Converge3
Converge3 is a policy research centre based in the Institute of Health Policy, Management and Evaluation at the University of Toronto that focuses on integrating health, economic and equity evidence to inform policy. The Centre was initially funded by the Province of Ontario and included multiple partner organizations, including Li Ka Shing Knowledge Institute at St. Michael's Hospital, McMaster University, Ottawa Hospital Research Institute, ICES, Health Quality Ontario, Public Health Ontario, and the Ontario Ministry of Health and Long-Term Care.

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Contents

Key findings

This report provides practical, feasible and evidence-based policy guidance on how addressing social determinants of health can help to improve population health and reduce the negative and harmful consequences of hallway medicine in Ontario.

Converge3 convened a steering group, conducted a targeted literature review, held a stakeholder roundtable to discuss policy options, and worked with graduate students studying public health policy in developing this report. We selected four areas of focus and outline several policy options within each, summarized below:

Social prescribing is a structured way for clinicians to refer people who access primary care to a range of local, non-clinical services. Policy options include:

- Educating clinicians across a range of experiences about what social prescribing entails.
- Identifying and integrating best methods for selecting patients who would benefit from social prescribing.
- Providing financial and non-financial incentives for clinicians to encourage uptake of social prescribing.
- Making social prescribing accessible and feasible at the health system level, such as by including include link workers within Ontario Health Teams.

Housing, Homelessness and Health. Addressing social needs in health care will fail unless a person has stable, affordable, appropriate and safe housing. Policy options include:

- Integrating discharge from hospital with access to social housing.
- Scale-up and implementation of targeted housing initiatives for people who are homeless with longstanding mental illness through a *Housing First* approach, with dedicated funding and integration of health and social services.
- Expansion of the provision of portable housing benefits (direct financial assistance to cover rent) to qualifying households to support rental market entry and flexibility.

Data collection, mobilization and integration is key for providing better and more efficient services and for planning, research and service optimization. Policy options include:

- Expanding the scope of data collected to include social data alongside health records, such as when registering for public health insurance or by incorporating such data into existing electronic health records.
- Effectively linking data collected by different agencies and sectors in Ontario, such as data about health, educational attainment, social services use, immigration, disability services and assistive devices use, criminal justice system involvement and incarceration.
- Providing health and social service providers with timely, comprehensive, and accurate data at the point of care.

This report provides practical, feasible and evidence-based policy guidance on how addressing social determinants of health can help to improve population health and reduce the negative and harmful consequences of hallway medicine in Ontario

Mental health in all policies is about recognizing that addressing mental health needs should extend through multiple sectors in government. Policy options include:

- Finding champions within government and developing efforts to encourage inter-sectoral action.
- Encourage screening and referral for mental health challenges and addictions in the workplace through tax incentives or other financial rewards to employers who implement screening programs alongside timely referral programs for individuals needing additional care.
- Enhancing community treatment for mental health needs, including greater support within schools and workplaces.

Any subsequent policy or program development and implementation activities should include meaningful public, community and patient engagement to ensure adequate experiential evidence is gathered. This includes consulting with a wide range of people with lived experience relevant to the specific areas of focus noted.

Introduction

Ontario currently faces several challenges in meeting increasing demands on the health system. Pressures on the health system frequently manifest in hospitals, where patients experience long wait times and crowding, often characterized as hallway medicine. The hospital sector has recognized that many of the solutions to these problems are to be found outside of hospitals.[1] The causes of hallway medicine are complex and numerous.[1,2] Solutions to the hallway medicine problem lie across the health system, from primary prevention of disease, to improved access to primary care and community services, increased capacity in long-term and home care, and improved integration and efficiencies across all domains.[1,2]

To address these challenges, the Premier's Council on Improving Healthcare and Ending Hallway Medicine was established in 2018. Furthermore, improving population health for Ontario is a priority for both the Premier's Council on Improving Healthcare and Ending Hallway Medicine and the Ontario Ministry of Health. In its second report, entitled "A healthy Ontario: Building a sustainable health care system", published in June 2019, the Premier's Council noted the importance of social determinants of health to overall population health, and recognized that *"many of these economic and social issues are handled outside of the health care system in other ministries and governments."*[2, 3]

Social determinants of health, defined by the World Health Organization as the conditions in which we are born, grow, live, work and age,[4] play a significant role in the health of a population and may be more important than health care in improving population health.[5,6] Population health is a broader concept that has been defined as "the health outcomes of a group of individuals,

Box 1: Key Definitions

Downstream: Interventions and strategies that focus on providing equitable access to care and services to mitigate the negative impacts of disadvantage on health (National Collaborating Centre for Determinants of Health Glossary)

Integrated Health Services: Health services that are managed and delivered so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care services, coordinated across the different levels and sites of care within and beyond the health sector, and according to their needs throughout the life course (Contandriapoulos, Denis, Touati, & Rodriguez, 2003)

Population Health: The health outcomes of a group of individuals, including the distribution of such outcomes within the group, and policies that link the two (Kindig & Stoddart, 2003)

Public Health: What we do collectively to assure the conditions in which people can be healthy (Institute of Medicine, 1998)

Social Determinants of Health (SDOH): The social and economic circumstances in which people live and work and how such circumstances influence health and quality of life (Silverstein, Hsu, & Bell, 2019)

Upstream: Interventions and strategies that focus on improving fundamental social and economic structures in order to decrease barriers and improve supports that allow people to achieve their full health potential (National Collaborating Centre for Determinants of Health, Glossary)

Social determinants of health, defined by the World Health Organization as the conditions in which we are born, grow, live, work and age, play a significant role in the health of a population and may be more important than health care in improving population health

including the distribution of such outcomes within the group"[7] (For other key definitions, see Box 1). The King's Fund has conceptualized population health as having four pillars, shown in Figure 1, one of the four which captures the wider determinants of health.[8]

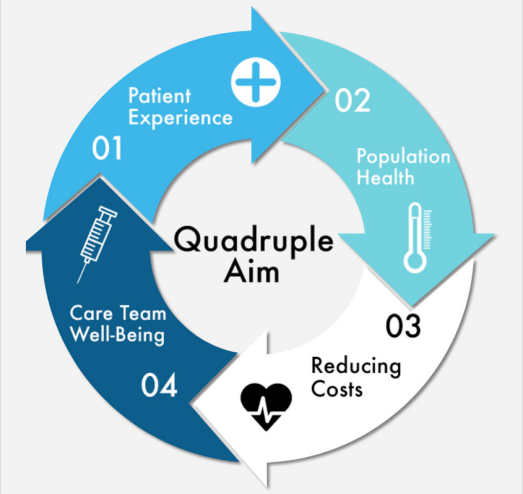
The Premier's Council report also stated that their vision for Ontario is well aligned with the "Quadruple Aim", an internationally recognized healthcare quality framework initially developed by the Institute for Healthcare Improvement.[9] The four components of the Quadruple Aim include improving population health, patient experience, provider experience, and reducing costs (Figure 2).

The imperative to address social determinants of health within a robust quadruple aim strategy is succinctly described in the introductory statement of a 2019 U.S. National Academies of Science Consensus Report: *"The consistent and compelling evidence concerning how social determinants shape health has led to a growing recognition throughout the health care sector that improvements in overall health metrics are likely to depend— at least in part— on attention being paid to these social determinants."*[10]

Our objective is to develop practical, feasible and evidence-based policy guidance on how addressing social determinants of health can help to improve population health and reduce the negative and harmful consequences of hallway medicine for both the patient and health system.

Figure 1: The Four Pillars of Population Health (*The King's Fund, 2019*)[8]

Figure 2: The Quadruple Aim (*Institute for Healthcare Improvement*)[9]



Approach

On behalf of the Dalla Lana School of Public Health (DLSPH), Converge3 led this project, which included the following main components:

- Establishment of a steering group of DLSPH faculty including individual interviews and group engagement with members
- Targeted literature review
- Stakeholder roundtable discussion
- Student group work at the DLSPH Public Health Policy Fall Institute

To facilitate productive discussions with stakeholders, we developed an initial framework for the project that aligned with our project objective. We noted the following considerations and observations:

- The quadruple aim identifies the objective of an effective health care system as improving patient and caregiver experiences, improving the health of populations, reducing the cost of health care, and improving the work life of providers[9]
- Achieving the quadruple aim requires actions that address social determinants (at a population level) and actions that address social need (at an individual level)
- Social determinants and social needs are often correlated with health care use[11]
- While addressing social determinants and social needs has the potential to be cost saving, these savings may be more likely to be realized over longer time horizons[12,13,14]

We reviewed key reports and recommendations developed by Canadian researchers and the World Health Organization Commission on social determinants of health.[13,15,16,17,18,19,20] We recognize that social determinants for Indigenous and non-Indigenous populations in Ontario share some common elements, such as poverty. However, we acknowledge that Indigenous populations have distinct histories and experiences of discrimination and multi-generational trauma, as documented by the Truth and Reconciliation Commission.[21] The Commission outlined steps to meaningfully engage with Indigenous peoples in addressing their health. While this report addresses some social determinants of health that are relevant to Indigenous populations, we did not have the capacity to addresses these issues fully or to develop recommendations that are specific to Indigenous communities. We strongly recommend that robust processes are put in place to fully engage Indigenous peoples and their organizations in future reports that address social determinants of health issues, since continuing to neglect Indigenous concerns can further contribute to marginalization. The Commission also made several recommendations to improve the health of Indigenous populations and action on these recommendations is warranted.[22]

Converge3 identified experts internal to the DLSPH for initial interviews and discussion, and to form a steering group along with Converge3 faculty for the project (Table 1). The steering group met to discuss the project's conceptual framework and potential policy options, plan the stakeholder roundtable and review drafts of this report.

Stakeholders invited to the roundtable discussion included experts in health care delivery, research, policy, community health, and public members. Twenty-one participants, including members of the steering group and a facilitator, spent a half day in a roundtable discussion on potential policy actions.

Table 1: Steering Group Membership

Member	Primary Affiliations
Dalla Lana School of Public Health (DLSPH) Faculty Members	
Heather Manson	Consultant Physician and Former Chief, Health Promotion, Chronic Disease and Injury Prevention, Public Health Ontario; Assistant Professor – DLSPH
Laura Rosella	Associate Professor – DLSPH; Principal Investigator and Scientific Director – Population Health Analytics Laboratory, Canada Research Chair in Population Health Analytics
Robert Schwartz	Professor – Institute of Health Policy, Management and Evaluation; Executive Director – Ontario Tobacco Research Unit
Ross Upshur	Professor and Division Head, Clinical Public Health – DLSPH
Converge3 Faculty Members	
Ahmed Bayoumi	Scientific Director, Converge3; Scientist – MAP Centre for Urban Health Solutions, St. Michael's Hospital, Unity Health Toronto
Mark Dobrow	Executive Director, Converge3; Associate Professor – Institute of Health Policy, Management and Evaluation
Rebecca Hancock-Howard	Fellow, Converge3; Assistant Professor – Institute of Health Policy, Management and Evaluation

Stakeholders invited to the roundtable discussion included experts in health care delivery, research, policy, community health, and public members. Twenty-one participants, including members of the steering group and a facilitator, spent a half-day in a roundtable discussion on potential policy actions. The list of roundtable participants can be found in Appendix 1. The roundtable followed the Chatham House Rule to enable a full and open discussion.[23]

Aligned with this project, approximately 30 graduate students in the DLSPH Collaborative Specialization in Public Health Policy (PHP) program participated in a full-day training institute that addressed the theme of "Prescribing for Health". Led by a member of the steering group, Dr. Schwartz, the PHP institute was made available to Converge3 to present the initial findings of the stakeholder roundtable and to receive feedback from students, who formed small working groups to provide further assessment and insight on the feasibility and merit of potential policy actions discussed at the roundtable.

What we learned

There is growing recognition of the important role the health system can play in addressing the social determinants of health, which has been the focus of a number of Canadian and international reports over the last decade (Box 2).

Health system actions to address social determinants of health broadly described across these reports include:

- Providing leadership on the issue
- Ensuring universal access to health services and minimizing out-of-pocket spending
- Supporting equitable distribution of the health workforce and access across geographies
- Developing capacity to address social needs

The 2019 report by the U.S. National Academies of Science, entitled "Integrating Social Care into the Delivery of Health Care: Moving Upstream to Improve the Nation's Health"[7], outlines the '5 A' approach for conceptualizing a health sector role in addressing social issues. Their definitions of the 5 As and a worked example relating to transportation are shown in Table 2.

A recent systematic review by Gottlieb et al. (2017) identified interventions within health care that can address social and economic needs. Their review categorized the initiatives as:

- **Intervention models:** typically clinic-based screening for social and economic needs, followed by linkage with appropriate social services
- **Interventions targeted to specific populations:** e.g., by disease state, demographic characteristic, social or economic need
- **Targeting social determinants of health (outside of health care):** e.g., legal services, financial services, addressing food insecurities and both housing and education needs

Box 2: Reports that focus on the role of the health system in addressing social determinants of health

- Closing the Gap in a Generation; WHO Commission on Social Determinants of Health (2008)[12]
- Social Determinants of Health: The Canadian Facts; Mikkonen & Raphael (2010)[13]
- Integrating Social Determinants of Health and Health Equity into Canadian Public Health Practice; National Collaborating Centre for Determinants of Health (2010) [15]
- A Review of Frameworks on the Determinants of Health; Canadian Council on Social Determinants of Health (2015)[20]
- Integrating Social Care into the Delivery of Health Care: Moving Upstream to Improve the Nation's Health ; U.S. National Academies of Science (2019)[7]

Health system actions to address social determinants of health broadly described across these reports include: providing leadership on the issue; ensuring universal access to health services and minimizing out-of-pocket spending; supporting equitable distribution of the health workforce and access across geographies; developing capacity to address social needs.

A recent themed issue in the American Journal of Preventive Medicine focused on healthcare sector activities to identify and intervene on social risks. These activities were characterized as:

- **Screening for social risks:** focusing on who, what, when and how, along with impacts
- **Reducing social risks:** programs that address health determinants and connect patients with social services through use of social workers or patient navigators
- **Healthcare policy to support health and social care integration:** including policies and payments that may affect the adoption of risk screening and subsequent interventions[24]

Table 2: Definitions of Health Care System Activities that Strengthen Social Care Integration (From Table S-1, NAS report)[9]

Activity	Definition	Transportation-related Example
Awareness	Activities that identify the social risks and assets of defined patients and populations	Ask people about their access to transportation
Adjustment	Activities that focus on altering clinical care to accommodate identified social barriers	Reduce the need for in-person health care appointments by using other options such as telehealth appointments
Assistance	Activities that reduce social risk by providing assistance in connecting patients with relevant social care resources	Provide transportation vouchers so that patients can travel to health care appointments. Vouchers can be used for ridesharing services or public transit
Alignment	Activities undertaken by health care systems to understand existing social care assets in the community, organize them to facilitate synergies, and invest in and deploy them to positively affect health outcomes	Invest in community ride-sharing or time-bank programs
Advocacy	Activities in which health care organizations work with partner social care organizations to promote policies that facilitate the creation and redeployment of assets or resources to address health and social needs	Work to promote policies that fundamentally change the transportation infrastructure within the community

The Permanente Journal also devoted a 2018 themed issue to addressing basic resource needs in clinic settings,[25] further highlighting the recent and sustained focused on addressing social need in health care. Kaiser Permanente, a leading healthcare provider in the U.S., recognizes the need for a business model that creates economic incentives for prevention and upstream investments in health and addresses unmet social needs through integrated care delivery: *"The question is no longer whether there is an appropriate role for the U.S. health care system in addressing social determinants of health, but what that role is, how to create the right policy context for innovation and how health care can partner more effectively with providers of social services to meet patients' most pressing needs given the fragmented, typically under-resourced nature of the social sector"*. [26]

The King's Fund draws similar conclusions for the U.K. regarding the importance of population health as the focus of an integrated care system. As shown in Figure 1, they use a four pillar framework. Under this conceptualization, integrated care is inextricably linked to population health. An integrated health system will have impacts on the other three pillars (and they on it), including determinants of health, but all will be supporting and improving population health. Their report on integrated care for community services makes explicit that the focus must be on improving population health.[27] The former Chief Executive of the King's Fund, Sir Chris Ham, advocates that transformation of the system is essential for the sustainability of the NHS and that its 10-year plan should centre on population health.[26]

Health care system activities that strengthen social care integration can be defined as Awareness, Adjustment, Assistance, Alignment, Advocacy (the 5 "A" Framework).

How to Approach SDOH from a Health Systems Perspective

The roundtable discussion involved a range of perspectives about how to address the social determinants of health from a health systems perspective. As previously defined, social determinants of health refer to the conditions in which we are born, grow, live, work and age. Many participants at the roundtable believe that effective actions are therefore further upstream from the health system. Additionally, within the health system, public health approaches may be more appropriate than clinical care for some issues; experts also supported a vision of integrated clinical medicine and population health, where practitioners and institutions have the capacity to deliver care that meets the needs of both individuals and communities. The roundtable experts identified published research to support these assertions. [28, 29]

While roundtable participants welcomed the opportunity to provide advice and support this initiative, they noted an important caveat that a health systems approach to social determinants of health is, by its very nature, limited, and may not represent the most effective way to improve population health. Nevertheless, there was general agreement that health systems need to understand social determinants of health and integrate this understanding into their activities. Stakeholders further emphasized that aiming to identify policy actions to improve (A) population health and (B) population health to thereby reduce the negative consequences of hallway medicine are distinct objectives that require different considerations. We ultimately agreed that the intent of this project was to focus on the latter.

What Policy Actions Should be Considered

Drawing on their range of experiences, roundtable participants brainstormed a host of potential policy actions that the healthcare system could take to address social determinants of health and improve population health, along with key enabling levers of these actions (Table 3a). The roundtable participants also highlighted key diseases/conditions and health care sectors where a social determinants of health focus was highly relevant (Table 3b).

Roundtable participants … noted an important caveat that a health systems approach to social determinants of health is, by its very nature, limited, and may not represent the most effective way to improve population health.

Table 3a: Roundtable Feedback on Policy Actions and Enabling Levers

Potential Policy Actions	Description
Social prescribing	• Social prescribing in general • Wellness prescribing • Addressing social isolation • Addressing life satisfaction
Medical education (safety and trauma)	• Cultural safety training in medical education • Trauma and violence informed care • Improving population and public health training elements in Undergraduate Medical Education and Continuing Medical Education curriculum
Social services	• Housing solutions – fundamental across disease areas and settings • Ensuring people are accessing existing benefits to which they are entitled • Basic income • Financial services co-located with health services (e.g., tax clinics)
Enabling Levers	**Description**
Public and patient engagement	• Community, public and patient co-design • Meaningful engagement of patients
Community engagement	• Ontario Health Teams: Support/lift up OHTs that address social needs well • Stronger partnerships with local public health to strengthen community links
System level/ intersectoral action	• Provide inter-sectoral leadership to raise awareness, provide guidance and motivate action to address social determinants of health • Health in all policies approach • Better use of existing Health Equity Impact Assessment tool
Funding	• Funding models to incentivize management of complex cases in primary care • Funding models to incentivize community care rather than hospital alternate level of care (ALC) days • Capitation based funding for primary care teams to support multidisciplinary care including social care
Data as a key enabler of action	• Better collection of data on socio-economic status and demographics, e.g., race and ethnicity • Conduct community consultation on privacy and acceptability • Increase system capacity for data integration - break down silos – enhance health and non-health data linking

Within the health system, public health approaches may be more appropriate than clinical care for some issues

Table 3b: Policy Actions by Key Diseases/Conditions and Health System Sectors

	Description
Key disease/ condition areas	• Mental health/addictions (substance use and alcohol strategies) • Aging and dementia • Patients with complex needs and multi-morbidity

Key health sectors	• Primary health care
	  • Social needs screening (assessment) in primary care
	  • Shared decision-making between patients and providers
	  • Properly incentivized and resourced primary care system
	  • Strengthening multi-disciplinary team-based primary care[30]
	  • Improving distribution of team-based primary care across province; addressing the inverse care law[31]
	  • Ensuring data and activities are communicated between community health centres and primary care practitioners
	  • Identifying and managing patients with complex needs and multi-morbidities earlier in the life course, including identifying social needs and supports
	  • Strengthening prevention initiatives in primary care settings
	• Public health
	  • Primary prevention: better definition of what it means and determining optimal investments in public health prevention efforts
	  • Re-orienting public health systems to focus more on outcomes rather than activities
	  • Harm reduction strategies for people who use alcohol and for people who use drugs
	  • Working with other sectors at the system level to implement population health strategies
	• Home care
	  • Build up community capacity

While selecting policy actions we considered the following criteria: offer high potential for impact; feasible from a health systems perspective; offer both specific, short-term as well as longer-term activities; not duplicative of other initiatives or consultations planned or announced by the Ontario government

Prioritizing Policy Actions

Converge3 considered the robust discussion at the roundtable and the many policy actions that could be taken to address the project objective. We identify a subset of policy actions that are most promising for Ontario in the current context. While selecting policy actions we considered the following criteria:

- Offer high potential for impact
- Feasible from a health systems perspective
- Offer both specific, short-term as well as longer-term activities
- Not duplicative of other initiatives or consultations planned or announced by the Ontario government

Based on these criteria, Converge3 selected four issues on which to focus its policy guidance. The issues are: (i) social prescribing, (ii) housing, homelessness and health, (iii) data collection, integration and mobilization, and (iv) mental health in all policies (other policy actions are noted in Box 3). Specific actions for these four prioritized areas are outlined further in the policy guidance section.

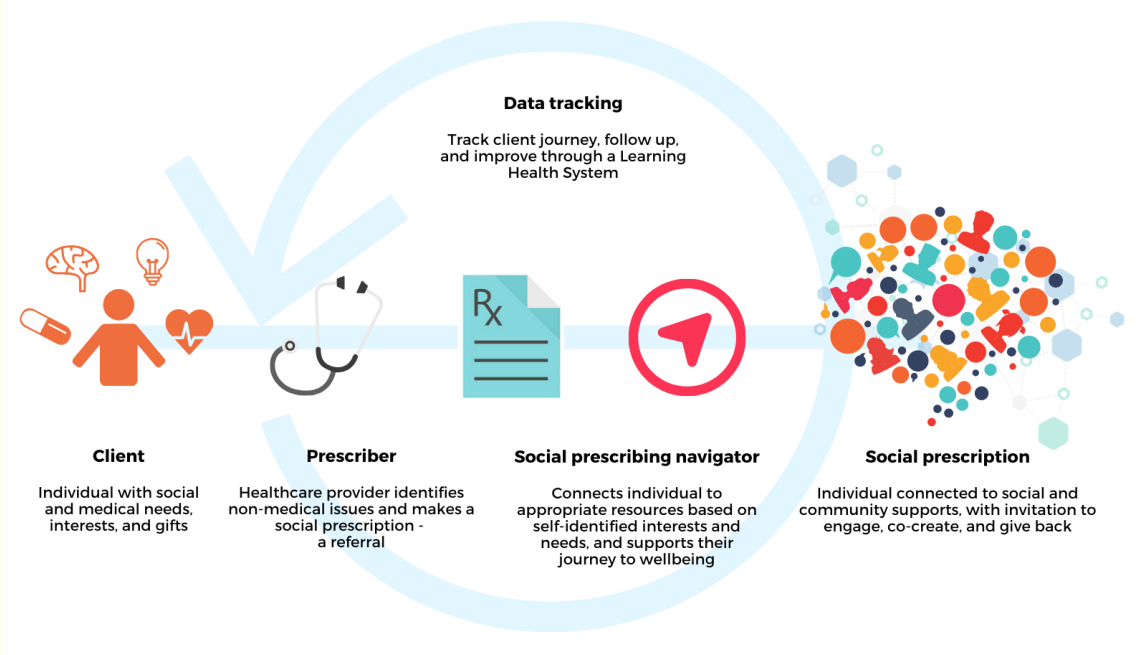
Social Prescribing: Enhancing the Connection Between Health and Social Care

Social prescribing was highlighted by roundtable participants as a key policy activity to scale and spread. Screening for social needs, a component of social prescribing, was frequently mentioned as an activity that both addresses social determinants and that can be incorporated into health systems. Social prescribing is a structured way for clinicians to refer people who access primary care to a range of local, non-clinical services, ideally in close collaboration with patients, enabling them to become active participants in their health and wellbeing. In the U.K. and U.S., such activities have been effective, leading to improved health outcomes and reducing health service utilization, although some evidence gaps remain.[20, 32] A recent systematic review found that social prescribing benefits include positive social benefits (e.g., increases in self-esteem, mood, well-being, sociability, motivation, physical activity, new interests and skills) and reduced use of general practitioners and primary or secondary care services.[25]

In Ontario, the Alliance for Healthier Communities has been leading a pilot project called *Rx: Community* that investigates the role of a 'link' worker in Community Health Centres to support patients after their primary care provider identifies a social need.[33] The social prescribing pathway is shown in Figure 3. Link workers, also called social navigators, are typically expected to have professional training in social work. The pilot projects are occurring in 11 Community Health Centres across Ontario. The extent to which similar roles and activities are already undertaken by existing Family Health Teams is unknown. The Ontario pilot concludes in January 2020.

Social prescribing was highlighted by roundtable participants as a key policy activity to scale and spread

Figure 3: Social Prescribing Pathway (Image reproduced with permission from the Alliance for Healthier Communities)[36]



Housing, Homelessness, and Health

The roundtable participants emphasized that efforts to address social needs in health care will fail unless a person has stable housing, which addresses its affordability, quality and safety. Despite the best intentions of health care providers, the lack of stable housing often leads to ongoing health problems and many return visits to hospitals and other health service delivery providers, thus negatively affecting health outcomes and increasing use of health services.[34, 35]

Ontario already has policy initiatives underway to address housing, including affordability issues, that fall under the mandate of non-health ministries. There are also federal and municipal programs addressing housing. The Ministry of Health could play a leadership role in supporting these efforts given the strong link between housing and health.[36]

The roundtable participants emphasized that efforts to address social needs in health care will fail unless a person has stable housing, which addresses its affordability, quality and safety

The University Health Network (UHN) has recently partnered with the City of Toronto and the United Way of Greater Toronto on a novel hospital-led affordable housing initiative.[37] As stated by the Globe and Mail: *"Although a complicated mix of factors is to blame for what Ontario Premier Doug Ford calls "hallway medicine," finding homes for poverty-stricken patients who no longer need acute-care beds could help, as could keeping high-needs patients out of the emergency department in the first place."*[26] The UHN will dedicate land it owns to affordable housing. While the plan for the land is still under consideration, with close collaboration with the local community, it is worthwhile to begin thinking whether similar initiatives should be undertaken by other Ontario hospitals.

"Housing First" is a an approach to ending homelessness based on the principles that recovery is possible, and that effective recovery is patient-directed.[38] The Housing First approach centres on quickly moving people with persistent mental illness who are experiencing homelessness into independent and permanent housing, and then providing additional supports and services as needed.[39] The Los Angeles County Department of Health Services established a supportive housing initiative for patients with complex needs experiencing homelessness. An evaluation of this program found that it led to a reduction in the use of public services, notably medical services (particularly emergency room visits and inpatient care), as well as mental health services, leading to a reduction in costs per patient.[40]

Canada has experience with its own Housing First study called At Home/Chez Soi.[41] This research project ran in multiple sites across Canada, and demonstrated that Housing First is effective in addressing homelessness[42] and improving other health and social outcomes.[43] An evaluation found that every $10 invested in the program resulted in almost $22 in savings through averted hospitalizations and other services for high needs patients.[44] An economic evaluation of the At Home/Chez Soi program (across all Canadian sites) found that the program was cost-effective compared to treatment as usual.[45] The sustainability of the At Home/Chez Soi programs depends on local (municipal and provincial) government support.[46]

A portable housing benefit is direct financial assistance provided to qualifying households (the monetary amount and criteria for qualification may differ by program and jurisdiction). A portable housing benefit [47] enables people needing housing to enter the rental market rapidly if social or supportive housing is not available. This type of benefit supports individuals with insecure housing to exercise choice and independence. In Ontario, a portable housing benefit pilot program for survivors of domestic violence was launched by the Ministry of Municipal Affairs and Housing in 2016.[48] Publicly available program evaluations of the survivors of domestic violence-portable housing benefit program were not identified, however, interim surveys and feedback showed that the program participants were extremely grateful and reported increased feelings of security and competence, while administrators reported a high administrative burden.[49] This program, along with an evidence-based policy brief developed by Nelson & Aubry in 2017, could provide useful examples of how to implement a portable housing benefit program.[44]

Integrated data is a key enabler for providing better, more efficient services at front line points of care. Additionally, integrated data supports planning, research and service optimization

Data Collection, Integration and Mobilization

Integrated data is a key enabler for providing better, more efficient services at front line points of care. Additionally, integrated data supports planning, research and service optimization. Roundtable participants highlighted that a lack of integrated data in the health care system, and between health care and other public services, is a significant barrier to improving population health.

Health and social services data exist in silos. Datasets for other social programs, such as education and justice, are also not integrated. [50] Sharing data across ministries has been shown to have broad public support,[51] with many opportunities for potential efficiencies noted in the recent consultation by the Digital and Data Task Force led by the Ministry of Government and Consumer Services. An ideal future state where individuals have a single digital identifier that is used across all public services has been achieved in smaller states such as Estonia, Sweden, Denmark and the Netherlands. The benefits of such a model have been highlighted across many sectors,[52] along with the potential logistical challenges to enacting it. As Ontario develops its data strategy, it will be important for the health system to be an active participant and supporter.

A 2017 policy initiative encouraged including four socio-demographic questions as part of the Ontario Health Insurance Plan (OHIP) card registration and renewal process. The proposed data elements included (i) language preference, (ii) race and ethnicity, (iii) sexual orientation, and (iv) gender identity. This work was led by the Health Commons Solutions Lab and received input and support from 29 community organizations. As described in their policy proposal: "better health data will lead to a better understanding of how different communities and sub-populations experience different health outcomes, service access and quality. This data can sharpen the design of health care system interventions, drive more effective partnering across the public sector and improve the specificity of the health care investment." The rationale for the four data elements, as well as legal, logistical, and operational considerations, are detailed in the policy proposal, which was submitted to the provincial government in 2017. Building on the background policy research conducted for that proposal could lead to clearly identifiable and feasible improvements in data that informs further understanding of social determinants of health.

Roundtable participants noted that while the vast majority of mental health services are provided at the community level, a much smaller portion of available funding is directed there. This funding mismatch was highlighted as a problem, with stakeholders agreeing that the sector is chronically underfunded

Mental Health in All Policies

The roundtable discussion emphasized that mental health and addictions were a vital area in need of improvement. Actions that improve mental health for individuals, whether driven by health systems or non-health sectors, can lead to improvements in their overall health outcomes, which collectively contribute to better population health and more appropriate use of health services. Mental health in all policies is about recognizing that no health issue (including mental health) exists in a vacuum and that mental health considerations need to be present in all policies the government puts forward. Although mental health is often narrowly conceptualized as mental illness and addiction, the mental wellbeing of all people is often neglected and overlooked.

The importance of screening and early intervention was highlighted during the roundtable. Early intervention in schools, workplaces, and primary care was identified as a need to address existing or potential issues early, before the onset of mental illness. The coordination of policies across sectors is key to advancing mental health outcomes and reducing the negative economic consequences related to productivity loss, missing work, or an inability to participate in or return to the labour force. There are strong economic arguments supporting early mental health treatment; prevention and early intervention programs have been demonstrated to be cost saving or cost neutral.[53]

Local strategies and initiatives were seen as crucial to mental health promotion. There was consensus in the roundtable discussion that community engagement was necessary for success. The lived experience of people with mental health challenges is an invaluable resource to inform efficient and effective provision of services. Roundtable participants noted that while the vast majority of mental health services are provided at the community level, a much smaller portion of available funding is directed there. This funding mismatch was highlighted as a problem, with stakeholders agreeing that the sector is chronically underfunded. The Canadian Mental Health Association advocates a 2 percent increase in current social spending, as this would not only see population health improvements but aid in addressing the "burgeoning socio-economic challenges that impact individual and community mental health."[54] Roundtable participants recommended that Ontario Health Teams incorporate a mental health and addictions component into their work plans that supports local community and inter-sectoral action.

Much of the discussion around mental health dovetailed with other issues and policy suggestions. Housing, for example, was frequently cited as inseparable from mental health treatment, as people who live with mental illness are more likely to be marginally housed and interventions cannot be as effective for those in unstable living situations. Social prescribing could be valuable as a tool to ensure that people who live with mental illness benefit from social inclusion and community. Data infrastructure was identified as an enabler necessary for any sustainable improvement in mental health.

Other policy actions included increasing access to home care, developing a comprehensive aging and dementia strategy, a strategy to address social isolation, rethinking the role of the public health system and public health units, and addressing income security

Box 3: Other Policy Actions

Stakeholders proposed several additional policy actions that we do not discuss further in this report but are important to consider as policy actions in other contexts.

- **Increasing access to home care** can help to decrease the number of hospital alternate level of care (ALC) days and directly addresses hallway medicine. While addressing social determinants are important for understanding why access to home care is uneven across the province, there are many initiatives already in place to address such concerns.
- **A comprehensive aging strategy and a comprehensive dementia strategy** are increasingly important as the mean age of the population of Ontario increases and as the prevalence of dementia rises. Such strategies will need to be comprehensive in their approach and may require significant new investments.
- **A strategy to address social isolation**, particularly among seniors, is important and an excellent example of how social determinants can inform the provision of health services. While this is partially addressed in our section on social prescribing (see below), it is an important consideration for future work.
- Stakeholders discussed the need to **rethink the role of the public health system and public health units** to integrate public health with other sectors to move more 'upstream' in preventing adverse health outcomes as well as integrating public health into the planning of health services delivery. Such system-level considerations hold great promise but are unlikely to have short-term impact and need to be considered in the context of government-wide reforms that are currently underway.
- Addressing **income security** is critically important as income is a fundamental determinant of health. This can be done globally, such as through a basic income program (this is not on the policy agenda currently, following the cancellation of the Ontario Basic Income Pilot Project in 2018), or in a targeted approach, such as through social welfare payments. This is an important area for future work but is unlikely to have short-term impacts as reforms to the disability and social welfare systems are already underway.

Policy Guidance

Social Prescribing: Enhancing the Connection Between Health and Social Care

Educating clinicians about what social prescribing entails (what it is, who will benefit, and how it is done) will be necessary. These initiatives should target a broad range of clinicians, including physicians and nurse practitioners, for whom "prescribing" is a defined professional activity. An important question will be whether referral to social services should also be expanded to other clinicians – such as nurses, social workers, rehabilitation therapists, and others (and relatedly, whether a term other than "prescribing" would be more accessible to members of these professional groups). Education will also need to be tailored to clinicians across a range of experience levels, including new trainees as well as established practitioners, with customized educational objectives.

Identifying and integrating best methods for selecting patients who would benefit from social prescribing is an area of active scientific inquiry. The Upstream Lab, led by Dr. Andrew Pinto, holds a CIHR grant to develop standardized tools that clinicians can use to screen patients for social needs.[55] It is anticipated that such tools could be ready for wider dissemination in 2020. Such tools are likely to be more sensitive than clinical practice alone but not necessarily more specific (that is, they will identify patients not currently identified by clinicians, but it is unlikely that patients who are currently identified as having social needs have been falsely characterized). Accordingly, policy implementation of social prescribing to patients identified as having social needs need not be delayed while current research programs are underway.

Incentives for Clinicians may be needed to encourage uptake of social prescribing, particularly if social prescribing is viewed as an additional demand on the time of an already busy practitioner. Such incentives could be financial, such as a specific billing code for free-for-service clinicians or bonus incentives for salaried or capitated clinicians. Incentives could also be non-financial, including incorporating social prescribing as a quality improvement initiative and recognizing excellence in social prescribing publicly.

Making social prescribing accessible and feasible can be addressed at the health system level. For example, Ontario Health Teams (OHTs) could be encouraged or mandated to include link workers as part of the care delivery team. This may not require the development of new services, but rather better support in connecting individuals with existing services. Social prescribing may also be more feasible with better integration of health and social services within OHTs (see data integration below). The feasibility of social prescribing may be enhanced if it is integrated into electronic health records, which may require working with vendors to optimize end-user experiences, and if social prescribing is a shared activity by all clinicians, either by design or by delegation (if prescribing is restricted to clinicians). The latter point is important since the opportunities for identifying people with social needs may occur in the context of many types of clinical encounters.

Targeted housing initiatives for people who are homeless with longstanding mental illness through a Housing First approach is an evidence-based social intervention with demonstrated health benefits.

Housing, Homelessness, and Health

Integrating discharge from hospital with social housing is an innovative approach to address a key determinant of health that is currently being implemented and evaluated by the University Health Network through direct investment in social housing in collaboration with community partners. While such social housing investments may be beyond the scope of most hospitals, better integration of social housing needs with hospital discharge is feasible. For example, home care coordinators and case managers could integrate social prescribing (see above) into hospital discharge plans. Optimal implementation would likely require identifying which patients are at highest risk for re-admission who may therefore be prioritized for housing. There may also be a need for specific services within social housing, such as housing that incorporates harm reduction principles, for people who use substances, or housing in which no substances are used, for people in addiction recovery.

Targeted housing initiatives for people who are homeless with longstanding mental illness through a Housing First approach is an evidence-based social intervention with demonstrated health benefits, including in the Canadian context. Effective scale-up and implementation will require dedicated funding as well as integration of health and social services. Such approaches will require coordination of efforts across levels of government as well across sectors within the provincial government. Continued successful implementation will also require attention to the sustainability of the intervention beyond the time horizon of the research study as well as context-specific considerations regarding implementation in new settings. An implementation science framework to evaluating scale-up could be helpful for this complex intervention.

Providing a Portable Housing Benefit (direct financial assistance for rent payments) allows for those with unstable housing to enter the rental market. Portable Housing Benefits are currently provided to survivors of domestic violence and Housing First participants. Expansion of this program would require dedicated funding and collaboration across levels of government.

Addressing mental health and addictions as a Health in All Policies (HiAP) strategy is important given the high prevalence of such concerns, the frequency with which they are underdiagnosed and, when diagnosed, are undertreated, and the benefits of early intervention in decreasing downstream pressures on the healthcare system

Data Collection, Integration and Mobilization

Expanding the scope of data collected within health records is technically feasible and likely acceptable to most members of the general public, as demonstrated by projects conducted by the Health Commons Solutions Lab and initiative by the Toronto Central LHIN to collect equity data. Such expanded data collection could occur within the context of registering for public health insurance or could be incorporated into existing electronic health records.

Greater integration of data, from a social determinants perspective, would entail effectively linking data collected by different agencies and sectors in Ontario. This could include, for example, better integration of health data with data about educational attainment, social services use, immigration, disability services and assistive devices use, criminal justice system involvement and incarceration, and other data. Such data integration could greatly facilitate research and evaluation of a very large number of initiatives that target social determinants and have implications for population and individual health. However, such integration needs to carefully consider privacy and legal concerns. The current reforms of privacy legislation in Ontario provide an opportunity to plan effectively for comprehensive future data integration.

Providing health and social service providers with **timely, comprehensive, and accurate** data at the point of care is an important objective of data mobilization. Accordingly, mobilization is dependent on data integration (as well as integrating health records across different institutions and providers) but also addresses how to optimally implement access to these data. It will be important to address who can access such data, in which contexts, and for what purposes. Nevertheless, providing healthcare providers with access to some social data elements has the potential to enhance social prescribing (see above).

Greater integration of data, from a social determinants perspective, would entail effectively linking data collected by different agencies and sectors in Ontario

Mental Health and Addictions in All Policies

Addressing mental health and addictions as a Health in All Policies (HiAP) strategy is important given the high prevalence of such concerns, the frequency with which they are underdiagnosed and, when diagnosed, are undertreated, and the benefits of early intervention in decreasing downstream pressures on the healthcare system. An initiative such as this would have implications for sectors that address child and youth services, education, employment, and housing (see above). Sectors would work collaboratively to define objectives and to evaluate progress. An effective HiAP program would require identifying champions within government and focusing efforts to encourage inter-sectoral action.

Screening and referral for mental health and addictions issues is important for early intervention. Individuals may benefit from early intervention and employers may benefit from increased productivity with decreased absenteeism and presenteeism. A mental health in all policies program could encourage screening in the workplace through tax incentives of other financial rewards to employers to implement screening programs. Such implementation would require careful collaboration between employers, unions, and other workers' organizations to ensure that early identification does not lead to inappropriate stigma or discrimination, including early dismissal. An effective and timely referral program for individuals needing care beyond what an employer could offer could be incorporated into the mandate of integrated health services.

Enhancing community treatment for mental health needs can take many forms, including greater support within schools and workplaces. For example, such services could include integrating social workers or other counsellors into human resource departments or ensuring timely access to such services through community-based counsellors.

Conclusions

The objective of this project was to develop practical, feasible and evidence-based policy guidance that focuses on addressing social determinants of health to improve population health and reduce the negative consequences of hallway medicine.

Informed by multiple consultation activities, we have identified four promising issues and corresponding policy actions that could be pursued in Ontario: (i) social prescribing, (ii) housing, homelessness and health, (iii) data collection, integration and mobilization and (iv) mental health in all policies.

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Public Partnership Considerations

Converge3 seeks public participation including people with lived experience relevant to the specific policy questions being addressed through its projects. Converge3 is guided by two individuals, Frank Gavin and Emily Nicholas Angl, who each have considerable experience providing public perspectives. They have served on Converge3's advisory board and provide strategic advice on how to create opportunities for meaningful participation from public and patient stakeholders.

Given the general nature of this specific project, with the aim to provide policy guidance that focuses on addressing social determinants of health to improve population health and reduce the negative consequences of hallway medicine, it was not possible, in advance of the roundtable, to identify public participants with lived experience relevant to specific policy actions identified at the roundtable. Therefore, we invited our two expert public advisors to participate in the roundtable discussion and provide feedback on drafts of this report.

However, as this project is providing policy guidance that targets multiple policy actions that could be taken at the provincial level, there are important follow-up steps to be taken to ensure adequate experiential evidence is gathered to support subsequent policy implementation activities. This includes consulting with a wide range of people with lived experience relevant to the four prioritized policy actions documented in this report. This is an important component of the policy guidance provided in this report.

Next Steps

The report findings are directed to the Dean, Dalla Lana School of Public Health at the University of Toronto and are to be shared with relevant stakeholders, including the public to inform ongoing planning on policy actions that can be taken in Ontario to improve population health and the performance of health services.

Appendix

Appendix 1: Stakeholder Roundtable Attendees

Participant	Primary Affiliations
Sara Allin	Assistant Professor – Institute of Health Policy, Management and Evaluation
Ahmed Bayoumi*	Scientific Director, Converge3; Scientist – MAP Centre for Urban Health Solutions, St. Michael's Hospital, Unity Health Toronto
Gary Bloch	Family Physician – St. Michael's Hospital; Associate Professor – Dept. of Family & Community Medicine
Andrew Boozary	Executive Director of Health and Social Policy – University Health Network
Uppala Chandeskera	Director of Public Policy – Canadian Mental Health Association
Eileen De Villa	Medical Officer of Health – City of Toronto
Mark Dobrow*	Executive Director, Converge3; Associate Professor – Institute of Health Policy, Management and Evaluation
Frank Gavin	Director of Citizen Engagement – CHILD-BRIGHT CIHR SPOR Network; Member, Converge3 Advisory Board
Rebecca Hancock-Howard*	Fellow, Converge3; Assistant Professor – Institute of Health Policy, Management and Evaluation
Sophia Ikura	Executive Director – Health Commons Solutions Lab
Tara Kiran	Family Physician – St. Michael's Hospital; Assistant Professor – Dept. of Family & Community Medicine
Heather Manson*	Consultant Physician and Former Chief, Health Promotion, Chronic Disease and Injury Prevention, Public Health Ontario; Assistant Professor – DLSPH
Kwame McKenzie	Chief Executive Officer – Wellesley Institute
Kate Mulligan	Director of Policy & Communications – Alliance for Healthier Communities; Assistant Professor – DLSPH
Emily Nicholas Angl	Director of Health Engagement and Communication – Reframe Health Lab; Member, Converge3 Advisory Board
Andrew Pinto	Family Physician – St. Michael's Hospital; Director – The Upstream Lab; Assistant Professor, DLSPH
Laura Rosella*	Associate Professor – DLSPH; Principal Investigator and Scientific Director – Population Health Analytics Laboratory; Canada Research Chair in Population Health Analytics
Robert Schwartz*	Professor – Institute of Health Policy, Management and Evaluation; Executive Director – Ontario Tobacco Research Unit
Michael Sherar	Research Assistant, Converge3; PhD Candidate – Institute of Health Policy, Management and Evaluation
Ross Upshur*	Professor and Division Head, Clinical Public Health – DLSPH
Facilitator: Neil Stuart	Neil Stuart Health Care Consulting; Adjunct Professor – Institute of Health Policy, Management and Evaluation
*Steering group member	

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