European Commission

Health Equity Pilot Project (HEPP)

Amsterdam Healthy Weight Programme

Case Study

Health

HEPP CASE STUDY

Title of Project/Policy
Amsterdam Healthy Weight Programme (AHWP)
(Amsterdamse Aanpak Gezond Gewicht (AAGG))

Project/Policy Reference [If applicable]
Not applicable

Country
The Netherlands

Name of Organisation(s)
Amsterdam Municipality, Public Health Service of Amsterdam (GGD Amsterdam)

Type of case study
Good practice - whole system approach

Thematic/sector focus
Childhood obesity at municipal level, health inequalities, nutrition (including early year), physical activity, sleep

Date(s)
The programme has been running since 2013, and was first conceived in 2012. It is an ongoing phased programme with 2018-21 just being launched, and the objective is to achieve a healthy weight for all children by 2033.

This case study was written in February 2018.

Case study overview / About the project/policy (Who, What, When, Why and How and who is this case study aimed at?):

The Amsterdam Healthy Weight Programme was established in 2013 by the Amsterdam Municipality in order to give every child 'a healthy childhood and future, regardless of their start in life'[1]. The overall objective is to achieve a healthy weight for all children in Amsterdam by 2033.

The programme is a universal programme aiming to impact on children across Amsterdam by changing some of the environmental drivers of obesity, but targeted to those neighbourhoods with the highest proportion of overweight and obese children, and those schools with the highest proportion of overweight or obese pupils. The programme is also targeted at those children with the risk factor for obesity of lower income or education parents, and parents of non-Dutch origin. It has both preventative aspects as well as offering support and advice for those children and their parents/carers who are already overweight and obese. From the point of view of addressing health inequalities is interesting both because it has a particular focus on more

socially deprived neighbourhoods and individuals, and because preliminary results suggest that the programme appears to have had a greater impact to date on lower socio-economic population, though causality cannot be proven at this point. The case study describes both the philosophy and methodology underpinning the project, as well as a number of projects and initiatives taken under the overall umbrella of the Amsterdam Healthy City Programme.

The strategy used to address obesity and its associated drivers is conceived of as *'healthier behaviour in a healthier environment'*, and is a complex adaptive whole systems approach recognising that *'healthy weight is a collective responsibility'*. The programme also works with the traditional health promotion line '[making sure the] healthy choice is the normal choice'[1]. The whole systems approach is based on a detailed understanding of the policy and influencing opportunities at city level to address childhood obesity and its multiple causes. The approach has had strong political leadership and has resulted in effective cross-departmental coordination, and engagement with many different formal and informal stakeholders. The approach also recognises that the solutions are neither simple, nor achievable in narrow time horizons, and that constant monitoring and 'reorientation' are required to achieve the difficult target of decreasing obesity, changing behaviours across all parts of the population yet aimed specifically at the most vulnerable, and securing the report of the main stakeholders and most importantly the citizens of Amsterdam.

Part of the programme is universal as it focusses on prevention for all children from conception to age 19 and their parents/care givers, and aims also to reduce the overall environmental drivers of obesity, and establish city wide standards for new developments, for primary schools, and encourage healthy business for example; part is targeted providing support for those 11 neighbourhoods (of 22) with the highest prevalence of overweight and obese children, and those with the risk factors for obesity of low socioeconomic status, limited education and non-Western ethnicity; and part focusses on providing clinical advice and support for those children who are already overweight or (severe) obese and their parents/care givers.

This case study will report on efforts and achievements gained for a healthy weight of children in Amsterdam by looking at some of the specific efforts introduced. It is also worth noting that some efforts began before the Amsterdam Healthy Weight Programme and are already well established. Often they have been further developed during the programme period. It was emphasised in private discussion with the Deputy Programme Manager that the successes of the programme lie not so much in the individual interventions as in the process of monitoring, control, co-production and evaluation and in responding appropriately to the multiple influences which impact on the individual in the home, school and neighbourhood.

Obesity in Amsterdam

In Amsterdam in 2013, around 21% of under 18s were overweight or obese[2], (compared to 13% of 10-year olds in the Netherlands who were overweight or obese). Since being overweight and obese is socially patterned by parent's income, education and ethnicity, it is unequally distributed throughout the city and its population.[1] Specific geographic areas of Amsterdam are particularly affected (for example Nieuw-West, West, Noord, Oost and Zuidoost) where overweight children live near each other and often go to the same schools[1]. The City authorities recognised that the effects of childhood obesity could last a lifetime, and included poorer health, greater risk of serious illness, social stigma, poor concentration and low educational attainment[2]. It became a political imperative to take action.

The political driver

The political impetus for the Amsterdam Healthy Weight Programme came from the City Council's Alderperson (Deputy Mayor) Eric van der Burg who was the catalyst for placing childhood obesity as a key political challenge. He started by drawing on existing resources and seeking to harness a coordinated approach across the various departments of the municipal government. The driver was the realisation that there was an 'epidemic' of overweight and obesity, which would have long-term health, social and economic consequences, and required co-ordinated action. All departments were asked to work with the programme manager on their contribution to reducing obesity. Initially the programme did not have any additional budget, seeking cooperation for a common cause to gain resources and results in tackling obesity. Since 2015 annual funding of €2.5 million has been assigned to the programme, with about a further €2.7[3] committed from National government and allocated by Amsterdam municipal authorities to specific projects within the overall programme[2]. It is argued by the programme leadership that the core funding is not the most important driver of success, with strategic, integrated working to a common cause being the principle enabler.

It was reported that it was significant that the lead for the initiation of the programme was not public health, and the management included people with a anthropological, political and public administration background who were well placed to integrate the parts of the programme beyond the traditional public health bubble.

Theoretical model and cross departmental multi-stakeholder engagement

The theoretical model which inspired and guides the programme is a 'Rainbow Model' drawing inspiration from the seminal Dahlgren and Whitehead model[4], which recognises the immediate and more distant influences on the behaviours of individual, their family, and community, from age, sex and constitution, living and working conditions, to socioeconomic, cultural and environmental conditions. It describes the depth of the approach needed to address the factors that influence the development of healthy or unhealthy weight. Based

on the model, the municipality has designed an approach identifying where they can have an influence and where health policy can be effective, selecting three areas where they can easily influence, 1) individual lifestyle factors, 2) influencing social, physical and food environments and 3) influence living and working conditions[1].

The model recognises the role of various departments including public health, welfare and healthcare, education, sport, youth, poverty, community work, economic affairs, urban planning, and public spaces, as well as organisations outside of local government. It also recognises that it needs to address the social, physical and psychological factors which impact on diet, physical activity and sleep. It has a long-term view of change in a generation[2].

Figure 1: The Amsterdam Rainbow Model on Childhood Obesity 2018 (Personal Correspondence, Deputy Programme Manager, AAGG)[3]

Significantly Alderperson van der Burg has argued that health behaviours are not just an individual or familial responsibility, but he recognises the role of the community and municipality in creating a healthy (social) environment thus creating more opportunities to gain a healthy lifestyle and avoid being overweight. The Amsterdam authorities advocate for some aspects of food policy (e.g. advertising controls and pricing of unhealthy food) which are not within Amsterdam authorities control[2], and are not necessarily well supported at national level.

It is reported[2] by the programme leadership that cross-departmental buy-in was gained in part by allocating the lead initially to the Department of Social Development. Only in 2015, once the principle of inter-department action had been established, was it transferred to the Public Health Service of

Amsterdam. Such cross-departmental work requires changes in thinking from all actors, often starting small to build trust and understanding, before formalising with a specific contact point. An interesting example is that the Board of Education declined to endorse the Jump-In physical activity programme, yet the programme managed to gain support from school directors who recognised that being overweight can lead to psychological and learning difficulties. The endorsement of school directors led to the Board reviewing and endorsing Jump-In, ultimately agreeing that improved student weight also improves educational outcomes.

An inter-departmental working party has been established to promote integration. Links are made to complementary programmes within Amsterdam including 'Moving Amsterdam', 'Amsterdam Poverty Programme' and 'Amsterdam Food Strategy' to avoid duplication and identify opportunities for mutual gain.

The Amsterdam Healthy Weight Programme recognises children and parents need to be supported to make the right choice, and the city of Amsterdam must ensure that they provide the right conditions for making healthier choices[1], to enable a 'paradigm shift'. The municipality believes that this shift will lead to healthier behaviours: specifically eating healthier food, taking more exercise and sleeping better (in recognition of the impact of poor sleep on obesity[5-7]). The programme engages with civil society and community based organisations, particularly to develop supportive programmes for neighbourhoods, local communities and informal networks and organisations.

The principal health insurer (Zilveren Kruis) in Amsterdam works with the programme. Together they engaged with more than 20 (umbrella) organisations in welfare, care, para-medics, youth care, sports and civil society and made city wide agreements on to offer support, advice and treatment (a so called chain of care) to overweight and obese children and their parents, as well as how to connect with the preventative work[2]. These general agreements have been implemented within the local networks in the 11 focus neighbourhoods. The Amsterdam work on this has been recognised as a best practice by the national Department of Health[8]. The programme has also worked with retailers, including Albert Heijn, to trial improved food offerings and advice, while being careful of engaging with businesses which may not show the same degree of commitment in practice.

At the heart of the programme is of course the populations in the areas where the programme is implemented. Recognising this has been important to gain trust and support and co-produce results, gain insights to aid delivery in practice and understand possible unintended consequences, and to deal with the complexities that are part of the underlying causes of obesity. It is recognised that obesity may require action on a range of complex social needs.

Research input and 'learning by doing'

Early inspiration was drawn from the EPODE model[9] although the EPODE model was not found practical for implementing as an integrated programme in a metropolitan context[2].

The Amsterdam rainbow model was developed with the help of academics, principally Professor Karien Stronks, drawing inspiration from Dahlgren and Whitehead[4], identifying the policy levels and range of actions required. Another significant contributor was Professor Seidell who identified that addressing obesity requires changes in peoples lives and not just their diet[2].

Recognising that new insights on the causes of obesity are found regularly, the programme tries to include those insights and act on them. An example is the evicence-base[5-7] on sleep deprivation as a contributing factor to obesity as well as other childhood problems. The Amsterdam Healthy Weight Programme has included sleep as one of the three strands of work, mainly via the community programme which seeks to inform parents and children of the importance of improving children's sleep, and if appropriate works in collaboration with hospital sleep specialists. Because no appropriate preventative interventions exist, the programme has commissioned the development of one for primary school children and works together with sleep specialists in translating existing programmes for teens[5-7].

This is an example of the way the programme tries to use evidence, and practice-based knowledge and apply it to their work. In addition the programme seeks to establish process evaluations for projects and interventions to better understand what is happening and why, and gain insights on how to improve.

As important as the academic input is the concept of 'learning by doing, and doing by learning' so that the programme is under constant review and learning, using both new evidence and practice insights to improve its effectiveness. The programme uses an online tracking system to track progress to monitor progress quarterly, and rapidly take remedial action if results are off track.

Initial programme goals

The programme has great ambitions likened to a race of 5000 metres, a half marathon and marathon[1] whereby goals are pursued, e.g.:

- By 2018: a healthy weight for all 0-5 year olds in Amsterdam
- By 2023: a healthy weight for 0-10 years olds in Amsterdam
- By 2033: a healthy weight for all young people in Amsterdam.

Targets for 2015-18

The period 2015-2018, while improving the environment for all children, had a particular focus on 0-5 year olds, and establishing the city wide programme.

The targets included:

- *Amsterdam must demonstrably become a more healthily organised city*
- *the BMI of 0-5 year olds in Amsterdam must not deviate negatively from the national average by more than 5%*
- *the number of children classified as having a 'healthy weight' must be greater than in 2013*
- *there must be fewer primary schools [by 2018, than before 2015] where more than 25% of pupils are overweight or obese*
- *there must be a significant reduction in the number of children who are overweight and obese in the five neighbourhoods where the programme starts and where we have put in extra effort.*

Examples of sub-programmes

Within each of the efforts designed and reported here, the municipality embedded professionals, communication and digital facilities. The Amsterdam Healthy Weight Programme is not just about one effort. It encompasses a number of efforts in many areas related to the three strands of healthy eating, exercise and good sleep. Some examples include:

- promoting drinking tap water in schools and banning juice and sugar sweetened beverages
- healthy cooking classes in the community
- ban on fast food sponsorship of sporting events
- focus on pregnant women, first 1,000 days of a child's life
- encouragement of eating dinner together as a family
- subsidies for sports centre membership for low-income families.

The programme is to broad to cover in a single case study, however examples of some of the sub-programmes include:

a) The 1000 day approach

The 1,000 days between a woman's pregnancy and her child's 2nd birthday offer a unique window of opportunity to build healthier and more prosperous futures[10]. The approach has been adopted in Amsterdam in a number of actions and interventions[11], including information sharing, counselling and health care screening and extra support for at risk families, pre-natal home visits, engagement with midwives, ongoing support for pregnant and new mothers up to two years if from a more deprived background. This appears to have already led to an increase in breastfeeding.

b) Jump-in – Healthy schools

All schools in Amsterdam are ideally to become healthy schools. The schools where children's average BMI is higher than the average for The Netherlands are supported in their work to become a healthy school through the programme Jump-in[1]. Other schools can also use the Jump-in toolkit and helpdesk

The Jump-in school programme, which began in 2002 but has been significantly improved, helps the target schools put health on the agenda and provides them with personal support, an online toolkit with practical tips and advice, guest lessons, parent education and attractive communication tools[12]. The Jump-in programme includes sports and movement, active play, healthy eating and drinking policies at schools (lunches are normally made at home), education on physical activity and more. It's an all day approach where the children are supported throughout the day, even in after school activities[13].

A Jump-in controlled trial in 19 primary schools of 2,848 children (50% boys) with two year measurements showed significant benefits on organised sports participation, particularly in girls of Moroccan and Turkish descent[14].

A subsequent evaluation[15] found that the programme lacked standardization and needed simplification, mainly because of the complexity of the multilevel programme and multidisciplinary collaboration between organisations. It also found a need to tailor the strategies to local environmental, social, and cultural aspects. The outcome shows that a school-based strategy combining environmental and personal interventions can be successful in improving sports participation among children.

With the start of the AHWP the service delivery of Jump-in became less laissez-faire and more structured so that for example to become a healthy school it was no longer possible to cherry-pick activities as all are important to become a healthy school. In addition the advisors now focus on training and supporting the school team to implement a healthy school instead of partly delivering activities themselves, thus building sustainable capacity.

Next steps in the Jump-in programme are, amongst others, to establish whether there is a link between Jump-in and the observed trend showing to a decrease in children's sugary drink consumption and increase in schools' healthy nutrition policies.

c) Amsterdam School Garden Programme

The school garden programme existed before the Healthy Weight programme and has been incorporated. It might be described as a field-to-plate initiative teaching pupils how to plant, tend and grow crops, harvest them and cook them.

d) Communities and neighbourhoods

Each focus neighbourhood has its own community manager, and unique specificity of actions and interventions suited to the locality. Interventions have included: a healthier shopping area with local businesses offering healthier choices, coaching for teenage girls to build self-confidence and social skills, outreach programmes to parents and guardians, after school activities, sport and other opportunities for physical activity, training religious leaders in

healthy lifestyles, working with ethnic minority organisations to promote a healthy weight, and supporting advice to food bank clients.

e) City-wide initiatives on a healthier food and physical environment

The city has started to change city-wide buying practices, licensing and sponsorship focusing on healthy offerings using guidelines from the Netherlands Nutrition Centre[16], and from January 1st 2018 has banned advertisements on billboards for unhealthy products targeted at children from being displayed in any of the cities 58 metro stations. Sponsorship of sports events with more than 25% young people in attendance is not permitted by unhealthy food or drink manufacturers since 2016. The programme is working with the Dutch consumers organisation, Heart Foundation and the Alliance to Stop Unhealthy Marketing to Children to protect children from unhealthy marketing. On the other hand, although mindful of the pitfalls, Amsterdam is working with the food industry on labelling, reformulation and portion size, and helping to show that healthy options can be profitable options. Albert Heijn (the largest Dutch supermarket) is seeking to support healthier eating patterns in Amsterdam, taking actions such as removing children's branding from products, and carrying clear labelling.

The city is also trying to increase cycle paths and walkways, and sport and play areas particularly in priority neighbourhoods. Active transport to school and activity in school are supported and encouraged.

f) Poverty focus

It is recognised that poverty both limits choice, and can make living and 'orderly' life more difficult. Food banks provide nutrition information and link service users to city farms and vegetable gardens. Financial advice and language support is offered as well as financial support for youth sports.

g) Digital offering

In addition to supportive websites and tools for information sharing for professionals, and recommendations for healthy apps, experiments have been done with digital coins that could be collected for achieving health challenges which could be exchanged for discounts on healthy products.

h) Strengthening the excellence of professionals

The programme explicitly decided not to invest in new 'street level' professionals, but to train the existing professionals in the city in what their role in the AHWP is and how they, in their work, can contribute to creating a healthier lifestyle of children and a healthier environment. More than 500 professionals, both working for municipality, commissioned by and of partner organisations, have already been trained.

i) Health care

Beyond the involvement of health care in terms of midwifery and support to expectant and new mothers and young parents, the programme has an explicit focus on identifying and treating children who are already obese, and particularly those children who morbidly obese. The programme works in collaboration with the health insurance company Zilveren Kruis, and numerous organisations in welfare, care, youth care, sports and civil society and has made city wide agreements on how to offer support, advice and treatment (a so called chain of care) to overweight and obese children and their parents, as well as how to connect with the preventative work[2]. These general agreements have been implemented within the local networks in the 11 focus neighbourhoods.

The underlying vision of the chain of care is not to provide children and parents with weight management programmes, but to help them alleviate some of the multi-problems within their lives to give them space (sometimes literally) to breathe and energy to think (and do) about implementing their necessary lifestyle adaptions. Once that space and energy is found, a weight management programme can prove to be very effective.

Additionally, since 2016, Zilveren Kruis is allowed by a special regulation (as the only insurance company) to pay for a period of 3 years for an innovative role for the youth health care nurses as a central healthcare provider. Her main role is care coordination between the social, (para)medical and possibly other domains and helping the parents find, strengthen and use their self efficacy during that process.

Methodology for the case study

This case study reports on the programme and evaluations undertaken between 2013-18 and plans for the subsequent period (2018-21) to achieve a healthy weight of children in Amsterdam. It seeks to describe the drivers for action, the leadership and governance, the model under-pinning the work, and the quality assurance. It then reports on a number of specific examples of efforts that have been introduced and evaluated; e.g. Jump-in in primary schools, first 1,000 days and the model that underpins the programme efforts, and identifies some of the impact and lessons to be learnt.

This case study is based on desk research of material produced and published by the Municipality, peer-reviewed papers, data from reports including as yet unpublished reports, in combination with interviews of programme staff and their comments on the draft of this case study.

The limitations of this case study are that evaluation is based on a large complex adaptive systems programme at its infancy with a much longer term goal. There are also limited peer review papers on the case study due to the complex nature of the programme.

Results and key findings

Evidence/data of effectiveness and efficiency

The programme is a complex adaptive whole systems approach and it is therefore impossible to ascribe change to one intervention alone, and of course the outcomes are long term. However the programme reported a 12% decrease in the prevalence of obesity between 2012 and 2015 (from 21% to 18.5% for all children), with a decrease of 9% among very low socio-economic groups, and 11% among low socio-economic groups (see Figure 2, see page 12).

It is reported that:

a) more babies are being exclusively breastfed (significantly higher prevalence of breastfeeding at 3 (up from 40% in 2012 to 44% in 2015)and at 6 months (up from 20% in 2012 to 25% in 2015)).

b) children are drinking less sugar sweetened beverages (fewer children drinking more than 2 sugary drinks (at age 10 - 61% in 2012/3 and 72% 2014/5)) [17]

c) children are taking more exercise (more 5-10 year olds exercising for at least 1 hour a day(41% of 5 year olds in 2012/3, 47% in 2014/5, 49% of 10 year olds in 2012/3, 53% in 2014/5))

d) of the 11 'heaviest neighbourhoods', nine are now 'lighter'.

The programme is monitored for outcomes on a quarterly basis, and produces comprehensive output reports[18].

The AAGG outcome monitor for 2017[19] reported that:

- With the exception of 14-16 year olds the proportion of healthy weight category has increased for all ages.
- The number of overweight 5 year olds has fallen from 11.2% to 9.9% and obese from 4.3% to 3.1% (2012-2015)
- Although there has been a reduction in overweight and obese in 3 year olds, amongst 2 year olds there has been an identified yet currently unexplained increase.

- Similarly although the neighbourhoods with the highest prevalence of overweight and obesity have reduced their prevalence between 2012 and 2016, three neighbourhoods of the 11 show an upward and currently unexplained trend.
- It was reported that the prevalence of obesity by SES for 5-10 year olds is decreasing significantly for very low and average SES, and decreasing for low SES.
- It is reported that there has been a reduction in obesity amongst Moroccan, Surinamese and Antillean/Aruban ethnic origin as well as Dutch, though with a slight increase among Turkish ethnic origin who were the most likely to be overweight[19].

Amongst the achievements are[20]:

- a ban on the marketing of unhealthy food products to children at sporting events
- 500+ trained healthcare/youth professionals
- 200 trained health ambassadors
- A collaborative network with midwives, maternity care, youth health care and Parent and Child teams 'in full swing' in 11 neighbourhoods
- 25,000 school children in the Jump-in programme
- 120 of 220 primary schools are now participating in the programme, and healthy primary schools are becoming the norm
- Healthy Businesses is still being developed with 12 currently including supermarket chain Albert Heijn and local snack bars
- 1,200 pre-school parents involved in programme activities
- 8 community 'health' market offering healthy advice, healthy snacks and other support.
- 1,734 healthy eating consultations
- 2/3 of severely obese children (1,200) are receiving support
- 11 (of 22) neighbourhoods involved in the programme.

Impact/benefit in practice/return on investment.

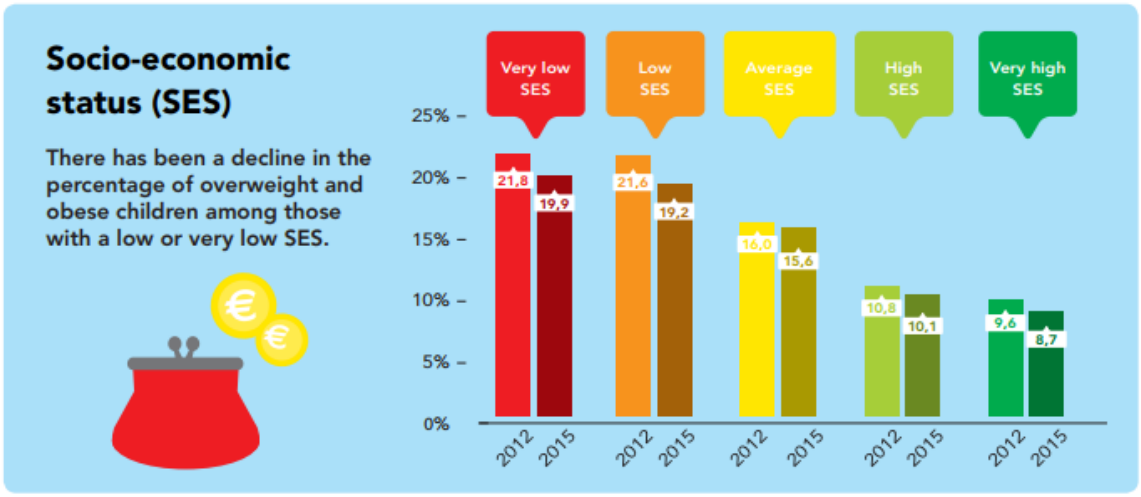
The Amsterdam Healthy Weight Programme has not sought to identify the return on investment to date. We know that reducing childhood obesity will have lifetime benefits for individuals, communities and the city in terms of health (physical and mental), education and employment and the social, cultural and economic development of the city, but this has not yet been quantified. The city is planning to gain a better insight in the additional impact of the outputs. For example, most of the health ambassadors are now participating more in their local community, and some have established small

businesses, thus generating positive impact at a personal, social and financial level.

Equity

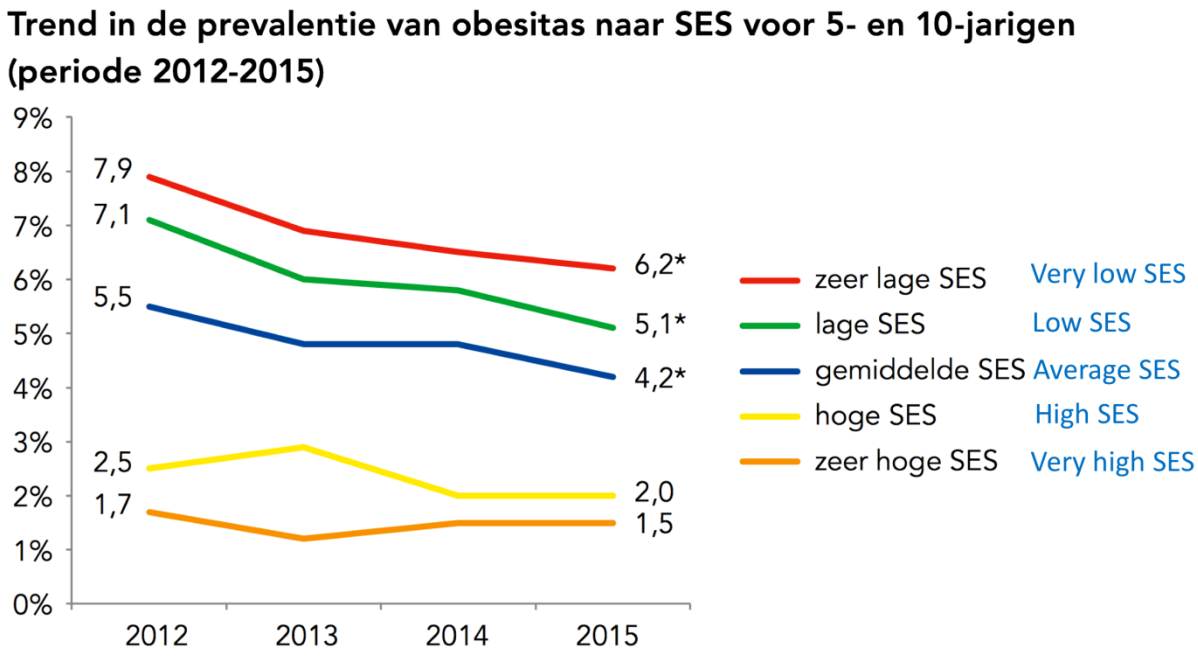
The City of Amsterdam reported in 2017 a reduction in overweight and obese children in the city after four years since the programme started, including a greater reduction in those from low or very low socio-economic backgrounds (Figure 2) [18].

Figure 2: Factsheet Amsterdam children are getting healthier: reduction in overweight and obese children in those with a low or very low SES[18]



There are also reports of a reduction in the prevalence of obesity of 5-10 year olds between 2012 and 2015 (Figure 3)[21].

Figure 3: Trend in the prevalence of obesity by socioeconomic status for 5-10 year olds in Amsterdam (2012-2015)[21]



Source: Amsterdam Healthy Weight Programme: Outcome Monitor 2017
amsterdam.nl/aanpakgezondgewicht

Participation

The whole of Amsterdam benefits from the programme as many initiatives are city-wide, including:

- the objective of Amsterdam becoming a more healthily organised city, and by 2033 one of the 5 healthiest cities in Europe
- that future developments must be in compliance with healthy city principles (*De beweegvriendelijke stad*)[22]
- the programme is seeking to ensure all schools and nurseries in the city are compliant with the Amsterdam Healthy Weight Programme
- the Amsterdam Healthy Business Network
- identification and timely clinical support to all severely obese children in Amsterdam.

More specifically 11 of the 'most overweight' (highest prevalence of overweight and obese children) neighbourhoods in Amsterdam are specifically targeted, as are the 'heaviest schools' (highest prevalence of overweight and obese). Within that there is a specific focus on those most at risk of being overweight, who are identified as having parents with limited education, low income and ethnicity. The initial programme has targeted the first 1000 days,

and primary schools as a setting, with the plans for 2018-21 moving on to the transition to senior school and the senior school as a setting, while working with all children and their parents and their carers.

Inter-sectoral collaboration.

Robust partnerships have been established with schools, neighbourhoods, civil society and voluntary organisations, schools, welfare, (youth) health and social care providers, a health insurer, retailers, NGO and academics, as well as right across all departments of the Municipal authority[19]. The programme is a good example of a joined-up health in all policies approach, and engagement with all stakeholders, while being mindful of the potential pitfalls of working with business, and the limits of what a city can do as opposed to national government.

Lessons learned

The primary lesson is that developing evidence-based policy, with a whole-of-government approach it is possible to halt and reverse obesity trends. By focusing on those with the highest risk factors (lower SES and non-European ethnicity), and those in the most overweight neighbourhoods and schools, it is possible to halt and reverse childhood obesity in lower SES groups, which has not been achieved elsewhere.

It is held that changing the long-term behaviour of children is perhaps to be valued even more highly than the short term decreases in BMI, as it is creating a long-term habit of healthier living. This is aligned with efforts from the municipal authority to make the city environment more health enhancing and less health damaging.

The case study also shows what a city is able to achieve if it has the appropriate derogation of powers to enable it to take effective action.

Amsterdam is recognised as an example of how cross-party, cross-departmental and cross-sector commitment can bring fragmented systems together, by putting in place a common goal[17]. This is a key learning from the 'joining up' in Amsterdam within the programme.

There are lessons to be learnt about the importance of political leadership, growing out of an understanding of the scale of the problem faced by Amsterdam, and perhaps particularly in relation to other parts of the Netherlands.

There are lessons which are particularly significant in moving the framing from individual responsibility (or parental responsibility), to a whole of society responsibility, which makes it easier to implement policies with the backing of the citizenry making political choices easier.

The disciplined way the principles of program management are applied, the careful selection of indicators and regular (quarterly) monitoring, coupled with a review of the reports to consider what needs changing, what needs to stop and what needs to begin is central in driving continuous improvements.

The final lesson is the elephant lesson (Q. How do you eat an elephant? A. one mouthful at a time). The programme has been good at developing a long-term vision which takes it across political changes, and allows a focus on different parts of the child's life cycle in each period (i.e. 2012-15, 2015-2018, 2018-21). While the programme is ambitious it is working towards mainstreaming various components, before moving onto the next focus.

Timeliness / Interest from Member State/Interest from other Member States

Addressing childhood obesity is of interest to all countries in the European Union, to the European Commission itself, to WHO Regional Office for Europe. Identifying the possibilities for slowing or even reversing childhood obesity, which is described as a wicked problem, particularly amongst children from families from lower SES is of significant interest to many cities. We know that Amsterdam is seeking to learn from other cities developing similar programmes and that at the end of February 2018 Public Health England and the London Mayor's health lead participated in learning event focused on the Amsterdam Healthy Weight Programme. There is reported to be additional interest from other cities and regions in Western Europe.

What makes this case study interesting/important?

This case study is of particular relevance to the Health Equity Project (HEPP)[23] as it acknowledges that children of parents with limited education, low-income and 'non-Western' ethnicities are more at risk of overweight and obesity than the children of higher-educated and income earning parents, and those from other ethnicities. It appears to show that it is possible to halt the increase and reduce the incidence of obesity and overweight of all children, including children from low SES backgrounds whose obesity has provide most difficult to reduce. It also demonstrates that it is possible, with appropriate derogation of powers, for local government to impact on obesity without strong national support.

Generalisability

The case study is useable in terms of process, by any city seeking to address obesity, and health inequalities in behaviours. It is therefore scalable at city level.

The case study will be of interest to any municipality seeking to address obesity and health inequalities in behaviours either with or without the full support of the national government, provided that the authority has sufficient delegated responsibility to take action.

The policy approach of working across the piece with multiple stakeholders (and mindful of the difficulties of working with health damaging industries), of appropriately delegated and delivered strong leadership of disciplined application of the principles of programme management, of monitoring carefully with meaningful indicators and using the monitoring to refine the programme, of using the best available research to inform policy and implementation, and of recognising that long-term change needs long term planning – are all points which effective public health programmes could learn from.

Sustainability

The programme did not initially require funding – just the reorientation of many departments within the Amsterdam municipality to contribute to reducing obesity and the things that contribute to making obesity more likely. Funding has enabled the programme to expand rapidly. The current funding level is sustainable being agreed long-term as a funding priority. The programme also contributes to more active travel, and a healthier environment, and is likely to maintain a healthier and more productive work force, making less demands on the health and social services and welfare benefits.

Transferability to other countries

The process is transferable to other countries, though the mix will vary from country to country. The most important ingredient however, in the estimation of the reviewer, is high-level political impetus for action, brought about by the recognition of the significance of childhood obesity to the city and its citizens, in terms of physical and mental health, education, future employment and life chances. As important was the recognition, that childhood obesity is impacted not just by the decisions of the family and the child, but by a multitude of opportunities and barriers which the city authorities, and neighbourhoods themselves can influence.

Other important ingredients are:

- A long term strategy (20 years), with shorter term goals (3-5 years)
- A coherent theory for action, in this case the rainbow approach significantly modified from Dahlgren and Whitehead to focus on action

to address childhood obesity combined with disciplined application of the principles of programme management
- A mechanism for engaging across departments and with multiple stakeholders, and a team leading the process
- A robust monitoring process which then informs future action
- A group of researchers skilled in using research to inform policy and implementation
- Recognition that action is required in multiple domains and by multiple stakeholders at the same time
- Ability to delegate or distribute parts of the programme subject to particular standards having been met, so that the programme does not become unmanageable and unwieldy, but as parts become stablished and normalised, the concentration can move to other priorities.

Next steps / Recommendations

The 2018-21 Multi-annual Plan was published in English in February 2018. The programme builds on the previous programmes 2013-14, and 2015-18 which are perceived to have been successful by the elected representatives of Amsterdam municipality and to have achieved their objectives. There are declining trends in obesity especially among children from lower socio-economic status backgrounds, a result that has not been matched significantly elsewhere in Europe or globally as far as we are aware. The decline in unhealthy weight is matched by significant improvements in healthy behaviour.

The municipality of Amsterdam is pleased with progress but recognises that 'there is more work to be done'[20]. It is reported that it is now the norm that people perceive that the city has a responsibility to help address childhood obesity, rather than it being just a parental responsibility. This also has a legal basis in the Youth Act[24] and the Public Health Act, as well as the International Convention on the Rights of the Child. The increasing recognition of the role of Amsterdam City has lead to the motto 'Time to get tough!'[20] for the next phase.

Twenty targets have been set for 2018-2021. These include among others:

- 3 interventions developed for a healthier transition from ages 10 to 14
- All schools and nurseries in Amsterdam to meet the AHWP guidelines and standards
- All schools where BMI is above the national average to be offered support or participate in the Jump-in schools programme
- In neighbourhoods where the programme operates, at least 20% of the target group to be reached through neighbourhood interventions
- All new developments are to be designed in accordance with the healthy city principles (*De beweegvriendelijke stad*) [22]
- Increase start-ups/businesses involved in the healthy Amsterdam business network from 12 to 48

- Amsterdam learns from, and develops with, at least four other major cities involved in whole system approaches to tackling inequalities and shares learning
- Has drawn up an agreement with Amsterdam-based higher education establishment for a course in Tackling Health Inequalities in Amsterdam
- Fewer children overweight, obese or severely obese – and severely obese children identified and being treated
- Fewer 2 and 3 year olds overweight or obese
- More parents of 0-2s at increased risk of overweight given support in adopting a healthy lifestyle
- Overweight or obese children have access to adequate, appropriate and high-quality services
- Aiming by 2033 to be in the top 5 healthiest cities in Europe, and the average BMI in Amsterdam at or lower than national level.

Initial conclusion:

The programme represents a best practice in addressing childhood overweight and obesity at municipal level, having a focus on the schools with greatest obesity, the neighbourhoods with greatest obesity, and citizens at greater risk of obesity (low socioeconomic status, limited education and non-Western ethnicity). It is also an important political attempt to shift the framing of the responsibility for addressing obesity from purely parental to a frame in which all parties in a city are responsible for creating a less obesogenic environment.

It is also a good practice in gaining political support for a focused programme which takes a health in all polices approach. The results appear to be unique in being able to report success in not only reducing childhood obesity in most age groups, but particular among lower socio-economic groups, and poorer neighbourhoods. The long-term perspective is useful to ensure cross-party support and realistic expectations, and quarterly monitoring and correction with research support help to keep the programme constantly on track.

Sources of funding/sponsors for project/policy

It is important to note that the initial programme was undertaken on a more limited scale without any additional funding from the Amsterdam Municipal budget, by seeking commitment and action from all departments to a centrally and politically agreed focus on childhood obesity. This was intentional and highlights that budget does not need to be the deciding factor so much as political and director level commitment and leadership, aligned with mechanisms to enable cross-departmental and multi-stakeholder action. Funding has however enabled a substantial expansion of the programme, and staff working in support of its aims.

From 2015, annual funding of €2.5 million has been assigned to the programme, with about a further €2.7 committed from National government and allocated by Amsterdam municipal authorities to specific projects within the overall programme.

References/ Studies/ Respondents

This case study was written up by Chris Brookes and Helena Korjonen of the UK Health Forum. It is based on documentation produced by the Amsterdam Healthy Weight Programme, information shared informally by Harry Rutter, work presented in the International Panel of Experts on Sustainable Food Systems and the Centre for Social Justice, as well as discussion and review by Karen den Hertog, Deputy Programme Manager at the Amsterdam Healthy Weight Programme.

References/ Studies/ Respondents

1. City of Amsterdam. Healthy Weight for All Children in Amsterdam in 2033: Summary of programme plan 2015-18 (Amsterdam Healthy Weight Programme). Unknown. https://www.amsterdam.nl/publish/pages/847273/summary_amsterdam_healthy_weight_programme.pdf (accessed 22 February 2018).
2. iPES Food. What makes urban food policy happen? Insights from five case studies. June 2017 2017. http://www.ipes-food.org/images/Reports/Cities_full.pdf (accessed 22 February 2018).
3. City of Amsterdam. Amsterdam wordt De Gezondste Stad voor Kinderen! 2018. https://www.amsterdam.nl/publish/pages/531358/mjp_aagg_deel_1_-_de_vrijblijvendheid_voorbij.pdf (accessed 8 March 2018).
4. Dahlgren G, Whitehead M. Policies and strategies to promote social equity in health: Institute for Future Studies, 1991.
5. M.-P. St-Onge. Sleep–obesity relation: underlying mechanisms and consequences for treatment. *Obesity Reviews* 2017; **18 (Suppl. 1), 34–39,**: 34–9,
.
6. U. Albrecht. The circadian clock, metabolism and obesity. *Obesity Reviews* 2017; **18 (Suppl. 1),**: 25–33,.
7. A. G. Dulloo J. L. Miles-Chan and J.P. Montani. Nutrition, movement and sleep behaviours: their interactions in pathways to obesity and cardiometabolic diseases. *Obesity Reviews* 2017; **18 (Suppl. 1)**.
8. Care 4 Obesity. Basismodel Ketenaanpak overgewicht en obesitas gepresenteerd in Apeldoorn. 2017. https://www.c4o-proeftuinen.nl/over-proeftuinen/nieuws/46-presentatie-basismodel (accessed 8th March 2018).
9. EPODE International Network. 2018. http://epodeinternationalnetwork.com/ (accessed 20 February 2018 2018).
10. thousanddays.org. https://thousanddays.org/the-issue/why-1000-days/ (accessed 22 February 2018).

11. City of Amsterdam. Amsterdam Healthy Weight Programme. 2018. https://www.amsterdam.nl/bestuur-organisatie/organisatie/sociaal/onderwijs-jeugd-zorg/zo-blijven-wij/amsterdam-healthy/ (accessed 22 February 2018).
12. City of Amsterdam. JumpIn website. 2018. https://www.amsterdam.nl/bestuur-organisatie/organisatie/sociaal/onderwijs-jeugd-zorg/zo-blijven-wij/scholenprogramma/ (accessed 22 February 2018).
13. Busch V, van Opdorp P, Broek J, Harmsen I. Bright spots, physical activity investments that work: JUMP-in: promoting physical activity and healthy nutrition at primary schools in Amsterdam. *Br J Sports Med* 2017.
14. Mechelen JSBdM, Mai JMC, Maartje MvS, Marcel FvdW, Lotte van D, Willem v. Effectiveness of JUMP-in, a Dutch primary school-based community intervention aimed at the promotion of physical activity. *Br J Sports Med* 2011; **45**: 1052-7.
15. de Meij J, van der Wal M, van Mechelen W. A Mixed Methods Process Evaluation of the Implementation of JUMP-in, a Multilevel School-Based Intervention Aimed at Physical Activity Promotion - Judith S. B. de Meij, Marcel F. van der Wal, Willem van Mechelen, Mai J. M. Chinapaw, 2013. *Health Promotion Practice* 2012; **14**(5).
16. The Netherlands Nutrition Centre. Wheel of 5. https://www.voedingscentrum.nl/nl/service/english.aspx (accessed March 9th 2018).
17. The Centre for Social Justice. Off the scales: Tackling England's Childhood Obesity Crisis. 2017. https://www.centreforsocialjustice.org.uk/core/wp-content/uploads/2017/12/CSJ-Off-The-Scales-Obesity-Report.pdf (accessed 22 February 2018).
18. City of Amsterdam. Amsterdam children are getting healthier. 2017. https://www.amsterdam.nl/publish/pages/847273/factsheet_amsterdam_children_are_getting_healthier.pdf (accessed 22 February 2018).
19. City of Amsterdam. Amsterdam will become the Healthiest City for Children Part 2 Review 2012-2017. 2018.

20. City of Amsterdam. Amsterdam will become the Healthiest City for Children Part 1 - Time to get Tough. 2018.
21. City of Amsterdam. Staat van gezond gewicht en leefstijl van Amsterdamse kinderen: Outcome monitor Amsterdamse Aanpak Gezond Gewicht 2017. 2017. https://www.amsterdam.nl/publish/library/93/outcome_monitor_aanpak_gezond_gewicht_2017.pdf (accessed 22 February 2018).
22. City of Amsterdam. De beweegvriendelijke stad 2017. https://www.kenniscentrumsport.nl/publicatie/?de-beweegvriendelijke-stad&kb_id=23035 (accessed 27 February 2018).
23. European Commission. Health Equity Pilot Project (HEPP). 2018. https://ec.europa.eu/health/social_determinants/projects/ep_funded_projects_en#fragment1.
24. Bosscher N. The decentralisation and transformation of the Dutch youth care system. 2014. http://nji.nl/nl/Publicaties-The-decentralisation-and-transformation-of-the-Dutch-youth-care-system.html (accessed 8th March 2018).

[BACK COVER]