

Healthy Kids Community Challenge

LITERATURE REVIEW



Fiona Scott
Andrea Zammit Laing
Shahina Sayani

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Introduction

The Healthy Kids Community Challenge (HKCC) was created by the Ontario Ministry of Health and Long Term Care and is designed to improve the health of children under 12. The initiative will support community-based activities to promote healthier living and reduce obesity. The Danforth-East York Community was chosen to implement the initiative, led by the South Riverdale Community Health Centre (SRCHC), and the eight partners of the Action for Children Today and Tomorrow (ACTT) Consortium.

Ontario is not alone in its struggle with obesity. Communities around the world are also working on addressing the issue. There is extensive literature on obesity prevention programs and the key factors that contribute to their success. Before beginning the challenge, a literature review was commissioned in order to inform the activities that will be implemented through the initiative. The literature review aimed to answer the following questions:

- What are the key elements of a successful obesity prevention initiative?
- What has been done around the world to promote healthy living and reduce obesity?
- What promising practices and models exist that can be emulated?
- How are other communities tracking the success of their initiatives?

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Methods

The research team reviewed a range of literature including academic journals and grey literature. We conducted searches on the Cochrane database of systematic reviews related to obesity and children’s health. We searched for literature using the following keywords: obesity prevention, reducing obesity, physical activity, healthy eating, water consumption and sleep behaviours. Relevant gray literature was identified through Google searches and searching well-known organizations involved in child health including Public Health Ontario.

Findings

What Does the Research Say?

Below are four key factors for successful obesity prevention initiatives based on the findings of the literature review. For a more extensive review please see the World Health Organization's 2012 report *Population-based Approaches to Obesity Prevention*.

1. Multi-system approach to address the range of causes of obesity
2. Programs based on the community's needs
3. Communications and engagement strategy
4. Evaluation of the effectiveness of the initiative

1. MULTI-SYSTEM APPROACH

The solution to any problem is to address its causes. The causes of obesity are well known, and include many factors. In order to reduce obesity, successful initiatives require a coordinated effort from multiple systems including schools, families, community organizations, health care, media, businesses, and government (Kelishadi and Azizi-Soleiman, 2014; Public Health Ontario, 2013; WHO, 2012; Toronto Public Health, 2010).



Adapted from ÉPODE

"...the causes of obesity and overweight in children are complex. There is no single, easy solution. Only by bringing together the whole community can we expect to see positive changes."

(ONTARIO MINISTRY OF HEALTH AND LONG-TERM CARE, UNDATED)

"Given the complex pathways that lead to obesity, it is likely that a range of interventions, and intervention approaches, delivered in a variety of environments and settings across the life course of a child will be needed to reduce the prevalence and incidence of obesity."

(PUBLIC HEALTH ONTARIO, 2013)

WHAT ARE THE MAIN CAUSES OF OBESITY?

The systems that need to be involved are those that are most related to the causes of obesity. This section summarizes four key causes: unhealthy behaviours (physical inactivity, unhealthy eating habits, sleep behaviours and water consumption); low socioeconomic status, environmental factors and family factors.

Unhealthy Behaviours

Unhealthy behaviours that impact obesity include physical inactivity, unhealthy eating habits, water consumption and sleep behaviours.

PHYSICAL INACTIVITY

Young people are less physically active as a result of less physical education in school, decreasing rates of active transportation to and from school, and increased screen time. For example, only 69% of Canadian schools have policies to provide mandated daily physical activity or provide daily physical education. (Canadian Fitness and Lifestyle Research Institute).

UNHEALTHY EATING HABITS

Unhealthy eating habits include over-consumption of high-calorie foods and snacking while watching television or doing homework. Unhealthy eating habits are influenced by parents and the home environment (Kral and Faith, 2009), as well as marketing and advertising (Gantz et al., 2007, Dietitians of Canada 2010).

SLEEP BEHAVIOURS

Sleep duration has been associated with being overweight or obese. Behaviour interventions aimed at improving sleep duration could help in reducing the prevalence of childhood obesity but more research is needed (Fatima et al., 2015).

WATER CONSUMPTION

Drinking water is part of a balanced diet. Water is believed to reduce energy intake and therefore lack of water consumption has been linked to weight gain.

Low Socioeconomic Status

Having a low family income contributes to obesity by limiting access to healthy food and recreation, and limited parental time for cooking or attending programs. In 2014, almost one million children in Canada experienced food insecurity (Tarasuk et al., 2016).

Environmental Factors

Conditions in the environment also contribute to obesity, for example the built environment (high-rise buildings; access to green spaces, affordable grocery stores, community kitchens and community gardens) (Toronto Public Health, 2010).

Family Factors

Families play an important role in children's health (Huffman et al., 2010) based on their health status and health behaviours. Maternal obesity and smoking has been linked to childhood overweight and obesity (Whitaker, 2004; Gibson et al., 2007; Janjua et al., 2012). Children are also learning from their parents so it is important that parents are role models of healthy living.

WHAT ARE THE ROLES OF EACH OF THE SYSTEMS IN ADDRESSING THE CAUSES OF OBESITY?

“Cities don’t have the full toolkit to remake an entire food system. They need partnerships with residents, neighbours, businesses and other orders of government to make this new vision a reality.”

(TORONTO PUBLIC HEALTH, 2010)

Schools

- Schools are where children spent a lot of their time and school-based preventions can have long-term effects so they are a crucial part of any obesity prevention initiative (Kelishadi and Aizi-Soleiman, 2014).
- All schools should implement programs and policies that include education about healthy living, healthy meals, water consumption, sleep, physical education classes, and daily physical activity that is integrated into the school day (WHO, 2012; Rain and Wilson, 2007; Veugelers and Fitzgerald, 2005; Canadian Nurses Association, n.d.).
- An example of a program to increase water consumption includes a program in German schools that introduced water fountains and bottles coupled with 4 (45 min) lessons about water consumption. This intervention was effective even within low-income communities. The risk of being overweight was reduced by 31% (Avery et al., 2015).

- The US National Center for Chronic Disease Prevention and Health Promotion has [a toolkit on increasing access to drinking water in schools.](#)

Community-based Programs

- Community initiatives such as nutrition education, physical activity, creating community gardens and providing outdoor activities like walking trails are important opportunities to support families’ health.

Families

- Parents need to participate in healthy living programs and services in order to model healthy living behaviours. “Family-based intervention programs are considered as one of the most successful methods for obesity treatment or prevention.” (Gruber and Haldeman, 2009).
- Parents also need to be involved in the development of school- and community-based programs so that economic constraints and cultural preferences are taken into account (Huffman et al., 2010).

Health Care

- Clinic-based interventions including nutrition and physical activity have shown positive outcomes (Kelishadi and Azizi-Soleimon, 2014). Health care providers can work with children and families to promote more physical education and teach children and their parents about the importance of diet (including water consumption) and

physical activity (Canadian Nurses Association, n.d.).

Government

- Land use and transportation planning that promotes active transportation such as walking and bicycling, (Rain and Wilson, 2007; Canadian Nurses Association, n.d.) built environments that encourage play (Huffman et al., 2010), and access to affordable healthy food (Toronto Public Health, 2010).
- Regulating the advertising and marketing of fast food and other high-energy food, nutrition labeling, school district physical activity daily minimums (WHO, 2012; Rain and Wilson, 2007; Canadian Nurses Association).
- Better income support for low-income families to reduce food insecurity and help encourage healthier choices (Rain and Wilson, 2007).
- Adequate funding for programs that promote healthy active living (Toronto Public Health, 2010).
- Building links between local food producers and urban eaters by expanding government purchasing of sustainable food, promoting farmers' markets, and supporting the expansion of local, sustainable food infrastructure (Toronto Public Health, 2010).
- Urban planning that enhances and makes public green spaces more accessible to encourage active living.

Media and Advertising

- Media and advertising can help spread messages about healthy living and should be included in communication strategies on obesity prevention initiatives. "The media seems to have a keen interest in obesity prevention, which is an asset in any communications strategy" (KING ET AL, 2011).

Businesses

- Businesses are also key to leveraging funding. This can include sponsoring events.
 - They can also play a role in increasing access to healthy food. For example, by sponsoring healthier options at food banks, facilitating the delivery of healthier food to lower income areas, or marketing healthier food at grocery stores (Lundy and Bowlish, n.d.).
 - Supporting infrastructure changes and improvements e.g. establishing new bike lanes or walking paths, or a small park or fitness centre (Lundy and Bowlish, n.d.).
 - Business partnerships can also support outreach to the community (Lundy and Bowlish, n.d).
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2. PROGRAM CONSIDERATIONS



Although there is no single program that will solve obesity, there are important elements of programs that will make them effective. Programs that are based on each community's unique needs, environment, and demographic are more effective (WHO, 2012; Lamanna, 2012; King et al., 2011). The WHO report on population based approaches to preventing obesity reports that "Strategies and programmes need to prioritize the inclusion of vulnerable groups, particularly children with disabilities (WHO, 2012 pp. 12).

Inclusivity requires getting input on programming by the community members that the programs aim to engage. Community members can be employed to design and implement programs, which will also achieve an important goal of building the community's capacity (King et al., 2011). Community involvement also means getting parents' input on school and community programs in order to ensure that the programs will meet their needs (Huffman et al., 2010).

3. COMMUNICATIONS AND COMMUNITY ENGAGEMENT STRATEGY



Raising awareness about healthy living through different communication mediums is crucial for supporting behaviour change. People need to access information in engaging ways. Communications should include website, videos, social media, tools, tips and campaigns. Communications materials also need to be culturally appropriate and easily understood by diverse communities of people, including translating the materials into different languages. Communicating the message of the initiative should also be done through local champions. Please see the review of programs in this report for ideas that other initiatives have undertaken to raise awareness about their obesity prevention initiatives.

4. EVALUATE EFFECTIVENESS



Evaluation is a critical part of any obesity prevention initiative (King et al., 2011; Public Health Ontario, 2013; WHO, 2012). It is the only way to know if the goals of the strategy are being achieved. Evaluations should include information from all stakeholders involved in the initiative, program participants and service users. It is important to identify and articulate goals and indicators, and to adapt or create data collection tools (surveys, interviews, social media engagement, community consultations) that will be used to measure the effectiveness of the initiative in addressing the risk factors and reducing obesity. Process evaluations will help to figure out what works and what the challenges are, which will help improve programs and services.

“To assess whether established goals are met, evaluation of the implemented interventions and ongoing surveillance, and monitoring of obesity rates and related risk and protective factors will be essential.”

(PUBLIC HEALTH ONTARIO, 2013)

Evaluation is sometimes easier said than done, especially for a multi-system initiative. However, the following section, which reviews programs from around the world, highlights some of the ways that obesity prevention initiatives are being evaluated.

In conversations with community-based programs, one of the largest challenges all of them cited was figuring out how to measure the impact of obesity in their communities and the effectiveness of their solutions. To solve this problem, many of the programs we researched evaluate specific parts of their programming separately. They address smaller scale questions to show the impact of different parts of the programming, such as how many people purchased healthy food at new locations; what the health outcomes of individuals are who used a new medical service; and how many people attend events or use new infrastructure. By answering questions like these, the programs are able to analyze different parts of their programming and then put information together into a more complete evaluation for the benefit of funders. Often the funders found this smaller scale evaluation to be sufficient, especially in the early stages of a program’s development.

(LUNDY AND BOWDISH, N.D.).



Review of Programs From Around the World

Several countries around the world have created strategies and programs to address obesity. In this section we highlight some of the integrated approaches and programs we found and identify some of the key features that appear to address the factors outlined in this review.

INTEGRATED APPROACHES



ÉPODE

France → [Website](#)

(from the French Ensemble, Prévenons l'Obésité des Enfants / Together Let's Prevent Childhood Obesity)

WHAT IS ÉPODE?

ÉPODE is an integrated approach to prevent childhood obesity. ÉPODE brings together all sectors of the community including schools, families, health professionals, public authorities, media, and primary care facilities, with the support of governments, corporate partners, non-profits and health care providers. A central project manager and steering committee leads project implementation at a local level. The network supports organisations to implement community-based programs. There is a focus on promoting healthy behaviours and does not stigmatize any culture, individual, food habit, or behaviour. All communications, programs and events are tailored to the target population based on needs and the specific demographic to ensure the program is effective and relevant.

A marketing and communications campaign includes messages, events, programs and tools to create change.

WHAT ARE THE KEY FEATURES OF ÉPODE?

There are four pillars to the ÉPODE methodology:

- **Political commitment:** Gaining formal political commitment at central and local levels from the leaders of the key organisation(s) which influence national, federal or state policies, as well as local policies, environments and childhood settings.
- **Resources:** Securing sufficient resources to fund central support services and evaluation, as well as to fund local implementation of programs.
- **Support services:** Planning, coordinating and providing the social marketing, communication and support services for community practitioners and leaders.
- **Evidence:** Using evidence to evaluate the impact and outcomes of the ÉPODE program. ÉPODE practices include outcome measurements, and process and output indicators at central, local and individual levels.





Let's Move

USA → [Website](#)

WHAT IS LET'S MOVE?

Let's Move aims to raise a healthier generation of kids and solve the problem of childhood obesity. This initiative is based on the premise that everyone has a role, and players include parents, schools, elected officials, governments, faith-based institutions and the private sector.

WHAT ARE THE KEY FEATURES OF LET'S MOVE?

- Multi-sectoral collaboration. The campaign works with all sectors; parents, schools, chefs, hospitals, business leaders, educators, elected officials, military leaders, physicians, athletes, childcare providers, community and faith leaders, and children.
- Providing physical activity that doesn't require extra resources, for example creating activity classrooms by including 'physical activity bursts' in lessons, and providing recreational opportunities before and after school.
- Key programs of the Let's Move campaign include [a WEB-Based Tool for Healthy Active Living](#) and [Let's Move, Active Schools](#).
- Policy change. A new law, entitled the Healthy, Hunger-Free Kids Act was enacted. USDA also released school meal regulations to increase quality of food and offer more fruits, grains and vegetables and less fat.

- Work with restaurants, hospitals and other major businesses and institutions to make internal changes



Viasano

Belgium → [Website](#)

WHAT IS VIASANO?

Viasano's objective is to prevent childhood obesity and cardiovascular risk in adults. Developed in 2007 in two pilot cities, the program has now been extended to 15 other cities. A major goal of this program is to help families change existing habits and replace them with healthy lifestyles that are easily sustained.

WHAT ARE THE KEY FEATURES OF VIASANO?

- Local programs include community dinners and joint physical activities.
- Collaboration/Partnerships. Focus is placed on involving and motivating different stakeholders surrounding families to adopt and share a simple, targeted health message. It is a collective effort of the whole community. Politicians are central to mobilizing local players.
- Campaigns. Every six months, a campaign is released based on one key theme related the promotion of physical activity, healthy diet or a health and well-being topic. For instance, the 10th campaign was centred around the promotion of water consumption.



Shape Up Somerville

Boston, USA → [Website](#)

WHAT IS SHAPE UP SOMERVILLE?

Shape Up Somerville is a collective impact initiative that aims to prevent obesity in 1st-3rd graders through environmental change. The initiative focuses on vulnerable members of the community facing barriers due to factors such as being a visible minority, immigrant, low-income resident, and non-English speaker.

WHAT ARE THE KEY FEATURES OF SHAPE UP SOMERVILLE?

- Multi-system approach. Partners work together to achieve social change through collective impact which includes a common agenda, shared measurement systems, mutually reinforcing activities, and continuous communication.
 - Policy change. Multi-sectoral engagement of local government, businesses, schools, non-profits, healthcare organizations, grassroots agencies and individuals.
 - Includes initiatives such as affordable mobile farmers' markets, school gardens, healthy restaurant programs, school food service improvements, structured physical activity throughout the school day, as well as walkable and bikeable streets.
-

Aligning Communities: How Four Cities are Preventing Obesity

Aligning Communities is a research report on four obesity prevention initiatives in the U.S. The review provides the most specific information about how communities are working together to solve obesity. Below we have provided extensive details about one of the programs. [Please see the report for full information on each of the initiatives.](#)

Each of the programs provide a broad healthy living message to address issues with food choice, healthy food availability, exercise, and health care. Programming is tailored to each community. For example, in communities with lower socioeconomic status might focus on ensuring that people can purchase and prepare healthy foods. In middle class neighborhoods, encouraging physical activity may have a greater impact.

The programs work to develop a partnership with a major corporate or private foundation. Some also work with local governments to help with funding, or more commonly, in-kind support with physical locations or staffing assistance. Businesses also provide significant funding. Some programs receive money from property tax revenue, and these efforts often have been initiated with ballot initiatives. Oklahoma City pursued a separate ballot initiative for funding, while Philadelphia secured funding through a separate tax mechanism.



CAMPBELL HEALTHY COMMUNITIES
BY CAMPBELL SOUP COMPANY
Camden, New York [→ Website](#)

What is Campbell Healthy Communities?

Campbell serves as the “backbone” organization of this collective impact model of city, nonprofit, and corporate members that work to solve the obesity problem in Camden. Campbell has been able to bring in significant support from other, regional and national local partners to address the needs of the city’s children especially in school, after school programs, and at their homes.

In addition to shared measures and continual communication, the partners meet monthly to ensure coordination and mutual reinforcement of their activities and common agenda.

What are the Key Features of Campbell Healthy Communities?

- Collective Impact methodology to bring together a diverse group of stakeholders, including local and regional governments, nonprofit organizations, the private sector, and foundations.
- Broad reach to ensure all children have access to programming.
- Commitment to include the community or “local voice,” as a partner in designing solutions.
- Evaluation: The initiative measures time invested in physical activity and nutrition education, greater

access to fresh and healthy foods, and community engagement.

How Does Campbell Healthy Communities Work?

Below are some specific examples of how the initiative works collectively, involves the community, and supports programs.

Community Conversations at Campbell

The initiative facilitates discussions about health that are open to community members and Campbell employees. Campbell makes its consumer test kitchens available for cooking courses and provides “career paths” programs for local middle school students. Along with a group of funders, Campbell created the Food Access Innovation fund which provides funding for community based solutions to food insecurity.

New Jersey Partnership for Healthy Kids (NJPHK)

NJPHK aims to facilitate policy and environmental change to reverse childhood obesity. The partnership works with businesses to increase playground access including renovations. They also support school health and wellness policies and environmental changes.

Camden City school district, charter schools, and community based organizations. All of the Campbell Healthy Communities sites are involved in a number of ways, including increased opportunities for physical activity, school gardens, cooking courses, after school activities.

The YMCA

A partnership with the YMCA helps to

facilitate physical activity and education for youth through the Coordinated Approach to Child Health (CATCH) and Soccer for Success programs. CATCH is a 25-year-old evidence based train the trainer model. Soccer for Success, a program in partnership with the US Soccer Foundation, teaches students soccer skills and nutrition education in a city wide after school program. The program has dramatically increased physical activity increased in schools and in the community.

Delaware Valley Regional Planning Commission (DVRPC)

The DVRPC is responsible for prioritizing federal transportation dollars for local needs, but also works specifically with food systems because of the need for long-term food production, planning, and community health. The DVRPC believes that improving the economy of the city will improve food access. The DVRPC provides staff and funds.

The Local Food Trust

Campbell Healthy Communities works in partnership with the Local Food Trust to improve access to fresh produce and healthy foods in corner stores. They do this by offering store owners assistance with making healthy products more available and visible in the stores through new product tags, posting recipes that use fresh ingredients, conducting cooking demonstrations and offering loyalty cards that engage the customer with these new products. They have also helped to install new state-of-the art point of sale systems that enables them to track sales and determine which healthier options are doing well and can adjust accordingly.

Local Hospitals

Hospitals support the city and county to collect and share health information including BMI and food insecurity characteristics. The partnership with hospital and health providers also supports evaluation and measurement to track the health of the city.



GET HEALTHY PHILLY
Philadelphia [→ Website](#)

What is Get Healthy Philly?

Get Healthy Philly is led by the Department of Public Health in Philadelphia. It has strong city and public support. The urban atmosphere makes some infrastructure changes challenging, and the economic realities and poverty rates of some of its least healthy neighborhoods exacerbate obesity and health issues. Businesses and business networks are working with the initiative.

What are the Key Elements of Get Healthy Philly?

- The program originated from the city and uses municipal tools and instruments to engage communities through schools, the built environment (e.g. promoting more walkable and bike-able neighborhoods), and local businesses.
- Works extensively in the school district to introduce healthier food policies and use the schools as a location to collect data on students

and track progress of both diet and exercise.

- Creates healthier food standards for all food bought and served by the city and works with businesses to expand healthier food access in corner stores, farmer’s markets, and local restaurants.

Evaluation results: In four years, they were able to see some significant changes. Childhood obesity has been reduced by 5%, with significantly greater gains among African-American boys and Hispanic girls. In addition, they were able to reduce the growth of obesity among adults.

- Aims to change the culture of health through marketing, facilitating collaboration among public and private health care, and reaching out to public schools.
- Connects with businesses to access support and to demonstrate the impact on wellness for the whole city.



LIVEWELL
Colorado [Website](#)



WELLNESS NOW
Oklahoma City [Website](#)

What is Wellness Now?

Wellness now has strong municipal and public support. They have built a new health campus for the public health department in the least healthy ZIP code in the city with the aim of addressing those most at risk. Food and health-related businesses were early partners with the program, and they are developing new ways to reach out to broader business interests.

What are the Key Features of Wellness Now?

- Focuses on providing services in the least healthy areas by building new facilities in those communities.

What is Live Well?

LiveWell’s programming is focused on middle and high school youth, and supports young leaders’ development to help to change the health culture of the city. The official collective includes two neighborhood LiveWell coalitions (Share, A Northeast Denver LiveWell Community and Globeville, Elyria-Swansea LiveWell), Earth Force, Share Our Strength’s Cooking Matters Colorado, the local Boys and Girls club, and the Denver Metro Chamber of Commerce Leadership Foundation. The initiative has also enlisted the city as an informal partner.

What are the Key Elements of Live Well?

- Collective Impact methodology including neighborhood organizations, business organizations, and an evaluation consultant.
- Brings together several organizations that are also delivering healthy eating, active living, or obesity focused programming, called the Youth

Driven Healthy Recreation Centers Collective (The Collective).

- Works with the city to bring together the locations and infrastructure of the city with the programming and outreach of The Collective. Although the city is an unfunded partner, it serves on the steering committee.

and serve meals.

- Active transport drop-off children is arranged and led by staff for the many children living in local high-rise buildings.

Evaluation Results: 44% of students rated their physical fitness as high at the beginning of the year, and 71% at the end, after participating in the program. 72% of beyond 3:30 students said they gained a much better understanding of nutrition and food preparation (including inexpensive recipes) and 68% became much more physically active (Yau et al., 2014). Principals noted that students enrolled in the program gained a full 60 minutes every day of physical activity. Parents reported that their children were eating more vegetables since attending the program.

SCHOOL-BASED PROGRAMS



beyond 3:30

Toronto, Canada [Website](#)

WHAT IS BEYOND 3:30?

beyond 3:30 provides a range of after-school programming for students between the ages of 11 and 14. The program is currently being delivered in 18 Toronto middle schools in priority neighbourhoods. The program is free and aims to create a safe and welcoming space for low-income students to access opportunities to become healthier.

WHAT ARE THE KEY FEATURES OF BEYOND 3:30?

- The program operates from 3:30-6:30 each day.
- Young people access sports and physical fitness, a nutritious meal, arts programming and, homework support.
- Program examples include the Junior Chefs' Club and community dinners where the students prepare

Fresh kids

Australia

WHAT IS FRESH KIDS?

The Fresh Kids program is a school wide intervention with different approaches to promote healthy eating and reduce the risk factors for childhood obesity.

WHAT ARE THE KEY FEATURES OF FRESH KIDS?

- Organizational change. Schools integrated activities into curriculum
- Policy Change. Formalized school policies
- Collaboration. Established project partnerships with local community nutrition and dietetic services.
- Evaluation: An evaluation framework called "Health

Promoting Schools” (HPSs) was used to monitor change in fruit and water consumption among school-aged children. HPS evaluation found an increase of healthy behaviours between 25 and 50% in the proportion of children bringing fresh fruit to school. All schools recorded increases of 15-60% in the proportion of students bringing fillable water bottles to school and a decrease of 8-38% in the proportion of children bringing sweet drinks (Laurence et al., 2007)

- Reinforced messaging and actions. Teachers provide reminders to drink water and created a space for healthy activities (i.e. implemented regular physical activity breaks and healthy snack time). Teachers also integrated healthy active living behaviour into the planned lessons (e.g. story time with accompanying movements).
- Family involvement: Newsletters and tip cards were distributed to parents and guardians. All materials included messaging about changing lifestyles to model the healthy behaviours with children.



The Toybox

Belgium, Spain, Bulgaria, Germany, Greece and Poland [→ Website](#)

WHAT IS TOYBOX?

The ToyBox is a family and school-based approach to enhance development and prevent obesity among children in preschool and kindergarten. The program is focused promoting drinking water, healthy eating, physical activity and reducing sedentary time in preschool children and their families.

WHAT ARE THE KEY FEATURES OF TOYBOX?

- Environmental changes to the classroom. Examples include water filling stations to increase consumption of water and increasing physical activity.

Conclusion

The increase in obesity has resulted in increased prevention efforts. Around the world, communities are working together to teach children and families about healthy behaviours, healthy eating and to increase access to physical activity. There is a lot to be learned about effective initiatives that aim to reduce obesity.

Four main themes emerged from the literature that should be incorporated into an obesity prevention strategy. The first was the importance of involving all of the systems that are involved in children's health including schools, families, health care, government, businesses and media. This will ensure that the initiative will address the social determinants of health. Secondly, once a strategy that includes all of these stakeholders is in place, the specific programs and services that will work with children and their families must be based on their wants, needs, and interests, and take into account any barriers including socioeconomic status and cultural issues. In order to truly engage community members and have an impact on their health, programming needs to be driven by them. Thirdly, an effective plan requires a communication strategy to spread information and raise awareness. Communications should

involve social media, a website, videos and other engaging material. Finally, it is crucial to conduct ongoing monitoring and evaluation. Getting data and information from people who participate in programming, and the systems involved, is crucial for ensuring that programs will be effective and actually impact children and families' health.

There are a range of innovative programs and initiatives that are being implemented. There are many examples available of how to engage multiple systems, effective programs, communication tools, and evaluation methods to help guide the implementation of HKCC. It is important to realize that addressing all of the risk factors for obesity will take many years, however the findings from this review suggest that it is achievable with the right strategy in place.

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