

TOWARD HEALTH EQUITY:

A TOOL FOR DEVELOPING EQUITY-SENSITIVE PUBLIC HEALTH INTERVENTIONS



PROTECTING CANADIANS FROM ILLNESS

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Vers l'équité en santé: un outil pour élaborer des interventions en santé publique tenant compte de l'équité

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We would welcome your feedback on this tool. Please contact us at: <http://cbpp-pcpe.phac-aspc.gc.ca/contact-us/>

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INTRODUCTION

The Canadian Best Practices Portal (“the Portal”) of the Public Health Agency of Canada provides a searchable database of population health interventions, programs, and initiatives that have been screened by experts to confirm evidence of their effectiveness and their potential to be adapted/replicated by others. The Portal expanded its content in 2015 to include *promising practices*. In addition, screening criteria were developed to identify interventions that improve *health equity* by taking action on the social determinants of health. The criteria drew on a review of 27 sources from the literature on the social determinants of health, intervention approaches, healthy physical and food environments, and health equity.

This document serves as a practice tool to support the development of equity-sensitive public health interventions. It synthesizes that evidence in a visual format, targeted to public health professionals working in program, policy and intervention research roles. Users of the Portal may refer to this tool to better understand the screening criteria used to assess interventions which are identified on the Portal as equity-sensitive. See Appendix A for a detailed description of the criteria.

OVERVIEW OF THE TOOL

This tool draws on existing research- and practice-based evidence about interventions to address social, environmental, and material conditions that contribute to differences in health. It uses healthy weights as a case example, however its main elements may be applied to a range of population health topics. The tool is intended to be used when an initial assessment of the available evidence shows that a health inequity exists (i.e. there are systematic differences in risk, protective factors, or rates of illness/injury across the population). A number of guidelines exist to support this type of assessment, such as PROGRESS-Plus.¹

The tool aims to integrate health equity into public health practice through five concrete steps to consider when developing an intervention. It may be used to inform the design of a new intervention or to adapt an existing one. By following the steps, the user is guided to think about which equity elements are relevant and possible ways to address them. Each element is explained in the accompanying text.

This tool does not explore the role of specific settings (school, home, work) or the unique factors within settings that can influence the effectiveness of interventions.

¹ PROGRESS-Plus is the acronym for a framework endorsed by the Campbell and Cochrane Equity Methods Group to address the challenge of how to define and assess the factors that contribute to health inequities. To learn more about the framework please go to: <http://www.nccmt.ca/registry/view/eng/223.html>.

KEY DEFINITIONS

The following definition draws on the extensive work of Whitehead (1991, 1992, 2007), Braveman & Gruskin (2003), and Solar & Irwin (2010):

Health Equity

Health equity refers to the absence of avoidable or modifiable differences in health among populations or groups defined socially, economically, or geographically. These measurable health differences arise from underlying levels of social advantage/disadvantage, show a consistent pattern across the population, and are considered to be unfair.

Upstream, Midstream, Downstream

The 'stream' analogy is often used in public health to refer to the continuum of health-influencing factors through which an intervention aims to bring about change. Definitions of these terms vary from source to source. The working definitions below were adapted from *A Conceptual Framework for Action on the Social Determinants of Health*, published by the World Health Organization in 2010.

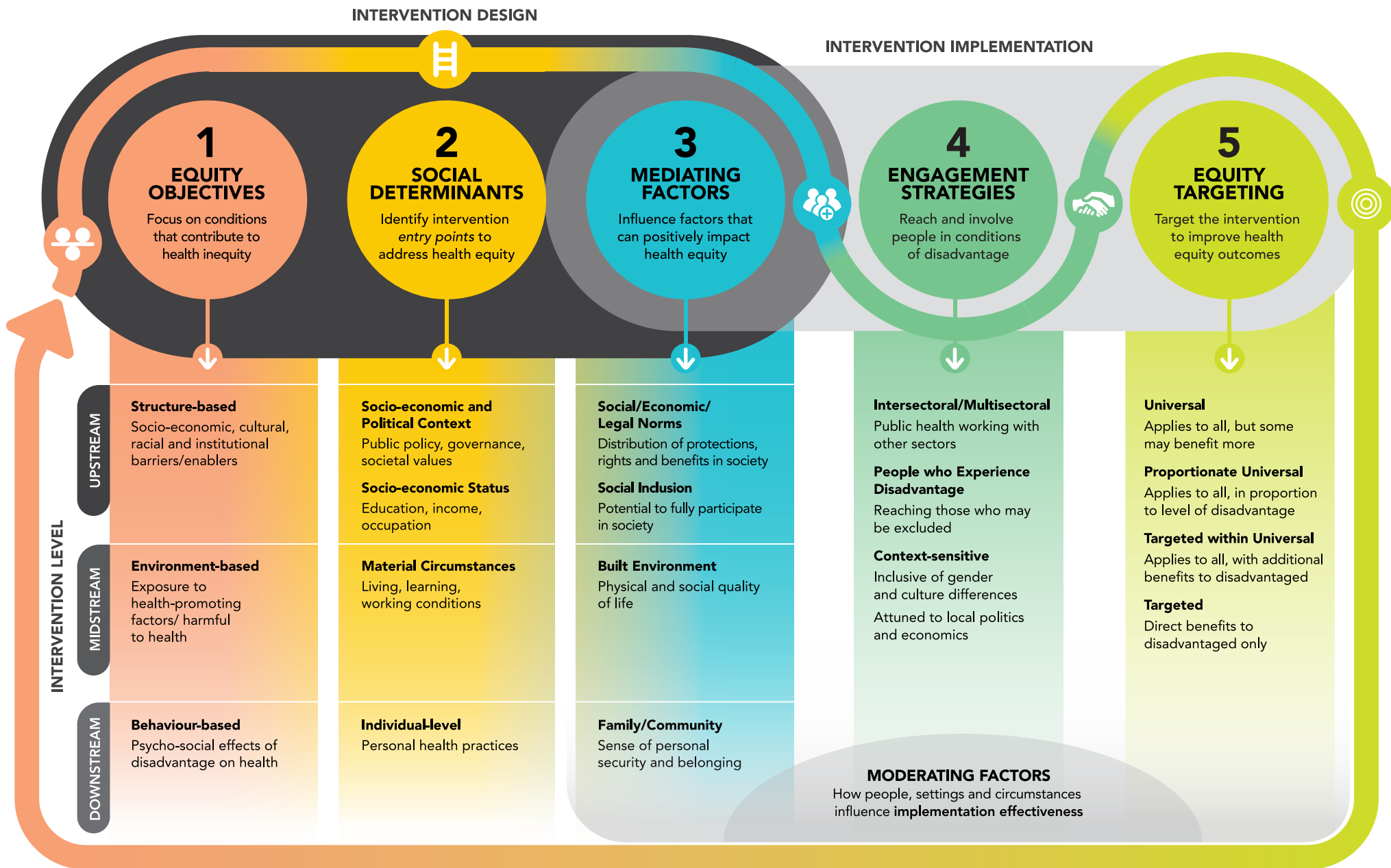
Upstream interventions generally focus on changing the socio-economic contexts which are associated with different levels of advantage and disadvantage. Upstream interventions act on societal, economic, legal, and political structures and norms to improve access to opportunities for all. For example, providing tax credits to low-income earners can protect household food security and contributes to health equity.

Midstream interventions generally focus on creating supportive physical, social and food environments so that healthy behaviours become easy behaviours for advantaged and disadvantaged populations. Midstream interventions act on 'environments' in which people live, work, learn and play and usually operate at a community or settings level. For example, municipal incentives to enhance community playgrounds and parkland can support active play and transit for lower income residents, and contribute to health equity.

Downstream interventions generally focus on producing individual behavior change, skill development or providing services to prevent further harm. Downstream interventions can be made equity-sensitive by reducing vulnerability to conditions of disadvantage. For example, making a parenting program accessible and acceptable to diverse populations contributes to health equity.

No matter where along the 'stream' an intervention falls, it is possible to have a positive impact on health equity.

DIAGRAM (CONDENSED)



KEY ELEMENTS

Interventions vary in their attempt to address the underlying societal and systemic causes of poor health; from upstream (structure-based), to midstream (environment-based), to downstream (behaviour-based). Three elements in the diagram (Equity Objectives, Social Determinants, and Mediating Factors) have been aligned along the “stream” continuum and **should be read both vertically and horizontally.**



STEP 1: EQUITY OBJECTIVES

There are generally four approaches to advancing health equity:

1. **Structure-based approaches: *Reduce socio-economic, cultural, racial and institutional barriers that limit access to health-promoting resources and opportunities:***
This approach generally focuses on changing the societal structures that systemically produce adverse health outcomes. An example is to target income tax benefits to low-income parents of young children as a strategy to improve the food security of economically disadvantaged households (fiscal policy). Another example is to provide financial and market-based incentives to increase the number of new or refurbished affordable housing rental units (social policy).
2. **Environment-based approaches: *Proportionately increase exposure to factors that promote health and reduce disproportionate exposure to factors harmful to health:*** These outcomes are achieved through policy, planning, and regulation. Reducing pollution in low-income neighbourhoods (built environment) would be an example of exposure reduction, while increasing access to fresh fruit and vegetables in underserved neighbourhoods (retail, public and recreation spaces) would be an example of increasing health-promoting exposures.
3. **Behaviour-based approaches: *Minimize the damaging psycho-social effects of living in conditions of disadvantage:*** This approach strengthens individual and community resilience by building gender- and culturally-appropriate skills, knowledge and confidence (protective factors) to influence behaviour change. An example is a culturally-sensitive peer support system for children in care (individual/family-level).
4. **Health-care/Service based approaches: *Attend to the additional burden of illness related to being disadvantaged.*** This approach is addressed by increasing the availability, acceptability and accessibility of health and public health services for diverse communities and adapting them to better meet the needs of diverse populations with higher prevalence of chronic disease such as diabetes (health care). This approach is not shown in the diagram.



STEP 2: SOCIAL DETERMINANTS

Social determinant entry points show the potential areas to target action; occurring upstream (socio-economic and political context, socio-economic status), midstream (physical, social environments), and downstream (individual capacity). The chosen intervention entry point(s) should link to the equity objectives identified.



STEP 3: MEDIATING FACTORS

Mediating factors are intermediate factors through which interventions can affect outcomes, due to their interaction with the social determinants of health. *This is the only column in the diagram that would vary by population health topic*, because it is specific to healthy weights. This version looks at social inclusion and the built environment as mediators of socio-economic status and material circumstances, as observed in the literature.

The box below illustrates how action on mediating factors can influence conditions that are health-enabling (or limiting):

MEDIATING FACTORS	HEALTH-ENABLING (OR LIMITING) CONDITIONS
Social/Economic/ Legal Norms	Distribution of protections, rights and benefits in society
Social Inclusion	Potential to fully participate in society
Built Environment	Quality of life
Family/Community	Sense of personal security and belonging

STEP 4: ENGAGEMENT STRATEGIES



Engagement strategies are deliberate ways to involve those who have a vested interest in the planning, design, implementation and/or outcome of the intervention. The diagram portrays intervention mechanisms at upstream, midstream and downstream levels; emphasizing the importance of engaging across departments, levels of government, and sectors to advance health equity. This logic also extends to valuing the knowledge and experiences of people who live in conditions of disadvantage. It is also inclusive of strategies that are context-sensitive with respect to gender, culture and local governance arrangements.

STEP 5: EQUITY TARGETING



Equity targeting refers to the intervention design element that affects the distribution of benefits across the social gradient, often portrayed as a universal-to-targeted continuum. This element applies to both *reach* (to consider equity implications of design options when designing interventions) and *impact* (to anticipate and assess the distribution of outcomes across population groups that result from the interventions).

Universal

At one end of the continuum, universal approaches apply to all, regardless of socio-economic status. Universal approaches have the potential to reach across the social gradient and, optimally, to benefit those who are disadvantaged the most, depending on the type of intervention. For example, the use of consumption taxes (e.g. tobacco pricing) to influence behaviour change has been shown to have an overall positive effect on population health. However, it cannot be assumed that universal interventions will reach or have an impact on all populations. In some instances, universal approaches may inadvertently increase health inequalities, if they do not reach or are ineffective for more disadvantaged population groups (e.g. long-term smokers, people living with a mental illness, Aboriginal people).²

Conversely, universal responses that take aim at structural-level change are more likely to have a levelling effect on health by directly reducing exposure to factors harmful to health. For example, municipal water fluoridation is a proven approach to improving oral health regardless of income, while also benefiting less advantaged populations by delivering a benefit (fluoridated tap water) that can be universally accessed regardless of ability to pay.³

Proportionate/Targeted within Universal

In the middle of the continuum, universal and targeted approaches are combined. These mixed approaches acknowledge that, in some instances, universal interventions may be more effective if developed with advantaged and disadvantaged populations in mind. Mixed approaches aim to distribute benefits across the social gradient, relative to need. One example of a mixed approach is providing childcare subsidies based on means testing (e.g. sliding scale). The chosen approach will depend on the context; who is implementing a policy or intervention and at what level (e.g. national, regional, local).

Targeted

At the other end of the continuum, targeted approaches focus more narrowly to reach distinct population groups. They can be equity-sensitive if they are tailored to those who experience disadvantage. Targeted approaches can have a corrective effect on health by intervening at a critical point in the life course; for example, a public health home visiting program that directs resources to vulnerable families for a sustained period has been shown to reduce their acute care needs.⁴ Targeted interventions must also be sensitive to the wider context in which they are applied, in order to reduce the stigma associated with disadvantage.

These considerations draw attention to the potential to inadvertently widen the population health differences if equity considerations are overlooked.

² P. Bader, D. Boisclair & R. Ferrence (2011), Effects of Tobacco Taxation and Pricing on Smoking Behaviour in High Risk Populations: A Knowledge Synthesis, *Int J Environ Res Public Health*, 8(11); 4188-4139. doi:10.3390/ijerph8114118

³ <http://www.cdc.gov/fluoridation/basics/index.htm>

⁴ Healthy Child Manitoba (2010), Families First Program Evaluation, Evaluating the effectiveness of the Families First home visiting program in improving the well-being of at-risk families with preschool children. Retrieved from: http://www.gov.mb.ca/healthychild/familiesfirst/ff_eval2010.pdf

Moderating Factors

During the latter steps of intervention planning, it is important to consider contextual factors that can affect implementation effectiveness (moderating factors). A wide range of relevant contextual evidence about people, settings, and circumstances should be considered when evaluating interventions, particularly if we are interested in the general applicability of program and practice findings.⁵ Similarly, a wide range of study designs, such as natural policy experiments, should be included in systematic reviews of health equity, given their potential to explain complex interventions.⁶ Examining such evidence about what makes an intervention effective may improve our ability to reproduce those benefits and better understand and (ultimately) influence how interventions impact health equity.

CONCLUSION

A World Health Organization guidance document for addressing inequities in overweight and obesity begins with a caution: “ensure policy choices do not make inequities worse”.⁷ It is hoped that this tool will enable practitioners to surpass that minimum expectation and positively contribute to advancing health equity through a wide range of policy and program interventions.

⁵ L.E. Green & R.E. Glasgow (2006), Evaluating the relevance and applicability of research: issues in external validation and translation methodology, *Evaluation & the Health Professions* 29(1):126-153. doi: 10.1177/0163278705284445

⁶ V.A. Welch, M. Petticrew, J. O’Neill, E. Waters, R. Armstrong et al (2013), Health equity: evidence synthesis and knowledge translation methods, *Systematic Reviews* 2(43). doi: [10.1186/2046-4053-2-43](https://doi.org/10.1186/2046-4053-2-43)

⁷ B. Loring & A. Robertson (2014), Obesity and Inequalities: Guidance for addressing inequities in overweight and obesity, World Health Organization, p 8. Retrieved from: <http://www.euro.who.int/en/publications/abstracts/obesity-and-inequities.-guidance-for-addressing-inequities-in-overweight-and-obesity-2014>

APPENDIX – SCREENING CRITERIA FOR STUDIES OF INTERVENTIONS THAT PROMOTE HEALTH EQUITY

The present screening criteria were informed by the project literature review, feedback from external reviewers and Agency project staff, and information about best practices and promising practices. The purpose of the screening criteria is to identify topically relevant studies from among a body of search results, i.e., studies of interventions that act on key social determinants of health to promote health equity. Only if a study meets all the topical screening criteria are the Best Practices Inclusion Criteria then applied to the study and, if applicable, the Promising Practices criteria, and finally, an appraisal of the quality of evidence may occur. The screening criteria are generic, and are intended to be adaptable for different public health topics.

Screening includes the following characteristics:

- Time frame;
- Geography;
- Language;
- Type of document;
- Intervention;
- Population;
- Evaluation; and
- Outcome.

Screening Criteria for Studies of Interventions that Promote Health Equity (A Healthy Weights Example)

Generic screening criteria apply to most public health interventions. Criteria specific to this project – healthy weights focus – are noted below in *italics*.

1.0 INCLUSION CRITERIA, BY CHARACTERISTIC

1.1 Timeframe: 2000 to current (filtered during searching)

1.2 Geography: Worldwide

1.3 Language: English

1.4 Type of document: Must be the primary source that reports on the findings of a study or evaluation. May be either published literature or gray literature.

1.5 Public health topic of interest (project-defined): The topic must explicitly mention the public health topic of interest in one or more of the following ways:

- In the title and/or abstract of the document
- In an intervention goal/objective
- In an intervention strategy/activity
- As a measured indicator or outcome
- As a downstream outcome (even if it isn't measured yet)

1.6 Intervention: Must include an intervention that:

- Acts on one or more key determinants of health at the organizational, institutional, community, or population level in order to promote health equity for the public health topic of interest (e.g. promote healthy weights); or
- May not explicitly aim to promote health equity in its goals/objectives or strategies, but the reported outcomes explicitly distinguish effects on health equity for the public health topic of interest.

Note: The CBPP Streamlined Assessment Tool will be used to assess evaluation quality (e.g., sample size, evaluation design).

1.7 Population: Must include data on:

- People who are living in conditions of disadvantage (social, economic, and/ or geographic), as specified by the authors of the study; or
- May also include people who are considered to be more advantaged (this recognizes that outcomes may be reported across the gradient).

AND/OR

- Midstream 'environments' in which people live, learn, work, or play.

1.8 Evaluation: Must include an evaluation on the **effects** of an intervention (applicable to both Best Practice and Promising Practice):

- In meeting intervention goals/objectives;
- In affecting people's morbidity, mortality, well-being, or quality-of-life.

Note: The CBPP Streamlined Assessment Tool will be used to assess evaluation quality (e.g., sample size, evaluation design, etc.).

1.9 Outcome: Must report positive outcomes for one of the following:

People – outcomes must be specific to people living in conditions of disadvantage (may or may not be compared to people living in more advantaged conditions):

- Morbidity, mortality, or other health-related indicators of the public health topic of interest
- Behaviours

Midstream environments – availability, accessibility, or affordability of health-promoting goods and services (healthy weights example)

Note: Interventions that act at the determinants level use structural and environmental strategies to affect behaviours, morbidity, and/or mortality, rather than using exclusively lifestyle strategies to affect knowledge, skills, perceptions, and behaviour.

2.0 PRACTICE INDICATORS, BY CHARACTERISTIC

2.1 Intervention

Intervention levels:

- Structure-based (e.g., taxation, regulation, social policy, economic policy, political rights/obligations)
- *Environment-based* (e.g., changes to the physical or food environments) – *healthy weights focus*
- Behaviour-based (e.g. healthy eating)

Intersectoral action:

- Involves the public health sector working in partnership with sectors outside health
- Involves multiple (non-health) sectors working in partnership

Cultural/context sensitive:

- Use of gender and culturally relevant language, content and communication
- Includes informal and formal governance
- Factors in the local and political context

People who live in conditions of disadvantage:

Social determinants specific to this project – *healthy weights focus*:

- *Education*
- *Income*
- *Social Inclusion*
- *Built Environment*

Approaches to promote health equity:

- **Universal:** applies to all in the same way, but benefits may vary
- **Proportionate universal:** applies to all, with increasing benefits for increasing levels of disadvantage
- **Targeted within universal:** applies to all, with additional benefits directed to those who are in conditions of disadvantage
- **Targeted:** applies to, and directly benefits, only people living in conditions of disadvantage

2.2 Population**Core social stratifiers:**

- Sex and gender
- Geography
- Age
- Identity

Other relevant social stratifiers:

- Income
- Employment
- Housing
- Education
- Experience of discrimination

The authors of studies may explicitly apply the PROGRESS-Plus framework to identify conditions of disadvantage, or authors may include one or more categories of PROGRESS-Plus without making any explicit reference to the framework.

Data on environments may relate to (based on *healthy weights focus*):

- *Community design/planning*
- *Publicly accessible recreational facilities in a neighbourhood*
- *Public/active transit infrastructure*
- *Food environments*

2.3 Evaluation**Examples of evaluation designs:**

- Randomized controlled trials (anticipated to be rare for health equity interventions)
- Quasi-experimental designs (controlled studies without random assignment)
- Analytic observational studies of the effects of an intervention, e.g., before-and-after study of an intervention (e.g., policy) that was designed/implemented by someone other than the authors of a report, a cohort study in which the 'exposure' is an intervention

2.4 Outcome**Examples of positive outcome/effect on determinants (*healthy weights focus*):**

- *Improved availability of health-promoting goods and services (e.g., increased production and distribution of healthy food at the local level)*

- *Improved accessibility and affordability of available health-promoting goods and services (cost, location, physical design, timing, service climate, acceptability) (e.g., increased accessibility of public facilities for physical activity)*
- *Reduced exposure to factors harmful to health (e.g., decreased pedestrian/cyclist exposure to high speed traffic)*
- *Increased exposure to factors beneficial to health (e.g. changes to the built environment to support breast feeding)*

Examples of positive outcome/effect on people living in conditions of disadvantage (healthy weights focus):

- *Improved health knowledge of people living in conditions of disadvantage (e.g., increased food preparation skills for people with low income)*
- *Greater improvement in health behaviours for people living in conditions of disadvantage than for people who are considered to be more advantaged (e.g., people living in poor and in more advantaged neighbourhoods both report being more physically active but the increase is greater in the poor neighbourhoods than in the more advantaged neighbourhoods)*

- *Decreased morbidity in a population across the gradient by income, education level, etc. (e.g., decreased prevalence of obesity or overweight across an income gradient)*

The outcomes are described using core and/or other relevant social stratifiers.

3.0 LINKAGE WITH DIAGRAM, BY INTERVENTION PRACTICE INDICATOR

INTERVENTION PRACTICE INDICATOR	LINKAGE WITH DIAGRAM
Intervention Level	Equity Objectives
People Who Live in Conditions of Disadvantage	Social Determinants/ Mediating Factors
Intersectoral Action	Engagement Strategies
Culture/Context Sensitive Approaches	Engagement Strategies
Approaches to Promote Health Equity	Equity Targeting

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