

## APPENDIX ONE

### Considering the evidence: review of childhood obesity and sports provision for secondary and primary children

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## **Section 1      Prevalence of childhood obesity**

- 1.1      The sub-committee received evidence on the rates of childhood obesity and its prevalence amongst different segments of the local population. This is a national problem; 32.6 % of children in England are overweight or obese by year 6 and 38.9 % of Southwark's children are either overweight or obese by year 6.<sup>1</sup>
- 1.2      The National Health Survey for England suggests that the prevalence of childhood obesity is increasing in Southwark across all ages. Local measurements of Reception Year (4 – 5 years old) and Year 6 children (10 – 11 years old) confirm this: for the last three years<sup>2</sup> Southwark has had the highest obesity rates for Year 6 and the second highest for Year R for the last 2 years. The most recent Childhood Measurement Programme shows that Southwark has the highest levels of Reception Year obesity nationally. In Reception year pupils 14.8% were obese and a similar proportion (15.0%) were overweight. In year 6, one in four children (25.7%) was obese and 14.5% overweight.
- 1.3      Data sets were presented that indicated that as children move from reception to year 6 the percentage of overweight and obese children increases.
- 1.4      Boys in Southwark are more at risk than girls; at year six 38 % of girls are overweight or obese whereas 43 % of boys are overweight or obese.
- 1.5      Obesity is related to socio economic deprivation. Data sets by community council area were presented which show the link between obesity and social deprivation.

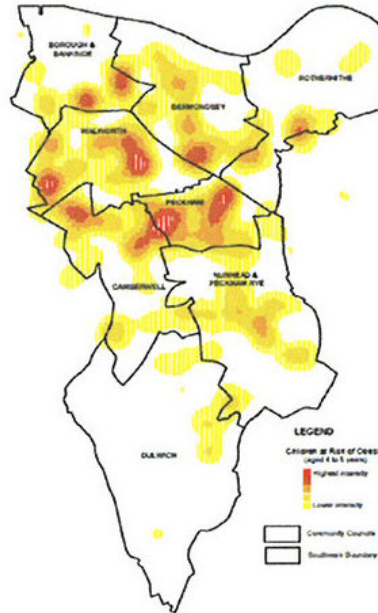
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<sup>1</sup> Prevalence of underweight, healthy weight, overweight and obese children, with associated 95% confidence intervals, by PCT and SHA, England, 2008/09

<sup>2</sup> (2006/07, 2007/08 and 2008/09)

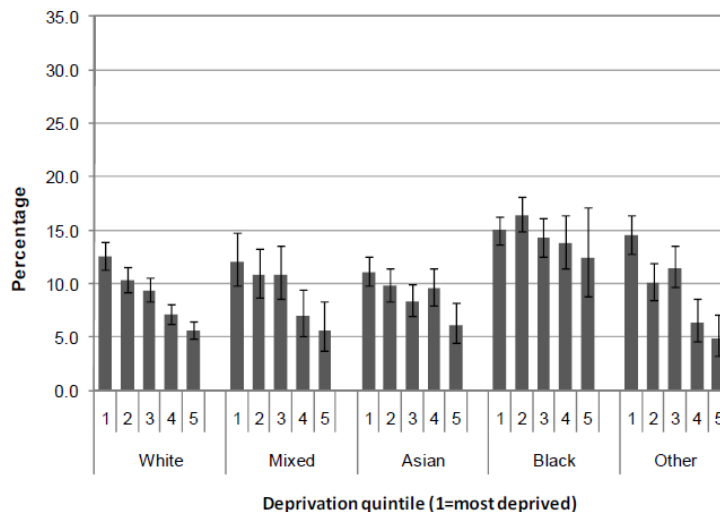
Figure 1 Southwark obesity hot spots

## Year 6 (10 – 11yrs)



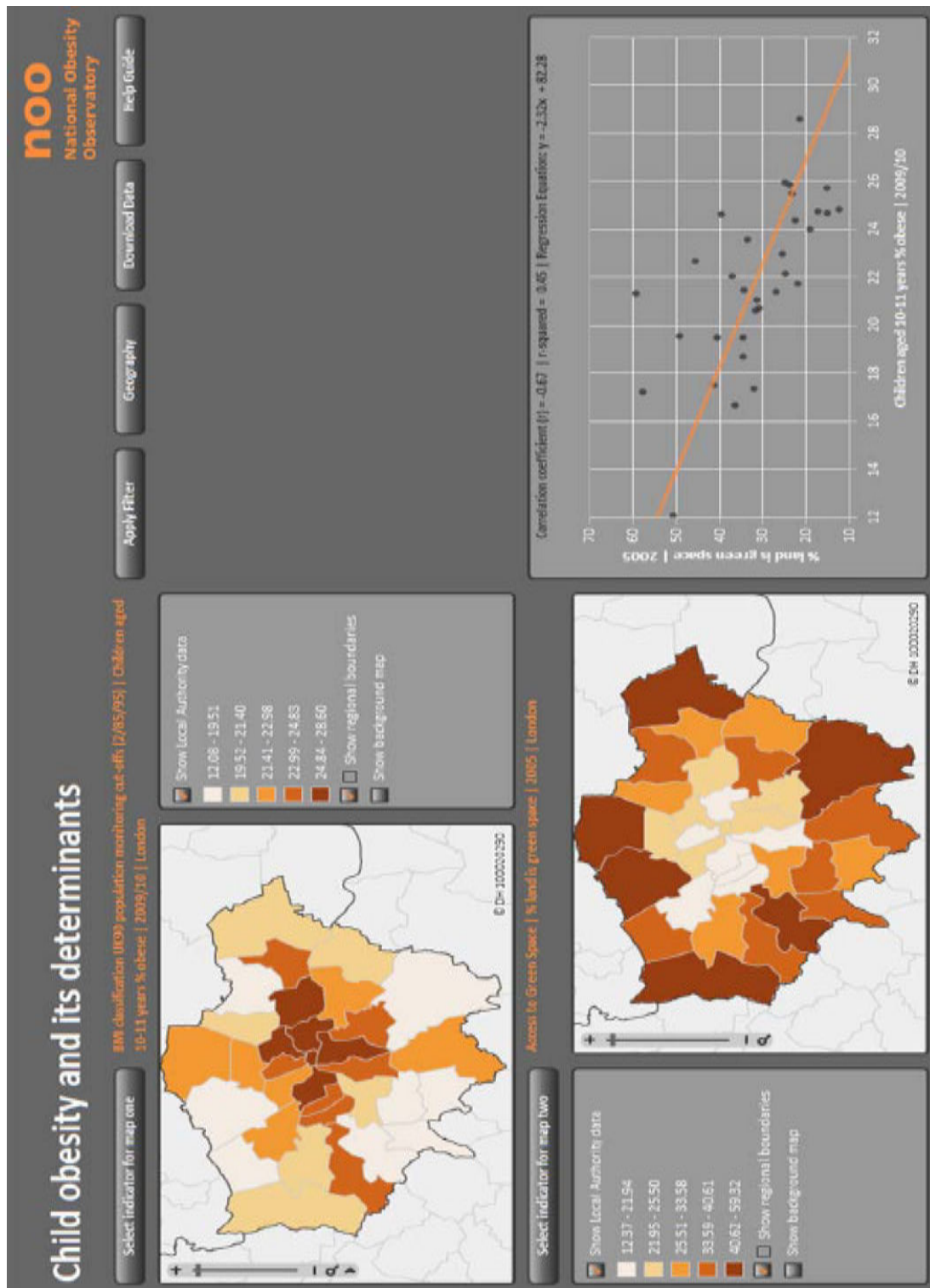
1.6 There is some association with ethnicity but deprivation is a much stronger indicator of population susceptibility.

Figure 2: Obesity prevalence among reception year girls by ethnic group and deprivation quintile, London 2008/09  
Original source: London Health Observatory



1.7 There is a correlation between access to open green space and obesity.

Figure 3 from 'A Tale of Two ObesCities' report highlighted the correlation between access to open green space and obesity



## Section 2 Costs

- 2.1 The GLA commissioned a special report on the cost of the obesity epidemic to gather evidence for 'Tipping the Scales'. This research showed that the current generation of obese children (aged 2-15) will cost the London economy £110.8 million per year (2007/08 prices) if they became obese adults. The report also particulars the impacts on health.

Figure 4: Complications of childhood obesity

Psychosocial	Poor self-esteem, anxiety, depression, eating disorders, social isolation, lower educational attainment
Neurological	Pseudotumor cerebri
Endocrine	Insulin resistance, type 2 diabetes, precocious puberty, polycystic ovaries (girls), hypogonadism (boys)
Cardiovascular	Dyslipidemia, hypertension, coagulopathy, chronic inflammation, endothelial dysfunction
Pulmonary	Sleep apnea, asthma, exercise intolerance
Gastrointestinal	Gstroesophageal reflux, steatohepatitis, gallstones, constipation
Renal	Glomerulosclerosis
Musculoskeletal	Slipped capital femoral epiphysis, Blount's disease, forearm fracture, back pain, flat feet

Source: 'Childhood obesity – The shape of things to come', Ludwig, D, New England Journal of Medicine, 357: 23, 2007 Reproduced in 'Tipping the scales'.

## Section 3 Causes

- 3.1 'A Tale of Two ObesCities' emphasised poverty as a route to obesity and identified four principal pathways; food, physical activity, health care and the lower quality provision of food and exercise in schools in poorer areas.
- 3.2 Officers presented information on NICE (National Institute for Health and Clinical Excellence) guidance and the Foresight report on what works for childhood obesity; both agree that the approaches must address environment, schools, workplaces and families with an emphasis on a multi-faceted, holistic approach. The 'obesogenic' environment must be addressed i.e. opportunities for physical activity encouraged (e.g. walking to school as part of the school transport plan; access to green space) and the proliferation of fast food outlets. Environmental factors operate by determining the availability and consumption of different foodstuffs and the levels of physical activity undertaken by populations
- 3.3 The Tipping the Scales report identified poor access to nutrient rich food as a cause and it was noted that London-wide most children are not eating their five a day<sup>3</sup> and more deprived communities had less access to fruit and vegetables. The overabundance and aggressive marketing of cheap, nutrient

<sup>3</sup> The Department of Health recommends eating five portions per day. 23 per cent of boys and 24 per cent of girls in London meet this. *Health Survey for England 2008: Volume 1: Physical activity and fitness*, NHS Information Centre, 2009

poor, calorie dense food in fast food outlets was identified as partially problematic.

- 3.4 This report found that poor neighbourhoods have fewer parks, green spaces and recreation centres and those that do exist are more likely to be neglected and have fewer facilities. Community safety and the fear of crime are often a deterrent to using outside local space. Furthermore the lack of cycling and walking routes hinder more active lifestyles in deprived localities.
- 3.5 The Tipping the Scales report highlighted evidence that physical activity levels are very low. They cited evidence from the 2008 Health Survey for England which found only 33 per cent of boys and 24 per cent of girls aged 2-15 in London participated in the recommended 60 minutes of moderate activity every day. These results are in line with the national average. ( pg 20)
- 3.6 One of the biggest risk factors is parental obesity. Obese mothers are ten times more likely to have obese girls and obese fathers six times more likely to have obese sons <sup>4</sup> Southwark Officers reported that locally maternal obesity is of concern and is a factor in poorer maternity outcomes and higher infant mortality.

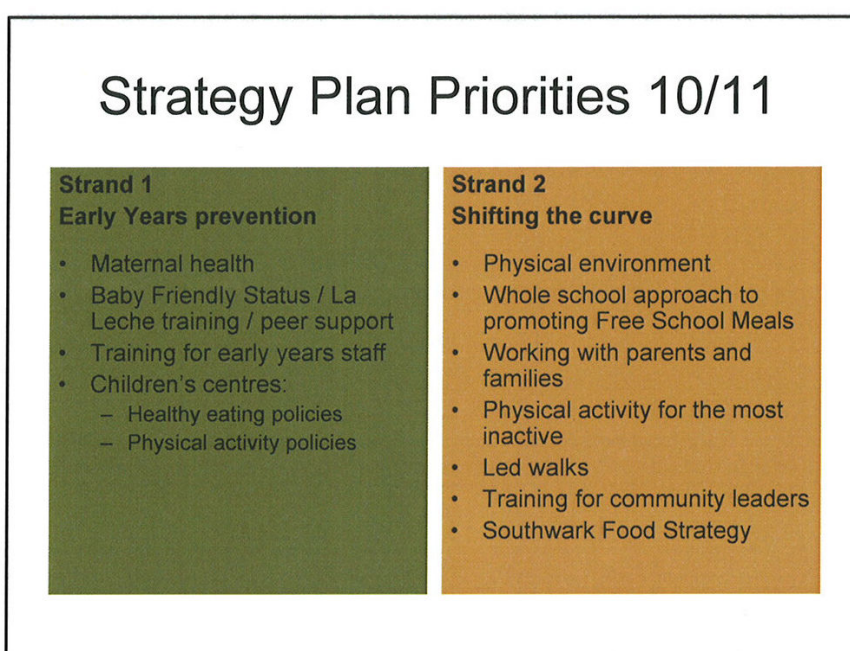
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<sup>4</sup> EarlyBird is a prospective cohort study of healthy children from the age of 5 years, which set out 10 years ago to address the three questions. It finds, counter-intuitively, that the average pre-pubertal child is no heavier now than he or she was 20-25 years ago when the children who contributed to the 1990 UK growth standards were measured. The mean BMI of children has risen substantially, but the median very little, suggesting that a sub-group of children has skewed the distribution but not altered its position. Who are these children? New data suggest that the rise in childhood obesity over the past 25y largely involves the daughters of obese mothers and the sons of obese fathers - but not the reverse.<sup>2</sup> The daughters of obese mothers have a 10-fold greater risk of obesity, and the sons of obese fathers six-fold, but parental obesity does not influence the BMI of the opposite-sex child. Being non-Mendelian, this gender-assortative pattern of transmission is more likely to be behavioural than genetic. It is well established by the age of 5y, but unaffected by birth weight. <http://www.earlybirddiabetes.org/obesity.php> The EarlyBird Diabetes Study

## Section 4 Solutions

### Southwark Strategy

- 4.1 Southwark has a Healthy Weight Strategy. This has four main strands; early intervention, shifting the curve (i.e. prevention at a population level), weight management and targeting populations at great risk of obesity. This is a multi agency plan which sets out the key areas of work. The priorities involve a range of settings and different professionals and communities. The strategy is informed by national guidance, best practice and evidence of what works. Officers reported that for interventions to be effective, they have to be multi-component (i.e. inputs to include nutrition, physical activity and mental health).



## Strategy Plan Priorities 10/11

### Strand 3

#### Targeting 'at risk'

- Training for at risk BME communities
- Training for providers of LD services
- Health checks for high risk groups
- Training for Primary care on brief interventions

### Strand 4

#### Weight management

- Intervention for families
- Weight management options for adults
- Training for frontline professionals

### International strategies

5.1 A 'whole community' approach, from France, was featured in the Tipping the Scale reports. EPODE ('Ensemble, Prévenons l'Obésité Des Enfants', or 'Together, Let's Prevent Childhood Obesity') programme has been running for many years across entire towns. The programme – which is part-funded by private sponsors – involves making a wide range of interventions, including:

- Educating children about healthy lifestyles and the consequences of obesity.
- Improving food in school cafeterias.
- Providing family breakfasts at schools.
- Cooking classes for children and parents.
- Employing sports educators and dieticians in schools.
- Building new sports facilities.
- Introducing walk to school groups.
- Encouraging GPs to identify all overweight children and refer them to a dietician.

5.2 In the first two towns where EPODE was introduced, Fleurbaix and Laventie, childhood obesity prevalence fell in 2000-2004 from 14 per cent to 9 per cent after increasing steadily for many years before that. In nearby towns, used for comparison, prevalence continued to rise and by 2004 was double the rate in Fleurbaix and Laventie. The report noted that all of the towns where this approach has been shown to be successful so far are relatively small; introducing it across a large city could prove to be more challenging



## Research evidence

- 5.3 The GLA report highlighted a range of national and international interventions that have demonstrated their value. The best value intervention was regulation of television advertising undertaken in Australia at £3.70 per day. Other cost effective interventions were LEAP (£50-150 QULY), a programme of interventions to increase physical activity, and MEND (£1,700 QULY), which Southwark has piloted. CATCH a school based programme to promote healthy food choices and physical activity, including classroom education, intensive PE lessons, healthier school food and parental involvement was also a cost effective intervention at US 900 per Quality Adjusted Life year.<sup>5</sup>

## Physical Activity and Sport

- 5.4 The NICE recommendations for increasing physical activity emphasise the need to improve the physical environment to encourage physical activity and promote evidence based behavior change. NICE has produced a detailed review of the evidence supporting the promotion of physical activity for children and young people<sup>6</sup>. The key recommendations relate to:

- Promoting the benefits of physical activity and encouraging participation at national and local levels
- Ensuring high-level strategic policy planning for children and young people supports the physical activity agenda
- Consultation with, and the active involvement of, children and young people
- The planning and provision of spaces, facilities and opportunities
- The need for a skilled workforce
- Promoting physically active and sustainable travel

- 5.5 Southwark has a Physical Activity Strategy. Overall the strategy seeks to increase sport and physical activity participation. Put simply, enabling more people to be more active, more often. It has six strategic themes

- Using physical activity for both the prevention and management of ill-health
- Maximizing the use of planning policy in providing for sport and physical activity
- Providing a network of appropriate places and spaces for sport and physical activity
- Improving access and choice for the whole population
- Building and maintaining an effective multi-agency delivery system for sport and physical activity

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<sup>5</sup> Summarized from 'Tipping the Scales which draws on their commissioned report on *Childhood obesity in London*, GLA Intelligence Unit, April 2011. Cost-effectiveness has been assessed in terms of the 'cost per Quality Adjusted Life Year' (QALY), a measure of how many additional years of life (adjusted for quality) are gained by the person receiving the intervention. Australian studies use a similar measure of 'Disability Adjusted Life Year' (DALY). The National Institute for Health and Clinical Excellence determines an intervention is cost-effective if it costs less than £20,000 per QALY.

<sup>6</sup> [PH17 Promoting physical activity for children and young people: guidance](#) Jan 2009

- Maximizing the use of London 2012 to promote physical activity
- 5.6 Leisure centres are currently undergoing major refurbishment: there is investment spread across all the council owned facilities
  - 5.7 Officers highlighted three locally effective interventions. MEND (Mind, Exercise, Do it) was part of a national trial and had been effective at decreasing children's BMI (Body Mass Index) and reducing waist circumference. The 'Superstars Challenge' had been similarly effective. Lastly the Bacon's School Partnership has seen a year on year increase in physical activity.
  - 5.8 Public health, in partnership with the leisure and wellbeing team, successfully delivered the MEND programme (family based weight management intervention) this family based intervention for 7-13 year olds who are overweight or obese is documented to be an effective weight management programme for children. Approximately 150 families have graduated from a MEND programme in Southwark over the last 5 years. Without mainstream funding the extent of delivery varies year to year. In 2011/12 Jubilee Halls charity ran a programme in the summer term. The PCT has agreed to run a further two programmes starting January and May. Benefits to children attending generally include reduced BMI and waist measurements, as well as increased knowledge and improved behaviour on both physical activity and healthy eating scores. Parents are encouraged to make changes as a family as well as supporting the individual child
  - 5.9 'Southwark Superstars Challenge' is a pilot project. So far six schools with the highest obesity rates have been recruited to the programme. The programme introduces intensive physical activity in yr 5 (age 9-10). The 10 week programme runs three times a week for 45 - 50 minutes of physical activity and 10 minutes of nutrition education. At the start and end of the programme children do fitness tests and have their measurements taken. School staff and heads have been very enthusiastic about the programme; impact to date has been highly successful
  - 5.10 Bacon's College had a physical education and school sports partnership team. In seven years the partnership ensured schools progressed from 23% of young people participating in two hours' physical education and school sport a week to over 90%. The college has developed a Health and Wellbeing programme that integrates some of the learning from MEND and promotes "health literacy". The programme's emphasis is on working with schools to increase the coaching skills of teachers in PE and introducing the Health and Wellbeing programme in a sustainable way.
  - 5.11 Bacon's College presented evidence about their programme promoting Health Literacy. This is a relatively new concept in health promotion. It is used as a composite term to describe a range of outcomes to health education and communication activities. From this perspective, health education is directed towards improving health literacy. Through the 'Health and Wellbeing Programme' they look to promote renewed attention to the role of health education, physical education and communication in health promotion, within the context of the 'health and wellbeing' of the family unit. The 'Health and Wellbeing Programme' is designed to use simple health messages to bring about a sustainable change in attitude to physical activity

and ensure families have the ability to make educated decisions on eating habits. See appendix 2 for leaflet

- 5.12 The funding for the School Sports Coordination came to an end in March 2011, but there may be some residual capacity to take forward some of the work; particularly around sports coaching for primary schools and the health literacy programme.
- 5.13 The report submitted by Bacon's College made some key points about exercise and obesity:
- Promoting exercise is a good idea, but if you want to tackle the obesity epidemic it is not the solution. Weight loss is not a key benefit from exercise. Foregoing a small sandwich was as effective as a one-hour run.
  - You cannot exercise your way out of the obesity epidemic. It would take an enormous intervention in physical exercise.
  - It is important for policy makers to realise that if they want to promote weight loss in overweight and obese people, the most effective way is through healthy eating and diets.
  - However, the report says, exercise protects against heart disease, type 2 diabetes, osteoporosis and high blood pressure.
- 5.14 Studies show that those people who exercise regularly are less at risk of diabetes, heart disease and high blood pressure; they are thus more likely to be 'metabolically healthy'. Metabolic fitness can be defined in terms of how the human body responds to the hormone insulin. Healthy bodies tend to have excellent glucose tolerance, normal blood pressures, and heart-healthy blood lipid profiles.<sup>7</sup>
- 5.15 There is only very limited data available for children, however the studies available are consistent with the findings in adults, namely that higher levels of activity and fitness are associated with reduced risk of metabolic syndrome.<sup>8</sup> Metabolic syndrome is a name for a group of risk factors that occur together and increase the risk of coronary artery disease, stroke and type 2 diabetes. It is often associated with extra weight, particularly around the middle and upper parts of the body

## Olympics

- 5.16 The Olympics work in Southwark that focuses specifically on young people includes Young persons volunteering; Cultural offer for young people (including dance); Get Set network to support communications in schools; Sports related engagement opportunities; participation with regional initiatives such as Sportivate, London Youth Games, Us Girls; Coaching qualifications for young people with disabilities; Social networking communications; and sports outreach to youth groups.

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<sup>7</sup> <http://www.thinkmuscle.com/articles/gaesser/obesity.htm>

<sup>8</sup> [http://www.health.gov/PAguidelines/Report/G3\\_metabolic.aspx#\\_Toc199933636](http://www.health.gov/PAguidelines/Report/G3_metabolic.aspx#_Toc199933636)

- 5.17 In addition to this activity £2M pounds has been invested in capital projects to promote activity and sport including refurbishment/development of the following sites: Bethwin Sports, Burgess Park BMX Track, Camberwell Leisure Centre Sports Hall, Herne Hill Velodrome, Homestall Road Sports Ground Development, Outdoor disability multi-sports court, Peckham Pulse Pool Hoist, Peckham Rye Pitches & changing rooms, Southwark Park Sports complex, Trinity College Centre Outdoor sports area.
- 5.18 Other work that will support the wider population to be more active around the Olympics includes development of the online Get Active London directory, active travel promotions, Change4Life campaign, and potentially follow-on from the Health Factor Challenge which ran in 2011.

### **Schools**

- 5.19 Southwark's recent commitment to universal free school meals will be part of a whole school approach to reducing childhood obesity. The 'whole school approach' emphasises engaging with pupils, teachers and parents, embedding healthy eating in the curriculum, encouraging healthy behaviour in and out of school and linking transports plans with the physical environment and the food strategy
- 5.20 The 'A Tale of Two ObesCities' report advocated a universal school meals programme providing free, nutritious and tasty school meals. It called for linking this to nutrition education and the engagement of parents in school food programmes. It cited evidence from Hull that this programme had positive impacts on the children's food health choices and wellbeing.
- 5.21 The National Child Measurement Programme has been running for four years, whereby pupils in reception and Year Six are measured. From this, school nurses follow up children of very unhealthy weight, providing advice and sign posting to parents

### **Nutrition**

- 5.22 The 'A Tale of Two ObesCities' report advocated redefining food safety standards to reflect current threats to health and using boroughs' Environmental Health Officers to promote healthier eating. There were recommendations to use planning instruments to restrict fast food outlets and promote supermarkets, groceries, and food cooperatives that promote fruit, vegetables and other healthy food.
- 5.23 The Tipping the Scales report noted the importance of nutritious food and access to quality ingredients. The report noted the while there is little evidence that food growing projects, on their own, influence children's diets, but it has been shown that linking food growing to nutritional education and changes in school meals is effective. ( page 40 )
- 5.24 Southwark is considering developing a fast food outlet strategy aimed at limiting the saturation by reducing the number of new outlets in certain areas and promoting healthier menus at existing outlets and there is some ongoing consultation work as part of the Peckham and Nunhead Area Action Plan.

## **The physical environment**

- 5.25 The 'A Tale of Two ObesCities' report advocated increasing access and the safety of places, such as parks, where people can be physically active. They stated that urban agriculture is a sustainable and health promoting use of green space. The report recommended that local authorities promote cycling and walk ability, particularly in areas of deprivation. It was recommended that regional and local Housing Strategies should incorporate active design principles.
- 5.26 Officers gave evidence-based recommendations on how to improve the physical environment to encourage physical activity.<sup>9</sup> They include:
- Ensure planning applications for new developments always prioritise the need for people (including those whose mobility is impaired) to be physically active as a routine part of their daily life.
  - Ensure pedestrians, cyclists and users of other modes of transport that involve physical activity are given the highest priority when developing or maintaining streets and roads.
  - Plan and provide a comprehensive network of routes for walking, cycling and using other modes of transport involving physical activity.
  - Ensure public open spaces and public paths can be reached on foot, by bicycle and using other modes of transport involving physical activity.

## **Population targeted work**

- 5.27 Online obesity care pathways for adults and children are being promoted to GPs, practice nurses, school nurses, health visitors and child development workers. Pathways ensure that up-to-date clinical guidance is embedded as well as local opportunities and contacts for interventions and self help.
- 5.28 The council is currently also working with community members (community volunteers) in Peckham and Faraday who will facilitate the gathering of information from their peers on local social issues as well as possible solutions. One area that they may potentially explore in this pilot could be around child healthy eating/weight as data shows that this is a prevalent issue in this area particularly around the BME groups. The exact focus is yet to be decided by the community through their discussions.

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<sup>9</sup> [PH8 Physical activity and the environment: guidance](#) Jan 2008

## **Section 5 Summary of consultations with southwark residents and partners**

### **Evidence from the Council Assembly Themed Debate: Sports and Young People**

#### **Investment in facilities**

- 6.1 The outdoor gym at Burgess Park was hugely popular with residents, particularly young people. Many people praised it as a wonderful idea as it was free, accessible and brought people together. There were many calls for more outdoor gyms. Planned investment in the BMX Park, and new cricket and football pitches, were all welcomed. There was a call for refurbishment of Peckham Pulse. There was a request for the Camberwell pool to be extended and a diving pool installed.

#### **Diversity of sports provision for a diverse population**

- 6.2 Many people said that there should be more of a range of provision; particularly for girls and that there was too much emphasis on football. A number of residents commented that girls were not participating enough in sports. Residents wanted to know what the council was doing to involve disabled people in sports. Muslim women requested female guards at women only swimming sessions, and pointed out that without these they would not use the provision.

#### **Safety and cost of travel and using facilities**

- 6.3 Residents highlighted feeling safe and being able to travel confidently and cheaply at night as important, particularly for young people. They asked officers to consider that when providing and designing facilities and pay particular consideration to safety when travelling at night

#### **The need for coordinated information**

- 6.4 Residents wanted more information on provision. The role and importance of voluntary clubs and the support that they need to thrive Clubs wanted a variety of support, including assistance with capacity building to access funds, assisting with partnership work with schools, and recognition and appreciation of the success that many young people had achieved and the good work of clubs in enabling this.

#### **The added value of sport**

- 6.5 Young people, adults and clubs all emphasised the health, social and psychological benefits of sport, saying that it promoted maturity, self discipline and self esteem and contributed to social cohesion.

#### **Evidence given by the sub-committee's education representatives**

- 6.6 It was reported that one setting had to do lots of work to improve provision of nursery meals because the outside caterer providing lunches prepared the food hours in advance. The lunches were often insipid tasting and then children chose the tastier bits, which may not be the healthiest parts of the meal. Moreover sometimes the food at delivery point had little resemblance to the menu description. Moving the provision in-house and concentrating on

the food at delivery point greatly increased the nutritional content and children's satisfaction.

- 6.7 The majority of primary schools prepare meals on site; either with in-house staff or external caterers. Three schools have meals produced off site, by other local schools.
- 6.8 There was concern that responsibility for school meal provision has now moved to the governors and that it might not be realistic for them to adequately monitor this.
- 6.9 The head teacher representative commented that weight data for 3 year olds would be helpful. Officers commented that 4 years ago the government started to require that children are measured at reception and year 6. This is a national programme and enables comparisons to be made. The potential for undertaking a local weighing programme using school nurses was discussed by the sub-committee.
- 6.10 Kintore Way's children's centre had offered courses on cooking, shopping and nutrition, but it had a very low take up by parents and carers. However when much of the course was rebranded, and a professional chef employed to deliver the content, parents found this much more appealing. Making the course more aspirational proved very effective.
- 6.11 There was concern that school recreation time was used as a time to punish children and that this had an adverse impact on activity levels. Alongside this schools have moved away from an afternoon of sports. The national curriculum changed the priorities of schools meaning that sports provision is now much more the choice of heads.