

The Allan Brooking NHS Travel Fellowship Report to the Board of Trustees

**Case study report of policies, identification and prevention approaches
to childhood obesity:
the Los Angeles model**

Susan Elden, Specialist Trainee in Public Health, North Yorkshire and York
PCT, Directorate of Public Health
November 23, 2007

Purpose

To present the learning objectives, key findings and recommendations on the policies and approaches to childhood obesity to be shared with NYYPCT Public Health team, Allan Brooking Fellowship Board of Trustees and wider NHS and public health forums.

Background Summary

Childhood obesity is a leading public health challenge in the UK (Choosing Health, 2004, Every Child Matters, 2004), the US (Healthy People 2010, 2000) and indeed worldwide (World Health Organisation, 2004). The purpose of this study was to consider these challenges from a comparative perspective, exploring the similarities and differences between UK and US policy and practice.

In Spring 2007 I undertook research in Los Angeles. The bulk of this work was desk-based research at University of California, Los Angeles (UCLA). It also included attending meetings with a range of stakeholders in the area. Relevant stakeholders included Suzanne Bogert, Regional Nutrition Network, Project Director, County of Los Angeles Public Health Department; Lorraine Quan, LAUSD Nutrition Network Advisor, School based intervention approaches Los Angeles Unified School Districts, Sheetal Monga: Los Angeles Collaborative for Healthy Active Children; Dr. Charlotte Neumann, Community Health Sciences; Dr. May Wang, Centre for Weight and Health, UCLA School of Public Health. Research seminars at UCLA on various aspects of childhood obesity were also attended such as overweight and age of menarche, and food retail outlets and deprivation.

Another aspect of this work included attending community-based childhood obesity interventions. This included the Los Angeles Collaborative for Healthy Active Children Meetings, various school-based activity sessions, children's

cooking and healthy eating sessions, and neighbourhood health fairs in areas of deprivation.

The focus of the research was on the three following areas:

1. Policy approaches: including legislative, financial, regional/state and national drivers and guidance.
2. Identification approaches: including the measurement of bodies through body mass index, forecasting and predicting future trends.
3. Prevention approaches: physical activity, nutrition, and research into the evidence of effectiveness.

Activities summary:

- Literature review of childhood obesity national policy and strategies, including relevant indicators and targets.
- Attending stakeholder meetings to gain a better understanding of the partnership context amongst health professionals, communities/schools and participants.
- Observing strategic overview of childhood in the context of wider adolescent health promotion and health disparities.
- Fieldwork at area schools or intervention sites.
- Networking with health professionals or colleagues who are developing interventions.

(See Appendix 1 for task chart)

Summary of findings:

Policy

Targets and Indicators

Suzanne Bogert and Jean Tremaine at the Los Angeles Department of Public Health provided invaluable information on the policy drivers and main targets in relation to childhood obesity. These included the approach to policy setting, the indicators and targets, and the local accountability structures for monitoring performance and evaluation progress towards indicators.

The approach to local policy setting is largely influenced by state and national agendas and targets. The national (federal) government targets come from the report Healthy People 2010 (Department of Health and Human Services). The specific obesity targets are the following:

- Goal 1: Increase daily physical activity among children and adolescents.
- Goal 2: Reduce the amount of time kids spend watching television, video games, and the Internet.
- Goal 3: Decrease the consumption of energy-dense, high-sugar/high-fat foods like soda, ice cream, junk food, and fast food.
- Goal 4: Increase the consumption of nutritious foods like fruits, vegetables, whole grains, and skim milk.

- Goal 5: Create social, monetary, and policy-driven incentives that reinforce long-term environmental and behavioral change.

As a State, California has considerable flexibility in how this is achieved. Its specific childhood obesity indicators are outlined in the California Obesity Prevention Plan: A Vision for Tomorrow, Strategic Actions for Today. The overarching goals from this document are the following:

- Goal 1: Ensure state level leadership and coordination that reaches into communities across the state.
- Goal 2: Create a state wide public education campaign that frames healthy eating and active living as California living.
- Goal 3: Support local assistance grants and implement multi-sectoral policy strategies to create healthy eating and active living community environments.
- Goal 4: Create and implement a state wide tracking and evaluation system.

Other methods such as state-wide childhood obesity “report cards” have been introduced to offer a comparison and method of rating how states are progressing toward reducing childhood obesity. These are popular and used in several US states however, there is no national agreement on the criteria in which performance is monitored and how to compare against other areas. One of my key contacts, Sheetal Monga had responsibility for coordinating specific programmes with a community-based focus, such as ethnic and faith groups. These included African-American 5-a-day programmes; “Promotores” (Latino-Community Development Workers) physical activities, and population and faith-based approaches on prevention. Local evaluation is often focussed on process outcomes of methods to reach target populations that have higher rates of childhood obesity.

Legislation aspects of childhood obesity policy are wide and varied. The biggest issues discussed in my meetings at UCLA and the Public Health Department were the voluntary elimination of trans-fats in fast food restaurants, the Federal Food Stamps programme which provides nutritional assistance to 2 million low income California families which was recently revised to restrict those who qualified for benefits. The 2007 Farm Bill was seen by many as a key link in chain of childhood obesity as the over production and subsidising of corn, wheat and soy in the production of high fat (soy) and high sugar (corn syrup) additives to most processed foods.

Barriers to targets

Several barriers were identified by staff in the Los Angeles Public Health Department on progress toward achieving these targets. First, because the nature of the indicators was such that they did not have specifically measurable objectives, it is often difficult to monitor and demonstrate success and progress towards achieving, or explaining when objectives have actually moved away from their targets.

Second, the indicators do not include measures of inequalities. In many cases, objectives have moved further from the targets as rates of childhood obesity rise within particular sub-populations and geographical areas of Los Angeles, particularly low income African-American and Latino areas.

Finally, there are difficulties in actual implementation as main funding sources are ring fenced for specific areas of intervention, such as increasing fruit and vegetable consumption or increasing physical activity. There are concerns that the source of the funding, which comes largely from the USDA (United States Department of Agriculture), may not be able to address some of the root causes of obesity. This is because of their ties to the agriculture industry and the practice of adding corn syrup and other products to enhance food.

Main Findings

It is clear that there are substantial similarities between the UK and the US in terms of the problems identified, although there are differences in terms of how they are addressed. California provides only one state-perspective, albeit a significant one. Further work would be needed to look at the variation between states and their implementation of federal level programmes.

California's practices can be particularly highlighted in the following areas:

- The use of innovative approaches in addressing wider obesity environmental issues including incentives to reduce and eliminate trans-fats from popular fast food restaurants.
- Communication networks and e-groups about upcoming legislation and which elected members of the national, state and local politicians are supporting agendas to reduce childhood obesity.
- Programmes are designed to address inequalities as they are targeted toward disadvantaged communities (income at or below 185% of the federal poverty line). However, there is wide variation within neighbourhoods and regions in the greater Los Angeles area and addressing the "gap" or the inequality issue within childhood obesity is a large barrier.
- Services that are designed to support individuals often require insurance or healthcare provision. Some areas of Los Angeles have populations where over 50% are uninsured or under-insured and therefore would not qualify for service provision for issues related to childhood obesity management or treatment.

Summary of findings: Identification

In my meetings at UCLA, Los Angeles Public Health Department, and with the school district nutrition coordinator, I gathered information on how childhood obesity is identified and measured in individual children and how this is used as a composite score to estimate the prevalence of childhood obesity.

In the UK, BMI (body mass index) data is collected through a nationally-based surveillance programme where the height and weight measurement of reception and Year 6 are collected annually. In Los Angeles, there is no such local, state, or nationally based programme. This is collected in various different methods. BMI measurement is collected in many of the private insurance HMO (Health Maintenance Organisation) providers. Kaiser Permanente, and Blue Cross have over 17 million members in the state of California, they collect BMI measurements which are incorporated into their electronic databases. This provides a greater estimate of the childhood obesity prevalence; however, staff at the Public Health Department highlighted potential drawbacks to this approach. Namely, it only covers those insured members and could therefore underestimate the prevalence of childhood obesity, if those who are uninsured or covered by other HMOs have higher rates of obesity.

Other methods of measuring BMI include in Los Angeles are through pilot programmes in schools. These often use “fitnessgram” measurements which measure body composition using skinfold measurement on various sites of the body. This is seen to be more accurate but is not used as often.

Main findings

There is no comprehensive surveillance system of overweight and obesity measurement in children in Los Angeles or the State of California. This is primarily because it is not been accepted or recommended through the schools. It is not feasible to collect this through the primary care setting as there is no overall systematic approach as not all HMOs collect this data and the uninsured are not monitored.

One interesting finding of childhood obesity prevalence measures is the classification system. In the US, ethnic minority status information is collected on health data and classifications are made and comparisons offered amongst different ethnic groups. In Los Angeles, the rates of childhood obesity are higher in Latino and African American population than in the White. Therefore many of the intervention approaches incorporate language needs (bilingual and multi-lingual) as well as culturally and faith specific initiatives.

Although the American Centers for Disease Control (CDC) bases recommendations on BMI. Most of the actual measuring and monitoring that happens within the Los Angeles Unified school districts is based on the Fitnessgram. There may not be consistency of measurement across schools. It is also difficult to make wider comparisons within the state, as not all schools use this and also making state to state comparisons.

Much research through UCLA and the RAND Corporation is looking at forecasting and predicting future trends in obesity through BMI measurements. I attended a UCLA seminar “Dynamics of Overweight and Age of Menarche” which explored levels of stress in early childhood and the effect on BMI. This research found that early exposures to disadvantage were

associated with higher BMI and that higher BMI is associated with earlier age of menarche.

Summary of findings: Prevention approaches

This was perhaps the most interesting and useful aspect of the project. I was able to see the actual interventions and implementation of prevention approaches in school and community settings. I attended prevention approaches at the Boyle Heights health fair, the Westwood Public Library (youth and teen summer school sessions) and observed demonstration approaches with “Total Body in 10” and “Critical Mass” community physical activity and cycling events.

Suzanne Bogert stressed that this is where many key elements public health delivery are focussed. She stressed that the majority of children and young people are active, eat healthily and are not overweight and obese. Interventions are directed toward continuing this positive aspect and promoting health as a social norm rather than stigmatising or isolating those individuals who may be obese or overweight. Additionally, she highlighted that the most effective approach to obesity in children is to maintain prevention as the focal point. Although it is becoming more common, treatment approaches to childhood obesity do not often use methods of drug treatments or gastric bypass. Evidence suggests that prevention approaches in childhood and early adulthood have benefits for later life with lower rates of morbidity and mortality.

The Boyle Heights “Live Healthy” Fayre was an excellent opportunity to see the implementation of a community based health event. This predominantly Latino community used community development “Promotores”, activity and youth leaders, and locally elected members to deliver messages and offer services on the prevention of childhood obesity through nutrition and physical activity. Politicians discussed campaigning for better recreation areas and improved school meals for children. It was also a chance to see the interaction of children with the physical activity interventions (cultural dance, and street games) and the family based interventions (meal planning, shopping for healthy foods and sampling new vegetables). The education sessions, workshops and demonstrations were all given in Spanish and all incorporated culture specific foods such as chilis, nopal (cactus) and low fat tortillas.

Main Findings

Many of the approaches and interventions for childhood obesity use a school based approach to physical activity and nutrition. A key success in the approach to prevention was the 2005 State Bill of banning of junk food and soda from all California public schools. This was seen as a major achievement and a model for other states.

Another example of a successful approach to prevention is through the Los Angeles Collaborative for Healthy Active Children. This collaboration is a forum of educators, practitioners, community activists and policy makers that meet quarterly to review strategies and update progress in areas of childhood obesity prevention. Sheetal Monga felt that one key area of success for this was the e-forum which allows members to post messages, ask questions, and share information. She felt some of the major barriers were the duplication of activities across areas and well meaning provision of physical activity and nutrition that is not evidenced based or has shown to be ineffective, thereby not resulting in a good use of resources. The e-forum addresses the issue of duplication so that work is shared amongst members and the grant giving element addresses the need to streamline funding so that only recommended and evidence based interventions receive funding.

Limitations

Contact with some key organisations, notably RAND, was not obtained to the degree originally envisaged. The programme was due to be piloted in various schools the following autumn so there was not the opportunity to observe the actual implementation as originally hoped. Changing responsibilities and personnel meant that some initial contacts were unavailable. The project therefore took on a more literature-based and observational focus than originally intended.

This change, however, was useful for two reasons. First, because I was able to spend time reviewing the evidence base and literature, I gained an appreciation for the real difficulty in demonstrating an overall effect from any intervention to prevent or reduce childhood obesity. And I also gained a sense from systematic reviews, well conducted community based interventions, what approaches do show effectiveness. The media continually highlights the “epidemic” of childhood obesity and my experience of working in a PCT meant that there can be pressure from schools, politicians, and other local groups to address this epidemic, regardless of the evidence base or the evaluation of effectiveness of schemes.

Secondly, by observing the interventions themselves in the schools and community settings, I was able to see first hand some of the real challenges to tackling childhood obesity. This included multiple fast food restaurants located next to schools, primarily in low income areas. The advertising, marketing and promotion of food and sodas in public libraries, parks and recreation centres, was also a striking example of the frequency and environments in which children and young people have triggers and reminders for eating and drinking high caloric, high sugar foods.

As noted above, there are widespread variations across the states in their implementation of federal-level programmes. California is the most populous and wealthy state in the USA, but this obscures widespread inequalities in income and access to health-related services such as healthy food, and opportunities for recreation and exercise. Los Angeles is a particularly striking

example of these inequalities. Further research could look at a range of sites within a single state, or a number of states across the country.

Dissemination

A co-written paper (with Dr Rachel Colls of Durham University) has been submitted and is under review by the journal *Health and Place*.

I attended the Association of American Geographers Conference in San Francisco where the audit of BMI surveillance from North Tees PCT was presented under the title “Materialising Children's Bodies: Body Mass Index (BMI) and the practices of measuring”.

I am working with the childhood obesity lead for North Yorkshire and York PCT and the public health intelligence team. This work has provided a greater understanding and ideas the following developments:

- The demand for childhood BMI data and its use in mapping and forecasting future health needs and associations with morbidity, mortality and life expectancy.
- Addressing sub-population aspects of childhood obesity inequalities, puberty, ethnic minorities, and the ability to
- Behavioural models and approaches to childhood obesity such as social marketing, and the tobacco model of behavioural approach of “changing social norms”.

Acknowledgements

I would like to thank Dr. Toks Sangowawa, Director of Public Health for North Tees PCT for his guidance and encouragement in developing the childhood obesity agenda during my time working for North Tees PCT and his encouragement disseminate, share and learn from the wider lessons in childhood obesity.

I would like to thank Dr. Mike Robinson, Director of Public Health Training for Yorkshire and the Humber, for his support in gaining approval for Out of Programme Experience with the Yorkshire Deanery and his support with making contact with obesity leads in the Yorkshire area.

Finally, I wish to thank the Above and Beyond Charities and the Committee for the Allan Brooking NHS Travel Fellowship. I am grateful for their financial support of £1500 which provided me with support for my travel and accommodation needs during my time in Los Angeles.

APPENDIX 1

Tasks:	2/4	9/4	16/4	23/4	30/4	21/5	28/5	4/6	11/6
1. Contact key individuals at UCLA, LA Public Health Dept and RAND	X	X			X				
2. Introduction meetings with stakeholders			X		X		X		X
3. Attend relevant strategic, operational meetings and conferences						X	X	X	X
4. Conduct Literature Review				X	X				
5. Explore possible journal publications						X	X		
6. Explore forums for dissemination in UK settings						X		X	X