Addressing childhood obesity through city-level interventions
Stepping up action on childhood obesity

Addressing childhood obesity through city-level interventions

Contents

Introduction 3

Barriers and enablers to successful city-level health promoting interventions 6

Considerations when implementing childhood obesity oriented city-level interventions 13

Conclusion 15

References 16

“A healthy city is one that is continually creating and improving those physical and social environments and expanding those community resources which enable people to mutually support each other in performing all the functions of life and developing to their maximum potential.”1
Introduction

Overview of childhood obesity

The World Health Organization (WHO) has identified childhood obesity (CHO) as one of the most serious public health challenges of the 21st century. Globally, CHO numbers are nearly doubling every 10 years: the estimated number of children aged 5 – 19 years living with obesity has increased from 86 million in 2010 to 158 million in 2020 and projected to be 254 million in 2030.⁴ Already, over 80% of these children are living in low- and middle-income countries (LMICs).

Traditionally, CHO interventions were focused on individual health determinants, but current trends suggest that these actions have been insufficient. Evidence now supports the need to consider the role and influence of social, physical and commercial environments in which children live (Figure 1). Community-level interventions often include “a mix of interventions working in conjunction with each other in the settings where children live, learn, and play (early care and education, home, school, community, health care), that should be directed towards multiple target groups in the community, should share a long-term health related goal,”³ and go beyond the health sector.

FIGURE 1. External determinants of obesity.⁴,⁵

![Diagram of Obesity and External Determinants]

www.worldobesity.org
COVID-19 and childhood obesity

COVID-19 has brought obesity into the spotlight with evidence showing that obesity in adults increases the likelihood of worse outcomes of COVID-19. In addition, some of the measures taken to address the current pandemic might increase the risk of CHO (decreased availability of nutritious food, increased sedentary time and exposure to digital marketing of foods high in fat, sugar and salt (HFSS), reduced levels of physical activity and impact on mental health). World Obesity’s policy brief Childhood Obesity: Maintaining momentum during COVID-19 identifies points of intersection between COVID-19 and CHO prevention and management, highlighting priorities for government action within the broader set of actions required to address CHO.

The importance of cities and role of urbanisations

According to the Ottawa Charter, “health is created and lived by people within the settings of their everyday life; where they learn, work, play, and live.”6 Today, over 50% of the world’s population live in cities, a number expected to increase to close to 70% in the next 20 years.7 Cities are often diverse and inequitable places faced with a wide number of public health challenges, including “sanitation, air pollution, urban violence, road safety, and access to healthy food and spaces.”8,9 Cities are gaining increased attention as a focal intervention setting as they offer an opportunity to reach a large proportion of the population, including children, adolescents and their families.

The rising prevalence of non-communicable diseases (NCDs) has prompted governments around the world to acknowledge the need to adopt multi-sectoral policies across a range of settings and sectors. Recognising the prime position of cities to promote this type of collaboration, WHO launched in 1986 the Healthy Cities Initiative (Box 1),9 and further acknowledged their role as an important component of WHO’s Thirteenth General Programme of Work 2019-2023, which identifies mayors and local leaders as “key actors to achieve the WHO goal of helping one billion people become healthier by 2023, which includes protecting them from NCDs.”8

The emphasis on cities and the role they play is also reinforced by UNICEF’s Child Friendly Cities Initiative “that supports municipal governments in realising the rights of children at the local level using the UN Convention on the Rights of the Child as its foundation.”11 Despite the fact that children and adolescents are also citizens, their voices remains largely forgotten by city planners, politicians, the public sector and other relevant stakeholders. However, according to the UN Convention on the Rights of the Child (CRC), children have the right to have their voices heard and the best interests of the child should always be central to decisions that concern them (Box 2).
Drawing on a range of case studies, this briefing will identify some of the barriers and enablers to ensuring that city-level interventions adequately protect everyone’s health and children as a vulnerable group, and identify opportunities to include CHO in existing health-promoting city-level interventions.

**BOX 2. UN CONVENTION ON THE RIGHTS OF THE CHILD**

Adopted by the United Nations in November 1989, all but one country have ratified the CRC. This legally binding treaty outlines children’s rights and holds governments accountable to meet children’s basic needs. Specifically, Article 11 states that:

1. “States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.

2. For this purpose, the child shall in particular be provided the opportunity to be heard in any judicial and administrative proceedings affecting the child, either directly, or through a representative or an appropriate body, in a manner consistent with the procedural rules of national law.”

Furthermore, Article 13 states that:

1. The child shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child’s choice.

2. The exercise of this right may be subject to certain restrictions, but these shall only be such as are provided by law and are necessary:

   a. “For respect of the rights or reputations of others; or

   b. For the protection of national security or of public order (ordre public), or of public health or morals.”

Drawing on a range of case studies, this briefing will identify some of the barriers and enablers to ensuring that city-level interventions adequately protect everyone’s health and children as a vulnerable group, and identify opportunities to include CHO in existing health-promoting city-level interventions.
Barriers and enablers to successful city-level health promoting interventions

Case studies

The majority of the world’s population live in cities, making urban areas an ideal intervention setting to promote and safeguard the health of all children and adolescents. Below are some case studies illustrating how countries around the world are implementing city-wide interventions to improve the health of their citizens. The below case studies illustrate how wider health initiatives can have a substantial impact on CHO by improving external environments and encourage the adoption of healthy habits.
CASE STUDY: \( \text{Q} \)

The Anti-Junk Food and Sugary Drinks Ordinance of Quezon City, Philippines

The Philippines is among the countries predicted to have over 1 million school-age children and youth living with obesity by 2030, estimates are that more than 3.3 million children and adolescents aged 5-19 years will be living with obesity.\(^2\) As it stands, the country has no better than a 2% chance of meeting the WHO 2025 target of no increase in the prevalence of childhood overweight.\(^2\) In Quezon City, the most populous and highly urbanised city in the Philippines, the prevalence of overweight and obesity among school-age children and adolescents surpasses the national average.\(^12\) Consequently, the city has been working over the last decade on developing a series of policies and programmes to reform the food system and simultaneously address the prominent triple burden of malnutrition.\(^1\)

Among the set of policies and actions, on 22 June 2017 the city approved a new law against junk food and sugary drinks – the Quezon City Anti-Junk Food and Sugary Drinks Ordinance (SP-2579, S2017).\(^13\) The law is committed to safeguard the health and welfare of children, and aims to:

- Limit children’s intake of free sugars
- Promote safer and healthier environments for children by prohibiting the sale and promotion of junk food and sugary drinks within a 100-metre radius around schools
- Impose fines and penalties for offenders

A number of agencies have been involved in the implementation of the Ordinance including the Quezon City Health Department (leading agency), the Department of Public Order and Safety & Market Development, the Administration Department and the School Divisions Office.

At the end of 2019, Quezon City became a signatory of the C40 Good Food Cities Declaration,\(^14\) “to promote and preserve the health of citizens and the health of the planet.”\(^15\)

The Declaration is a reflection of local political leadership to achieve a Planetary Health Diet for all by 2030.

\(^{1}\) Co-existence of undernutrition, micro-nutrient deficiencies, and overweight/obesity
Recognising that for London to become a fairer, healthier city the wider determinants of health need to be addressed, the Mayor released in 2018 London’s Health Inequalities Strategy. Among its five key aims, the Mayor’s strategy wants to ensure that every London child has a healthy start in life, and ensure “more children achieve a healthy weight, particularly in deprived communities, and reduce childhood obesity.” Rates of CHO vary greatly between London boroughs: Barking and Dagenham – one of the most poverty-stricken London boroughs – recorded 8% of children living with severe obesity by age 11, while Richmond upon Thames – one of the wealthiest boroughs – recorded 2% prevalence of severe obesity.

The Mayor brought a group of experts and professionals together to work towards a common vision: “that every child in London grows up in a community and an environment that supports their health and weight.” By 2030, the Taskforce is committed to “halve the percentage of London’s children who are affected by unhealthy weight at the start of primary school, and to reduce the gap in CHO rates between the richest and poorest areas in London.”

The report from the Taskforce is framed around 10 Calls to Action, which recognise that to successfully reduce the prevalence of CHO across the city, work will need to focus on addressing the social determinants of health (economic stability, built environment, health and health care, social and community context, and education).

Importantly, the Taskforce has successfully identified three key lessons that could also be applied to other city-level interventions:

- Understand the reality of children’s lives and those of caregivers as a means of identifying which actions are going to work
- Build on existing knowledge, activities and assets (including people!)
- Cities can pave the way for nations
CASE STUDY: Young People at a Healthy Weight (JOGG)

Over the years, the prevalence of CHO has been increasing across the Netherlands: in 1980, 5.1% of boys and 7.2% of girls were living with overweight or obesity, but by 2009, these numbers had increased to 13.3% for boys and 14.9% for girls.\(^{19}\) Acknowledging the rising national trends, the Dutch Ministry of Health, Welfare and Sports published in 2009 its first national report on obesity, highlighting that although some local interventions existed, no national regulatory policies were implemented.

To increase their commitment to address CHO, the national government and local municipalities are supporting the JOGG approach, a movement in the Netherlands that focuses specifically on children and adolescents aged 0-19, to encourage them “in a city, town or neighbourhood to make healthy food and exercise an easy and attractive lifestyle option.”\(^{20}\) JOGG is modelled on the EPODE methodology,\(^ {ii} \) and aims to ensure that children in the Netherlands grow up in a healthy environment in which healthy choices are the obvious ones. It focuses its work around five key pillars:

- Political and governmental support
- Cooperation between the private and public sector
- Social marketing techniques
- Scientific coaching and evaluation
- Linking prevention and health care

Municipal activities are embedded in the National Prevention Plan and coordinated by the JOGG Foundation, and are planned by a local coordinator and tailored to local needs and opportunities. Activities focus on changing surrounding environments (homes, schools, health care, neighbourhoods) while also ensuring knowledge and capacity building components are integrated into local interventions. The programme focuses on reducing social inequalities in health, with the Foundation advising municipalities to target vulnerable groups in vulnerable environments.

JOGG is aligned with several existing national and regional plans:

- EPODE - it is a member of the EPODE international network
- The programme is embedded in the Covenant on Healthy Weight, an initiative of 26 organisations in the Netherlands
- When JOGG became a Foundation in 2015, it also became part of the National Prevention Plan and is now a pillar in the Partnership Overweight Netherlands, in which several stakeholders are collaborating to prevent overweight
- JOGG is “embedded in the health, social welfare and sports policy. The local governor signs the JOGG agreement and the local JOGG coordinator is appointed by the local government.”\(^ {20}\)

Today, 174 municipalities across the Netherlands had implemented the JOGG approach, 31 of which reported a decrease in the prevalence of childhood overweight, reaching over one million children.\(^ {21}\)

\(^{ii}\) EPODE is a coordinated, capacity-building approach aimed at reducing CHO through a societal process in which local environments, childhood settings and family norms are directed and encouraged to facilitate the adoption of healthy lifestyles in children.
CASE STUDY: 🌍

**Safe and healthy environments for under-age children – Oaxaca bans the sale of ultra-processed foods to minors**

As a country Mexico has the sixth largest number of adults over 20 years old living with obesity. Over the past two decades, the country has seen a rapid growth in adult obesity, which can be partially explained by the exponential growth in the prevalence of CHO. Currently, the country only has a 4% chance of meeting the WHO 2025 target. In fact, if current trends continue, it is predicted that by 2030, 42.9% of children between 5 and 19 years old will be living with obesity. On 6 August 2020, the Mexican state of Oaxaca banned the sales of sugar-sweetened beverages (SSB) and HFSS food to children. As the state with the highest prevalence of CHO in the country, this new legislation was a response to the high mortality rates linked to COVID-19.

Given the clear link between childhood and adult obesity, the legislation aimed to improve the health of its population early on and ensure long-term benefits. Implemented as Article 20 bis to the Law of the Rights of Children and Adolescents in the State of Oaxaca, the law aims to eliminate malnutrition in children and adolescents, and prohibits the following:

I. The distribution, sales, gift or supply to under-age people (<18 years old) of SSBs and foods high in calories in the State

II. The distribution, sales, gift and supply of SSBs and foods high in calories in public and private basic and secondary educational settings

III. The sale, distribution or exhibition of any of these products in vending machines in public or private basic and secondary educational settings

The move has been highly criticised by the industry, but Oaxaca has shown itself to be a pioneer region in implementing such stringent regulations to address the collision of two pandemics – COVID-19 and obesity – and many other regions in the country, including Mexico City, have now indicated that they will follow.

---

Evidence shows that there is a clear causal link between obesity and worst case of illness due to COVID-19. For more information, look at our policy dossier: https://www.worldobesity.org/resources/policy-dossiers/obesity-covid-19
**CASE STUDY: **

**Agita São Paulo/Agita Mundo**

Agita São Paulo was launched in 1996 to address the high rates of sedentary lifestyle in the State of São Paulo, Brazil, by promoting physical activity (PA) and increasing the knowledge of the benefits associated with an active lifestyle. The Agita São Paulo Programme had two main objectives:

I. To increase people’s knowledge of the importance of PA as a way to promote health

II. To increase people’s PA levels by 20% over a 10-year period

The Programme was coordinated by the Center for Studies of the Physical Fitness Laboratory of São Caetano do Sul, in conjunction with the São Paulo State Department of Health. With collaboration from scientific and technical advisors, actions were programmed by an Executive Committee composed of over 300 government, civil societies and private organisations that carry out activities in the community with a special focus on schoolchildren, workers and the elderly. It also aimed to involve a wide range of sectors including the education, sports, health, industry, commerce and services. Agita São Paulo was designed specifically to consider the main determinants on PA, and led to a 41% decline in sedentary lifestyles in the metropolitan area.

Following the success of the programme, the Agita Mundo network was launched in October 2002 as a global network whose main objective is to promote “physical activity as a health-enhancing behaviour for people of all ages and abilities, through social mobilisation.” To do so, the network uses a number of techniques, including mass media and community-wide campaigns for PA, as well as a multi-sectoral approach involving communities, schools, worksites, healthcare settings and mass media. Since its establishment, the network has connected more than 200 organisations globally. Today, almost two decades after its creation, the network is considering updating the core message it seeks to promote and ensure that PA is recognised as a right for all “and advocate to ensure universal access to physical activity policies; the promotion of policies in urban planning, education and transport which address social and environmental justice; and the creation of activity-permissive environments.”

By drawing on the above case studies as well as additional evidence available in World Obesity’s policy dossier, the following barriers to the successful implementation of CHO focused city-level interventions can be identified:

- **Interventions cannot be generalised.** Different communities have cultural, economic and social specificities that need to be considered.

- **Lack of available resources and adequate training.** Local interventions require a combination of financial, material and human resources, to ensure both the successful implementation of an intervention and its sustainability.

- **Lack of support from local authorities.** Local leaders need to recognise and acknowledge the interplay of social, urban and economic policies and health.

---

iv These include intrapersonal factors, social environment factors, physical environment factors (natural and built)
• Lack of strong and reliable local data. Absence of such data makes it difficult for governments to prioritise interventions, determine which ones are needed and understand which are successful.

• Influence of commercial determinants of health and conflicts of interest. Commercial determinants of health are defined as “factors that influence health which stem from the profit motive.” The implementation of health-related interventions often face “powerful opposition by vested commercial interests.” Research into the commercial determinants of health finds “strategies and approaches used by the private sector to promote products and choices that are detrimental to health,” with industry resources spent counteracting health promotion messages.

However, the success from local interventions also highlights some enablers to implement successful city-level interventions:

• Participatory process to the development of interventions. Active collaboration with, and participation of, local communities and stakeholders encourages commitment and ownership. Successful interventions also focused on adopting an integrated approach that includes sports, healthy lifestyles, social, education and business components.

• Interventions also need strong community partnerships and engagement with diverse stakeholders, including non-health sector stakeholders.

• Establish simple actions and clear messaging.

• Understand the ‘culture of obesity’ within the implementation site. The success of an intervention is context dependent. It is important to collect data at the local level to be able to inform policies and interventions.

• Use evidence-based policies and legislations to counter and prevent any opposition. Case studies show that there has been significant action at local levels. These will enable other countries to adopt evidence-based approaches and learn from experience based on existing implementations, while contextualising interventions and improving local data collection.

• Political commitment and local leadership. Governments around the world are increasingly recognising the importance of adopting systemic and multisectoral approaches to address all forms of malnutrition, including overweight and obesity, and the importance of regulations in creating health promoting environments. Politicians, mayors, bureaucrats and policy makers have significant influence over the social determinants of health and they can be strong advocates. Often, they have the capacity to mobilise partners, both in the private and public environment. Leadership from local leaders is a key enabler and determines the sustainability of projects.
Considerations when implementing childhood obesity oriented city-level interventions

The following considerations have been identified to support the successful implementation of CHO oriented city-level interventions:

- **Conduct a situational analysis to get an understanding of available local resources, especially in vulnerable communities.** Identify the specific strengths, weaknesses, opportunities and threats, including their root causes and effects to provide an evidence-informed basis for responding to the health needs of the population. This should include available health statistics, local policies, laws and relevant academic research, and flag any potential gaps. This will also require extensive consultation and planning, allocating time to build trust and confidence to ensure active engagement and commitment of key stakeholders.

- **Integrate these interventions within broader health initiatives.** Health should be integrated in spatial and financial planning strategies at all times. Planned interventions should focus on generating changes in social, physical, commercial and individual environments, with a focus on people’s well-being.

- **Understand the specific community’s readiness to change** as well as its cultural context.

- **Develop strong evaluation frameworks.** This includes developing indicators for project evaluation that are able to be measured at a city-level. These should be culturally adapted and take into account available local resources and capacities.

- **Consider sustainability** and how interventions will be maintained over a long period of time (financially and from a human resource perspective).

- **Build coalitions and engage all stakeholders, while ensuring safeguard processes are in place for conflicts of interest.** Ensure a wide range of stakeholders, - academia, government, civil society organisations, private organisations, media, children youth and families - are involved in the elaboration, implementation and evaluation of interventions to address harmful health environments. Stakeholder mapping can help identify all the players involved in complex city/health interactions. Partnership with academic institutions offer great potential for developing evidence-based research.

- **Enable community participation, involving and empowering individuals, organisations, groups, communities, and including children and youth participation.** There are a range of tools and techniques for community engagement and community participation that can be utilised, including mapping, participatory research, co-creation workshops, communication campaigns, awareness raising, and advocacy.

- **Ensure political engagement.** Political commitment plays a key role in ensuring the successful implementation of interventions. Politicians have significant influence over the social determinants of health, they can be strong advocates for change and often have the capacity to mobilise partners, in both the private and public environments. Local governments should ensure that all aspects of the legal framework and policies under its control promote and protect health. Policy makers should support and advocate for fiscal and regulatory policies to improve the food, physical and built environments.

- **City leaders need to define a multi-sectoral action plan** which must be the result of multi-stakeholder engagement.
Today, young people represent the largest part of the population globally, and increasingly young people are calling to have their voices heard. The recent strikes on climate change have shown the impact of engaged youth. But true and lasting effects to positively impact the health of young people including overweight and obesity, will not only need to include their perspective and suggestions: the initiative and leadership of young people themselves need to be part of the answer. Youth engagement is important for three key reasons:

1. To ensure social justice and youth representation
2. To promote youth development
3. To build civil society and contribute to the common good

In *Children’s Participation – From tokenism to citizenship*, Roger Hart called for youth to be increasingly involved in decision-making processes as we move towards a more democratic society. He presented the idea as a ladder, where we keep climbing towards actions which are child-initiated and directed. This model shares the decision-making power between children and adults, and positions children and adolescents as experts of their own worlds and futures.

Children and adolescents must be involved in all levels of decision-making processes, from conceptualisation to development, implementation, monitoring and evaluation. They must also be supported and empowered within these spaces, especially where they have limited resources and competing interests of school, family and other endeavours. But how do we promote positive, meaningful youth engagement?

1. **Unfreeze** the culture and recognise the need for a cultural shift
2. **Catalyse** knowledge into action by nominating champions
3. **Internalise** change by creating and taking advantage of existing opportunities
4. **Institutionalise** youth engagement into policy and standards to ensure it becomes a consistent practice

---

**BOX 3. WHAT DOES MEANINGFUL YOUTH ENGAGEMENT LOOK LIKE?**

Today, young people represent the largest part of the population globally, and increasingly young people are calling to have their voices heard. The recent strikes on climate change have shown the impact of engaged youth. But true and lasting effects to positively impact the health of young people including overweight and obesity, will not only need to include their perspective and suggestions: the initiative and leadership of young people themselves need to be part of the answer. Youth engagement is important for three key reasons:

1. To ensure social justice and youth representation
2. To promote youth development
3. To build civil society and contribute to the common good

In *Children’s Participation – From tokenism to citizenship*, Roger Hart called for youth to be increasingly involved in decision-making processes as we move towards a more democratic society. He presented the idea as a ladder, where we keep climbing towards actions which are child-initiated and directed. This model shares the decision-making power between children and adults, and positions children and adolescents as experts of their own worlds and futures.

Children and adolescents must be involved in all levels of decision-making processes, from conceptualisation to development, implementation, monitoring and evaluation. They must also be supported and empowered within these spaces, especially where they have limited resources and competing interests of school, family and other endeavours. But how do we promote positive, meaningful youth engagement?

1. **Unfreeze** the culture and recognise the need for a cultural shift
2. **Catalyse** knowledge into action by nominating champions
3. **Internalise** change by creating and taking advantage of existing opportunities
4. **Institutionalise** youth engagement into policy and standards to ensure it becomes a consistent practice
Conclusion

This briefing identifies barriers and enablers to city-level childhood obesity interventions and highlights opportunities and mechanisms to include childhood obesity in existing health-promoting city-level intervention. The evidence drawn from the different case studies shows the need to develop integrated, multi-component and multi-stakeholder local interventions. Political leadership and engagement are also essential to improve surrounding external environments, address the underlying social determinants of health and ensure the sustainability of these interventions. Cities can have a direct impact on the health, social and emotional development of children and their families.
References


13. Republic of the Philippines, Department of Science and Technology, Food and Nutrition Research Institute. Overweight and obesity is top nutrition concern in 8 Metro Manila cities-FNRI Survey.


35. of New York. All rights reserved C. GUIDELINES DESIGN ACTIVE PROMOTING PHYSICAL ACTIVITY AND HEALTH IN DESIGN ACTIVE DESIGN GUIDELINES.
36. **PUTTING HEALTH INTO PLACE EXECUTIVE SUMMARY** How to Create Healthier New Communities; with Lessons from NHS England’s Healthy New Towns Programme 2 Contents.


