

Engaging municipalities in community capacity building for childhood obesity control in urban settings

Maria Isabel G Loureiro^{a,*} and Nicholas Freudenberg^b

^aEscola Nacional de Saúde Pública, Universidade Nova de Lisboa, Lisboa, Portugal and ^bHunter College, City University of New York School of Public Health, 2180 Third Avenue, New York, NY 10035, USA.

*Corresponding to Maria Isabel G. Loureiro, Escola Nacional de Saúde Pública/Universidade Nova de Lisboa, Avenida Padre Cruz, 1649-016 Lisboa, Portugal; E-mail: isalou@ensp.unl.pt

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Background. Reducing rates of child obesity requires an approach that transcends the medicalization of overweight. Family practice doctors and public health professionals need to work with other sectors to establish comprehensive approaches to obesity reduction.

Objectives. This study compares the approaches of three cities with different health and political systems (Lisbon, London and New York City) to promoting effective action to decrease child obesity.

Methods. Using a comparative case study approach, participant observers in three intersectoral municipal collaborative on child obesity describe their challenges and accomplishments.

Results. Municipal governments made child obesity a policy priority and coordinate efforts in different sectors. Public health provided relevant information on population characteristics and scientific evidence for decision-making, family practice monitored children's growth and assisted families to adopt healthy behaviors. These sectors, together with university-based researchers, also played an advocacy role, addressing inequalities, alerting the public and policy makers about damaging products or risky situations, and regulating private interests that threaten well-being, e.g., the food and beverage industry that promotes unhealthy products. Local, national and global networks of health providers, municipal agencies and researchers have helped to diagnose problems, coordinate action across sectors and levels, share and evaluate successes and failures, translate evidence into practice and promote social cohesion.

Conclusions. These cities have developed common approaches and face similar challenges in reducing high rates of child obesity, suggesting that it may be possible for cities in different parts of the world to learn from each other and thus accelerate progress.

Keywords. Capacity building, child obesity, municipal government, network, partnership, weight.

Introduction

The global imbalance between people's caloric intake and energy expenditure has made overweight a serious public health problem, most acutely in developed nations but now also in emerging and developing nations, even those where hunger remains a problem. While insufficient food is responsible for the early death of millions of children, overweight is responsible for increasing numbers of chronic diseases, including earlier incidence of Type 2 diabetes, cardiovascular diseases, asthma, sleep apnoea, osteoarthritis, some type of cancers and depression.¹

Several factors contribute to the rise in overweight. Social inequities and low health literacy play a central

role. In urban settings, targeted advertising of less healthful foods, limited awareness of the health consequences of sedentary behaviours and limited opportunities to engage in safe physical activity, increased consumption of sugared beverages and lower cost of some empty calorie foods to fulfil energy demands seem to be particularly critical.^{2,3} Most disadvantaged groups have worse health and higher mortality than those in better off social positions,⁴ trends recognized in the 19th century by Chadwick and recently confirmed by the WHO Commission on Social Determinants of Health (CSDH).⁵ Not surprisingly, obesity follows these trends.⁶

Like other health problems affecting modern societies, childhood obesity has multiple causes that operate

in sectors other than health, thus requiring interventions that are grounded in more than one discipline and operate across multiple sectors (e.g. food, recreation, transportation, etc.). In addition, nations vary in their history and organization of health investment. Some have a tradition of municipalities playing an important role, while others have a National Health Service (NHS), where family practitioners and public health professionals play different but complementary roles, taking primary responsibility for health-related issues at national as well as local levels. Few countries are able to integrate action easily across sectors and levels, compromising their ability to take effective action against obesity.

This paper seeks to analyse how three cities with different health systems and different approaches to municipal governance have taken on the challenges posed by childhood obesity and the capacities each sector needs to control and reduce this problem.

The health systems and citizenship

For WHO, the definition of health system is ‘all the activities whose primary purpose is to promote, restore or maintain health.’ WHO advocates the place of people and participatory research in health systems research and development. In 2008, the WHO Commission on Social Determinants of Health (CSDH) presented their report and its framework, identifying the health system as an important catalyst for addressing social determinants of health.⁵ In addition, the definition of health promotion and the recommendations in the Ottawa Charter for Health Promotion⁷ point to the need to strengthen local communities to encourage ‘their ownership and control of their own endeavours and destinies’.

In 2006, WHO established a strategy to counteract obesity, calling the attention to the importance of the involvement of all the relevant government sectors and levels in addressing this public health problem.⁸ To realize this goal, planners of obesity prevention programs need to consider appropriate roles for the many individuals, groups, organizations and sectors of public and private activity that respond to threats to health and seize opportunities to promote, protect and repair or palliate⁹ within both the larger health system and the systems in which communities, municipalities and organizations are embedded.

Lasker, Weiss and Miller advocate that the connective power of collaboration can strengthen and combine actions within the communities to identify and address health issues.¹⁰ Others, however, have noted the challenges of bringing together partnerships or coalitions that consist of multiple partners of varying size, power and expertise^{11,12} and have noted the importance of defining the purposes of partnerships clearly and specifically. Goodman *et al.*¹³ brought the concept of capacity

building closer to public policy and civic participation, defining the dimension of community capacity as the characteristics of communities that affect their ability to identify, mobilize and address social and public health problems.

Applying the concept of community capacity building to health organizations, German and Wilson recognized ‘the potential ability of a health organization to develop an empowering and democratic partnership with a community, through which the community’s capacity to identify and address its priority health concerns is enhanced’.¹⁴

People themselves are the most significant health resource—co-producers of health rather than simply consumers of health care services. But these resources do not by themselves eliminate the effects of risks such as poverty and inequities, a principal target for preventive strategies. The goal of enhanced capacity is to enable people to exercise political power in local and national settings and to contribute to the development of systematic and coordinated services that meet the needs of the population.

Family practice, public health and community

Family practice pays special attention to individuals, families and sometimes neighbourhoods. Family practice offers the possibility of a personalized diagnosis and care that can include counselling, engaging patients and their families in the process of change or treatment and referring them to needed community resources and reinforcing the social support that enhances health.

Public health professionals can offer surveillance and information systems to provide the data required for analysis, they can convene groups of residents to meet with policy makers to advocate for change and they also can mobilize stakeholders and communities to take actions relevant to population health. Public health professionals as well as family practitioners can also serve as mediators between science, policy makers and the public by translating scientific knowledge into clinical and public health policy and practice. Each can play a role in collecting, analysing and interpreting the evidence needed to inform effective strategies to reduce childhood obesity, including data on local prevalence of overweight and its sequelae, patterns of food consumption and physical activity, level of health literacy, population social and economic characteristics availability of recreational facilities and use of health services. With municipal government and academic organizations, health service systems can become active partners in collaborative learning organizations, which adapt knowledge to local conditions and evaluate the results for further adaptation of practices. For communities, health services can serve as a strategic reserve of knowledge for

addressing health problems. Given that the evidence base for weight management is still evolving, these obesity-related learning collaboratives will need to take a modest posture about the quality and generalizability of the available evidence.

Looking for evidence

Since the success of interventions on children already obese have been at best modest, interventions to promote healthy weight need to start earlier in life and at all ages to emphasize prevention. Pregnancy, breastfeeding and weaning seem to be good opportunities for change in family habits that can contribute to excess weight gain.¹⁵

A variety of prestigious agencies such as the Centers for Disease Control and Prevention (CDC),¹⁶ the Institute of Medicine (IOM of the National Academy of Sciences)¹⁷ and WHO¹⁸ have recommended strategies for promoting healthy growth and equilibrium between energy intake and expenditure. Since the CDC and IOM recommendations were developed independently yet led to similar conclusions,¹⁶ they can be useful references for professionals. On the nutrition front, recommendations include promoting breastfeeding, increasing access to healthful food and beverages (e.g. tap water), limiting advertisements of less healthful foods and beverages and discouraging consumption of sugar-sweetened beverages. On the physical activity front, the recommendations are to encourage physical activity and limit sedentary activity among children and youth, assure infrastructures that support safe walking and improve access to public transportation. Land use has been considered an important strategy to improve availability of mechanisms for purchasing foods from farms, providing incentives for the production, distribution or procurement of foods from local farms (CDC strategy # 6). In general, these recommended interventions can be facilitated by sectors other than health.¹⁷

Evidence of a high prevalence of obesity having positive correlations with poverty, low literacy and deprived areas indicates that populations with these characteristics should be a priority for efforts to increase the capacity of individuals, organizations and communities to take on childhood obesity.

Collaboration with schools, childcare programs and other institutions serving children provide crucial opportunities to work with parents and grandparents as well as children. Urban strategic planning with health in all policies and health impact assessment are important tools. Municipal government, in partnership with family practice and public health professionals, can play an important role in convening research and action collaboratives, developing surveillance systems and analyzing the impact of various intervention strategies.

Capacity building

Addressing capacity building in cities generally begins by knowing which resources are already in place, which resources are needed and what competencies are needed to mobilize the appropriate coalitions. Disseminating knowledge is necessary but not sufficient. Other critical tasks are providing leadership and coordination among different sectors, adapting evidence-based interventions to different conditions and fostering community participation.

Community capacity building is important to enable various constituencies to gain the political power that can be used to take action to reduce factors that contribute to childhood obesity. These include measures to shrink income inequalities and reduce poverty, to regulate food production, restrict advertising of unhealthy products for children and to increase opportunities for safe physical activity. Achieving such ambitious goals requires political will and commitment at different levels of organization. Participatory research and planning, involving specific groups at risk such as immigrants, also can improve communities' competence to address adverse situations. Once again, universities can play important consultative and research roles in this process.

Capacity building includes improving competencies in assessment, planning, implementation and evaluation as well as having the resources required to be used at each step of implementation of strategies. A growing body of evidence can guide the participatory approaches that have been shown to engage communities in creating these capacities.^{19–21}

Obesity in three cities: New York, London and Lisbon

The dimension of the problem

In New York City (NYC) in 2009, about two in five 13 year old children were estimated to be overweight of whom 21% were obese and 18% overweight.¹⁵ In London in 2009, 21.8% of children in aged 10/11 were obese and 14.7% are over-weight.²² In both cities, the rates of overweight are higher among black children and boys at these age groups.

In Lisbon, in 2007, the prevalence of overweight and obesity in adolescents aged 12–19 years was 35%.²³ In Portugal, a study of Portuguese children aged between 7 and 9 years in 2002, the prevalence of overweight and obesity was 20.3% and 11.3% respectively.²⁴ In another national study in 2010, which assessed adolescents between 10 and 18 years, the prevalence of overweight was 30.4%, declining as age increased. This study found that at 10 years 41.2% of children were overweight and 23.6% at 18 years.²⁵

While the data from the three cities are not exactly comparable, in each of these cities between a third

and two-fifths of young adolescents are overweight or obese and in all three overweight and obesity rates have increased significantly in the last decade. These data convey the magnitude of the health threat facing children and young people in these cities.

The strategies in place to address the problem

Municipalities and health services. NYC has developed a strong municipal role for protecting the health of its citizens. The New York City Department of Health and Mental Hygiene (DOHMH) plays the lead role, conducting school-based surveillance of body mass index (BMI), providing educational programs on child obesity for physicians and other providers and using social marketing to discourage use of sugar sweetened beverages. In the last 5 years, new policies have been promulgated to restrict promotion of infant formula in public hospitals, improve food and increase physical activity in child care centers, ban trans-fat and require calorie labelling in restaurants, establish guidelines for municipal food procurement and encouraged the food industry to reduce salt in processed food. The Department has also endorsed a so far unsuccessful proposal to impose a tax on sugar-sweetened beverage tax.^{26,27}

In NYC, organizations that have contributed to changes in obesity programs and policies include the NYC DOHMH, the Department of Education's Offices of School Health and of School Food, the Food and Fitness Partnership (a coalition of civil society groups), City University of New York (CUNY), Teachers College at Columbia University and others. National non-profit and public organizations and foundations, such as the W.K. Kellogg Foundation, Robert Wood Johnson Foundation, Kaiser Family Foundation and the Center for Disease Control and Prevention have supported these activities through grants to New York partners. NYC government operates the public school and hospital systems and plays a role in transportation policy and zoning rules. Non-profit and academic groups have played an important role in supporting initiatives in land use, food, fast food restaurants, physical activity, schooling, school food and universal meals and approach built environment, urban farmers and gardens. Their advocacy and research on these issues has contributed to public dialogue and media coverage, further increasing public support for policy change.

London has recognized the importance of investing in the community's capacity.²⁸ The municipality, schools and the health services have all invested in such programs as Well London, Buy Well/Eat Well and Change 4 Life.²² Transport for London was involved in providing safe walking to schools, using the same system as used in NYC.

Policy was directed at reducing health inequalities with a focus on childhood obesity and an effort to

encourage walking by discouraging automobile use.²⁹ More recently, the city has encouraged community gardens, in part an outgrowth of a controversial squatting movement. It is now possible to see vegetable gardens in many places around London. The London Healthy Weight, Healthy Lives Task Force played a role in developing a regional strategy for addressing childhood obesity. Well London is a lottery-funded initiative led by the London Health Commission that brings together city government, academic institutions, civil society groups and health care providers to support community-led health projects in the city's most deprived areas.³⁰ Other participants in action against childhood obesity in London include London Metropolitan University, the Greater London Assembly, London Health Observatory, International Obesity Taskforce, London Health Commission and London Teaching Public Health Network.

In Lisbon, the municipality has contributed several initiatives to the effort to control childhood overweight and obesity. These include provision of free healthy meals and nutrition education in all pre-primary and primary schools; programs to bring children to fresh food markets and as well as a 'teaching farm' in the city to help urban children understand the natural environment and how food is produced. Some urban farms are also being developed. Physical activity has been promoted and supported by programs mainly in the most deprived areas. Spaces to cycle have been extended, although it is difficult on the hills of Lisbon. Streets are not very walkable mainly because of the irregularities of the typical Portuguese 'calçada' (sidewalk tiles) and there are obstacles for people with difficulties in moving. Lisbon is a member of the Healthy Cities Network, requiring policies of organizing the territory and 'making easier the healthy choices.' Recently, several departments within the Lisbon municipality have begun to meet to plan coordinated responses to childhood obesity. Agencies responsible for social wellbeing, sports, education, green spaces, housing and transportation have participated in these sessions. With the Regional Health Administration of Lisbon and a neighbouring area, the national health group working on obesity known as the Platform Against Obesity and academic organizations such as the National School of Public Health/New University of Lisbon, these public sector organizations are working to reduce childhood obesity and problems related to malnutrition.

In Lisbon, municipal officers have been trained at the National School of Public Health/New University of Lisbon for developing their capacity to take action to reduce childhood obesity. The School also trained family practitioners and nurses to improve their communication skills on weight and energy balance with parents, educators and children. Public health officials are developing a weight surveillance system based on

data collected by family practitioners during routine health exams for 5- to 6-year-old children. Routine measuring and weighting also provides an opportunity to counsel parents and relatives. In developing these new systems, participants are challenged to overcome organizational obstacles to improved coordination.

Common strategies at community level. In each of the three cities, multiple partners, including municipal officials, health providers and academics have joined to take on childhood obesity. Although the role of municipal government in health services and education differs in each city as does the commitment of the Mayor to the issue of childhood obesity, the cities have developed some common approaches in facing and face similar challenges, suggesting that it may be possible for cities in different parts of the world to learn from each other.

For example, a movement has started in the three cities to cultivate land to grow food and make their products accessible to children and local citizens. In NYC, street markets sell food products produced locally during the growing season. In London, common land is held in trust by independent allotment associations or by local authorities; individuals have a license and pay a small annual rent. Lisbon is still fighting for regulating land rent. This process started long ago but has gained strength in the last 3 years, although without a specific goal related to obesity.

Breastfeeding, a strategy recommended for prevention of childhood obesity, has been promoted in Lisbon and London as parent education about diet, physical activity and television viewing. Also NYC has developed hospital programs and policies to encourage breastfeeding.^{16,31} The Baby Friendly Hospital Initiative seems to continue to be a reference for improving conditions for initiating breastfeeding after delivery.

Municipalities and primary health care can play an important role in changing cultural patterns in improving opportunities for mothers to breastfeed as well as to offer opportunities for parents to learn how to develop a positive relationship with the child concerning eating and exercise. They can also restrict the ability of infant formula companies to promote their products at the expense of breast feeding. Universities can be good partners in developing capacity building projects in these domains.

Although Portugal is recognized as having high levels of inequities, almost as wide as in the USA, there is not yet a consistent policy to reduce the gap in social inequities.³² In Lisbon, there is an attempt to identify areas for combined intervention between municipal and health services, giving priority to the most deprived. In London, the Mayor assumed a very strong commitment to address inequities. He also created the London Health Commission in 2000. In 2007,

the central government accorded the Mayor a statutory duty to reduce inequalities in health.³²

All three cities need stronger synergies and coordination among their various sectors.

Also, global business strongly influences health at the local level, often with negative consequences in the case of childhood obesity.³ A sophisticated multi-level strategy is required to address these global problems.

In London and New York, two major world cities, their approach has taken into consideration urban health, social determinants, human rights, health inequalities, sustainability and financial crisis, focusing on programs designed to educate about healthier choices, access to more healthful choices and environmental and policy measures that will support the maxim of making 'healthier choices easier choices'. Their mayors established ad hoc planning bodies to assume leadership of reducing diet-related health problems in their communities. Because of the clear association between poverty and obesity, these cities investments have focused on the poorest neighbourhoods in each city. Also they seem determined to tackle obesity-related challenges with a particular focus on those related to the retail practices of the food industry.³³

The role of health services and municipalities in the three cities. In NYC, there is not a single health system covering all the population that can assume responsibility for reducing childhood obesity at the population level. Despite fragmentation of medical care, a strong surveillance system provides good population diagnostic information and identification of priority populations and environmental points for intervention. New York also has a very consistent strategy for urban health, involving neighbourhoods, addressing social determinants, health inequalities and sustainability. A mayor with a strong commitment to improving public health and a robust health department willing to take leadership on health issues have helped to translate this strategy into action. New York, on the other hand, has encountered stiff resistance from the restaurant and food industry, making the passage of laws for labelling of calories in fast-food restaurants, for example, contentious and requiring protracted legal challenges. As noted, to date the city and state have failed to pass a tax on sweetened beverages in part because of a well-funded lobbying campaign led by the soda industry.³⁴

One advantage for New York is the city's Health Code, which gives government a unique tool to advance public health without undue political interference. Under the city charter, the Board of Health may enact, alter, amend or repeal any part of the Sanitary Code. In the last few years, the Board of Health, an independent body appointed by the Health

Commissioner and the Mayor, has used its authority to address the issue of obesity. Since 2006, the Board has issued rules requiring chain restaurants to post the calorie content of the foods they sell, child care centers to offer healthier food and more opportunities for physical activity and restaurants to eliminate trans-fat from their products. In these and other cases, the city was able to use its authority to make more healthful food and activity choices more available.^{26,27}

In London, local government has no such authority.³⁰ The London health authorities working in the NHS, a national agency, conducts surveillance, sets targets and disperses tax-funded resources. Recent proposals to cut funding for the NHS and allocate additional responsibility to local authorities have generated fierce debate.

In all three cities, each level of government has specific responsibilities related to prevention of childhood obesity. The advantage of these complex arrangements is that there are multiple opportunities for intervention but the disadvantage is that coordinating approaches across levels and sectors is difficult.

In Lisbon, the NHS seeks to reform primary health care in order to bring services to the community. Currently, family practitioners are responsible for maternal care and child health while public health personnel manage a local observatory for data collection, a school health program and other community programs. In order to coordinate these responsibilities and actions to address childhood obesity, these partners and other sectors are developing a comprehensive action plan.

In Lisbon, as in London, health services are provided by the NHS. In both cities, city government has little direct responsibility for health care or public health and there are reform efforts in both countries to give more autonomy to the local level. In both systems, health services focus on primary prevention for children entering primary school, mainly oriented to immunizations, weight control and general health surveillance. In Portugal, the norm for family doctors is to register the health status of the child at 6 years of age, including weight and height; then to give the information to the public health professionals working in school health. This allows surveillance of the BMI through time as well as recognition of other problems in the community.

Conclusion

Although NYC, London and Lisbon are at different stages in their obesity epidemics and in their processes of tackling childhood obesity, each offers lessons from their experiences, strengths and weaknesses.

In the three cities, universities provide scientific knowledge, helping to translate the available evidence

into a plan of action to reduce disparities and childhood obesity. They also contribute to capacity building of public and civil society organizations, based on assessments of local assets.

The connection of capability, choice and the 'freedom to achieve various lifestyles' introduced in 1979 by Amartya Sen, has become one of the influential theories of social policy and community action.³⁵ Assets-based interventions, aimed at strengthening community capabilities and promoting independence and autonomy appear to be influential in strengthening community health protection.³⁶

Municipalities have a key role to play: a policy commitment to support health, including prevention of childhood obesity. They do this by promoting healthful eating and active play, through coordinated efforts on urban planning of multiple sectors such educational, business, justice, transportation, environmental and other municipal services with the participation of the community, namely children's care givers, parents and educators. Public health can provide the information required for relevant decisions, for monitoring programs as well as for mobilizing community sectors to invest in improving quality of eating and exercising. Public health also has the responsibility and opportunity to regulate private interests that threaten well-being, in this case, the food and beverage industry that promote unhealthy products.

Family practice is responsible for the surveillance of children's growth and can help families to make and to support changes in health behaviour, through individual and family counselling and patient education, together with public health and other sectors. All of them, including the universities, can play an advocacy role, addressing inequalities, alerting the public and regulators about damaging products or risky situations, challenging local, national and global businesses and evaluating interventions.

In the three cities described here, establishing local, national and global networks of health providers, municipal agencies and researchers has helped to diagnose problems, coordinate action across sectors and levels, share and evaluate successes and failures translate evidence into practice and promote social cohesion.

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