# MINI-REVIEW: WELLNESS INDICATOR – PHYSICAL & MENTAL HEALTH

Prepared for MaRS Discovery District

Prepared by the Centre for Health Communities
School of Public Health, University of Alberta

## - OVERVIEW -

Integral to the concept of urban wellness is **physical and mental health**. Community-relevant interventions to improve physical and mental health among urban populations include those targeting **healthy eating**, **physical activity**, **health services** (use and access), and **mental health**. Included in this mini-review is a brief summary of the academic literature (including, where appropriate, grey literature identified through the search of academic sources) that reported on interventions, services, community initiatives, and policies in relation to physical and mental health. We also highlighted the possible impact on very vulnerable populations (VVP) as appropriate.

As requested by MaRS Discovery District, the scope of the review was limited to literature reporting on interventions (services, etc.) that: assessed or evaluated (qualitatively and/or quantitatively); focused on inner city/urban communities (i.e., excluding rural and sub-urban) in high-income countries; and were published in the previous 10 years (or key papers outside that time period) in English. As such, the aim of this review is to provide a broad environmental scan rather than an in-depth assessment of the literature as described. As requested, we also assessed the aforementioned literature according to five political factors: **duration of intervention/assessment** (i.e., long-term or short-term); **governance and conflict resolution models**; **data-sharing processes**; **service delivery models** (i.e., centralized or dispersed); and **integration of a systems-level approach**.

## - FINDINGS -

### HEALTHY EATING

Community interventions that encourage and support **healthy eating** target both individuals and environments. Individual interventions often adopt a health education model and focus primarily on knowledge and skills development[1–8]. Research examining the effectiveness of these interventions has found positive results[1,3,4]. For example, prenatal counseling[4], infant feeding[1,3], and healthy lifestyles programs[5] have been effective at improving food choices, healthy eating practices, and promoting healthy eating life skills among people living in disadvantaged communities. After-school programs that include dietary education, motivational advice, and interactive activities have also demonstrated success among inner city students[6]. Participatory, multi-dimensional interventions (e.g., Hope Blooms) have promoted positive change (i.e., healthy eating, improved self-confidence) among youth[7] as have culturally appropriate interventions aimed at urban aboriginal communities (e.g., Urban Aboriginal Community Kitchen Garden Project[8]).

Interventions that target the community environment to address **healthy eating** frequently adopt multi-level approaches by focusing on policies and programs to increase the availability and selection of healthy food[9–14]. Multi-level interventions such as Baltimore Healthy Eating Zones have targeted environments where healthy foods are scarce (e.g., food deserts), and aimed to increase availability and selection of healthy foods using point-of-purchase materials (such as poster and flyers) and interactive events such as taste tests and cooking demonstrations[10]. Food store interventions are also common[9,11–15] and have highlighted the importance that corner stores play in low-income

foodscapes[14,15]. Grocery store interventions, which focus on point-of-purchase decision making such as kiosks, samples, and shelf-labels, have had positively impacted nutritious food choices[13,14].

## Physical Activity

Similar to those that encourage healthy eating, **physical activity** community interventions target individuals (e.g., providing education and motivation) and environments (e.g., making activity easier/safer). Specific programs have included the installation of playgrounds/parks/green spaces[16–18], walking paths[16], and sports and activities[19,20]. Physical activity programs have had limited success in increasing daily physical activity across populations, which may be attributed to relatively short intervention periods (~less than 1-year)[20–23]. Programs that provide social interaction in addition to physical activity target beginners to physical activity, while those focused on friendship groups may be more successful in attracting and retaining participants[24]. After-school programs that provide supervised physical activity and encouragement are well accepted by participants[6,19]. Engaging low-income groups in physical activity programs has presented challenges, including: cost, scheduling, provision of childcare, low awareness of programs, and low confidence[24]. There are also barriers to the implementation of after-school programs, which include finding facility space, securing transportation, and competing with other after-school obligations[25]. Built environment modifications targeting physical activity commonly renovate urban green space such as parks and walking paths[16,17,26–28]. In most cases, park, playground, and pathway improvements see an increase in neighbourhood use for physical activity although renovations alone may not increase physical activity rates among populations already using a park space[16,17,26–28].

## Healthy Eating and Physical Activity

**Healthy eating and physical activity** are frequently combined within a single program or intervention and focus on populations such as school-aged children[6], adolescents[29], and low-income families[5]. Interventions often include education and occur in community settings such as at schools, the YMCA, and parks[6,23,29,30]. In one innovative program, participatory theatre, dance, and music were used to deliver health and physical activity education to adolescent participants – this intervention achieved its learning objectives and was considered satisfactory by participants[31]. Interventions that have combined physical activity and nutrition education and promotion have improved physical activity performance and nutritional knowledge among children/youth[6,29,30] and low-income mothers[22]. It is noteworthy that many interventions for physical activity and/or nutrition are focused on obesity prevention[19,22] and, as such, do not necessarily align with community values or people's desires for more holistic versions of wellness (rather than weight reduction)[32].

## Health Services

Health in urban centres depends on the provision and successful navigation of **health services** (e.g., primary care) and the reduction of emergency health service use. Common interventions in this area include providing service navigators (e.g., assistance with service access, single-point access), supportive housing, pre-post-natal care, and the use of new technologies[33–44]. Case managers, which are also called service or patient navigators, have been successful in reducing hospital re/admissions among VVP[34,37,38] and elderly populations[39]. Technology such as "telehealth" videoconferencing has also been found as a reliable and feasible way of connecting families to healthcare screening services[40]. Housing programs for homeless populations such as Housing First[41] (i.e., provision of

supportive housing for VVP) are often implemented with a goal of reducing emergency department visits, with varying success[42,43]. Many interventions focused on addressing VVP experiencing homelessness employ a comprehensive approach, combining outreach, emergency food, information and referral, counselling, and case management[33–35,44]. Similarly, maternal health programming has found success in combining techniques, for example, home visits with group intervention[3], or focusing on life skills to improve both maternal and infant health outcomes[36].

## Mental Health

**Mental health** community programs are often tailored for groups such as families or schools or have focused on specific sub-populations including VVP (e.g., homeless youth[38]). Interventions include peer-to-peer support, comprehensive programing, and service navigators[38,45–51]. The Multiple Family Group service delivery model, which brings family groups with similar issues together, and incorporates social inclusion and peer-to-peer approaches, has been successful with child-welfare involved families[45] and teenage mothers[46]. School-based programming has tended to target a disorder, for example treating anxiety[47], or on a method of coping such as resilience[48] or mindfulness[49]. Other projects have taken a comprehensive approach, focusing on prevention, clinical interventions, and linking services (e.g., housing) and therapy[38,50]. Results show varied success, although this could be attributed the short duration of the interventions (e.g., three months[47,49]). However, improved mental health outcomes have been noted in VVP who participated in integrated, community-based programs[38]. Community members from minority populations have expressed a need for innovative approaches to address mental health, however researchers have continued to use traditional methods, even within a community-based participatory research (CBPR) approach[51].

## Duration

In terms of **duration**, interventions aimed at improving physical and mental health can take the form of long or short-term initiatives. Most interventions reviewed, however, were short-term in duration (e.g., 6-10 weeks) and provided no evidence of long-term effect[6,22,30,31]. Mental health focused interventions were longer (up to 3 months), however, were often considered too short to have long-term impacts[47,49]. Interventions focused on altering the built or social environment (e.g., new parks) took a longer-term approach, however few have been evaluated in the long-term[8,27].

## Governance and Conflict Resolution Models

In reference to **governance and conflict resolution models**, community-academic partnerships, such as CBPR recognizes community members as vital collaborators in addressing health issues[6,51], for example, in securing space for interventions[8] or implementing school wellness policy[31]. Community-driven interventions are more likely to be culturally appropriate and thus increase acceptance among minority and underserved populations[36,51]. Support from community stakeholder organizations (e.g., YMCA[23]) is imperative for successful implementation[41]. Although CBPR models are beneficial, researchers acknowledge that people lead complicated lives and are not always available to participate in health interventions[3]. Some projects have taken a decolonizing approach to health promotion, focusing on the provision of culturally appropriate interventions for Indigenous peoples to promote a holistic version of physical, mental, emotional, and spiritual wellbeing[8,36].

## Data-Sharing Processes

We did not find any discussion of **data-sharing processes** in the literature reviewed, however data-informed decision-making may be underutilized in terms of promoting urban wellness. Although databases are sometimes used for evaluating use and cost of services[42], researchers warn that CBPR approaches are personalized to meet community needs and thus data may have limited application for other populations and projects[51].

## Service Delivery Models

With regards to **service delivery models**, physical and mental health interventions often occur in the local community – that is, at schools or clinics, or in community facilities (e.g., recreation facilities)[4,6,22,23,30,37,39]. Schools are recognized as an ideal context to serve inner city youth[2,47–51], although challenges in seeing effects beyond school environments have been noted[21,47].

## Systems-Level Approach

A **systems-level approach** provides an integrated model, which allows for intervention strategies to be adjusted according to participant feedback. This is particularly helpful for designing culturally appropriate interventions with minority populations or VVP[34,36,51]. Interventions that target the social and physical environments to promote health behaviours (e.g., physical activity and healthy diet) frequently adopt a multi-level approach and the integration of policies and programs[10–14].

## Key Messages

- Physical and mental health programs are often implemented and evaluated from a health service provision perspective (i.e., illness model), therefore the connection to urban wellness is not always explicit.
- There is a trend among physical and mental health focused interventions to incorporate social aspects of health, which appear consistent with community values. Examples include group-based mental health programs or peer counselling.
- Although there are many ways that communities can support physical and mental health, particularly for VVP, the literature reviewed does not include many long-term, validated interventions. The findings in academic literature are limited in this regard, however it is possible that successful interventions are happening at the community level and are not being recorded within the academic literature. This highlights the potential importance of the grey (non-academic) literature for immediate reporting on and evaluating the success of local programs and interventions, and timely access to that information afterwards.

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