Measuring What Matters

A Collaborative Approach to Chronic Disease Prevention Program Outcome Measurement in Ontario.

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The views expressed in this publication are the views of the project team, and do not necessarily reflect those of Public Health Ontario.

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Executive Summary

Ontario has a high and inequitable burden of chronic disease morbidity and mortality. Ontario's 34 local public health units (PHUs) are responsible for developing and delivering a program of public health interventions to address their communities' needs including chronic diseases and with consideration of health equity. Consistent and coordinated performance measurement among PHUs is essential to recovering from the effects of COVID-19 and sustaining Chronic Disease Prevention (CDP) programs. However, consistent, measurable CDP indicators that can be used by all Ontario PHUs for planning, monitoring and reporting is a current gap.

In 2023-2024, driven by priorities set by the Ontario Chronic Disease Prevention Managers in Public Health (OCDPMPH), an application was submitted to the Locally Driven Collaborative Projects (LDCP) call, funded by Public Health Ontario (PHO). LDCPs bring together PHUs and academic and community partners to work together in priority areas of shared interest. The project was approved related to the priority theme of "public health programs and interventions impacted by the pandemic."

This report describes the process and results of "Measuring What Matters, A Collaborative Approach to Chronic Disease Prevention Program Outcome Measurement in Ontario." This project implemented and evaluated a participatory process to establish a core set of CDP performance indicators for PHUs, using nutrition as an exemplar topic area. The project focused on program outcome indicators and population health indicators were considered out of scope. Along with a Core Team that met weekly throughout the project, an Advisory Committee of PHU and partner stakeholders was established and met monthly to guide the project. Working groups were convened to assist with key steps in the process of developing the indicators.

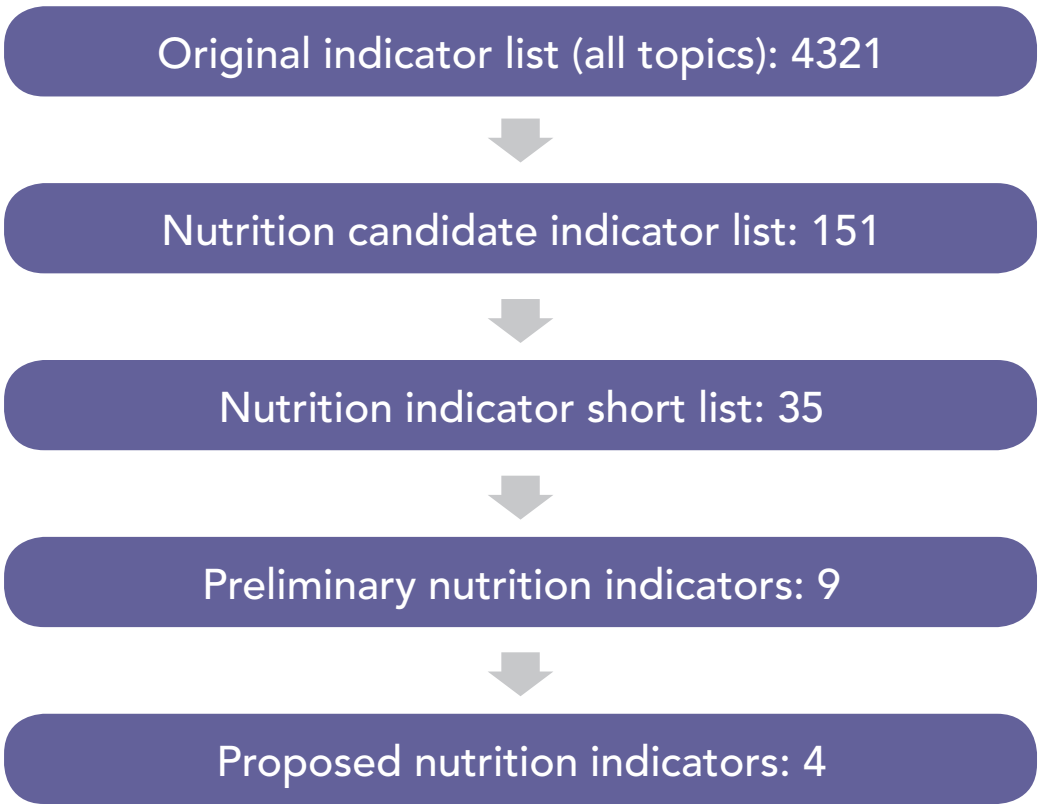
A rapid scoping review of academic and grey literature was conducted to identify information on the process for developing performance indicators, including criteria for selecting or prioritizing indicators, in order to inform the project's process. An environmental scan was also conducted to identify candidate indicators relating to the topics of physical activity, nutrition, alcohol use, tobacco use, mental health, social determinants of health (SDOH), and Adverse Childhood Experiences (ACEs), with topics other than nutrition to be used in subsequent projects. A total of 4,321 indicators were identified. The project team reduced the list of indicators to 151 by excluding duplicates and by focusing on outcome-oriented nutrition indicators. A working group further refined and reduced the list to 35, using the following selection criteria from the rapid scoping review: necessity, amenable to change, under public health unit control, clear, collectible data, useful, and applicable across PHUs.

Using prioritization criteria from the rapid scoping review and the short-list of 35 indicators, an online prioritization survey was then conducted with PHU representatives. Thirty-three of 34 PHUs completed the prioritization survey. Respondents assessed indicators based on relevance, feasibility and usability and provided suggestions for health equity considerations. For analysis the indicators were ranked using 3 different methods, with indicators relating to partnerships comprising the majority of the top ranked indicators.

Using feedback from the prioritization survey, a working group further refined the indicators to a preliminary set of 6 core and 3 optional indicators, and an evaluation survey was sent to all PHUs to evaluate the acceptability of the process used to develop the preliminary indicators as well as determine the likelihood of using the indicators. From the evaluation survey, 93% of participating

PHUs reported they were somewhat or very satisfied with the overall process used to develop the preliminary nutrition program indicators; however there was less support for the core indicators presented, ranging from 58.6% to 79.3% for likeliness to use. The common reasons reported for not using the indicators were that it would be difficult to measure or collect data, or it was not considered useful.

Using evaluation survey feedback, a working group further refined the indicators with input from health equity topic experts. From this process a proposed list of four indicators were defined for 4 key areas: partnerships, policy, food environments, and monitoring food affordability. Each indicator includes sub-indicators and a narrative. The following figure shows how the 4 proposed indicators were developed from the original indicator list:



These indicators will be further tested and refined with participation from PHUs. From there, implementation guidance will be developed and additional topic areas will be explored using similar methods.

It is anticipated that this work will contribute to the increased capacity of PHUs to monitor performance on CDP initiatives, improve quality and consistency of reporting across PHUs, and drive considerations of health equity in this reporting.

Introduction

Ontario has a high and inequitable burden of chronic disease morbidity and mortality (1). Ontario's 34 local public health units (PHUs) are responsible for developing and delivering a program of public health interventions to address their communities' needs including chronic diseases and with consideration of health equity. Essential to recovering and sustaining Chronic Disease Prevention (CDP) programs is consistent and coordinated performance measurement. However, consistent, measurable CDP indicators that can be used by all Ontario PHUs for planning, monitoring and reporting is a current gap. In 2023-2024, driven by priorities set by the Ontario Chronic Disease Prevention Managers in Public Health (OCDPMPH), an application was submitted to the Locally Driven Collaborative Projects (LDCP) call, funded by Public Health Ontario (PHO). LDCPs bring together PHUs and academic and community partners to work together in a priority area of shared interest (2). The project was approved related to the priority theme of "public health programs and interventions impacted by the pandemic." This project implemented and evaluated a participatory process to establish a core set of CDP performance indicators for PHUs, using nutrition as an exemplar topic area.

Project Team

CORE TEAM

The Core Team was comprised of the two LDCP Lead PHUs, research support from the Dalla Lana School of Public Health, University of Toronto, and support from PHO. The Core Team met weekly for the duration of the project.

- **Shannon Robinson**, Director of Health Promotion, Thunder Bay District Health Unit (lead PHU)
- **Erinn Salewski**, Program Manager of Chronic Disease and Injury Prevention, Ottawa Public Health (lead PHU)
- **Kimberly Harding**, Doctor of Public Health Student, Dalla Lana School of Public Health, University of Toronto
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- **Jawairia Mohammed,** Masters of Public Health Student, Dalla Lana School of Public Health, University of Toronto

The Core Team received additional support from Sarah Orr, Applied Public Health Science Specialist - Healthy Eating and Food Environments, Public Health Ontario.

ADVISORY COMMITTEE

The Advisory Committee was comprised of participating PHUs and public health organizations who supported the project, shared information with their respective PHUs, shared prioritization and evaluation surveys, gave feedback on process, provided content expertise, and were knowledge users. A SharePoint Collaboration website was used to collaboratively work on documents and share relevant files. The Advisory Committee met monthly for the duration of the project.

Algoma Public Health
- **Hilary Cutler,** Manager of Community Wellness & School Health

City of Hamilton
- **Heather Harvey**, Manager, Chronic Disease Prevention

Chatham-Kent Public Health
- **Laura Zettler**, Epidemiologist & Manager, Foundational Standards

Durham Region Health
- **Anjali Pandya**, Epidemiologist
- **Kimberly Davis**, Assistant Manager, Population Health

Eastern Ontario Health Unit
- **Chantal Lalonde**, Program Manager, Chronic Disease and Injury Prevention, and Mental Health Promotion and Health Equity

Halton Region Public Health
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Huron Perth Public Health
- **Angela Willert**, Public Health Manager

Kingston Frontenac Lennox & Addington Public Health
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Toronto Public Health
- **Sara Cohen**, Manager, Chronic Disease and Injury Prevention, Community Health and Wellbeing

Wellington-Dufferin-Guelph Public Health
- **Blair Hodgson**, Quality Performance Specialist
- **Danielle Pellegrini**, Health Promotion Specialist

WORKING GROUPS

Three working groups were formed throughout the project to assist with indicator development and refinement. The first working group reviewed the 151 candidate nutrition indicators and refined the list to 35 potential indicators. The second working group reviewed results from the prioritization survey and developed preliminary indicators, refining the list of 35 indicators to 9 indicators (6 core and 3 optional). The third working group reviewed results from the evaluation survey, incorporated a health equity lens, and further refined the list of 9 preliminary indicators to 4 proposed indicators with sub-indicators and narratives.

The working groups were comprised of staff from participating PHUs and were chaired by members of the Core Team. The groups met weekly or more often as needed.

Working Group Contributors:

- **Bridget King**, Public Health Nutritionist, Public Health Sudbury and Districts
- **Chantal Lalonde**, Manager, Chronic Disease, Injury Prevention, and Mental Health Promotion, Eastern Ontario Health Unit
- **Christine Bushey**, Manager, Chronic Disease Prevention Program, Simcoe Muskoka District Health Unit
- **Danielle Labonté**, Public Health Nutritionist, Leeds, Grenville and Lanark District Health Unit
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- **Julie Slack,** Manager, Chronic Disease Prevention and School Health, Northwestern Health Unit

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- **Stephanie Commisso**, Librarian, Thunder Bay District Health Unit

Public Health Ontario Support

- **Sarah Orr,** Applied Public Health Science Specialist - Healthy Eating and Food Environments
- **Andrea Bodkin**, Senior Program Specialist - Health Promotion
- **Jo-Anne Robertson**, Knowledge Exchange Specialist
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TOPHC Workshop Panellists

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Review of Indicator Criteria Set

- TBDHU Nutrition Team (**Vincent Ng**, Public Health Nutritionist; **Kim McGibbon**, Public Health Nutritionist; **Michaela Bohunicky**, Public Health Dietitian; **Karling Draper**, Public Health Dietitian).

Terms

The following acronyms are used in this report.

ACEs – Adverse Childhood Experiences

APHEO – Association of Public Health Epidemiologists in Ontario

ASP – Annual Service Plan

CDP – Chronic Disease Prevention

CHNRI – Child Health and Nutrition Research Initiative

COMOH – Council of Medical Officers of Health

LDCP – Locally Driven Collaborative Project

LPHA – Local Public Health Agency

MFA – Monitoring Food Affordability

MOH – Ministry of Health

OCDPMPH – Ontario Chronic Disease Prevention Managers in Public Health

OPHS – Ontario Public Health Standards

PHO – Public Health Ontario

PHUs – Public Health Units

SDOH – Social Determinants of Health

TBDHU – Thunder Bay District Health Unit

TOPHC – The Ontario Public Health Convention

Background and Rationale for the Project

Historically, PHO's LDCP program has brought together PHUs – along with academic and community partners – to collaboratively design and implement applied research and program evaluation projects on important public health issues of shared interest (2).

In 2023-2024, LDCP funding supported projects focusing on one of the following 3 priority areas of Indirect Impacts of the COVID-19 pandemic in Ontario:

1. Public health innovations
2. Public health programs and interventions impacted by the pandemic
3. Understanding pandemic impacts on mental health

This project focused on the COVID-19 impacts on public health programs and interventions, with a focus on CDP.

The COVID-19 pandemic impacted public health programming and resulted in PHUs stopping many initiatives aimed at CDP. Chronic disease has a high and inequitable burden of morbidity and mortality, accounting for three-quarters of deaths in Ontario (1); and the long-term impact of pausing CDP initiatives is yet to be understood.

Over time, and specifically with regard to the COVID-19 pandemic recovery, the the Ontario Chronic Disease Prevention Management in Public Health (OCDPMPH) have discussed the need for a standardized list of CDP indicators. Consistent, measurable CDP indicators that can be used by all Ontario PHUs for planning, monitoring and reporting were identified as a gap and a priority. In absence of this information, combined with significant capacity constraints at the local PHU level, very few CDP activities were deemed essential to sustain through the pandemic.

CDP initiatives are inherently hard to measure as health and disease outcomes take place beyond the timeline of most program monitoring and evaluation efforts and it may not be possible to attribute population-level outcomes to the public health program (3). Consistent and coordinated documentation of a common core set of indicators for all Ontario PHUs is essential. Consistent reporting would help with recovering and sustaining CDP programs, measuring PHU performance, determining short and medium-term program impacts to inform program mid-corrections, and marking progress over time in annual reporting cycles.

Although in the process of being updated for 2025, within the current Ontario Public Health Standards (OPHS), PHUs have the flexibility to develop a program of public health interventions to meet community needs within the Chronic Disease Prevention and Well-Being Standard (4). Each year all 34 PHUs in Ontario report on a program of CDP interventions differently, as there are no standardized indicators assigned at the provincial level for these programs. The 2017 Auditor General's Report on Chronic Disease Prevention found inefficiencies across PHUs related to measurement of performance in CDP (5). The report called for a consistent methodology to evaluate, measure and report on effectiveness; and enhance coordination to plan and deliver programs more efficiently.

This project considers equity as a key component of performance measurement for CDP programs. Existing inequities were exacerbated during the COVID-19 pandemic. For future pandemic preparedness and response, it is critical to understand and document any differential impact of CDP programming on populations impacted by structural and social inequities.

Documenting and reporting CDP programming in a consistent way, and with attention to equity, can help assess performance and show impact, which can help with future pandemic preparedness and response by identifying essential work in CDP. Standardization of CDP indicators and reporting will allow for comparison at the provincial level. Additionally, it enables assessment of the performance and impact of programs at the local and regional level.

Project Phases

The project developed, applied, and evaluated a participatory process for establishing a core set of CDP indicators for PHUs, focusing on performance, with nutrition as an exemplar topic area. The aim was to increase the quality and consistency of reporting and support pandemic preparedness and response.

Affirmed by the Advisory committee, the research questions were:

i. What is known about best and promising practices relating to the content and process of CDP indicator development and application for broad chronic disease topic areas?

ii. What constitutes a core set of measurable CDP indicators that could be implemented by all PHUs for the nutrition topic area?

iii. How likely are the PHUs to apply the nutrition CDP indicators in their respective PHUs?

iv. How acceptable was the process for developing a core set of nutrition CDP indicators for PHUs that participated?

The project sought to support increased capacity of PHUs to plan, monitor and evaluate CDP programs and make decisions related to prioritization of essential CDP work to support recovery from the COVID-19 pandemic and for future emergency response preparedness. An additional objective included improving the ability of PHU's to understand and monitor equity and the social determinants of health (SDOH) in relation to CDP.

The project followed a multi-phased approach, drawing on lessons from a previous LDCP that developed health equity indicators for Ontario PHUs (6,7). The phases were as follows:

1. Compilation of existing CDP indicators and best/promising practices for indicator development and application.
2. Development of a set of core nutrition indicators for CDP.
3. Evaluation of participatory process with PHUs.

METHODS AND FINDINGS

This section presents the project methods and findings. For each phase, or step within a phase where relevant, the methods and findings are presented together.

Phase 1: Compilation of existing CDP indicators and best/promising practices for indicator development and application

Environmental Scan

The environmental scan aimed to gather existing program outcome indicators for the performance measurement of CDP interventions, drawing on four sources:

1. Ontario Ministry of Health (MOH) database of PHU Annual Service Plan (ASP) indicators - an anonymized excel spreadsheet was provided to the project team by the MOH, listing **3,836 indicators.**
2. Previously used Ontario MOH CDP program indicators – the Advisory Committee developed a list of programs for which PHUs had previously reported CDP indicators to the MOH or other funders (e.g Smoke-Free Ontario Strategy and Diabetes Prevention Program), resulting in **47 indicators.**
3. External agencies with a mandate for CDP interventions – with input from the Advisory Committee, 10 agencies were identified and contacted to request documentation on current and past indicators and measurement tools related to CDP programs, resulting in **219 indicators**
4. CDP indicators were identified in articles from the rapid scoping review (see next section), resulting in an additional **239 indicators.**

A total of **4,321 indicators** were compiled and sorted in an Excel spreadsheet based on level of outcome (output, program outcome or population health outcome), and CDP topic area. CDP topic areas included physical activity, nutrition, alcohol use, tobacco use, mental health, SDOH, and Adverse Childhood Experiences (ACEs).

Only program outcome indicators in the food and nutrition topic area were included for this project. Exclusion criteria were applied to remove indicators that did not fit the project's purpose, duplicate indicators were removed, and near duplicate indicators were grouped together.

All data collected from PHUs and other agencies, including that related to ASPs, is aggregated and not linked back to individual PHUs. Results of the environmental scan phase are described in **Figure 1**.

Figure 1. Results of the environmental scan

Rapid Scoping Review

The rapid scoping review was designed to answer the following question: What is known about the development, selection, and prioritization of indicators for measuring public health and health care performance? Given the broad question and time constraints, scoping and rapid review methods were used (8–12). The following definition of performance measurement was used: "ongoing monitoring and reporting of program accomplishments, particularly progress toward pre-established goals" (13).

The methods are briefly summarized below. The protocol is published elsewhere (14).

Eligibility Criteria

- Publications documenting, assessing, or providing guidance on measuring public health or health care performance, focusing on the development, selection, or prioritization of indicators
- Publications with information on the process for developing performance indicators, criteria or other guidance for selecting or prioritizing performance indicators, or performance indicators for public health CDP programs and services (which was used for the environmental scan)
- Evidence/knowledge syntheses from academic or grey literature sources
- Published in English in the last 20 years

Search strategy and information sources. The search strategy aimed to identify academic and grey literature sources, with support from a Thunder Bay District Health Unit (TBDHU) library staff member. Three academic databases were searched (MEDLINE, CINAHL, and Health Business Elite) in addition to Google search engine (searches are available upon request). Duplicates were removed and Covidence was used for managing academic database search results screening. Microsoft Excel was used for the Google search results screening.

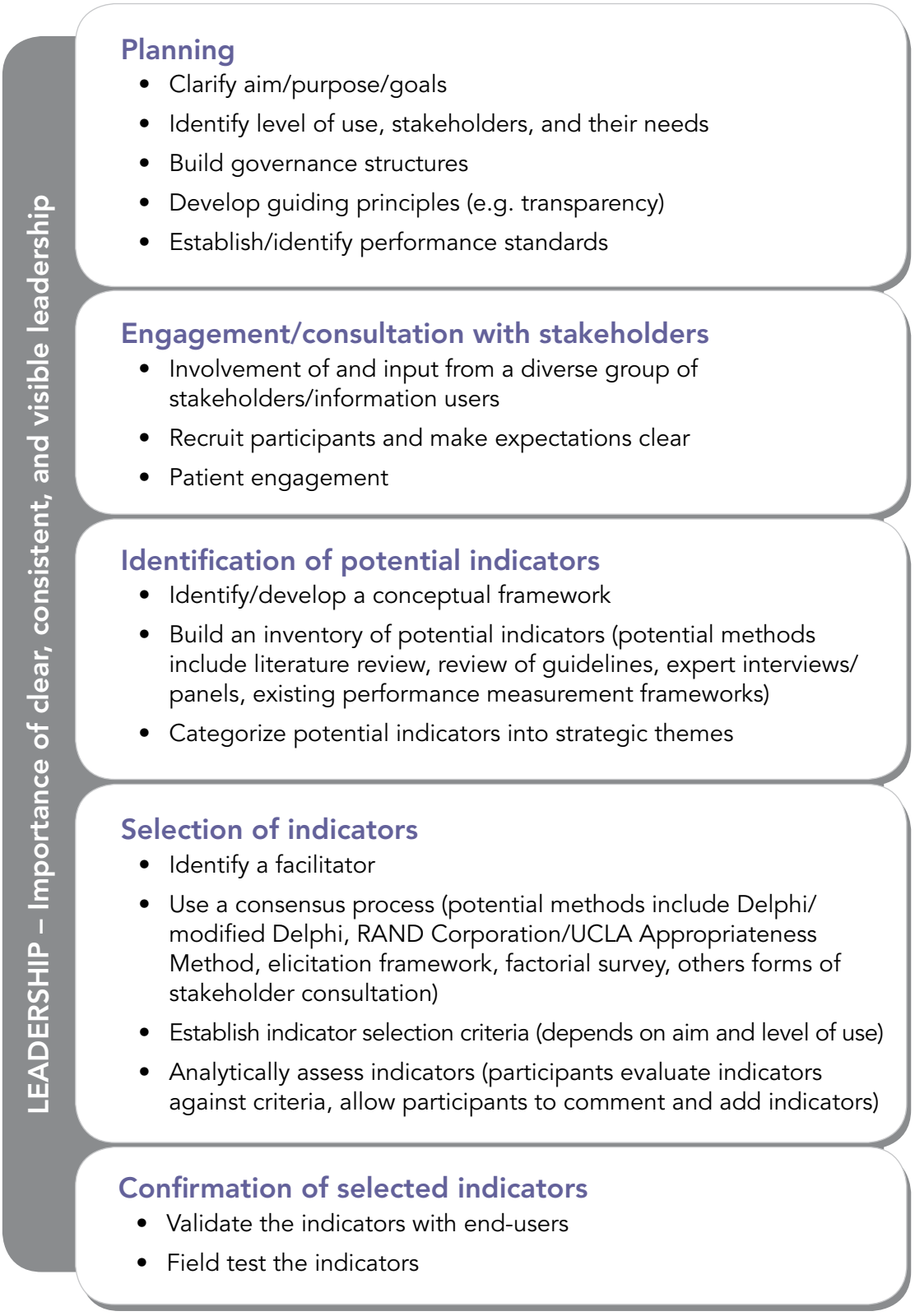
Screening and selection. Screening was conducted in two stages, after initial pilot-testing. First, search results were independently screened for eligibility by two team members, based on title and abstract or other summary. Full-text versions of potentially eligible publications were then retrieved, and two team members independently screened the full-text documents. Discrepancies in either stage of screening were discussed and resolved amongst the screening team.

Data extraction. A data extraction table was developed and pilot-tested using a subset of included publications. One team member extracted information from the included documents and a second team member reviewed the extracted data to identify potentially incorrect or missing information. Discrepancies were discussed and resolved amongst the data extraction team.

Data analysis. Information on prioritization process was reviewed for key steps and any other important themes, and then summarized. Criteria for selecting or prioritizing indicators was compiled and consolidated, which involved removing duplicates, combining similar criteria, creating categories, and organizing the criteria under the categories.

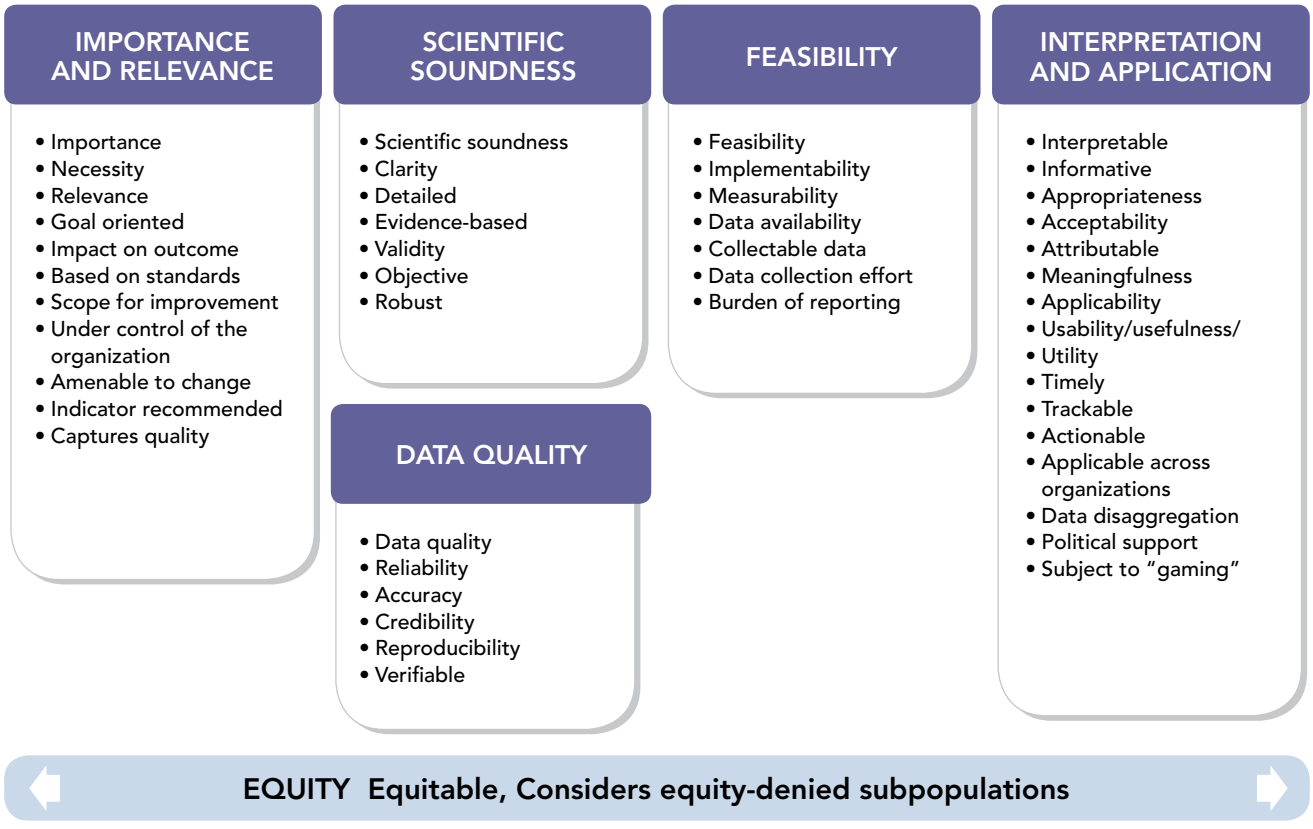
Rapid scoping review findings. The searches identified 1715 publications and after two-stage screening, 53 publications were included in the analysis (**Appendix A, Table A.1)**.
Eleven publications included information on the process for developing public health or health care performance indicators. Five key steps in the process were identified: planning, engagement/consultation with stakeholders, identification of potential indicators, selection of indicators, and confirmation of selected indicators, in addition to a cross-cutting theme of leadership **(Figure 2)**. Several additional steps that may occur after indicators are developed were also identified, including target-setting, orientation/training on indicators, data collection and reporting, and assessing data quality.

Figure 2. Key steps in the process for developing public health or health care performance indicators based on rapid scoping review findings.



Fifteen publications included information on criteria for prioritizing or selecting public health or health care performance indicators. These publications included approximately 250 criteria, which were consolidated into a list of 48 criteria for application at the individual indicator level and 10 criteria for application at the indicator set level. With guidance from the core team and the advisory committee, the 48 individual indicator criteria were grouped under six categories: importance and relevance, scientific soundness, data quality (which falls under scientific soundness), feasibility, and interpretation and application, in addition to a cross-cutting equity category **(Figure 3)**. Criteria identified that can be applied at the indicator set level include: use of multiple measures, comprehensive, addresses range of programs/services, covers outcomes of interest, includes structure, process, and outcome measures, avoids redundancy, prioritization of essential indicators, manageable number, cost of measurement, and content validity (which includes content coverage, proportional representation, and contamination).

Figure 3. Criteria for selecting or prioritizing individual performance indicators based on rapid scoping review findings.



Phase 2: Development of a set of core nutrition indicators for CDP

A priority-setting exercise was undertaken to develop a set of nutrition indicators. The core project team selected nutrition as an exemplar CDP topic for indicator development area due to their collective experience in public health nutrition. A modified version of the Child Health and Nutrition Research Initiative (CHNRI) method was used to develop and evaluate performance indicators for the nutrition topic area, using findings from phase 1. The CHNRI method is a commonly used, participatory, transparent, and flexible approach for setting health research priorities (15,16) and has also been applied to other contexts and topics not focused on research (17,18). The CHNRI method was adapted into the following steps:

i. Planning

The core team, in consultation with the advisory committee, planned the process for developing a set of nutrition program indicators, informed by the rapid scoping review. Planning was ongoing and iterative.

ii. Development of indicator 'short list'

A working group made of up core team and advisory committee members and other public health professionals from participating PHUs helped create an indicator short list. The working group chose selection criteria from the rapid scoping review and applied the selection criteria to the full candidate nutrition indicator list of 151 indicators derived from the environmental scan. The 151 indicators were categorized into 9 themes:

- Behaviour change
- Knowledge/awareness
- Skills/confidence
- Policy change
- Supportive environments
- Compliance

Selection criteria used:

- Necessity
- Scope for improvement
- Under control of organization
- Amenable to change
- Clarity
- Collectible data
- Applicable across organizations

Equity considerations were not used as a selection criterion but were applied across various indicators at a later stage in the process.

These selection criteria were then applied to the list of nutrition program outcome indicators in each category to narrow down the number of indicators. The working group made decisions by consensus. In some cases, working group members met individually with the project coordinator to apply the criteria to a subset of the indicator list. Criteria were applied to either a) remove indicators that did not fit the criteria or b) merge or combine similar indicators. The working group also had the ability to modify the wording or phasing or an indicator to make it clearer, or to better fit the criteria. This process led to a short list of 35 indicators which were shared with PHUs for prioritization (Table 1). Definitions of key terms are provided in Appendix B.

Table 1. Short list of nutrition program indicators, by category

Indicator	Category
1: #/% of program participants who made an eating behaviour change that supports health (e.g. Increase fruit and vegetable consumption, more water, visit healthcare provider, cooking at home, more eating together as a family, less eating in front of screens)	Behaviour Change Programming
2: #/% of program participants identifying they are ready to make one eating behaviour change that supports health	Behaviour Change Programming
3: #/% of program participants who plan to maintain this eating behaviour change that supports health in the future	Behaviour Change Programming
4: #/% of program participants who report a reduction in dieting behaviours (skipping meals, trying to lose weight) and disordered eating behaviours	Behaviour Change Programming
5: #/% of program participants who are satisfied with food and nutrition programming	Behaviour Change Programming
6: #/% of program participants who report increased food literacy (including food skills)	Behaviour Change Programming
7: #/% of program participants who have increased knowledge of healthy eating, food skills, and food literacy	Behaviour Change Programming
8: #/% of program participants that indicate a more positive relationship with food	Behaviour Change Programming
9: # of partners (e.g. schools, child care settings, workplaces, municipalities) using a PHU-provided nutrition resource	Partnerships
10: # of partners reporting using Monitoring Food Affordability data for decision-making or action	Partnerships
11: #/% of partners who are aware of Monitoring Food Availability data and are aware of the need for income-based solutions to appropriately address food insecurity	Partnerships
12: # of partners who collaborate with the PHU to deliver nutrition-related programming	Partnerships
13: # of partners who report increased knowledge and skills to offer food programming to meet their organizational food literacy goals	Partnerships

Indicator	Category
14: Increased engagement and participation of community members in food-related activities that will over time contribute to improved food literacy, food security and food sovereignty	Partnerships
15: # of partners who engaged with the PHU on food and nutrition topics	Partnerships
16: Partners have increased knowledge of and increased capacity to act on the factors associated with healthy eating	Partnerships
17: % of inspections of food premises in compliance with the Healthy Menu Choices Act	Compliance
18: # of partners who are working with the health unit to improve the food and nutrition environment (e.g., menu revisions in living establishments, recreation and community settings that improve their food offerings, food and nutrition policies implemented in schools and/or other settings)	Food Environments
19: # of partners who created supportive environments that improve food literacy (including supporting food skills)	Food Environments
20: # of partners who created supportive environments that improve household food insecurity	Food Environments
21: # of community gardens and local food projects as opportunities to enhance food skills and community food security	Food Environments
22: # of partners with increased capacity to improve supportive environments for healthy eating	Food Environments
23: # of changes to the food environment including: availability of healthy foods, food communication environment (e.g., advertisements, point-of-decision prompts) food economic environment (e.g., changes to prices, taxes), and physical food environment (e.g., proximity to healthier food and spaces for physical activity)	Food Environments
24: #/% of educators who have access to food-neutral teaching tools related to food literacy and the new food guide	Food Environments
25: #/% of educators who understand the importance of using a food-neutral approach when discussing and teaching about food and nutrition-related topics	Food Environments
26: Increased partner knowledge and awareness of evidence-based promotion, prevention, and early intervention programming for eating disorders	Knowledge and Awareness
27: Increased internal PHU staff knowledge on shifting language and messaging about food/nutrition/bodies, harm reduction approach, and reducing weight stigma	Knowledge and Awareness

Indicator	Category
28: Reach of online food and nutrition content (# of subscribers, # of website visits, # of followers etc.)	Knowledge and Awareness
29: Engagement with online food and nutrition content produced by the PHU (# of likes, # of shares, # of comments etc.)	Knowledge and Awareness
30: # of existing PHU initiatives modified to address weight stigma	Knowledge and Awareness
31: # of partners who engaged with the PHU in food and nutrition policy advocacy efforts	Policy Change
32: # of partners engaged with the PHU in the development of food and nutrition policies	Policy Change
33: # of partner organizations that have implemented food and nutrition-related policies as a result of engagement with the PHU	Policy Change
34: # and type of food and nutrition policies implemented by partners	Policy Change
35: # of partners engaged with the PHU in food and nutrition policy evaluation	Policy Change

iii. Prioritization of indicators

An online prioritization survey was conducted to obtain feedback on the short list of candidate indicators.

Prioritization survey methods. Prior to survey distribution, the TBDHU Medical Officer of Health sent an email about the study to all PHU Medical Officers of Health via the Council of Medical Officers of Health (COMOH) mailing list. Participants were then recruited via email seeking a single contact for each PHU through the OCDPMPH network. This network includes members from all 34 PHUs. Recruited participants were sent an invitation to participate, a consent document, and survey link. One response per PHU was requested. Consultation within the PHU was encouraged to capture a broader set of perspectives (including public health dietitians/ nutritionists, epidemiologists, evaluators, other managers or directors).

Approval for the prioritization survey (and the evaluation survey described in phase 3) was obtained from the U of T Health Sciences Research Ethics Board and through an administrative review by the PHO Ethics Review Board. Informed consent was obtained from all participants prior to commencing data collection.

The prioritization survey was developed using REDCap (Research Electronic Data Capture) and pilot-tested by core team and advisory committee members and finalized based on feedback. A Word version of the survey was shared to help guide and document discussions prior to participants filling in the online survey. Participants were asked to respond to agreement statements to assess the extent to which each indicator met the each of the prioritization criteria.*

* Agreement statements: Relevance: This indicator is relevant to anticipated future CDP programming in my public health unit; Feasibility: Data for this indicator could be regularly collected and reported on in my public health unit. Likert scale response options for the agreement statements: strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree.

Participants were also asked for other information about the indicators and the development of an indicator set, including whether they expected to use each indicator and reasons for not using, any important indicators missing from the short list, their top-10 preferred indicators, and how health equity could be considered for these indicators.

Descriptive statistics were used to summarize the quantitative data. Selected survey responses were analyzed further to rank the indicators using three different methods; a prioritization score † created from the prioritization criteria agreement statement responses, the proportion of PHUs that selected each indicator for their top 10, and the proportion of PHUs that reported they would not use the indicator because it is not relevant or not useful (for the latter, the list order was reversed). The three ranked lists of indicators were then cross-referenced to determine which indicators ranked in the top, middle, and bottom third considering all three methods (the top-third included indicators that fell in the top-15 for all three lists). Qualitative data were reviewed for key categories or themes and where relevant, illustrative quotes were selected. Analysis was conducted using Microsoft Excel (v 16.66.1).

Prioritization survey findings. Thirty-three PHUs (97.1%) completed the prioritization survey. All but one PHU reported consulting with colleagues as part of the survey response. The most frequently reported roles/positions consulted with were CDP manager or director and public health dietitian/nutritionist **(Table 2)**.

Table 2. PHU staff consulted as part of responding to the prioritization survey, N=33

PHU staff role/position consulted	n	%
CDP manager or director	28	84.8
Other manager or director	11	33.3
Public Health Dietitian/Nutritionist	28	84.8
Epidemiologist	12	36.4
Program evaluator	6	18.2
No one	1	3.0
Other	10	30.3

The proportion of PHUs that expect to use each indicator, along with the reasons for not using the indicators, and key themes identified in the feedback are provided in Appendix C, Table C.1. The complete ranked indicator lists for the three different ranking methods are provided in **Appendix C, Tables C.2-C.4**. Based on the three ranking methods, eleven indicators appeared in the top third **(Table 3)**. Nine of these eleven top-ranked indicators relate to PHUs' partners, six of which count the number of partners working with the PHU on different initiatives.

† For the prioritization criteria, participant responses to the agreement statements were numerically coded (strongly agree = 1, agree = 0.75, neither agree nor disagree = 0.5, disagree = 0.25, strongly disagree = 0). For each indicator, a criterion score for each of the prioritization criteria will be created by averaging values for all of the responses to the corresponding agreement statements. For each indicator, all of the criterion scores were averaged to create an overall prioritization score.

Table 3. Ranked short list of candidate nutrition program indicators

Ranking	Category	Indicator
Top Third	Behaviour Change Programming	6: #/% of program participants who report increased food literacy (including food skills)
	Partnerships	10: # of partners reporting using Monitoring Food Affordability data for decision-making or action
	Partnerships	11: # of partners who are aware of Monitoring Food Availability data and are aware of the need for income-based solutions to appropriately address food insecurity
	Partnerships	12: # of partners who collaborate with the PHU to deliver nutrition-related programming
	Partnerships	13: # of partners who report increased knowledge and skills to offer food programming to meet their organizational food literacy goals
	Partnerships	15: # of partners who engaged with the PHU on food and nutrition topics
	Policy Change	31: # of partners who engaged with the PHU in food and nutrition policy advocacy efforts
	Policy Change	32: # of partners engaged with the PHU in the development of food and nutrition policies
	Policy Change	33: # of partner organizations that have implemented food and nutrition-related policies as a result of engagement with the PHU
	Food Environments	18: # of partners who are working with the health unit to improve the food and nutrition environment (e.g., menu revisions in living establishments, recreation and community settings that improve their food offerings, food and nutrition policies implemented in schools and/or other settings)
	Knowledge and Awareness	27: Increased internal PHU staff knowledge on shifting language and messaging about food/nutrition/bodies, harm reduction approach, and reducing weight stigma
Middle third	Partnerships	9: # of partners (e.g. schools, child care settings, workplaces, municipalities) using a PHU-provided nutrition resource
	Partnerships	16: Partners have increased knowledge of and increased capacity to act on the factors associated with healthy eating
	Policy Change	34: # and type of food and nutrition policies implemented by partners
	Policy Change	35: # of partners engaged with the PHU in food and nutrition policy evaluation
	Food Environments	19: # of partners who created supportive environments that improve food literacy (including supporting food skills)

Ranking	Category	Indicator
	Food Environments	22: # of partners with increased capacity to improve supportive environments for healthy eating
	Food Environments	24: #/% of educators who have access to food-neutral teaching tools related to food literacy and the new food guide
	Food Environments	25: #/% of educators who understand the importance of using a food-neutral approach when discussing and teaching about food and nutrition-related topics
	Knowledge and Awareness	28: Reach of online food and nutrition content (# of subscribers, # of website visits, # of followers etc.)
	Knowledge and Awareness	29: Engagement with online food and nutrition content produced by the PHU(# of likes, # of shares, # of comments etc.)
	Knowledge and Awareness	30: # of existing PHU initiatives modified to address weight stigma
	Knowledge and Awareness	7: #/% of program participants who have increased knowledge of food and nutrition topics
	Behaviour Change Programming	7: #/% of program participants who have increased knowledge of healthy eating, food skills, and food literacy
Bottom third	Behaviour Change Programming	1: #/% of program participants who made an eating behaviour change that supports health (e.g. Increase fruit and vegetable consumption, more water, visit healthcare provider, cooking at home, more eating together as a family, less eating in front of screens)
	Behaviour Change Programming	2: #/% of program participants identifying they are ready to make one eating behaviour change that supports health
	Behaviour Change Programming	3: #/% of program participants who plan to maintain this eating behaviour change that supports health in the future
	Behaviour Change Programming	4: #/% of program participants who report a reduction in dieting behaviours (skipping meals, trying to lose weight) and disordered eating behaviours
	Behaviour Change Programming	5: #/% of program participants who are satisfied with food and nutrition programming
	Behaviour Change Programming	8: #/% of program participants that indicate a more positive relationship with food
	Partnerships	14: Increased engagement and participation of community members in food-related activities that will over time contribute to improved food literacy, food security and food sovereignty

Ranking	Category	Indicator
	Compliance	17: % of inspections of food premises in compliance with the Healthy Menu Choices Act
	Food Environments	20: # of partners who created supportive environments that improve household food insecurity
	Food Environments	21: # of community gardens and local food projects as opportunities to enhance food skills and community food security
	Food Environments	23: # of changes to the food environment including: availability of healthy foods, food communication environment (e.g., advertisements, point-of-decision prompts) food economic environment (e.g., changes to prices, taxes), and physical food environment (e.g., proximity to healthier food and spaces for physical activity)
	Knowledge and Awareness	26: Increased partner knowledge and awareness of evidence-based promotion, prevention, and early intervention programming for eating disorders

The most frequently reported reasons by PHUs for selecting indicators for their top 10 lists were feasibility, reflects an upstream approach, relevance, and reflects current (or short-term future) practice **(Appendix C, Table C.5)**. PHU suggestions for indicators to consider that were missing from the candidate indicator list included those capturing partnership development, policy development, food access, healthy food systems, and monitoring food availability (a complete list is provided in **Appendix C, Table C.6**).

PHU recommendations for how to consider health equity in the nutrition program indicators were organized under the categories of program design, indicator development, and data collection and reporting. Key themes under program design were that equity is inherent in the work, to design programs with equity in mind, to consider which partners are being engaged, and to consider equity in program communication. Under indicator development, the key themes were to include information about program participants or tailoring of programming, to provide information on types of partners, the limitations of counting, cultural sensitivity, with some suggestions for specific indicators (policy, food environment, monitoring food affordability). For data collection and reporting, key themes were to consider equity in how data are collected and data disaggregation. The list of themes with illustrative quotes is provided in **Appendix C, Table C.7**.

iv. Development of preliminary indicators

Another working group (core team, advisory committee members, and other CDP staff from participating PHUs) was formed to develop a preliminary set of nutrition program indicators, using findings from the prioritization survey. The working group met once or twice weekly from February to March 2024 and used an iterative process to review and discuss the survey findings and select, develop, and refine the indicators. Key considerations included the overall ranking of indicators based on the three different methods of ranking, whether PHUs expected to use the indicator, reasons for not using, and any suggested changes to the indicators. Information from the prioritization survey on how to incorporate equity considerations into the indicators was used later during the refinement of the final set of proposed indicators.

Through this process, the working group refined the short list of 35 candidate indicators to a preliminary set of six core and three optional indicators **(Table 4)**. Once finalized, core indicators would be recommended for all PHUs to use and optional indicators would be recommended for PHUs only if relevant to their work. The working group decided not to continue using indicator categories for organizing the preliminary indicators as there was less need given the list became shorter and also many indicators could fall into more than one category. Definitions of key terms are provided in Appendix B.

Table 4. Set of preliminary nutrition program indicators

CORE INDICATORS

1	# of partners who collaborate with the PHU on the process for building healthy public policies related to food and nutrition
2	# of partners who collaborate with the PHU to improve the food environment
3	# of settings that have incorporated changes to the food environment, following collaboration with the PHU
4	# of partners who report using Monitoring Food Affordability data for decision-making or action, following collaboration with the PHU
5	# of partners who collaborate with the PHU on food and nutrition-related interventions
6	# of partners who report increased knowledge and/or skills to integrate food and nutrition-related interventions into their work, following collaboration with the PHU

OPTIONAL INDICATORS

1	#/% of educators in partner organizations who feel confident using a food-neutral approach in their work, following collaboration with the PHU
2	#/% of program participants who have increased knowledge of food and nutrition topics, following collaboration with the PHU
3	#/% of program participants who report increased food literacy (including food skills), following collaboration with the PHU

v. Evaluation of preliminary indicators

An online evaluation survey was conducted to obtain feedback on the preliminary nutrition program outcome indicators and the process used to develop the indicators (process findings are reported under phase 3).

Evaluation survey methods. The same approach was followed as with the prioritization survey, where CDP staff from all 34 PHUs were invited to participate, one response per PHU was requested, and consultation with relevant colleagues was encouraged. The evaluation survey link was sent to the individual that completed the prioritization survey. For PHUs that did not complete the prioritization survey, the evaluation survey link was emailed to the OCDPMPH contact after a new invitation to participate and consent document were sent.

In the survey, the preliminary nutrition program outcome indicators were shared and respondents were asked for feedback on the indicators, including their satisfaction, the likelihood of their PHU using each indicator, and barriers and enablers to use. Participants were also asked for feedback on the process for developing the indicators (these findings are shared under phase 3 below).

Evaluation survey findings: feedback on indicators. Twenty-nine PHUs (85.3%) completed the evaluation survey, all of which reported consultation with colleagues as part of the survey response. The most frequently reported roles/positions consulted with were CDP manager or director and public health dietitian/nutritionist (**Table 5**).

Table 5. PHU staff consulted with as part of response to evaluation survey, N=29 PHUs

Person/profile consulted with	n	%
CDP manager/director	24	82.8
Other manager/director	5	17.2
Public health dietitian/nutritionist	27	93.1
Epidemiologist	4	13.8
Program evaluator	4	13.8
Other*	8	27.6
No one	0	0.0

*Other includes: health promoter/promotion role (n=4), quality improvement/performance specialist (n=2), research, planning and policy analyst (n=1), Northern fruit and vegetable program lead (n=1)

Almost three-quarters (72.5%) of responding PHUs reported being somewhat or very satisfied with the preliminary nutrition program outcome indicators, whereas almost one-quarter (24.1%) reported being somewhat dissatisfied or not satisfied **(Table 6).**

Table 6. PHU satisfaction with the preliminary nutrition program indicators, N=29 PHUs

Level of satisfaction	n	%
Very satisfied	7	24.1
Somewhat satisfied	14	48.3
Neutral	1	3.4
Somewhat dissatisfied	5	17.2
Not at all satisfied	2	6.9

The proportion of PHUs that suggested each indicator should be a core indicator ranged from 48.3% to 82.8% for the core indicators and 27.6% to 44.8% for the optional indicators (**Table 7**). The proportion of PHUs that reported being somewhat or very likely to use each indicator ranged from 58.6% to 79.3% for the core indicators and from 44.8% to 65.5% for the optional indicators.

Table 7. Likelihood of PHU using the preliminary nutrition program indicators and recommendations for which should be core indicators, N=29 PHUs

Indicator	Somewhat or very likely to use		Should be a core indicator	
	n	%	n	%
CORE				
1. # of partners who collaborate with the PHU on the process for building healthy public policies related to food and nutrition	21	72.4	19	65.5
2. # of partners who collaborate with the PHU to improve the food environment	20	69.0	17	58.6
3. # of settings that have incorporated changes to the food environment, following collaboration with the PHU	17	58.6	15	51.7
4. # of partners who report using Monitoring Food Affordability data for decision-making or action, following collaboration with the PHU	18	62.1	14	48.3
5. # of partners who collaborate with the PHU on food and nutrition-related interventions	23	79.3	24	82.8
6. # of partners who report increased knowledge and/or skills to integrate food and nutrition-related interventions into their work, following collaboration with the PHU	18	62.1	18	62.1

Indicator	Somewhat or very likely to use		Should be a core indicator	
	n	%	n	%
OPTIONAL				
1. #/% of educators in partner organizations who feel confident using a food-neutral approach in their work, following collaboration with the PHU	13	44.8	8	27.6
2. #/% of program participants who have increased knowledge of food and nutrition topics, following collaboration with the PHU	16	55.2	9	31.0
3. #/% of program participants who report increased food literacy (including food skills), following collaboration with the PHU	19	65.5	13	44.8

If a PHU reported they were not likely to use an indicator, they were asked why they expected not using the indicator. Overall, the most frequently reported reasons were that it would be difficult to measure or collect data, not useful, and "other" **(Appendix D, Table D.1)**. Key themes collated across the indicators for the "other" responses were that the number of partners does not equal impact, measurement challenges, need for clarity on definitions, that multiple indicators could be combined, and limited current focus on behaviour change programming. A summary of "other" reasons specific to each indicator is provided in **Appendix D, Table D.2**.

PHUs also shared feedback on anticipated barriers and enablers to using the preliminary nutrition program indicators **(Table 8)**. Key themes relating to barriers include PHU capacity concerns, too much focus on counting partners, measurement difficulties, lack of definitions and measurement tools, overlapping indicators, and uncertainty about provincial priorities. Key themes relating to enabling factors include supports for measurement, use of qualitative data, indicators reflecting upstream approaches, indicators being ready for program planning, sufficient staffing, cross-learning, harmonization across the province, and alignment with the new OPHS.

Table 8. Barriers and enablers reported by PHUs for using the preliminary nutrition program indicators

Theme	Illustrative quote
BARRIERS	
PHU capacity concerns	"Barriers to implementing the core indicators could relate to limited RDs (staffing/work capacity issue)"
Concerns with focus on counting partners	"I just worry that the core set of indicators doesn't accurately reflect the depth of work done in this area. It's positive that the core indicators are focused on partnerships as public health needs to work in partnership with other community organizations, however all core indicators are partnership based and do number of partnerships capture quantity and quality of work?"
Measurement difficulties	"It may be challenging to successfully implement a survey of partners on an annual basis to gather the information needed to report on these indicators."
Lack of definitions / measurement tools	"The lack of clear definitions for some of the terms within the core indicators (e.g. partners, settings, collaboration, food and nutrition-related interventions)"
Overlapping indicators	"…improving food environment is part of "process for building healthy public policies" so if both used, it would be difficult to avoid double reporting of initiatives."
Uncertainty about provincial priorities (e.g. OPHS)	"… the proposed indicators will need to align with the new OPHS"
ENABLERS	
Supports for measurement, including clear definitions, tools	"Provide guidance on how to measure these indicators, including a definition for partners, and food and nutrition."
Inclusion of qualitative data	"…less emphasis on quantitative indicators. E.g. Describe type of work to improve supportive environments in public settings"
Indicators reflecting upstream approaches	"Better alignment with upstream health promotion approaches"
Indicators ready for program planning	"Having them in time for our annual op-planning"
Sufficient staffing	"Hiring of new RD's."
Cross-learning	"…learning exchange among health units annually around how indicators are being used"
Harmonization across province	"…agreement among all the PHUs to use the same indicators."
Alignment with the new OPHS	"Alignment with the revised OPHS."

vi. Selection/refinement of final indicators

Another working group was formed to refine the preliminary set of nutrition program indicators into a final proposed indicator set, using feedback on the preliminary indicators from the evaluation survey. The working group met once or twice weekly from April to May 2024 and used an iterative process to review and discuss feedback and refine the indicators. Key information considered included the likelihood of PHUs using the indicators and barriers to use, such as PHU capacity, the focus on counting partners, difficulty of measurement or data collection, and overlapping indicators. Equity considerations were also incorporated into the indicators in consultation with support from a PHO health equity specialist and using findings from the prioritization survey.

Through this process, the working group refined the preliminary set of 6 core and 3 optional indicators into a final proposed set of 4 core indicators, each with sub-indicators and an accompanying narrative **(Figure 4)**. Questions and response options or instructions and definitions were also developed. Definitions of key terms are provided in Appendix B. The indicators are intended for application at the PHU level but could also be aggregated across PHUs. Based on the feedback received, the working group decided not to include any optional indicators in the final list.

Figure 4. Proposed list of nutrition program indicators and questions.

01

PARTNERSHIPS

1

Indicator

# of partnerships with the PHU on food and nutrition-related interventions

Question

How many partnerships has your PHU engaged in?

1a

Sub-indicator

Food and nutrition strategies used by the partnerships

Question

What strategies do these partnerships use?

Select all that apply:

- ❒ Create supportive environments
- ❒ Build health public policy
- ❒ Develop personal skills
- ❒ Reorient health services
- ❒ Strengthen community action

1b

Sub-indicator

Food and nutrition topic areas covered by the partnerships

Question

What food and nutrition topic areas are covered by these partnerships?

Select all that apply:

- ❒ Food insecurity
- ❒ Food systems
- ❒ Food environments
- ❒ Food literacy
- ❒ Food sovereignty
- ❒ Food neutrality
- ❒ Weight stigma, bias, and/or discrimination

1c

Sub-indicator

Other public health topics covered by the partnerships

Question

Do any of these partnerships involve other public health topics?

❒ Yes ❒ No

1d

Sub-indicator

Settings covered by the partnerships

Question

What settings are these partnerships seeking to create change in?

Select all that apply:

- ❒ Schools
- ❒ Childcare (including early years settings)
- ❒ Workplaces
- ❒ Community
- ❒ Municipalities
- ❒ First Nations
- ❒ Urban Indigenous e.g., Friendship Centre or Aboriginal Health Access Centre
- ❒ Congregate living settings
- ❒ Food Premises
- ❒ Sport and recreation centers
- ❒ Hospitals and healthcare
- ❒ Personal Service
- ❒ Home
- ❒ Other (please specify)

1e

Sub-indicator

% of partnerships that are aimed at equity-related objectives

Question

How many of these partnerships are aimed at equity-related objectives?

1f

Sub-indicator

% of partnerships that involve equity-denied groups

Question

How many of these partnerships involve equity-denied groups?

1g

Sub-indicator

Narrative

Question

What is the change/outcome as a result of this work? Include any relevant locally developed indicators such as diversity within partnerships, new and/or emerging partnerships, or level of engagement.

02

FOOD ENVIRONMENTS

2

Indicator

PHU involvement in creating supportive food environments

Question

Has your PHU been involved with creating supportive food environments?

❒ Yes ❒ No

2a

Sub-indicator

Settings covered by the food environment work

Question

What settings is this food environment work seeking to create change in?

Select all that apply:

- ❒ Schools
- ❒ Childcare (including early years settings)
- ❒ Workplaces
- ❒ Community
- ❒ Municipalities
- ❒ First Nations
- ❒ Urban Indigenous e.g., Friendship Centre or Aboriginal Health Access Centre
- ❒ Congregate living settings
- ❒ Food Premises
- ❒ Sport and recreation centers
- ❒ Hospitals and healthcare
- ❒ Personal Service
- ❒ Home
- ❒ Other (please specify)

2b

Sub-indicator

Use of a health equity lens for food environment work

Question

Does your PHU plan food environment work using a health equity lens?

- ❒ Yes - sometimes
- ❒ Yes - always
- ❒ No

2c

Sub-indicator

Narrative

Question

What is the change/outcome as a result of this work? Include any relevant locally developed indicators such as those that describe progress in creating supportive food environments.

03 POLICY

3

Indicator

PHU involvement in the process for building healthy public policies related to food and nutrition

Question

Has your PHU been involved in the process for building healthy public policies related to food and nutrition?

❒ Yes ❒ No

3a

Sub-indicator

Food and nutrition topic areas covered by the policy work

Question

What food and nutrition topic areas are covered by this policy work?

Select all that apply:

- ❒ Food insecurity
- ❒ Food systems
- ❒ Food environments
- ❒ Food literacy
- ❒ Food neutrality
- ❒ Weight stigma, bias, and/or discrimination
- ❒ Other (please specify)

3b

Sub-indicator

Settings covered by the policy work

Question

What settings does this policy work seek to create change in?

Select all that apply:

- ❒ Schools
- ❒ Childcare (including early years settings)
- ❒ Workplaces
- ❒ Community
- ❒ Municipalities
- ❒ First Nations
- ❒ Urban Indigenous e.g., Friendship Centre or Aboriginal Health Access Centre
- ❒ Congregate living settings
- ❒ Food Premises
- ❒ Sport and recreation centers
- ❒ Hospitals and healthcare
- ❒ Personal Service
- ❒ Home
- ❒ Other (please specify)
- ❒ Not applicable

3c

Sub-indicator

Narrative

Question

What is the change/outcome as a result of this work? Include any relevant locally developed indicators, such as those that describe the phases or steps of the policy process.

04

MONITORING FOOD AFFORDABILITY

4

Indicator

PHU monitoring of food affordability

Question

Did your PHU monitor food affordability?

❒ Yes ❒ No

4a

Sub-indicator

Use of monitoring food affordability data

Question

How did your PHU use monitoring food affordability data?

Select all that apply:

❒ Education
❒ Advocacy for policy development
❒ Other (specify)

4b

Sub-indicator

Narrative

Question

What is the change/outcome as a result of this work? Include any relevant locally developed indicators.

Phase 3: Evaluation of participatory process with PHUs

An evaluation survey was conducted to assess the acceptability of the participatory process to develop a core set of CDP nutrition indicators (see Phase 2, step v for information on survey methods).

Twenty-nine PHUs (85.3%) completed the evaluation survey. All of the PHUs that completed the evaluation survey had participated in some aspect of the LDCP. Approximately half (51.7%) served on the advisory committee and one-third (34.5%) served as a knowledge user. All but one of the responding PHUs reported completing the prioritization survey and almost half (48.3%) reported attending regular advisory committee meetings. Further details about PHU participation in the LDCP can be found in **Appendix E, Table E.1**. Ninety-three percent of PHUs reported they were somewhat or very satisfied with the overall process that the LDCP used to develop the preliminary nutrition program indicators **(Table 9)**.

Table 9. PHU satisfaction with the overall process of developing the preliminary nutrition program indicators, N=29

Level of satisfaction	n	%
Very satisfied	11	37.9
Somewhat satisfied	16	55.2
Neutral	1	3.4
Somewhat dissatisfied	1	3.4
Not at all satisfied	0	0.0

Several qualitative questions were asked as part of the online survey. These questions asked respondents to share reflections on what worked well and any suggestions they had for how the prioritization survey and the development of the indicator set could have been improved or done differently. They were also asked to share any further reflections or feedback not already shared.

These qualitative results were themed into several broad categories and sub-themes were identified within these categories. Further details related to the frequency of responses in the sub-themes can be found in **Appendix F, Table F.1**. The categories were:

a. What worked well,
b. Suggestions for how the prioritization survey could be improved or done differently,
c. Suggestions for how developing the indicator set could be improved or done differently,
d. Suggestions for how the overall process could be improved or done differently, and
e. Suggestions for continued development of Indicators

Respondents indicated several factors that worked well including the overall leadership and the core team, the inclusive and participatory process, the use of smaller working groups to complete tasks and the involvement of knowledgeable staff throughout the process. Other comments related to practical reflections such as reminders to complete tasks, the use of tools to make the work easier like offering a Word version in addition to the online survey.

The suggestions to improve the prioritization survey related to the format and length of survey (e.g. less indicators) and suggestions about the format of specific questions. In addition, there was a suggestion to include definitions along with the indicators and to send the survey to more staff at each PHU as opposed to the one identified representative.

The most frequently shared suggestion on the development of the indicators was to not have used already developed indicators but rather look at current work underway across the public health sector to develop new, relevant indicators. Related to the indicator list, there were suggestions to include qualitative indicators, have fewer indicators, and to remove some indicators that didn't make sense to the field.

Related to the overall process, the majority of respondents suggested more formally including other health professionals like RDs and epidemiologists through professional groups like ODPH and Association of Public Health Epidemiologists in Ontario (APHEO) at various stages of the process. In addition, the timelines were short and more communication about the project was required to add context, information on process and the purpose of the indicators.

In the evaluation survey, respondents were also asked to suggest up to three topics to be prioritized for future CDP indicator development. The most frequently suggested topic was mental health, followed by the built environment **(Table 10)**.

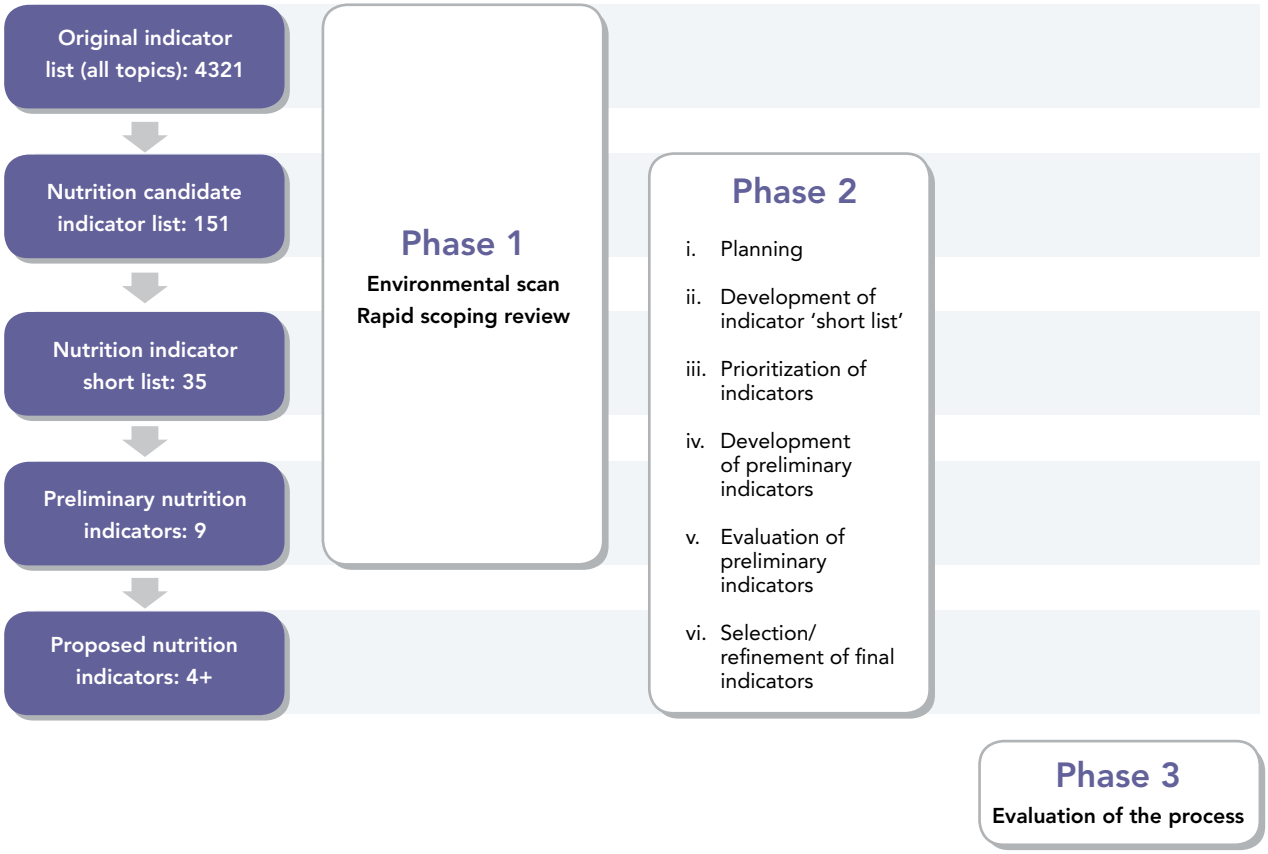
Table 10. Topics prioritized by PHUs for future indicator development, N=29

Topic	n	%
Mental Health	22	75.9
Built Environment	17	58.6
Physical Activity	12	41.4
Adverse Childhood Experiences	12	41.4
Social Determinants of Health	11	37.9
Alcohol Use	7	24.1
Tobacco/Vapour/Nicotine Product Use	2	6.9
Other (general/cross-cutting indicators)	2	6.9

Summary of Process and Findings Across Phases 1-3

The phased process for developing a core set of nutrition program indicators is summarized in Figure 5. The original list of 4321 potential indicators (for all topics) was narrowed down to 151 nutrition candidate indicators. This was further narrowed down to a short list of 35 nutrition indicators and then 9 preliminary indicators. The preliminary indicators were refined into a proposed set of 4 indicators, each with sub-indicators and a narrative.

Figure 5. Overview of the indicator development process



Knowledge Exchange

Throughout the project, knowledge exchange was an important component and included a combination of strategies – from regular updates and presentations to workshops and webinars, alongside regular engagement of multiple advisory and working group structures. Early on, efforts were taken to create buy-in and secure participation of PHUs' CDP Managers through regular updates at quarterly CDP Managers' virtual meetings. Two written updates were provided to Medical Officers of Health via the COMOH listserv (through lead agency Medical Officers of Health). Advisory Committee members linked to relevant stakeholder groups were kept informed and encouraged to share updates, and core team members gave update presentations to Ontario Dietitian's in Public Health, Ontario Public Health Evaluators Network, and the Public Health Leadership Table-CDP Working Group. Regular updates and final results were shared with the CDP/IP Managers Network, which is a network co-chaired by the MOH and PHUs.

Several meetings were held with MOH staff to discuss opportunities to inform policy such as the CDP strategy and the feasibility of supporting implementation of indicators as part of annual planning and reporting process for PHUs. More formal opportunities for knowledge exchange with the public health sector were also completed. A full day workshop, entitled Measuring What Matters: A Collaborative Approach to Developing Chronic Disease Prevention Indicators was held at the annual TOPHC conference held on March 26, 2024. The learning objectives were to be able to discuss the importance of clear, consistent and measurable performance indicators and why this is important for public health; to describe rigorous application of indicator selection criteria; and foster participating in provincial, cross-health unit initiatives to increase consistency in reporting, including adoption of a core set of nutrition indicators. The workshop included an introduction to performance measurement and indicators, a facilitated activity to sort indicators according to type, a presentation on the results from the Development of Common CDP Indicator LDCP, a case study activity to identify indicators, select and apply criteria, and a facilitated panel discussion involving managers from diverse PHUs to share successes and challenges of CDP performance measurement. There were 75 attendees of the workshop. The workshop was attended by a variety of public health and MOH staff including students, front line employees, managers and Associate and Medical Officers of Health.

A PHO Rounds webinar to present the process and results was completed on June 25, 2024. The presentation described and shared the results of the collaborative process used to develop a core set of nutrition program performance measurement indicators, considering equity. It also shared reflections from the overall process and lessons learned for future indicator development. A "Q & A" was also facilitated following the presentation.

Discussion

Over the longer-term, the results will help determine if having common information available to PHUs related to the performance and impact of CDP programming enables continuation of some programs deemed critical within a pandemic response. With sustained effort following the project, this work could help increase understanding at the provincial level of the importance of and impact of CDP programs. Importantly, there is work going on at the provincial level with Ontario Health, the MOH, and PHO related to the development of a Chronic Disease Strategy that may be informed by this project. Having Ontario Health and PHO connected to this work can enable appropriate connections and help ensure synergies.

The environmental scan revealed a wide range of CDP nutrition indicators used across Ontario, of varying degrees of quality. This suggests that continued support for performance measurement of CDP programming may lead to more robust and coordinated measurements. The LDCP project focused on improving and coordinating performance measures in CDP programming. Interestingly, discussing performance measures often led to re-evaluation of program goals. Thus, examining performance measurement strategies seems to support an iterative program planning process where goals and activities are re-examined as well.

For certain indicators distinguishing between process, output and outcomes was challenging. Particularly for programs such as policy development, where the process may have a long timeline and often does not follow a linear trajectory. In these instances, it was determined that parts of the program 'process' (for example policy formation) may be considered reasonable short term 'outcomes' since they could result from years of work that involve partnership development and agenda setting activities.

Our work was "topic" focused initially, but evolved to looking at a more comprehensive health promotion focus with consideration to equity (19). The final indicators relating to policy, partnership, and environments reflect the nature of CDP work shifting upstream, as seen in the draft versions of updated OPHS, shared with PHUs for feedback. There is the opportunity for performance measurement indicators to drive programming that is focused upstream – measuring what matters. The strategy-based nature of the final indicators makes them easier to adapt for areas beyond nutrition and including multi-risk factors for CDP.

The process of undertaking the participatory approach to a project of this nature was challenging and complex. With no models to draw on, considering health equity within CDP required many conversations within the core team, advisory committee, and with experts. The wide-spread interest and energy to do this project, coming out of the COVID-19 pandemic and recovery, affirmed how important it is to the field.

LIMITATIONS

The primary limitation of this project was the compressed timeline. Existing engagement with PHUs, the prior buy-in of the OCDPMPH network to working collaboratively on indicators, and the participatory approach helped to mitigate the effects of a short information collection period. The CHNRI prioritization method was chosen because it is adaptable and can be conducted faster than many other priority-setting methods. This methodology allowed the project to be completed within the available timeline and also minimized the burden on participating PHU staff. Another limitation is that there was no existing performance measurement framework, such as a logic model, to guide the development of indicators for this project. In addition, health equity considerations were added to the proposed set, rather than being used as part of deciding which indicators would be included in the proposed set.

Conclusion and Next Steps

At the conclusion of the project, the Core Team recommends that:

- PHUs to begin to implement the indicators where appropriate and continue to provide feedback through the Advisory Committee, which will be sustained as the Core Team seeks further opportunities to continue to build on the work.
- The Ministry of Health considers incorporating the final version of the indicators (after additional testing and refinement) into the 2025 Annual Service Plan and Annual Report for PHUs.

The Core team will continue to work on next steps related to this project. The final list of indicators will be further tested and refined with participation from PHUs. From there, implementation guidance will be developed and additional topic areas will be explored using similar methodology.

The implications of the pending revised OPHS added a challenge for respondents in the data collection. The project was based on past indicators, but there was a pull towards being future-focused, which was difficult in the context of the OPHS review. Upon the release of the 2025 update to the OPHS, the indicators will be reviewed and revised as needed to ensure alignment.

It is anticipated that this work will contribute to the increased capacity of PHUs to monitor performance on CDP initiatives, improve quality and consistency of reporting across PHUs, and drive consideration of equity in this reporting.

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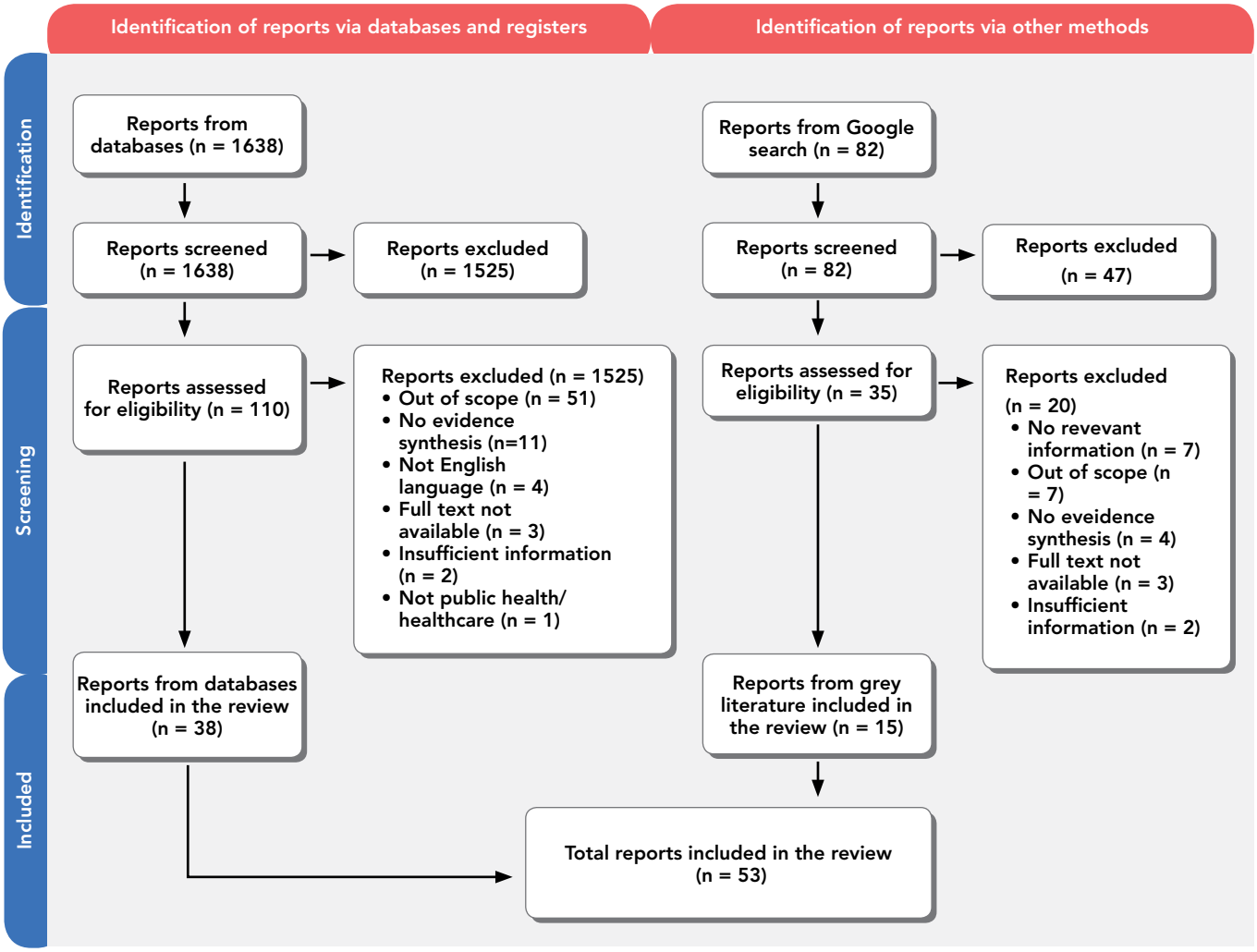
Appendices

APPENDIX A. RAPID SCOPING REVIEW FINDINGS



APPENDIX B: DEFINITIONS

Table B.1 Definitions

Term	Definition
Equity denied	A group of people who, because of systemic discrimination, face barriers that prevent them from having the same access to the resources and opportunities that are available to other members of society, and that are necessary for them to attain just outcomes (23).
Food environments	Aspects of the social and physical environment that affect the types of food available, the accessibility of food, and the nutrition information that people are exposed to, including food marketing. All these aspects of the food environment can influence food choices (25).
First Nations (First Nations Communities)	Examples include First Nations Communities listed by band number and cultural affiliation (e.g., Algonquin, Cree, Ojibway) found on the Ontario First Nations map (24)
Food and nutrition related interventions	Any project, initiative and policy that supports food and nutrition related goals (project's definition)
Food literacy	Includes interconnected attributes organized into the categories of food and nutrition knowledge; food skills; self-efficacy and confidence; food decisions; and ecologic (external) factors (27).
Food neutrality	Believing all food is morally equal and recognizes that all food has a purpose in the promotion of health. Some foods provide us with energy, pleasure, or have cultural significance, and sometimes it is simply the social aspect of eating that allows food to contribute to our mental well-being. It removes judgement of food and eliminates value-based labels on food (28).
Food skills	To be able to prepare meals throughout the life span using basic skills like chopping, measuring, cooking, reading recipes, and food safety (27).
Food sovereignty	Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations. It defends the interests and inclusion of the next generation. It offers a strategy to resist and dismantle the current corporate trade and food regime, and directions for food, farming, pastoral and fisheries systems determined by local producers and users (30).

Term	Definition
Food systems	Complex, non-linear, systems that embrace all the elements (environment, people, inputs, processes, infrastructure, institutions, markets, and trade) and activities that relate to the production, processing, distribution and marketing, preparation and consumption of food and the outputs of these activities, including socioeconomic and environmental outcomes (31).
Health equity	Health equity is created when individuals have the fair opportunity to reach their fullest health potential. Achieving health equity requires reducing unnecessary and avoidable differences that are unfair and unjust. Many causes of health inequities relate to social and environmental factors including: income, social status, race, gender, education and physical environment (32).
Household food insecurity	Inadequate or insecure access to food due to financial constraints (26).
Indigenous Food Sovereignty	Indigenous food sovereignty (IFS) is an essential element to addressing food security and food insecurity. IFS is not defined as many Indigenous people advise that a definition cannot adequately capture the nuances of IFS, and that it must be discussed in the context of actions and systems change. Colonial systems need to be restructured to better support IFS and ensure policy is grounded in practice. This work is the responsibility of non-Indigenous people — an ongoing process of unlearning current ways of thinking and re-learning based on the values and practices that guide Indigenous peoples' relationships to the land and to each other. The Working Group on Indigenous Food Sovereignty has outlined four key principles that guide IFS. Including Indigenous food sovereignty is sacred, participatory, self-determined, and embedded in policy reform (33,34).
Municipalities	Depending on its size and its history, a local municipality may be called a city, a town, or a township or a village (35).
Partnerships	Collaboration between individuals, groups, organizations, governments or sectors for the purpose of joint action to achieve a common goal. There is typically an informal understanding or a more formal agreement among the parties regarding roles and responsibilities, as well as the nature of the goal and how it will be pursued (36).
Urban Indigenous Organizations	An organization that serves urban Indigenous peoples. E.g., Friendship Centre or Aboriginal Health Access Centre (project's definition)

Term	Definition
Weight bias	Negative attitudes, beliefs, assumptions, and judgements towards individuals based on their weight, shape, appearance, or Body Mass Index (BMI) (38)
Weight discrimination	Occurs when people act on their own biases and social stereotypes of people in larger bodies, leading to the unjust treatment of people in larger bodies. Discrimination can range from everyday instances of differential treatment (microaggressions) to being treated unjustly in specific contexts (39)
Weight stigma	Negatively stereotyping people based on body weight, shape, or size (40)
Ottawa Charter Strategies	
Build healthy public policy	Involves advocating for, establishing, and/or implementing explicit actions by governments at the local, provincial/territorial, national, and international levels (20).
Create supportive environments	Involves developing physical and social environments in ways that support health and protect against physical hazards and socially/ psychologically damaging practices (20).
Develop personal skills	Enabling individuals to understand and critically use health information, then developing skills to improve their health.It goes beyond the provision of information; it is about developing a set of empowering personal skills that enable communities to engage in a range of actions (20).
Reorient health services	Developing the capacity of health systems and programs to achieve improved population health and greater health equity, and enabling all people- whether sick or well- to move along the healthillness continuum towards health. Actions can take place at structural, organizational and service levels (20).
Strengthen community action	Expanding the resources and capacities of communities to make decisions and to take collective action to increase their control over the determinants of their health (20).

Term	Definition
Settings	
Childcare (including early years settings)	Includes licensed childcare centres, licenced home childcare, unlicensed child care settings, and before and after school care (project's definition)
Community	Setting for which the primary purpose is not medical care, for example, geographic communities, schools, churches, homeless shelters, worksites, libraries (21).
Congregate living settings (Residential Facilities)	Congregate living settings refer to a range of facilities where people (most or all of whom are not related) live or stay overnight and use shared spaces (e.g., common sleeping areas, bathrooms, kitchens) including: shelters, group homes, long term care, correctional facilities, child and youth residential settings (22).
Food premises	A food premise is where food is manufactured, processed, prepared, stored, handled, displayed, distributed, transported, sold or offered for sale. A home kitchen in which food is being prepared for commercial purposes would also be considered a food premise (29).
Personal service	Personal services encompass services from hairdressing and barbering to invasive procedures such as tattooing, piercing and other body modification (37).
Schools	Includes publically funded and private elementary and secondary school settings (project's definition)

APPENDIX C. PRIORITIZATION SURVEY FINDINGS

Table C.1 Expected use, reasons for not using, and key themes from feedback on short-listed nutrition program indicators, N=33

Category	Indicator	PHUs that expect to use the indicator (%)	Reason(s) for not using indicator (%)					Key themes identified from indicator feedback
			Not relevant	Data not available	Insufficient resources to obtain data	Not useful	Other	
Behaviour Change Programming	1. #/% of program participants who made an eating behaviour change that supports health (e.g. Increase fruit and vegetable consumption, more water, visit healthcare provider, cooking at home, more eating together as a family, less eating in front of screens)	43.8	28.1	18.8	25	15.6	6.2	Difficult to determine behavior change attributable to health promotion programming (n =7) Lack of capacity (n=6) PHU does not conduct direct/frontline nutrition programming (n=6)
Behaviour Change Programming	2. #/% of program participants identifying they are ready to make one eating behaviour change that supports health	40.6	28.1	18.8	18.8	25.0	3.1	PHU does not conduct direct/frontline nutrition programming (n=6) Difficult to quantify intentions/ unsure if this is meaningful data (n =5) Lack of capacity (n=4)
Behaviour Change Programming	3: #/% of program participants who plan to maintain this eating behaviour change that supports health in the future	25.0	37.5	21.9	25.0	40.6	0	Indicator has too many external variables/ difficult to measure/ unrealistic (n=7) Lack of capacity (n=6) PHU does not deliver indicator-related programming (n=4) Indicator requires downstream approach, PHU has a upstream focus (n=4) not directly linked to PH programming (n=4)
Behaviour Change Programming	4: #/% of program participants who report a reduction in dieting behaviours (skipping meals, trying to lose weight) and disordered eating* behaviours	28.1	46.9	21.9	18.8	31.2	6.2	PHU does not have indicator-related programming (n=8) Ethical Concerns & Feasibility (n=5)

Table C.1 *continued*

Category	Indicator	PHUs that expect to use the indicator (%)	Reason(s) for not using indicator (%)					Key themes identified from indicator feedback
			Not relevant	Data not available	Insufficient resources to obtain data	Not useful	Other	
Behaviour Change Programming	5: #/% of program participants who are satisfied with food and nutrition programming	46.9	28.1	12.5	15.6	28.1	0	Out of scope of PH work/Not needed as an indicator/Not an outcome measure (n=6) PHU does not have indicator-related programming (n=5) PHU has a focus on upstream approach, indicator requires downstream approach (n=4)
Behaviour Change Programming	6: #/% of program participants who report increased food literacy* (including food skills**)	68.8	12.5	6.25	9.4	12.5	0	Difficult to measure or collect data (n= 4) PHU focuses on upstream approaches, this indicator does not capture that (n=3)
Behaviour Change Programming	7: #/% of program participants who have increased knowledge of healthy eating, food skills*, and food literacy**	62.5	12.5	6.2	12.5	9.4	6.2	Difficult to measure or collect data (n=8) Too similar to Indicator 6 (n=6) Indicator is too broad (n=6)
Behaviour Change Programming	8: #/% of program participants that indicate a more positive relationship with food	34.4	34.4	18.8	18.8	21.9	9.4	Difficult to measure or collect data (n=9) PHU does not have indicator-related programming (n=7)
Partnerships	9: # of partners (e.g. schools, child care settings, workplaces, municipalities) using a PHU-provided nutrition resource	71.9	12.5	9.4	15.6	15.6	0	Difficult to define/ not a feasible indicator (n=7) Not applicable or a priority to PHU (n=5) Concern of usefulness of indicator (n=5)
Partnerships	10: # of partners reporting using Monitoring Food Affordability data for decision-making or action	78.1	3.1	9.4	9.4	0	3.1	Difficult to collect and track data (n= 8)

Table C.1 *continued*

Category	Indicator	PHUs that expect to use the indicator (%)	Reason(s) for not using indicator (%)					Key themes identified from indicator feedback
			Not relevant	Data not available	Insufficient resources to obtain data	Not useful	Other	
Partnerships	11: #/% of partners who are aware of Monitoring Food Availability data and are aware of the need for income-based solutions to appropriately address food insecurity*	75.0	6.2	9.4	9.4	6.2	3.1	Requires the development of data collection tools and resources to collect data over time (n=5) Need to divide into 2 separate indicators (n=6) Too similar to Indicator 10 (n=3) "Awareness" is subjective (n=3)
Partnerships	12: # of partners who collaborate with the PHU to deliver nutrition-related programming	96.9	3.1	0	0	0	0	Too similar to Indicator 15 (n=4) Interested in changing the quantitative aspect of this indicator to qualitative (n=3) Lack of capacity (n=2)
Partnerships	13: # of partners who report increased knowledge and skills to offer food programming to meet their organizational food literacy* goals	78.1	3.1	9.4	12.5	3.1	3.1	Indicator wording must be adjusted (too wordy, too specific, etc) (n=8) Number of partners does not have meaningful value (n=2)
Partnerships	14: Increased engagement and participation of community members in food-related activities that will over time contribute to improved food literacy*, food security** and food sovereignty	46.9	31.2	25.0	31.25	21.9	3.1	Indicator is too broad (n=12) No mechanism is in place to measure this indicator (n=4)
Partnerships	15: # of partners who engaged with the PHU on food and nutrition topics	81.3	9.4	0	6.2	9.4	6.2	Very similar to Indicator 12 (n=7) Define "engagement"(n=6)
Partnerships	16: Partners have increased knowledge of and increased capacity to act on the factors associated with healthy eating	46.9	9.4	18.8	21.9	18.8	12.5	Too similar to Indicator 13 (n=3) Indicator wording needs to be adjusted (n=13)

Table C.1 *continued*

Category	Indicator	PHUs that expect to use the indicator (%)	Reason(s) for not using indicator (%)					Key themes identified from indicator feedback
			Not relevant	Data not available	Insufficient resources to obtain data	Not useful	Other	
Compliance	17: % of inspections of food premises in compliance with the Healthy Menu Choices Act	62.5	21.9	12.5	6.2	9.4	3.1	Falls under Environmental health standard (n=8) This is an indicator already required by the ministry (n=2) Not applicable to planning for CDP programming given this is complaint based (n=14)
Food Environments	18: # of partners who are working with the health unit to improve the food and nutrition environment* (e.g., menu revisions in living establishments, recreation and community settings that improve their food offerings, food and nutrition policies implemented in schools and/or other settings)	78.1	9.4	0	9.4	6.2	3.1	Too broad, additional information required (n=5) Lack of capacity (n=4) Similar to indicator 15 (n=2)
Food Environments	19: # of partners who created supportive environments that improve food literacy* (including supporting food skills**)	56.3	12.5	12.5	12.5	18.8	3.1	Similar to Indicator 18 (n=3) Too broad (n=13)
Food Environments	20: # of partners who created supportive environments that improve household food insecurity*	34.4	31.2	28.1	21.9	21.9	12.5	This indicator is an income based solution (n=14) What constitutes a support environment? (n=7)
Food Environments	21: # of community gardens and local food projects as opportunities to enhance food skills* and community food security**	43.8	31.2	9.4	9.4	25.0	12.5	Too broad (n=7) not be indicative of PHU performance (n=8)
Food Environments	22: # of partners with increased capacity to improve supportive environments for healthy eating	71.9	6.2	12.5	9.4	12.5	0	"Capacity" is not useful and subjective (n=12)

Table C.1 *continued*

Category	Indicator	PHUs that expect to use the indicator (%)	Reason(s) for not using indicator (%)					Key themes identified from indicator feedback
			Not relevant	Data not available	Insufficient resources to obtain data	Not useful	Other	
Food Environments	23: # of changes to the food environment* including: availability of healthy foods, food communication environment (e.g., advertisements, point-of-decision prompts) food economic environment (e.g., changes to prices, taxes), and physical food environment (e.g., proximity to healthier food and spaces for physical activity)	40.6	28.1	21.9	31.2	15.6	3.1	number of changes would be very difficult to measure (n=8) Need to define what a change is or how to quantify this (n=5)
Food Environments	24: #/% of educators who have access to food-neutral* teaching tools related to food literacy** and the new food guide	56.3	21.9	9.4	3.1	15.6	3.1	Indicator needs rewording (n=6)
Food Environments	25: #/% of educators who understand theimportance of using a food-neutral* approach when discussing and teaching about food and nutrition-related topics	62.5	6.2	9.4	15.6	3.1	12.5	Similar to Indicator 24 (n=3) Lack of capacity (n=4) Difficult to measure (n=12)
Knowledge and Awareness	26: Increased partner knowledge and awareness of evidence-based promotion, prevention, and early intervention programming for eating disorders*	50.0	28.1	15.6	18.8	15.6	9.4	Not within PHU focus (n=10) Not written as a measurable indicator (n=4)
Knowledge and Awareness	27: Increased internal PHU staff knowledge on shifting language and messaging about food/nutrition/ bodies, harm reduction approach, and reducing weight stigma*	84.4	6.2	3.1	3.1	0	3.1	Needs to be written as measurable indicator (n=4)

Table C.1 *continued*

Category	Indicator	PHUs that expect to use the indicator (%)	Reason(s) for not using indicator (%)					Key themes identified from indicator feedback
			Not relevant	Data not available	Insufficient resources to obtain data	Not useful	Other	
Knowledge and Awareness	28: Reach of online food and nutrition content (# of subscribers, # of website visits, # of followers etc.)	59.4	15.6	0	0	28.1	6.2	Limited usefulness on its own as an indicator (n=8)
Knowledge and Awareness	29: Engagement with online food and nutrition content produced by the PHU (# of likes, # of shares, # of comments etc.)	68.8	12.5	0	3.1	21.9	6.2	Limited usefulness (n=5) Engagement needs to be defined further (n=3)
Knowledge and Awareness	30: # of existing PHU initiatives modified to address weight stigma*	71.9	18.8	3.1	0	9.4	3.1	Indicator needs to be reworded (n=3)
Policy Change	31: # of partners who engaged with the PHU in food and nutrition policy advocacy efforts	75.0	18.8	0	0	0	3.1	Should not be specific to advocacy (n=4) Define "engaged" (n=4)
Policy Change	32: # of partners engaged with the PHU in the development of food and nutrition policies	87.5	6.2	0	0	3.1	3.1	Too similar to Indicator 31, only 1 is needed (n=2) Define engagement (n=2)
Policy Change	33: # of partner organizations that have implemented food and nutrition-related policies as a result of engagement with the PHU	75.0	12.5	9.4	3.1	3.1	3.1	Too similar to Indicators 31 and 32 (n=4)
Policy Change	34: # and type of food and nutrition policies implemented by partners	56.3	15.6	12.5	12.5	9.4	3.1	Too similar to Indicator 31 (n=1) Too similar to Indicator 32 (n=1) Too broad (n=4)
Policy Change	35: # of partners engaged with the PHU in food and nutrition policy evaluation	65.6	18.8	3.1	21.9	9.4	3.1	Confusion with indicator (n=3) Lack of capacity (n=3)

Table C.2 Ranking of short-listed nutrition program indicators based on relevance and feasibility criteria*, N=33

Rank	Indicator	Category	Criteria score (%)		Prioitization score (%)
			Relevance	Feasibility	
1	12: # of partners who collaborate with the PHU to deliver nutrition-related programming	Partnerships	80.5	79.7	80.1
2	15: # of partners who engaged with the PHU on food and nutrition topics	Partnerships	77.3	78.9	78.1
3	27: Increased internal PHU staff knowledge on shifting language and messaging about food/nutrition/bodies, harm reduction approach, and reducing weight stigma	Knowledge and Awareness	82.0	72.7	77.3
3	32: # of partners engaged with the PHU in the development of food and nutrition policies	Policy Change	78.9	75.8	77.3
4	18: # of partners who are working with the health unit to improve the food and nutrition environment (e.g., menu revisions in living establishments, recreation and community settings that improve their food offerings, food and nutrition policies implemented in schools and/or other settings)	Food Environments	78.1	75.8	77.0
5	31: # of partners who engaged with the PHU in food and nutrition policy advocacy efforts	Policy Change	75.0	70.3	72.7
6	13: # of partners who report increased knowledge and skills to offer food programming to meet their organizational food literacy goals	Partnerships	73.4	65.6	69.5

* Relevance: This indicator is relevant to anticipated future CDP programming in my public health unit; Feasibility: Data for this indicator could be regularly collected and reported on in my public health unit (Response options: Strongly agree=1, Agree=0.75, Neutral/neither agree nor disagree=0.5, Disagree=0.25, Strongly disagree=0)

Table C.2 *continued*

Rank	Indicator	Category	Criteria score (%)		Prioitization score (%)
			Relevance	Feasibility	
7	29: Engagement with online food and nutrition content produced by the PHU(# of likes, # of shares, # of comments etc.)	Knowledge and Awareness	63.3	75.0	69.1
8	28: Reach of online food and nutrition content (# of subscribers, # of website visits, # of followers etc.)	Knowledge and Awareness	60.2	76.6	68.4
9	10: # of partners reporting using Monitoring Food Affordability data for decision-making or action	Partnerships	76.6	58.6	67.6
10	11: #/% of partners who are aware of Monitoring Food Availability data and are aware of the need for income-based solutions to appropriately address food insecurity	Partnerships	73.4	59.4	66.4
10	33: # of partner organizations that have implemented food and nutrition-related policies as a result of engagement with the PHU	Policy Change	74.2	58.6	66.4
11	9: # of partners (e.g. schools, child care settings, workplaces, municipalities) using a PHU-provided nutrition resource	Partnerships	69.5	60.9	65.2
12	6: #/% of program participants who report increased food literacy (including food skills)	Behaviour Change Programming	68.8	60.9	64.8
12	30: # of existing PHU initiatives modified to address weight stigma	Knowledge and Awareness	66.4	63.3	64.8

Table C.2 *continued*

Rank	Indicator	Category	Criteria score (%)		Prioitization score (%)
			Relevance	Feasibility	
13	25: #/% of educators who understand the importance of using a food-neutral approach when discussing and teaching about food and nutrition-related topics	Food Environments	74.2	47.7	60.9
13	35: # of partners engaged with the PHU in food and nutrition policy evaluation	Policy Change	64.8	57.0	60.9
14	24: #/% of educators who have access to food-neutral teaching tools related to food literacy and the new food guide	Food Environments	64.8	53.1	59.0
15	22: # of partners with increased capacity to improve supportive environments for healthy eating	Food Environments	64.1	50.8	57.4
16	7: #/% of program participants who have increased knowledge of healthy eating, food skills, and food literacy	Behaviour Change Programming	59.4	54.7	57.0
16	34: # and type of food and nutrition policies implemented by partners	Policy Change	62.5	51.6	57.0
17	17: % of inspections of food premises in compliance with the Healthy Menu Choices Act	Compliance	45.3	66.4	55.9
18	19: # of partners who created supportive environments that improve food literacy (including supporting food skills)	Food Environments	63.3	46.9	55.1
19	5: #/% of program participants who are satisfied with food and nutrition programming	Behaviour Change Programming	52.3	57.0	54.7

Table C.2 *continued*

Rank	Indicator	Category	Criteria score (%)		Prioitization score (%)
			Relevance	Feasibility	
20	21: # of community gardens and local food projects as opportunities to enhance food skills and community food security	Food Environments	53.9	52.3	53.1
21	16: Partners have increased knowledge of and increased capacity to act on the factors associated with healthy eating	Partnerships	57.0	42.2	49.6
22	26: Increased partner knowledge and awareness of evidence-based promotion, prevention, and early intervention programming for eating disorders	Knowledge and Awareness	56.3	42.2	49.2
23	2: #/% of program participants identifying they are ready to make one eating behaviour change that supports health	Behaviour Change Programming	50.0	43.0	46.5
24	14: Increased engagement and participation of community members in food-related activities that will over time contribute to improved food literacy, food security and food sovereignty	Partnerships	50.8	37.5	44.1
25	1: #/% of program participants who made an eating behaviour change that supports health (e.g. Increase fruit and vegetable consumption, more water, visit healthcare provider, cooking at home, more eating together as a family, less eating in front of screens)	Behaviour Change Programming	53.1	34.4	43.8

Table C.2 *continued*

Rank	Indicator	Category	Criteria score (%)		Prioitization score (%)
			Relevance	Feasibility	
25	23: # of changes to the food environment including: availability of healthy foods, food communication environment (e.g., advertisements, point-of-decision prompts) food economic environment (e.g., changes to prices, taxes), and physical food environment (e.g., proximity to healthier food and spaces for physical activity)	Food Environments	54.7	32.8	43.8
26	8: #/% of program participants that indicate a more positive relationship with food	Behaviour Change Programming	45.3	35.9	40.6
27	3: #/% of program participants who plan to maintain this eating behaviour change that supports health in the future	Behaviour Change Programming	43.0	37.5	40.2
28	20: # of partners who created supportive environments that improve household food insecurity	Food Environments	35.9	28.1	32.0
29	4: #/% of program participants who report a reduction in dieting behaviours (skipping meals, trying to lose weight) and disordered eating behaviours	Behaviour Change Programming	36.7	25.0	30.9

Table C.3 Ranking of short-listed nutrition program indicators based on PHU selection in top 10 indicators, N=32*

Rank	Indicator	Category	% of PHUs that included indicator in their top 10
1	11. #/% of partners who are aware of Monitoring Food Availability data and are aware of the need for income-based solutions to appropriately address food insecurity.	Partnerships	61.3
1	18. # of partners who are working with the health unit to improve the food and nutrition environment (e.g., menu revisions in living establishments, recreation and community settings that improve their food offerings, food and nutrition policies implemented in schools and/or other settings).	Food Environments	61.3
2	15. # of partners who engaged with the PHU on food and nutrition topics	Partnerships	58.1
3	27. Increased internal PHU staff knowledge on shifting language and messaging about food/nutrition/bodies, harm reduction approach, reducing weight stigma.	Knowledge and Awareness	51.6
3	31. # of partners who engaged with the PHU in food and nutrition policy advocacy efforts	Policy Change	51.6
3	32. # of partners engaged with the PHU in the development of food and nutrition policies	Policy Change	51.6
4	6. #/ % of program participants who report increased food literacy (including food skills)	Behaviour Change Programming	45.2
4	9. # of partners (e.g. schools, child care settings, workplaces, municipalities etc.) using a PHU provided nutrition resource	Partnerships	45.2
5	10. # of partners reporting using Monitoring Food Affordability data for decision making or action	Partnerships	41.9
5	25. #/% of educators who understand the importance of using a food neutral approach when discussing and teaching about food and nutrition-related topics.	Food Environments	41.9
5	33. # of partner organizations that have implemented food and nutrition-related policies as a result of engagement with the PHU	Policy Change	41.9
6	12. # of partners who collaborate with the PHU to deliver nutrition-related programming	Partnerships	38.7
7	13. # of partners who report increased knowledge and skills to offer food programming to meet their organizational food literacy goals.	Partnerships	35.5
7	22. # of partners with increased capacity to improve supportive environments for healthy eating	Food Environments	35.5

Table C.3 *continued*

Rank	Indicator	Category	% of PHUs that included indicator in their top 10
8	30. # of existing PHU initiatives modified to address weight stigma.	Knowledge and Awareness	32.3
9	7. #/ % of program participants who have increased knowledge of healthy eating, food skills and food literacy	Behaviour Change Programming	25.8
10	16. Partners have increased knowledge of and increased capacity to act on the factors associated with healthy eating.	Partnerships	22.6
10	19. # of partners who created supportive environments that improve food literacy (including supporting food skills).	Food Environments	22.6
11	1. #/ % of program participants who made an eating behaviour change that supports health (e.g. Increase fruit and vegetable consumption, more water, visit healthcare provider, cooking at home, more eating together as a family, less eating in front of screens etc.)	Behaviour Change Programming	19.4
11	5. #/ % of program participants who are satisfied with food and nutrition programming	Behaviour Change Programming	19.4
11	8. #/ % of program participants that indicate a more positive relationship with food.	Behaviour Change Programming	19.4
11	23. "# of changes to the food environment including: availability of healthy foods, food communication environment (e.g., advertisements, point-of-decision prompts), food economic environment (e.g., changes to prices, taxes), physical food environment (e.g., proximity to healthier food and spaces for physical activity)"	Food Environments	19.4
11	24. #/% of educators who have access to food neutral teaching tools related to food literacy and the new food guide	Food Environments	19.4
11	29. Engagement with online food and nutrition content produced by the PHU (# of likes, # of shares, # of comments etc.)	Knowledge and Awareness	19.4
12	35. # of partners engaged with the PHU in food and nutrition policy evaluation	Policy Change	16.1
13	14. Increased engagement and participation of community members in food-related activities that will over time contribute to improved food literacy, food security and food sovereignty	Partnerships	12.9
13	17. % of inspections of food premises in compliance with Healthy Menu Choices Act	Compliance	12.9

Table C.3 *continued*

Rank	Indicator	Category	% of PHUs that included indicator in their top 10
13	26. Increased partner knowledge and awareness of evidence-based promotion, prevention, and early intervention programming for eating disorders	Knowledge and Awareness	12.9
13	28. Reach of online food and nutrition content (# of subscribers, # of website visits, # of followers etc.)	Knowledge and Awareness	12.9
14	2. #/ % of program participants identifying they are ready to make an eating behaviour change that supports health	Behaviour Change Programming	9.7
14	20. # of partners who created supportive environments that improve household food insecurity.	Food Environments	9.7
14	21. # of community gardens and local food projects as opportunities to enhance food skills and community food security	Food Environments	9.7
14	34. # and type of food and nutrition policies implemented by partners	Policy Change	9.7
15	3. #/ % of program participants who plan to maintain an eating behaviour change that supports health in the future	Behaviour Change Programming	6.5
15	4. #/ % of program participants who report a reduction in dieting behaviours (skipping meals, trying to lose weight) and disordered eating behaviours	Behaviour Change Programming	6.5

*33 PHUs completed the prioritization survey but only 32 responded to this question

Table C.4 Ranking of short-listed nutrition program indicators based on PHU expectation to not use because indicator is not useful or not relevant (list order reversed), N=33

Indicator	Category	% of PHUs that wouldn't use the indicator (because it is not relevant or useful)
10: # of partners reporting using Monitoring Food Affordability data for decision-making or action	Partnerships	3.0
12: # of partners who collaborate with the PHU to deliver nutrition-related programming	Partnerships	3.0
13: # of partners who report increased knowledge and skills to offer food programming to meet their organizational food literacy goals	Partnerships	6.1
27: Increased internal PHU staff knowledge on shifting language and messaging about food/nutrition/bodies, harm reduction approach, and reducing weight stigma	Knowledge and Awareness	6.1
25: #/% of educators who understand the importance of using a food-neutral approach when discussing and teaching about food and nutrition-related topics	Food Environments	9.1
32: # of partners engaged with the PHU in the development of food and nutrition policies	Policy Change	9.1
11: #/% of partners who are aware of Monitoring Food Availability data and are aware of the need for income-based solutions to appropriately address food insecurity	Partnerships	12.1
18: # of partners who are working with the health unit to improve the food and nutrition environment (e.g., menu revisions in living establishments, recreation and community settings that improve their food offerings, food and nutrition policies implemented in schools and/or other settings)	Food Environments	15.2
33: # of partner organizations that have implemented food and nutrition-related policies as a result of engagement with the PHU	Policy Change	15.2
15: # of partners who engaged with the PHU on food and nutrition topics	Partnerships	18.2
22: # of partners with increased capacity to improve supportive environments for healthy eating	Food Environments	18.2
31: # of partners who engaged with the PHU in food and nutrition policy advocacy efforts	Policy Change	18.2
7: #/% of program participants who have increased knowledge of healthy eating, food skills, and food literacy	Behaviour Change Programming	21.2

Table C.4 *continued*

Indicator	Category	% of PHUs that wouldn't use the indicator (because it is not relevant or useful)
6: #/% of program participants who report increased food literacy (including food skills)	Behaviour Change Programming	24.2
34: # and type of food and nutrition policies implemented by partners	Policy Change	24.2
9: # of partners (e.g. schools, child care settings, workplaces, municipalities) using a PHU-provided nutrition resource	Partnerships	27.3
16: Partners have increased knowledge of and increased capacity to act on the factors associated with healthy eating	Partnerships	27.3
30: # of existing PHU initiatives modified to address weight stigma	Knowledge and Awareness	27.3
35: # of partners engaged with the PHU in food and nutrition policy evaluation	Policy Change	27.3
17: % of inspections of food premises in compliance with the Healthy Menu Choices Act	Compliance	30.3
19: # of partners who created supportive environments that improve food literacy (including supporting food skills)	Food Environments	30.3
29: Engagement with online food and nutrition content produced by the PHU (# of likes, # of shares, # of comments etc.)	Knowledge and Awareness	33.3
24: #/% of educators who have access to food-neutral teaching tools related to food literacy and the new food guide	Food Environments	36.4
1: #/% of program participants who made an eating behaviour change that supports health (e.g. Increase fruit and vegetable consumption, more water, visit healthcare provider, cooking at home, more eating together as a family, less eating in front of screens)	Behaviour Change Programming	42.4
23: # of changes to the food environment including: availability of healthy foods, food communication environment (e.g., advertisements, point-of-decision prompts) food economic environment (e.g., changes to prices, taxes), and physical food environment (e.g., proximity to healthier food and spaces for physical activity)	Food Environments	42.4
26: Increased partner knowledge and awareness of evidence-based promotion, prevention, and early intervention programming for eating disorders	Knowledge and Awareness	42.4

Table C.4 *continued*

Indicator	Category	% of PHUs that wouldn't use the indicator (because it is not relevant or useful)
28: Reach of online food and nutrition content (# of subscribers, # of website visits, # of followers etc.)	Knowledge and Awareness	42.4
2: #/% of program participants identifying they are ready to make one eating behaviour change that supports health	Behaviour Change Programming	51.5
14: Increased engagement and participation of community members in food-related activities that will over time contribute to improved food literacy, food security and food sovereignty	Partnerships	51.5
20: # of partners who created supportive environments that improve household food insecurity	Food Environments	51.5
5: #/% of program participants who are satisfied with food and nutrition programming	Behaviour Change Programming	54.5
8: #/% of program participants that indicate a more positive relationship with food	Behaviour Change Programming	54.5
21: # of community gardens and local food projects as opportunities to enhance food skills and community food security	Food Environments	54.5
3: #/% of program participants who plan to maintain this eating behaviour change that supports health in the future	Behaviour Change Programming	75.8
4: #/% of program participants who report a reduction in dieting behaviours (skipping meals, trying to lose weight) and disordered eating behaviours	Behaviour Change Programming	75.8

Table C.5 Reasons reported by PHUs for selecting indicators for their top-10 lists, N=32

Reason	%
Feasibility	40.6
Reflects upstream approach (including policy, systems, etc.)	40.6
Relevance	37.5
Reflects /aligned with (current or short-term future) practice	37.5
Reflects anticipated future programming/emerging areas of focus	15.6
Reflects community/partner engagement/collaboration	15.6
Reflects downstream programming	6.3
Most likely to use	6.3
Flexible (adapted to different programs/priority areas, can incorporate equity considerations)	6.3
Compelling	3.1
Meaningful information	3.1
Attainable	3.1
Within PHU control	3.1
Aligned with how public health should approach food/nutrition	3.1
Reflects inclusive and equitable approach to nutrition (moves away from resources delivered)	3.1
Value of qualitative indicators	3.1
Measurements at individual, community, system levels	3.1
More outcome than output	3.1
Balance of process and outcome indicators	3.1
Balanced approach (includes most categories)	3.1
Indicators relevant to various nutrition teams work	3.1
Comprehensive - encompasses all nutrition work	3.1
Together they tell the story of nutrition programming at the PHU	3.1
Measures what PHU has done, how well we've done it, and the impact	3.1
Captures work across three different PHU programs (Healthy Families, Healthy Schools, and Healthy Living) that work across the life course	3.1

Table C.6 PHU suggestions for indicators missing from the short list of candidate nutrition program indicators

Suggestion	n
Partnership Development	4
Policy Development	2
Food Access	2
MFA Completion	2
Healthy Food Systems	2
Planetary Health	1
Impact of Partnerships	1
Integrate with population level indicators	1
Indigenous Food Sovereignty	1
Land Use and Food Environment	1
Food literacy, food sovereignty and food security	1
Weight Stigma/Bias/Discrimination	1
Canada Food Guide Integration	1
Program evaluations completed	1
Weight neutral approach	1
Use of MH promotion strategies	1
Cultural Safety	1
Healthy Equity Lens	1
Strength-based approaches used	1
Indicators from the perspective of multiple programs and common objectives	1

Table C.7 PHU recommendations for how to consider health equity in nutrition program indicators

Category and theme	Illustrative quotes
PROGRAM DESIGN	
Equity is inherent in the work	"Partners' use of MFA data has the potential to inform decision-making and action that promotes equity. "All ____ programming utilizes a healthy equity lens i.e., health equity is a key consideration in the programming we do."
Design programs with equity in mind	"programs that are created and delivered by LPHA must be for people who are underserved/priority populations not the general public" "Ensure there is a focus geographically to ensure that community members belonging to priority groups and areas have access to food literacy programming."
Consider which partners are being engaged	"PHU would ensure we are engaging with partners who serve priority populations" "Types of partners - ensure a broad range of partners, including people with lived and living experience"
Consider equity in program communication	"Equity of food and nutrition messaging" "Look at how resources and tools are made accessible to the intended audience (different formats, AODA compliant, language, etc)"
INDICATOR DEVELOPMENT	
Include information about program participants or tailoring of programming	"Potential to better capture equity information by understanding whether program participants are part of equity-deserving groups, or whether programming was tailored for equity-deserving groups" "Could include something like program participants from equity deserving groups or identified priority populations"
Provide information on types of partners	"For all partnership indicators, it may be helpful to define partners and include an equity aspect (e.g. partners from various sectors working with equity-deserving groups)" "Report # partners who work with locally identified equity denied population, can also identify which populations are impacted."
Limitations of counting	"educators can be a challenging population to reach through public health work - concern with counting as there may be other LPHA who purposefully work with a limited number of priority schools connected to health inequities/marginalization data"
Cultural sensitivity	"Need to approach each indicator with an equity lens and cultural sensitivity"
Policy indicators	"Are the policies created utilizing a health equity lens?" "Partners may be limited by their resources; are the ones making the policies the ones who need it the most?"

Table C.7 *continued*

Category and theme	Illustrative quotes
Food environment indicators	"Could better capture equity by knowing whether these supportive food environments were created in underserved areas (e.g., high marginalization, rural), or whether partners have a mandate/focus on serving equity-deserving groups." "Are changes to the food environment occurring in the areas that need it the most?"
Monitoring Food Affordability data indicator	"indicator could be strengthened by capturing the types of resulting decisions or actions and whether they are equity-promoting or not"
DATA COLLECTION AND REPORTING	
Consider equity in how data are collected	"Flexibility in how this indicator is collected can increase equity (ie. anonymous survey, through interview, ensuring translation etc)." "strengthen relationships with partners and engage them through the data collection process"
Data disaggregation	"Report separately data on locally identified equity denied populations-targeted by food and nutrition programming" "Suggest stratifying by school ranking based on social and material deprivation."

APPENDIX D. EVALUATION SURVEY FINDINGS – FEEDBACK ON INDICATORS

Table D.1 Why PHUs expected not to use indicators (among those who reported not being likely to use the indicator)

Indicator	Lack of capacity		Lack of resources		Ethical concerns		Out of scope		Not useful		Difficult to measure or collect data		Doesn't relate to PHU's work		Other	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
C1. # of partners who collaborate with the PHU on the process for building healthy public policies related to food and nutrition	0	0.0	1	12.5	0	0.0	0	0.0	4	50.0	4	50.0	0	0.0	8	100
C2. # of partners who collaborate with the PHU to improve the food environment	2	22.2	3	33.3	0	0.0	0	0.0	4	44.4	2	22.2	0	0.0	6	66.7
C3. # of settings that have incorporated changes to the food environment, following collaboration with the PHU	3	25.0	4	33.3	0	0.0	0	0.0	4	33.3	4	33.3	1	8.3	9	75.0
C4. # of partners who report using Monitoring Food Affordability data for decision-making or action, following collaboration with the PHU	1	9.1	2	18.2	0	0.0	0	0.0	2	18.2	10	90.9	0	0.0	6	54.5
C5. # of partners who collaborate with the PHU on food and nutrition-related interventions	1	16.7	1	16.7	0	0.0	0	0.0	3	50.0	4	66.7	0	0.0	4	66.7
C6. # of partners who report increased knowledge and/or skills to integrate food and nutrition-related interventions into their work, following collaboration with the PHU	4	36.4	2	18.2	0	0.0	0	0.0	3	27.3	6	54.5	1	9.1	7	63.6
O1. #/% of educators in partner organizations who feel confident using a food-neutral approach in their work, following collaboration with the PHU	1	6.3	2	12.5	0	0.0	0	0.0	3	18.8	6	37.5	4	25.0	13	81.3
O2. #/% of program participants who have increased knowledge of food and nutrition topics, following collaboration with the PHU	1	7.7	1	7.7	0	0.0	1	7.7	3	23.1	5	38.5	4	30.8	7	53.8
O3. #/% of program participants who report increased food literacy (including food skills), following collaboration with the PHU	1	10.0	1	10.0	1	10.0	1	10.0	1	10.0	4	40.0	1	10.0	8	80.0

Table D.2 Reasons reported by PHUs for not using preliminary nutrition program indicators (provided by those who indicated an "other" reason), by indicator

Reason (n of PHUs)	Examples
Core indicators	
# of partners who collaborate with the PHU on the process for building healthy public policies related to food and nutrition	
limited uptake	
# of partners doesn't capture value of partnership (2)	# of partners would not adequately reflect impact of work and value of partnerships. Perhaps if there was a connection to community engagement level for partnerships, this would be more beneficial. Currently as written, it is not meaningful or impactful and could be seen as a counting exercise. Instead, type of partners and purpose(s) for collaboration on HPPs could be more informative. It is not a good measure of population health outcomes or measuring what the work has achieved.
not measure of pop health outcomes or effectiveness (3)	This work takes time. More partners doesn't always equal bigger/ meaningful impact.
Not a useful comparator b/w health units	Also, not sure how this would be used as a comparator between PHUs. There are many more potential partners in urban areas like Toronto than there are in HKPR. How is a partner defined? What are the criteria? How are you going to measure health, income and social policies that foster greater equity, as defined in the definition?
difficult to measure/collect	
need clarity for consistent measurement	Would need better clarification for consistent measurement across PHUs (e.g., how we're defining 'policy work')
Policy framework doesn't match reality (2)	Partners would not use the definition of "building public policies", as described in the page above. The PHO document referenced is very formal and includes a situational assessment as step one for the policy process. It is highly unlikely that partners are using this process to guide their work; most often it happens at a grassroots level. When I think about our successes in healthy public policies related to nutrition, we almost always need provincial mandates to be successful (PPM 150, menu labelling legislation). Areas where we have tried to impact policy but have not been supported with provincial legislation (e.g. healthy eating in rec facilities) has required so much capacity and resources with little movement of the needle. Therefore, "partnerships" don't capture this work well.

Table D.2 *continued*

Reason (n of PHUs)	Examples
# of partners is more an output measure than outcome	
Other suggestions	Please see #37 for alternative indicators for policy. Would be helpful to use a metric of how many community partners adopted a food environment policy. # of recreation centres that adopted a food environment policy # of workplaces that adopted a food environment policy. • For Food Environment, Food System, Built Environment, Household Food Insecurity: • 1. # of advocacy submissions/opportunities taken with the purpose of promoting policy change (e.g., submissions on Basic Income in support of HFI; submissions on PPS in support of Food System and Built Environment; • 2. # of policies incorporated into relevant areas (e.g., policy statements incorporated into Official Plans such as municipal urban agriculture policies and proximity to healthy food outlets; healthy food policies in publicly funded institutions such as recreation centres; incorporation of food system policies into municipal climate change action plans). • Suggest for "Optional Indicators" consideration be given to developing indicators that relate to mental health, substance use, ACEs and other Healthy Growth and Development indicators not traditionally considered but are affected by public health nutrition.
# of partners who collaborate with the PHU to improve the food environment	
difficult to measure/collect	same as above and What are the baselines and what constitutes an improvement? As per the definitions section, how are you going to measure the social and physical environment that affect the types of food available, the accessibility of food, the nutrition information that people are exposed to, food marketing
# of partners does not measure meaningful impact (4)	More partners doesn't always equal bigger/meaningful impact. Partners can come and go in the process. Partners aren't always mandated to do this - it's a hard sell - this work takes time. Questioning what this indicator is actually measuring? What is it telling us and is that information useful to our work/a reflection of our work? We have many partners, some are excellent and we work with/advocate very frequently, some others may be partners we are still nurturing the relationship or mending post-covid. How does the quality of partnership get captured? This indicator is really looking at quantity over quality. Perhaps a health unit has less because they don't have staff capacity, or the partners already have a supportive environment. How does one define what a true partnership is?

Table D.2 *continued*

Reason (n of PHUs)	Examples
could be rolled into public policy measure	This indicator and the one above could be asking the same thing - building healthy public policies related to food and nutrition could include collaboration on improving the food environment. Improving the food environment without some type of policy change might be quite difficult.
output not outcome measure	
Other suggestions	Instead, type of partners and purpose(s) for collaboration on food environment could be more informative. Please see #37 for alternative indicators for policy. Would be helpful to use a metric of how many community partners adopted a food environment policy. # of recreation centres that adopted a food environment policy # of workplaces that adopted a food environment policy.
# of settings that have incorporated changes to the food environment, following collaboration with the PHU	
# of settings =/= impact (2)	number of settings does not equate impact or value of work; this could also minimize strong policy development in a setting vs a smaller change to another environment Somewhat likely, but # of settings is a metric with limited value. Instead, type of settings and outcomes could be more informative.
external factors (other than intervention) at play	Food environments work may depend on the local situation and LPHA priorities (annual reporting as a cord indicator does not make sense) Currently there isn't always follow up to see what has happened after a consultation/support with an agency, so this is difficult to measure.
difficult to measure/collect (2)	same as above and this will be extremely time consuming to attempt to measure. You will need to go out and count and measure every setting to see if and by how much the following have changed, 1) the social and physical environment that affect the types of food available, 2) the accessibility of food, and 3) the nutrition information that people are exposed to, and 4) food marketing
need clear definition of setting (4)	Not sure how it's really different from #1 and #2. Settings can be subjective - e.g., do you measure 1 school board, or the 25 schools as a setting? This really requires a comprehensive definition of a setting. For example, we do work with Recreation Dept. Is that one setting or is each location a setting? Would adding a picnic table to a park count as a change to a setting? In order to report on this across PHUs, we need to ensure we are measuring the same thing consistently. For consideration, if these are broad settings (recreation, schools) the number will be small, if it is individual buildings, the number may be difficult to capture accurately.

Table D.2 *continued*

Reason (n of PHUs)	Examples
# of settings may not change	
may not measure both # of partners and # of settings	The way our PHU measures partners and settings would lead to duplication of the two food environment indicators. Our PHU would only want to use one of them.
Other suggestions	Instead, type of settings and outcomes could be more informative.
# of partners who report using Monitoring Food Affordability data for decision-making or action, following collaboration with the PHU	
difficult to measure (4)	concern re: resources and ability to determine "decision-making" or "action" definition with all potential partners Also, partner use of data may occur irregularly but not necessarily for decision-making/action (e.g. grants applications).
# of partners/advocacy efforts =/= impact (2)	we may not be aware of how a report is used; good use by a couple of partners for advocacy could be more meaningful that many partners using data for something that MFA should not be used for; practice of counting is problematic as it does not capture impact. Having a MFA indicator is important but # partners as a measure may not be the best.
need clearer definitions or rewording (2)	Defining the term 'partners' and 'decision-making and action' would help us understand this indicator. As well, monitoring food affordability data is meant to be used to advocate for policy change at the government level. This topic is very important for our PHU and we would like a core indicator to focus on this topic. If the wording was changed, we would use this indicator. We're a bit unclear as to the intent of this indicator. We're not sure how partners would use this information for decision. We think the indicator would be clearer if decision making removed. Collaboration also needs defining.
Other suggestions	good use by a couple of partners for advocacy could be more meaningful that many partners using data for something that MFA should not be used for Please see #37 for alternative indicators for household food insecurity.
# of partners who collaborate with the PHU on food and nutrition-related interventions	
# of partners limited metric (2)	Somewhat likely, # of partners is a metric with limited value. Instead, type of partners and purpose(s) for collaboration could be more informative. Our work can't be summed up by reporting on number of partner. We like that this is a bit of catch-all the many initiatives could fall within.

Table D.2 *continued*

Reason (n of PHUs)	Examples
risk of double counting indicators (2)	Also, there might be a risk of double-counting with other indicators since this one is so broad. This indicator is similar to # of partners who collaborate with the PHU to improve the food environment. Would need to define the difference between these two; in most cases food and nutrition related interventions have the up stream goal of changing food environment (whether it be the food environment in schools, child care, broader community).
too vague	
Other suggestions	
# of partners who report increased knowledge and/or skills to integrate food and nutrition-related interventions into their work, following collaboration with the PHU	
unclear definition of "partner"	Who is considered a partner here? Much of the data we have related to increased knowledge is at the individual level (i.e., a participant who has attended a session), and perhaps not always at the "partner/agency" level
too vague	Again feel that the 'food and nutrition-related interventions' is too vague.
change in knowledge not a priority	Not concerned with increase in knowledge. Much more concerned about creating or changing food policy and/or changing food environments.
feasibility	- Not measured/collected. - There is no obligation for partners to report increased knowledge/skill or to monitor/track this metric. - Requires evaluation of knowledge/skill post collaboration efforts.
Other suggestions	
Optional indicators	
#/% of educators in partner organizations who feel confident using a food-neutral approach in their work, following collaboration with the PHU	
depending on external factors	Dependent upon EDO Prevention Training uptake across the province. Can the indicator be more general - "organizations who feel comfortable using an evidence based approach eg. food neutral approach"
dependant on partner capacity	in this area of work, there may be capacity of partners some years but not others; infers that a specific audience is needed to be able to report/measure and this audience can be challenging to reach due to competing priorities

Table D.2 *continued*

Reason (n of PHUs)	Examples
too specific (5)	This indicator is very specific in comparison to the other core indicators. It could be captured under another core indicator (e.g., increased nutrition knowledge). We prefer to focus on the increased knowledge and skills related to food and nutrition and not focus only on the food neutral approach with educators. As well, this is beyond educators, and we'd like to also focus on staff in community agencies (e.g. childcare settings, childcare services). Food neutrality will not be the focus, although some components may be used in programs and interventions, depending on the audience.
difficult to measure (3)	How are you going to determine the total number of eligible educators in partner organizations? And this indicator would only speak to a partner's self-perceived confidence. Lack of standardized tool to measure, identifying the denominator would be impossible
not applicable	Currently, we are not working with partners in this area. Ideally, a definition for educator would be provided. Is this just in schools (i.e. traditional educators) or something broader. This would also be difficult to measure for us.
unclear definitions: definition of "food neutral" needs rewording, "educators"	Please give consideration to revising the food neutrality definition. Most often, organizations state that food has no moral value or not moral judgement. The current definition states "morally equal" and "eliminates value-based labels on foods"; which is contradicting. Currently, our health unit is doing work related to food neutrality, however it is difficult to know if this specific topic area will be a focus in the revised OPHS. Food neutrality is still a relatively new focus area and there is minimal guidance from a public health perspective. Each health unit will have a different approach of addressing this with partners, how can fidelity be maintained with such a question? The wording "educators in partner organizations" is not clear. Is this indicator specifically referring to educators in schools?
#/% of program participants who have increased knowledge of food and nutrition topics, following collaboration with the PHU	
difficulty measuring/ collecting data (3)	We only do this type of work with at risk populations and evaluations are often not possible. For most programming, not able to collect individual-level data, but would be more likely to have information on changes made by the partner with the assumption that changes made to the environment would impact individual behaviours.

Table D.2 *continued*

Reason (n of PHUs)	Examples
do not focus on behaviour change (2)	we have limited staff capacity. We don't have those groups anymore. We don't have the space to run those programs anymore. Our work is not conducive to those behaviour changes anymore. We would use if we have the programming but it would be very difficult to gather with limited staff.
unclear	Participants receive programs and Partners collaborate - which is it? This is unclear.
can be rolled into food literacy	The food literacy indicator below might be more inclusive of various activities that take place as food literacy could include food and nutrition topics
depends on new OPHS (2)	
#/% of program participants who report increased food literacy (including food skills), following collaboration with the PHU	
difficult to measure (5)	Difficult to measure or collect due to internal HU strategy for sharing this messaging with educators i.e. while we offer this as a service, it can be challenging to reach all educators. Not often possible with at risk populations that are the majority of our individual/group work.
do not focus on behaviour change (2)	Participants receive programs and Partners collaborate - which is it? This is unclear. Also, # participants is a metric with limited value. Requires evaluation of food lit changes. There might be misalignment with OPHS changes if this refers to downstream vs. upstream health promotion.
depends on new OPHS (1)	
could be rolled into another indicator	This could be captured in one of the indicators above. Or, this could capture the indicator above (food and nutrition topics). Would not need both.
not useful	Not a useful indicator. Only an output indicator and some program groups would have a small number of participants.

APPENDIX E. EVALUATION SURVEY FINDINGS – FEEDBACK ON PROCESS

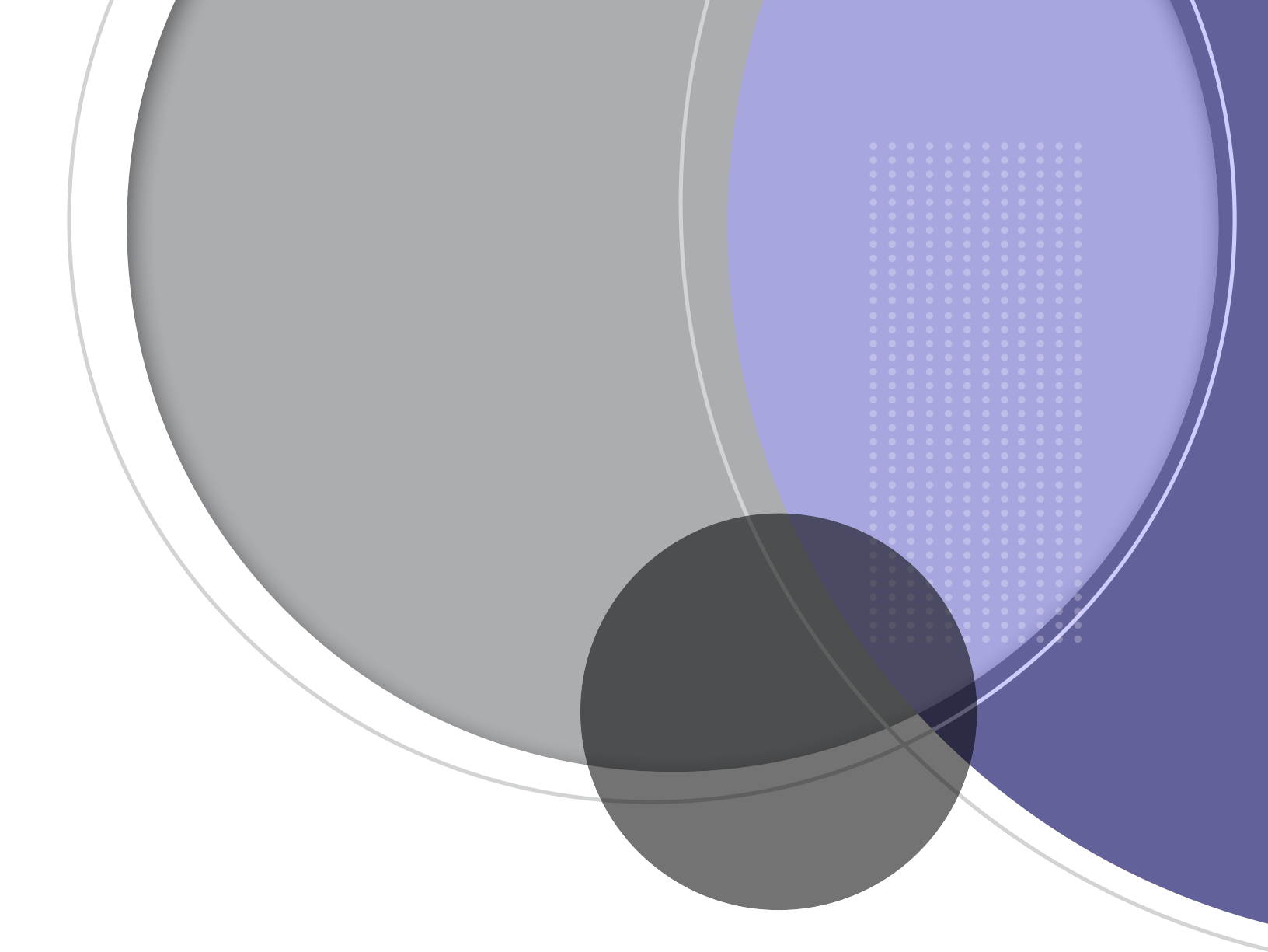
Table E.1 PHU participation in the LDCP, N=29

	n	%
Participated in the LDCP	29	100.0
Role		
Advisory committee member	15	51.7
Knowledge user	10	34.5
Core project team member	3	10.3
None of the above	8	27.6
Aspect(s) participated in		
Online prioritization survey	28	96.6
Monthly advisory committee meetings	14	48.3
Reviewed/provide feedback on proposal, methods, KT materials	8	27.6
Indicator selection working group	8	27.6
Liaison with other networks of professionals	1	3.4
Other	0	0.0
None of the above	0	0.0

APPENDIX F. EVALUATION SURVEY FINDINGS – FEEDBACK ON PROCESS QUALITATIVE RESULTS

Table F.1 Summary of category and themes

Category	Theme	Frequency of Response
Worked well	Core team and leadership	5
	Tools to complete (word version, online survey)	2
	Participatory process	2
	Smaller working groups	1
	Reminders to complete tasks	1
	Involvement of knowledgeable staff	1
	Nutrition as a priority	1
	Flexibility in indicators	1
Suggestions for how the prioritization survey could be improved or done differently	Format of questions	3
	Shorter survey with less indicators	2
	Extra content needed (ie definitions)	1
	Sent to more staff at PHUs	1
Suggestions for how developing the indicator set could be improved or done differently	Should not have used existing indicators	4
	Use of qualitative indicators	2
	Some indicators didn't make sense	2
	Less indicators	2
	Include additional context	2
	Reduce burden on partners	1
	Need measurement tools	1
Suggestions for how the overall process could be improved or done differently	Addition of other relevant contributors (ie ODPH, RDs, APHEO, epis)	11
	Longer timelines	6
	More communication (on context, process, purpose)	6
Suggestions for continued development of Indicators	Focus on other indicator types	3
	Continue to refine nutrition indicators	1



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