SWPH Food Security Situational Assessment Summary Report

Southwestern Public Health
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Situational Assessment Summary Report

Team: Chronic Disease and Injury Prevention

Program/topic area: Food Security

Date completed: July 05, 2024

What is the Situation?

Phase 1: Indicator table

Using epidemiological data from your indicator table, write a paragraph describing the overall health status of your population as it relates to this program or topic area. Identify indicators and population subgroups that show statistically significant or clinically relevant differences from their age/sex counterparts, Ontario and/or our peer group.

In 2020, the age-standardized rate of self-reported consumption of vegetables and fruits five or more times per day was 17.9% (CI 12.0-23.7)* among both sexes in the SWPH region (1). This was not statistically different than Ontario's rate (21.3.7%, CI 20.0-22.7). There was no significant difference between reported age groups (20-44 y.o.: 21.4%, CI 10.3-32.5 (2)*; 65y.o.+, 22.2, CI 13.2-31.2 (3)*) or between sexes (males:15.4%, CI 7.2-23.6 (4)*; females: 19.9%, CI 11.9-27.8 (5)*) in the SWPH region.

In 2021-2022, 19.2% (CI 14.5-23.9) (6) of households in the SWPH region were food insecure. This figure includes marginal, moderate, and severe food insecurity. SWPH's household food insecurity rate was not statistically different from Ontario's (17.4%, CI 16.1-18.7) (6).

*Data to be interpreted with caution due to the small sample size.

Based on your summary, what is the most significant health concern in this program or topic area (hint: check the key messages document)? Which subgroup(s) is/are experiencing this health concern? Which indicator have you decided to move forward with to complete the next phases of the situational assessment?

The most significant health concern is that fewer than 1 in 5 SWPH residents aged 12 years and older report consuming the recommended number of vegetables and fruit. Diet-related chronic diseases, such as cardiovascular disease, cancer, and diabetes, are among the leading causes of death in the SWPH region and are associated with a reduced quality of life (7). They are largely preventable through modifiable risk factors, including a diet rich in vegetables and fruits.

What is Influencing the Situation?

Phase 2a: Force field analysis

Using the results from your force field analysis, summarize (in a few sentences for each level) the public policy, community, organizational, interpersonal, and individual factors that are making the situation above better or worse (i.e. protective and risk factors).

Level	Factors that make the situation better	Factors that make the situation worse
Public Policy	▪ Income policies and monetary assistance (8-12) ▪ Food subsidies (13, 14) ▪ Land use planning related to food accessibility and availability (8, 14, 15) ▪ Transportation improvements (8, 15) ▪ Calorie labelling legislation (8) ▪ School food and eating policies/procurement policies (14, 16) ▪ Climate change mitigation policies (17, 18)	▪ Gaps with policies, e.g., eligibility for financial assistance (12) ▪ New food retail opportunities can have mixed effects (14) ▪ Loss of agricultural land ▪ Lack of access to public transportation (12) ▪ Lack of guidance on best practices for emergency planning and resilience related to the food supply chain (17) Note: There is very little review evidence within the food system domain (agricultural production practices, the supply chain, and the broader food system have not been reported in systematic reviews) (14)
Community	▪ Community-driven and multisectoral collaboration that addresses local food systems, supply chains, and the environment (13, 19) ▪ Consultation on Official Plans & provide guidance for local government (8)	▪ Higher demand for food (e.g., socio-cultural preferences, changing dietary patterns, growing population, food price increases, volatility due to climate change) (9, 17, 20, 21) ▪ Traditional food pantries can create a cycle of dependency (19)
Organizational	▪ Community gardens (8, 10, 22) ▪ Supporting food retail environments (8	▪ Food access interventions can result in an increased intake of sugar-sweetened beverages and

	▪ Food pantry programs that increase self-efficacy (11, 19) ▪ Store-based interventions that increase the availability and visibility of nutrient-dense options (13) ▪ Community meal programs (e.g., food delivered to meal or shelter, food provided at a secondary site, meals in congregate settings) (10, 12, 23) ▪ Food supply cold chain technology (17)	energy-dense ultra-processed foods (9, 14) ▪ Gaps within programs (e.g., eligibility or frequency of access) (12) ▪ Supplementary feeding can be expensive and require sound management systems to be sustainable (23)
Interpersonal	▪ Individual nutrition education and counselling services result in improvements in intake (13) ▪ Food literacy education and resources for grocery shopping and meal planning (8)	▪ Social influence (8) ▪ Adverse effects of social isolation, lack of social support, and decreased mobility on food intake (12) ▪ Social stigma (e.g., poverty, race, and ethnicity) can affect the utilization of food assistance programs (12)
Individual	▪ Food literacy skills (12)	▪ Time constraints (8) ▪ Low incomes and lack of sufficient safety nets (9) ▪ Avoidable food waste (17)

Phase 2b: Environmental scan

Based on the results of your environmental scan, which factors from your force field analysis are not being adequately addressed by existing initiatives? (Example: The density of fast-food outlets within a 5 km radius of a school.)

Factor #1: Ensure all residents have access to adequate incomes and financial support to afford enough healthy food.

Factor #2: Increase equitable access to healthy food options.

Factor #3: Support sustainable and resilient food systems through climate change mitigation strategies.

Factor #4: Collaborate with partners to support sustainable food systems, the supply chain, and the environment.

Factor #5: Support school settings with food, eating, and procurement policies.

How do we Address the Situation?

Phase 3: Finding interventions

Using the results of your literature review from your Evidence Synthesis, identify the best practices (including suggested target audiences) to address each of the factors not being adequately addressed by existing initiatives.

Factor #1: Ensure all residents have access to adequate incomes and financial support to afford enough healthy food.

Improving economic access to food can be achieved through various means, including income policies and monetary assistance, improvements to safety net programs, and food subsidies. As of October 2023, the Ontario minimum wage is $16.65/hour. A living wage is the hourly wage an individual needs to earn to afford basic expenses and participate in their community. The Ontario Living Wage Network has calculated the living wage for London Elgin Oxford, which is $18.85/hour, as of November 2023 (24). Current minimum wage rates are insufficient to cover basic needs. In the SWPH region, many income supports and safety net programs are available to residents, based on eligibility criteria, such as Ontario Works, Ontario Disability Support Program, Guaranteed Income Supplement, Canada Child Tax benefit, and the Grocery Rebate. Research from many studies has shown that modifications to safety net programs are associated with statistically significant decreases in food insecurity in various populations, including adults and seniors with low incomes, families experiencing homelessness, and individuals with diabetes who are food insecure (10). In addition, extensive evidence supports the effectiveness of programs such as the Supplemental Nutrition Assistance Program (SNAP) and Earned Income Tax Credit in the United States in reducing food insecurity (10, 12). Fruit and vegetable subsidies in rural and remote regions have shown improvements in fruit and vegetable consumption and nutritional status (13), whereby a 10% decrease in price was associated with a 12% increase in consumption of nutrient-dense foods (14).

Factor #2: Increase equitable access to healthy food options.

The built environment and how communities are designed are important factors to consider when improving physical food access. Evidence suggests that public health dietitians have a role in educating local governments on the need for equitable access to food and providing

recommendations to provincial and local governments on effective food environment interventions (8, 15). A recent evidence brief from Public Health Ontario, entitled 'Municipal and Community-level Interventions to Promote Sustainable Food Systems,' has outlined promising interventions to consider in the SWPH region (25). Community-supported agriculture, mobile markets, and urban gardens were all associated with positive impacts on diets and social and economic benefits for consumers and producers (25). However, introducing a new grocery store in an area with poor food access was not associated with improved vegetable and fruit consumption (25). Other possible interventions to explore include permitting temporary farmers' markets in areas with limited food access and efforts to improve public transportation (8).

Factor #3: Support sustainable and resilient food systems through climate change mitigation strategies.

Sustainable diets can contribute to food security through environmental stewardship and climate change mitigation. Agriculture is a significant contributor to greenhouse gas emissions (up to 30% is related to agricultural practices) and resource consumption (26). Sustainable diets emphasize reducing animal-based foods, significantly contributing to these environmental challenges. Dietary patterns that reduce the most amount of animal-based foods, including vegan, vegetarian, and pescatarian, are most effective in achieving environmental benefits, namely through reducing greenhouse gas emissions, freshwater use, and land use (26). Environmental benefits are primarily proportional to the magnitude of meat (especially from ruminant animals) and dairy reduction (26). Shifting towards plant-based diets helps alleviate the strain on ecosystems and makes more resources available for food production. However, implementing sustainable dietary patterns on a larger scale requires concerted efforts. Policy implications for plant-based diets include procurement policies in large institutions and adjusting the relative prices of certain foods to incentivize consumers to make more sustainable choices (26).

Factor #4: Collaborate with partners to support sustainable food systems, the supply chain, and the environment.

Community-driven multisectoral collaboration in food systems offers a range of benefits that contribute to more sustainable, resilient, and equitable food systems. This approach involves various sectors, organizations, and community members working together to address the complexities of community food security. These food system networks can take many forms, such as community collaboratives, grassroots coalitions, food system alliances, or food policy councils. While food policy councils can be sanctioned by a local government body or exist

outside of a government body, their mission is to work closely with local governments to develop and implement policy-level solutions that support food access and promote the social, economic, and environmental health of local food systems (26, 27). These types of collaboratives have shown to be essential to advancing food policy missions. For example, a large US study with 2019 municipalities demonstrated that 96.9% of municipalities with a food policy council had at least one policy support to improve food access (27). In addition, municipalities with food policy councils had significantly higher odds of having various food access support, such as community planning and farmers' markets, than those without food policy councils (27). Many food policy councils seek to influence Official Plans and prioritize policies that increase access to nutrient-dense foods, focusing on addressing marginalized populations' needs (28). Among a sample size of 156 municipalities, 41% had an elected official or local government employee as a member, 46% had a designated health or public health representative, and 31% had representation from both local government and health/public health sectors (27). Another study noted that the most important factor for food policy outcomes is having a close relationship with local government (28).

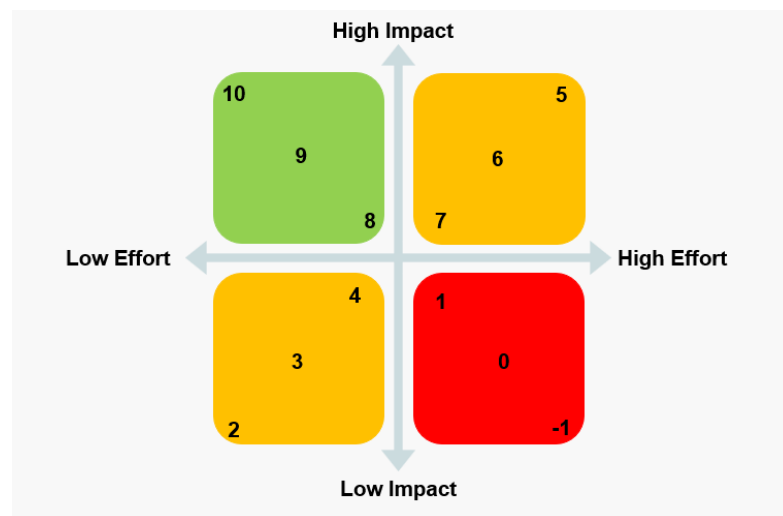Factor #5: Support school settings with food and eating policies and procurement policies.
The school setting has the potential to positively impact food security. Implementing strong nutrition guidelines and procurement policies that increase the availability and affordability of foods in schools can contribute to creating an environment that supports food security and overall well-being (14-16). A simulation modelling study using national data estimated that free school meal programs can increase participants' food security rates by 3.73% (16). Similarly, a 2019 US study found that when compared to students who attended schools that participate in universal free school breakfast and/or lunch programs, students who attended schools that opted out of such programs had increased odds of being in a household that was food insecure (OR 2.85, 95% CI 1.67, 4.88) (16). In addition, school gardens can increase fruit and vegetable access and consumption, improve food skills, and contribute to mental and social health (14, 15). With these programs, it is important to address gaps in services during summer months, winter vacation weeks, and weekends. Anecdotally, many schools in the SWPH region have been looking to public health for support with food security.

Phase 4: Choosing interventions

Using the Impact/Effort Grid, list the best practices from above in descending order (i.e. highest score to lowest score) and provide a brief rationale for each score.

In your rationale, consider the following: the need, how the practice fits within Southwestern Public Health's vision, mission and mandate, the resources required to implement it, the quality and quantity of the evidence, community readiness for the practice and the capacity of Southwestern Public Health to implement it.

Impact/Effort Grid Diagram

Factor	Best practice	Score	Rationale
Equitable access to healthy food options	Educate local government officials about the need for equitable access to healthy food.	8	The OPHS notes that programs and policies should involve consultation and collaboration with our municipalities. A lot of high-quality evidence and articles directed toward public health mention having a good working relationship with local governments and providing education about how to improve food security. This work will require building on established relationships with our municipalities, conducting evidence reviews on effective interventions, developing recommendations, and sharing these recommendations with planners, municipal councils, organizations, etc. Within our Climate Change program plan, there is an activity to partner with our municipalities for our built environment work, which could advance physical food access by incorporating evidence-based policies into Official Plans. We have previously disseminated our household food insecurity data to our Board of Health and received positive feedback. We must continue collaborating internally on income-related recommendations/asks to reduce food insecurity rates.
Equitable access to healthy food options	Develop physical food access policy statements and provide input on local planning documents.	8	Many gaps and opportunities exist in our local Official Plans to address land use planning related to sustainable food systems. High-quality articles directed towards public health note the benefits of land use planning interventions and provide input on Official

			Plans as methods to increase food access. In collaboration with the Ontario Dietitians in Public Health Food Systems Workgroup (ODPH FSWG) and with support from the National Collaborating Centre for Methods and Tools (NCCMT), we are currently conducting an evidence review on effective land use planning policies at the municipal level to support community food security. Evidence from this review will be used to develop policy-level recommendations. As noted above, establishing a good working relationship with our municipalities will allow us to share these recommendations for consideration in local planning documents.

| Support school settings | Food standards in schools | 7 | Nutrition guidelines already exist in school and childcare settings (The School Food and Beverage Policy (PPM 150), the Student Nutrition Program (SNP) Nutrition Guidelines, and the Child Care and Early Years Act, 2014). Evidence for nutrition guidelines was found in both a systematic review and an umbrella review with similar populations. ODPH has developed various tools and resources for PH RDs to support childcare settings. Childcare centres in Elgin St. Thomas have reached out asking for PH support. There is more RD capacity as we no longer coordinate the SNP in Oxford County; therefore, we could consider supporting childcare centres. Schools are interested, and we have well-established relationships with our schools; however, readiness is based on other factors, such as food insecurity risk and volunteers trying to meet basic needs. |

| Multisectoral collaboration for food systems | Food policy council or local food system network | 6-7 | High-quality evidence supports multisectoral collaboration for sustainable food systems. Food policy councils (FPC) are beneficial as they provide a platform to address the complexity of food systems by raising awareness of local issues, mobilizing partners, and advocating for policies and community-level interventions. Through ODPH and with support from NCCMT, we are currently conducting a literature review on effective governance structures to support local food systems. There are different models to consider such as internal governance structures (embedded within local government), external governance structures (grassroots or community-led interventions), or hybrid structures, each of which presents their own strengths and challenges. While FPCs can be an effective way to strengthen local food systems, they can require a significant amount of time to initiate and establish a shared vision as they focus on large-scale systems changes with a variety of interventions addressing the entire food supply chain. Prior to the pandemic, we were involved in a food system network in Elgin St. Thomas. While there was a lot of momentum with the work, feedback received from partners post-pandemic was that the sum of activities was very high level and may be difficult to keep members interested and active. Partners have suggested dividing the work into more manageable sized activities and involving the |

			appropriate community partners for each of those activities (hybrid networks).
Support school settings	School meal programs	6-7	School meal programs address health inequity through proportionate universalism. Ministry-priority schools get more funding per child than the remaining schools. Offering food in schools can improve food security but does not reduce household food insecurity. The school health RD is involved in the community partnership for both Oxford and Elgin Counties, and the Environmental Health team of PHIs completes food premise inspections. The Nutrition Standards for this program are part of the Student Nutrition Guidelines. Numerous articles, including an umbrella review, included in this situational assessment have identified providing fruits and vegetables to school children as an effective intervention to increase consumption of these foods and food security. Many schools have expressed concerns about food insecurity in schools and are looking to public health for support.

Equitable access to healthy food options; Support school settings	Procurement policies to increase the availability and affordability of nutrient-dense foods	6	Food procurement policies align with our vision and the OPHS by addressing health inequities, reducing chronic disease risk, and addressing environmental outcomes. Research has shown the benefit of procurement policies in various settings; however, the amount of resources required will vary based on the policy's scope. Rather than addressing this as its own intervention, it would be beneficial to incorporate it into other interventions, e.g., procurement policies as one method to promote sustainable diets or procurement policies that align with school nutrition standards.
Equitable access to healthy food options	Public transportation improvements	6	We have a largely rural population and limited access to public transportation in our urban regions. Anecdotally, lack of transportation has been noted as a barrier to accessing services and goods in our communities. Municipalities and other community partners have done much of our previous transportation work. In the past few years, many community partners haven't addressed transportation to the same extent as they previously had, as municipalities broadly cover this through transportation master plans.

Adequate income and financial support	Improving local level supports (e.g. Living Wage employers, tax clinics)	6	Adequate income, including food security, is a strong protective factor in most of our work. There is a lot of high-quality evidence on income and types of income support. Currently, 2 PHNs and 1 RD cover the health unit's poverty reduction and household food insecurity portfolio. This is a significant amount of work that involves collecting data, participating in/chairing community partnerships, disseminating findings, providing evidence-informed recommendations, and developing and implementing policies. This is a long-term intervention, which will require ongoing staff FTE. Improved provincial and federal level supports, such as improved social assistance rates, minimum wage, and universal basic income, would require significant effort and resources but would have a very high impact. Improving local-level support, such as increasing the number of living wage employers or providing free tax clinics, would require slightly less effort; however, it might not be as impactful.
	Improving provincial and federal level supports (e.g. social assistance rates, policy improvements related to eligibility, universal basic income)	5	
Food systems and climate change mitigation	Promoting sustainable dietary patterns/plant-based diets	5-6	A systematic review of over 200 studies, many of which were in high-income countries and considered high quality, found that plant-based diets and sustainable dietary patterns have reduced environmental impacts, which can impact climate change and sustainable food production. This aligns with both the chronic disease prevention standards and environmental health standards. In collaboration with ODPH, we plan to complete

			an evidence review on effective interventions at the municipal level to promote sustainable dietary patterns in the general population. The evidence gathered from this review is necessary to inform the interventions with this work; therefore, it is difficult to determine the amount of effort and resources required. However, this work could be carried out in partnership with ODPH and community partners.
Adequate income and financial support	Food subsidies	1	Food subsidies can help with food affordability; however, few are available in Canada, and they mainly target remote regions. Few studies looked at food subsidies, some of which were low quality. Overall, our review had mixed findings: one study showed that F&V subsidies were associated with increased F&V sales; however, there were no significant differences in consumption. However, another umbrella review noted a 10% decrease in price and increased consumption of nutrient-dense foods by 12%.

Phase 5: Planning interventions

Based on your rankings and descriptions above, suggest how to move forward with our programming. Consider some or all of the following options: starting a new intervention, stopping current activities and/or changing aspects of current programming to better align with the best practices.

Addressing food security is essential to our work as it directly impacts the basic human need for adequate nutrition and aligns with broader public health goals of preventing chronic diseases, reducing healthcare costs, and promoting overall well-being. Our current food system faces several challenges, including rapid population growth, climate change, changing consumption patterns, and depletion of natural resources. Food security is a complex issue as it involves multiple interconnected protective and risk factors that impact the availability, accessibility, utilization, stability, and sustainability of food. To effectively achieve community food security, many interventions are required in conjunction with one another. The following recommendation is proposed:

That Southwestern Public Health, in consultation with community partners, develop a Sustainable Food System Strategy, which will include, but is not limited to the interventions listed below. Strategic multisectoral collaboration will act as the foundation for developing and carrying out the respective interventions within the strategy.

<u>Income interventions:</u>

Income is one of the strongest protective factors for food security, and substantial high-quality evidence supports the need for adequate income and safety net programs. Income interventions require significant effort and time; therefore, it would be beneficial for numerous staff to continue collaborating internally and externally on poverty reduction efforts. The CDIP RD annually collects Nutritious Food Basket data, shared with the Ontario Living Wage Network to determine a regional Living Wage calculation. Two CDIP PHNs champion local organizations and businesses to become Living Wage employers. In addition, the RD and PHNs can collaborate on dissemination efforts directed toward community partners and residents to mobilize them to make change based on evidence-informed recommendations. Dissemination efforts should address mental models of low income, which may include local data, print resources, presentations, and videos of individuals with lived experience. Recommendations can be provided on how individuals, businesses, and community partners can influence systems

change.

Since food subsidies had mixed findings, scored low on the impact vs. effort grid, and had limited RD time, the recommendation would be not to prioritize this intervention.

Physical food access policies:

While we have provided input on Official Plans in the past, it was generally unstructured as we provided comments for consideration. Through our environmental scan, it is evident that there is an excellent opportunity to work with our municipalities to improve physical food access in our region. The CDIP RD is currently collaborating with the ODPH FSWG, with support from the NCCMT, to complete an evidence review on effective land use planning policies at the municipal level. The results from the review will be used to develop evidence-informed policy-level recommendations for implementation into Official Plans and other local planning documents. In collaboration with our climate change and built environment leads, we will develop a partnership with our municipalities and planners to provide education and rationale for our suggested policy statements. This work will initially be time-consuming as we complete the evidence review and develop recommendations; however, the workload is expected to decrease once these have been established. Meetings with municipalities are expected to occur when local planning documents come up for review.

Climate change mitigation and adaptation:

Climate change is a growing concern, and many Ontario health units are developing plans to address climate change mitigation and adaptation strategies. SWPH has begun developing a Climate Change Theory of Change and conducting a Vulnerability Assessment. Internal and external partners will use the recommendations from these documents to develop a 5-year action plan for SWPH. The CDIP RD can support climate change adaptation through income interventions and physical food access policies, as noted above, and climate change mitigation through promoting sustainable diets and/or reducing household food waste. Pending Board of Health approval of the Climate Change Health & Vulnerability Assessment recommendations related to food security, the recommendation would be to include both climate change mitigation and adaptation interventions within the sustainable food system strategy. Should SWPH choose to move forward with sustainable diets and/or food waste interventions, the ODPH FSWG has identified both topics as future evidence reviews to be conducted. The results and recommendations from these reviews will determine specific tasks within those interventions.

Nutrition support for schools:

As outlined by our evidence review, schools are an excellent setting to promote food security and overall health and well-being. Our local schools continue to request support for food security and food-related programs and policies; therefore, this work should continue to be prioritized. The school health RD has well-established relationships and evidence-informed programs currently being delivered in schools. The recommendation would be for the school health RD to continue collaborating with schools by supporting nutrition guidelines, school meal programs and procurement policies, and food literacy programming. The school health RD and CDIP RD will continue to collaborate with MLHU RDs on any additional support that can be provided to our shared school boards.

While some childcare centres in Elgin St. Thomas have expressed interest in receiving nutrition support to meet the Child Care and Early Years Act of 2014, this work was not previously delivered in Oxford County. As time permits, it is recommended that the school health RD carry out a needs assessment to determine the interests and needs of all childcare centres across the SWPH region to effectively plan the delivery of this service.

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