HASTINGS PRINCE EDWARD
Public Health

Public Health's Role in Addressing the Social Determinants of Health: Where Do We Start?

An Evidence Summary

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Background

Issue

Health is influenced not only by genetic make-up and lifestyle behaviours, but also by living conditions. These conditions, including levels of income and education, social supports, early life experiences, housing, and natural and built environments, are known as the social determinants of health (SDOH). When there are variations in the health status between different groups in society, there is health inequality, and when these differences in health can be addressed through social action, they are considered to be health inequities (Ministry of Health and Long-Term Care [MOHLTC], 2017). Social action to address health inequities involves addressing how the SDOH are experienced.

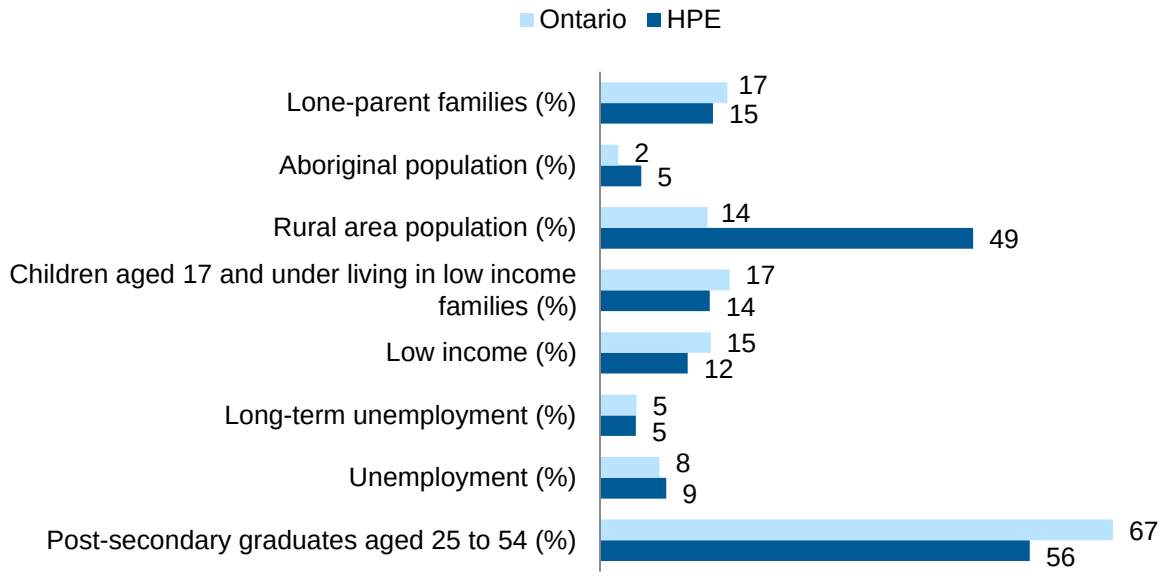
Public health organizations play a critical role in helping society achieve health equity – a society where everyone is able to achieve their optimal health status. A study by Cohen et al. (2013) published in the Canadian Journal of Public Health offers a strong statement declaring the role of public health in addressing the SDOH and health inequities: "the public health sector's foundational values of social justice and equity, and its mandate to promote population health, make it ideally situated to take a strong lead in health equity action" (p.262). This has been further recognized by the Government of Ontario where public health organizations are being directed to "assess the impact of the social determinants of health as they consider the need for programs and services" (MOHLTC, 2017, p.15). Public health organizations in Ontario are required to ensure that their operational plans are evidence-based and that their activities positively influence the ability of individuals to attain their full health potential (MOHLTC, 2017).

In 2016, the Health Promotion Department of Hastings Prince Edward Public Health (HPEPH) set out to improve the internal capacity to address the SDOH. Therefore, this topic was selected to be the focus of an evidence review of published (research and grey) literature. The goal of this review was to identify the key actions of public health organizations in addressing the SDOH with the objective of determining how the Health Promotion Department and the larger organization of HPEPH could evolve to be more effective in reducing health inequities by addressing the SDOH.

Determinants of Health and Health Status

The data in Figure 1 shows differential trends in Hastings and Prince Edward counties (HPE) with regard to the key determinants of income and education. In HPE, 12% of the population is considered to be living on a low income compared to 15% provincially; furthermore, this low income status involves 14% of all HPE children aged 17 and under. Contributing factors to low income include 5% of residents experiencing long-term unemployment and fewer individuals with a high school diploma or post-secondary education than the provincial rates (Statistics Canada, 2013).

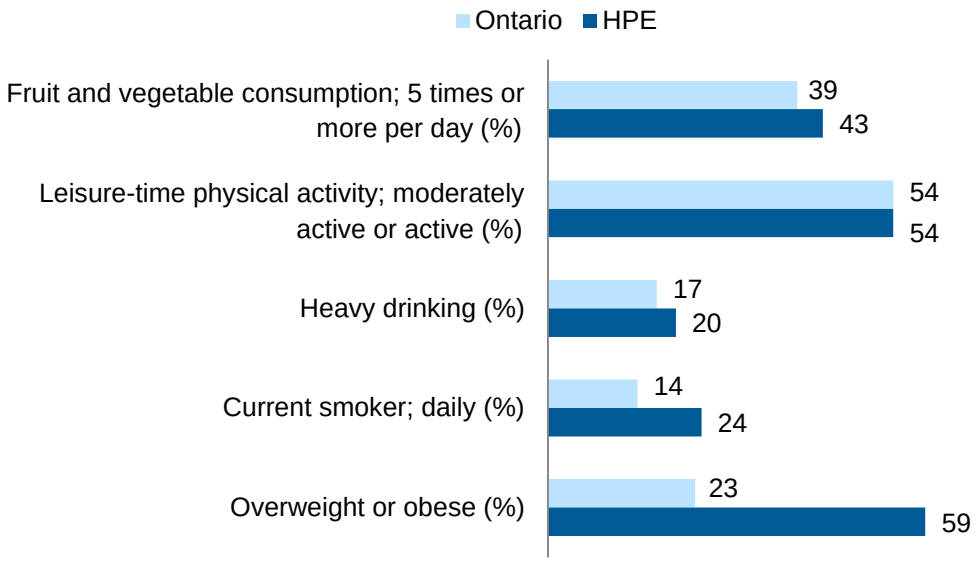
Figure 1. Living and Working Condition Indicators



Unlike many other jurisdictions in Ontario, 49% of HPE's population live in a rural environment and slightly over 5% of HPE residents describe themselves as Aboriginal (Statistics Canada, 2013).

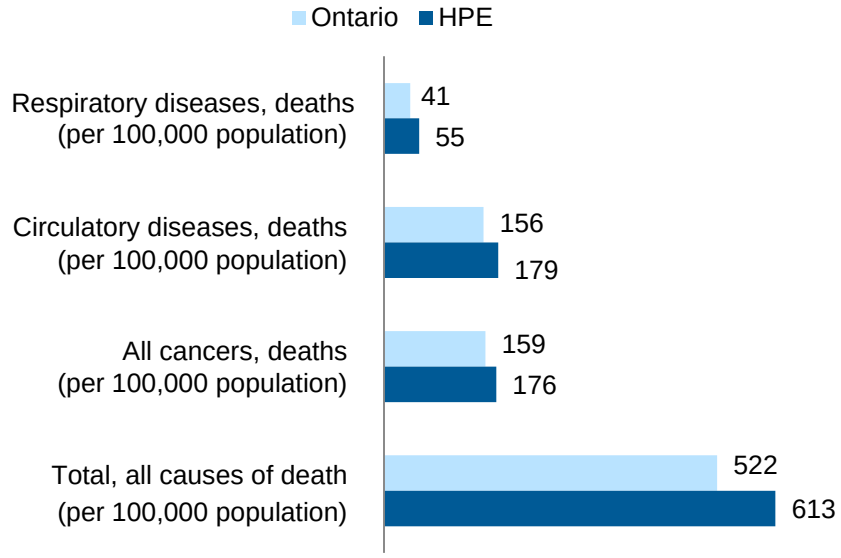
The behavioural population health indicators for HPE in Figure 2 show that the rates of smoking (daily and occasional) and heavy drinking are higher than the provincial rates. While the rates of leisure-time physical activity are equal to the Ontario rate, the rate of consumption of fruit and vegetables in HPE is greater than the Ontario rate (Statistics Canada, 2013).

Figure 2. Chronic Disease Risk Factor Indicators



Age-standardized mortality rates from some chronic diseases in Figure 3 are greater in HPE than in Ontario, with deaths from cancer, circulatory and respiratory diseases in HPE greater than provincial rates (Statistics Canada, 2013).

Figure 3. Deaths from Chronic Disease



Organizational Context

Since 2015, the operating budgets of HPEPH and the majority of other public health units in the province have been frozen. As a result, public health practitioners need to do more with less as the costs of providing quality public health services continue to increase. During the current process of modernizing the Ontario Public Health Standards (OPHS), public health staff will not only feel supported to reduce health inequities by addressing the SDOH, but will understand that it is an expectation foundational to the organization's work (MOHLTC, 2017).

At the present time, HPEPH resources include one SDOH public health nurse (PHN) situated in each department. These positions are partially funded by the MOHLTC and focus primarily on the delivery of public health services, such as immunizations, harm reduction programs and the Canadian Pre-Natal Nutrition Program, to priority populations.

Methodology

Search Strategy

The purpose of this literature review was to answer the following research question: "What are the (key messages and) actions for public health in addressing the social determinants of health?" Table 1 outlines the search strategy used for practice questions – Population / Intervention / Comparison / Outcome – PICO.

Table 1. PICO Search Strategy		
	Concept	**Search terms**
Population	Public health practitioners	Health Promoter, Public Health Nurse, Public Health Practitioner, Public Health Agency, Health Promotion
Intervention	Action on the SDOH	Improve Health Equity, Reduce Inequities, Social Determinant of Health, Poverty
Comparison/Setting	Middle/high income countries	Europe, United States, Australia, UK, New Zealand, Canada
Outcomes	Understanding of: • How can public health influence the SDOH and health equity? • What processes are used to address the SDOH and improve health equity?	Increased knowledge, attitudes, policy, collaboration, community action Health impact assessment, health equity impact assessment

Databases Searched

Health Evidence, National Collaborating Centre for the Determinants of Health (NCCDH), National Guidelines Clearinghouse, Trip, CDC Guide to Community Preventive Services, The Community Guide; The Centre for Reviews and Dissemination (CRD), McMaster PLUS, DoPHER, Cochrane Collaboration

Inclusion Criteria

- Public health interventions, strategies or approaches that address the broad determinants of health
- English only
- United States, Canada, United Kingdom and Australia
- Published since 2006
- Quality appraised as moderate or strong
- Academic research and grey literature

Exclusion Criteria

- Excluded publications that addressed only one specific SDOH (e.g. housing, literacy)
- Expert opinion
- Toolkits, frameworks, videos and presentations that did not involve research
- Primary health care interventions

Relevance Assessment

Relevance of the publications was determined by group consensus. Abstracts were reviewed by the entire group and based on the aforementioned criteria; publications were either included or excluded for critical appraisal.

Results of the Search

Sixty-two literature publications were identified from the search and 45 were excluded for irrelevance and for not meeting inclusion criteria. In total, 17 publications were appraised for their quality.

Critical Appraisal

Due to the varying nature of the research found, a variety of quality appraisal tools were required to assess the quality of included publications. The Critical Appraisal Tool for Public Health Research from the Ontario Public Health Libraries Association was used for the majority of the publications; the Critical Appraisal Skills Programme (CASP) Qualitative Research Checklist was used for other research. The online assessment tool AGREE II was used to appraise guidelines. Each publication was appraised using the appropriate tool by two independent reviewers and any discrepancies in assessments were resolved by consensus.

Of the 17 publications appraised, 4 were determined to be of weak quality and were thus excluded from further review. Thirteen publications of moderate to strong quality were included in the data extraction.

Description of Included Publications

Two reviewers independently extracted data from each of the publications identified as moderate to strong quality to ensure all relevant data was identified. They documented the study information and important details in a data extraction table, available as an appendix to this report.

Synthesis of Findings

Following the appraisal of the literature and extraction of the data from the moderate to strong quality publications, the information was grouped into common themes that best answered the research question. Two main themes emerged from the literature: *internal actions for public health* and *external actions for public health.* Interestingly, these two themes support the two key domains identified in Cohen et al.'s (2013) *Conceptual Framework of Organizational Capacity for Public Health Equity Action* and are synthesized below.

Internal Actions for Public Health

Organizational Structures

Internal organizational structure and functions, including leadership, can facilitate appropriate actions in addressing the SDOH. The overall corporate vision of an organization should articulate clear alignment with equity values and focus on broader determinants of health with measurable goals and outcomes (NCCDH, 2013). Examples of such values include fair distribution of power, respectful relationships, shared societal responsibility for equitable opportunity for health, and social justice (Cohen et al., 2013). Establishing this organizational culture for action on the SDOH involves aligning and embedding these equitable values and practices within internal policies, organizational planning, programming, and evaluation (Cohen et al., 2013; NCCDH, 2013; NCCDH, 2015a). There is a need to shift away from a primarily behavioural and biomedical focus toward a broader SDOH and healthy equity focus (NCCDH, 2015a).

An organizational structure that facilitates action to address the SDOH includes leadership, management, and frontline staff. The NCCDH (2011; 2013; 2014) indicated organizational leadership with high levels of support as an essential component for SDOH action. Specifically, support from senior management on action towards the SDOH is essential, as is an environment that fosters creativity and responsiveness that supports staff in their practice (NCCDH, 2015a). A decentralized collaborative approach is recommended (NCCDH, 2013). Conversely, institutional hierarchies or rigid programs and activities limit the ability to act freely on new opportunities or emerging issues (NCCDH, 2014).

Cohen et al. (2013) described an organization's commitment to public health equity action (PHEA) as being one that "prioritizes and follows through with equity focused action; demonstrates participatory processes with a fair distribution of power, trust and respect; and has healthy equity leaders or champions across all levels to motivate and empower other staff about PHEA" (p.265). Furthermore, in order for public health to address health inequities and act on underlying causes, Cohen et al. (2013) indicate the need for strong organizational capacity that includes the capacity for epidemiological assessment and surveillance as well as staff capacity skilled in community engagement and stakeholder education.

Staff Capacity

In addition to facilitating an organizational structure that supports action on the SDOH, priorities and resources should be directed toward ensuring staff capacity to act on health inequities. Leadership and organizational commitment towards health equity must stem from educating decision-makers and policy makers within the community about processes and interventions for action towards health equity (NCCDH, 2014). Budget and human resource allocation specific to positions with a focus in SDOH action is another important component for public health organizations (NCCDH, 2013). For example, the NCCDH reported on a moderate to strong quality case study of public health nurses focusing specifically on the SDOH. They noted that the success of such positions varied depending on many of the aforementioned organizational structures, including leadership, organizational change management, organizational culture, incorporation of health equity into policy development, and implementation across multiple levels of the organization. Effective SDOH nursing positions should be used to work upstream, ensuring that health equity is incorporated into all program areas and in a cross-sectional manner (NCCDH, 2015a).

In order to address health equity action at an organizational level, development of a common understanding of health equity and the improvement of knowledge, skills, and attitudes related to addressing health inequities for all public health professionals was found to be a common theme recommended across the literature (Cohen et al., 2013; NCCDH, 2014; NCCDH, 2015a). Training internal public health staff on SDOH and health equity is essential to facilitate alignment of practices in regard to equity and social justice across all programs, as well as to facilitate stakeholder education (Farrer et al., 2015; NCCDH, 2014). Once this internal staff capacity is established, ongoing evaluation and surveillance is important to assure maintenance of actions on the SDOH and health inequities.

Research and Surveillance

Research, assessment, and monitoring of the existence and impact of strategies implemented towards reducing health inequities is an important action for public health (NCCDH, 2011; NCCDH, 2013; NCCDH, 2014; NCCDH, 2015a; World Health Organization (WHO), 2010).The NCCDH (2013; 2014) specifies that in order to advance health equity, public health needs skills in health equity assessment, surveillance, research, evaluation, policy analysis, advocacy, and community engagement. Additionally, Cohen et al.'s (2013) conceptual framework of organizational capacity for public health equity action identifies the following core actions aimed at mitigating inequities and addressing the SDOH that lead to inequities: monitoring health inequities, setting targets to reduce health inequities, and evaluating the outcomes of health equity actions.

Public health should utilize community-based participatory research as a means to identify and address local needs and priorities through the involvement of people in peer and lay roles within the community (NICE, 2016). Furthermore, public health must regularly utilize data and evidence on health equities to design policies, programs and services as well as to evaluate how

they affect health equity within the local community (Cohen et al., 2013; Farrer et al., 2015). In circumstances where there is limited evidence for interventions related to the SDOH and health equity, action should continue to move forward with additional emphasis on evaluation of the effectiveness of those actions (Farrer et al., 2015).

While essential, internal actions for public health are not the sole means by which the SDOH must be addressed. Effective SDOH action must also include cross-sector collaboration and community engagement.

External Actions for Public Health

A number of factors external to public health can assist HPEPH with addressing the SDOH. An NCCDH report succinctly wrote that knowledge to action models for the SDOH must have community participation as explicit action, support across sectors, and applied problem solving process (Davison and NCCDH, 2013).

Government resource allocations that support equity-based public policy across sectors, including legislation and policies that help shape the SDOH, are essential. For effective SDOH interventions, it is necessary that all levels of government recognize the importance of addressing the SDOH for improved health outcomes (NCCDH, 2012; NCCDH, 2015a; WHO, 2010). Measures such as a universal basic income, living wage, affordable housing, and access to nutritious food will all serve to improve the SDOH, in conjunction with public health efforts. SDOH must be addressed across all sectors, public and private, and not just by public health (Cohen et al., 2013).

In addition to the role of government in supporting public health action on SDOH is the role of community partners and agencies. Community leadership that seeks accountability of public health for health equity action will ensure that public health follows through with action on the SDOH and conducts appropriate evaluation of these actions and will enable public health to create meaningful change (Cohen et al., 2013).

Health equity champions outside of public health who can access decision makers and resources for action on the SDOH will increase the capacity of public health to act on the SDOH (Cohen et al., 2013). These champions are needed from all sectors and can help to build necessary positive working-relationships between public health, other agencies and groups, community members, and governmental organizations.

Cross-Sector Collaboration

In order to effectively address the SDOH, it is vital that public health partner with other community agencies and non-health sector organizations. SDOH are deeply engrained in our society and cannot be meaningfully addressed by public health alone.

Public health should lead, support, and participate with other organizations in policy analysis and development, as well as in stakeholder education for improvement in health determinants

and inequities (NCCDH, 2011; NCCDH, 2014; NCCDH, 2015; WHO, 2010; Farrer et al., 2015). Public health must be prepared to quickly take advantage of windows of opportunity as they arise (Farrer et al., 2015).

Partnering with non-health sector government agencies and community organizations is essential to improve health outcomes for marginalized groups (NCCDH, 2014; NCCDH, 2013; NCCDH, 2015a). This allows public health to learn the language of others and provides different perspectives on the SDOH. Non-health sector partners may also be able to provide support, funding, and resources that are not available to public health. In addition to formal organizations, local communities and volunteers can help to plan, design, develop, deliver, and evaluate SDOH initiatives to appropriately meet the local needs and priorities (NICE, 2016).

Community Engagement

Engaging the community and facilitating social mobilization is crucial for taking appropriate action to address the SDOH. Social mobilization is a process that raises awareness and motivates people to demand change or a particular development (Farrer et al., 2015). As it pertains to the SDOH, social mobilization empowers marginalized populations to have a voice (Farrer et al., 2015). As with policy development, it is essential for public health to take advantage of community engagement and social mobilization when opportunities arise (NCCDH, 2014).

Meaningful involvement of the public in addressing the SDOH promotes empowerment, capacity building and skill development. It strengthens relationships and trust, and aids in recruiting other community members (Milton et al., 2011). It is imperative to make it easy for people to become involved in social mobilization, especially those experiencing health inequities, by, for example, identifying barriers to involvement, determining optimal means of communication, and providing necessary supports (NCCDH, 2011; NICE, 2016). The social and structural conditions that lead to inequities can be influenced by building capacity within priority populations. These inequities may be mitigated by planning and delivering programs and services specifically for marginalized populations (Cohen et al., 2013; NCCDH, 2011).

There is solid evidence that community engagement interventions have a positive impact on a range of health and psycho-social outcomes across various conditions for marginalized populations (O'Mara-Eves et al., 2015; Popay et al., 2007). Further to this, community engagement interventions that involve peers, community members, or education professionals tend to be more effective than those involving health professionals alone (O'Mara-Eves et al., 2015). Therefore, education about the SDOH, and how they influence health equity, is imperative across all sectors.

Stakeholder Education

Enhancing the public's and decision-makers' (i.e., municipal government, policy workers, and health professionals) understanding of health equity/SDOH, as it relates to their respective roles, is critical to taking appropriate action to address the SDOH. Decision-makers must be

educated on the effective processes and interventions to address health equity (NCCDH, 2014; NCCDH, 2011; NCCDH, 2015a; WHO, 2010). The social and structural conditions that lead to health inequities can be influenced by educating and raising awareness about equity issues among the public, decision-makers in non-health sectors, government departments, and within health departments (Cohen et al., 2013).

Local level data, particularly community-based participatory research, is persuasive in advocating for health equity (Farrer et al., 2015). To best raise awareness about SDOH, messages should be tailored specifically toward each population. For example, messages aimed at the right of the political spectrum should focus on reducing inequities to help people make positive choices; messages aimed at the left of the political spectrum should emphasize equality, balance, and fairness (Farrer et al., 2015).

Greater awareness and appreciation of the issues pertaining to the SDOH is necessary for any action undertaken to be effective.

Applicability and Transferability

The literature included in this review was primarily Canadian and had a public health focus, making the research highly applicable and transferable to HPEPH context. Nonetheless, the "Tool for Assessing Applicability and Transferability of Evidence," by the National Collaborating Centre for Methods and Tools was also used to further confirm the applicability and transferability of evidence to the local setting and context. The results of this assessment are summarized below.

Political Context

The initial documents released regarding the modernization of the OPHS appear to emphasize and dictate that health equity is to be incorporated into all public health practices and services. In addition, HPEPH is under the leadership of a new Medical Officer of Health, which is timely as public health evolves. HPEPH has strengthened its partnership with the Kingston, Frontenac, and Lennox & Addington Public Health Unit across various program areas, which continues to facilitate the transfer of knowledge and professional skill sets not available at HPEPH. The local Board of Health (BOH) is comprised of municipally elected politicians and provincial appointees. With a strong health equity knowledge base, municipally elected members will be able to explain the community benefits to their constituents when monetary decisions are made to address inequities.

Unfortunately, the current public health funding freeze has challenged HPEPH to operate with restricted financial resources. Also, the ramifications of the new OPHS on HPEPH's mandated services and evolving structure makes long-term planning difficult. Strong relationships with community stakeholders, such as local agencies and governments and priority populations, are essential for implementing action on SDOH to reduce health inequities, and these positive

relationships play an important role in positioning HPEPH as a leader in health equity action. Maintaining existing relationships and improving HPEPH's ability to collaborate and foster reciprocal partnerships with other stakeholders will assist in increasing the social acceptability of SDOH interventions.

Available Resources

Currently, the resources available at HPEPH for action on SDOH include the following: funding for SDOH PHN positions from the MOHLTC; Foundational Standards champions; and enthusiastic and knowledgeable public health staff. However, it is difficult to determine the exact staffing capacity, level of knowledge among employees, and resources required for effective HPEPH action on the SDOH. It is also a challenge to demonstrate value for money when evaluating SDOH interventions.

Organizational Expertise and Capacity

As strategic planning is currently underway, it is uncertain whether action on the SDOH is an organizational priority or a focus for corporate strategic planning. Currently, the majority of program-specific operational plans do not include work addressing the SDOH. The current changes to the OPHS may ensure that future operational plans support SDOH action.

There are various organizational barriers that will need to be addressed prior to moving forward with action on the SDOH, including an internal organizational culture that has the potential to confine community engagement initiatives; inflexibility of operational planning; change management challenges; utilization of the SDOH PHN positions in program-specific roles; lack of knowledge and skills in relation to the SDOH process; and an inclination toward down-stream interventions.

Transferability of Findings

Data indicates an existing need for action on the SDOH in HPE based on the number of residents that live on a low income, experience unemployment, lack education, and live in rural settings (Statistics Canada, 2013). The majority of the literature included in this review drew upon examples from Canadian public health leaders, making the content particularly relevant to HPEPH and the HPE population and setting. Taking a population-level approach to addressing the SDOH will assist HPEPH to reduce local health inequities.

Recommendations

1. Establish and maintain an internal organizational culture embedded with health equity values that support action on the SDOH.

2. Enhance staff capacity for action on SDOH by providing universal staff education (BOH, senior administration, management, front-line staff) on the importance, relevance of SDOH/health equity processes and develop a common understanding of terms.

3. Utilize SDOH public health nurses across the organization to support SDOH action, instead of the current program-specific approach, to facilitate knowledge translation across programs, especially during operational planning cycles.

4. Consider incorporating "upstream" approaches to addressing the SDOH during operational planning at the program and organizational levels. Operational plans also need to be flexible to allow staff to respond to community needs and take advantage of windows of opportunity as they are presented.

5. Prioritize research and surveillance on actions towards SDOH via providing all staff with the opportunity to build skills for health equity assessment, surveillance, research, evaluation, policy analysis, community engagement, advocacy and stakeholder education (e.g. Public Health Ontario's Health Equity Impact Assessment Course). Ongoing surveillance and evaluation of SDOH indicators should be included in operational plans.

6. Enrich cross-sector collaboration. Public health needs to develop equal partnerships with stakeholders and build positive relationships based on trust and support for community-led action on the SDOH. Front-line staff should be empowered to maintain existing relationships with community partners and to build new connections, thereby strengthening the presence of public health in the community and fostering effective, relevant action on the SDOH.

7. Engage and involve priority populations to increase social acceptability and effectiveness of SDOH interventions.

8. Utilize pre-existing guidelines and toolkits available for public health action on SDOH (e.g. National Collaborating Centre for Determinants of Health).

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