Obesity: Tackling the Problem at a Community Level

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INTRODUCTION

In 1996 the International Obesity Task Force was set up with the remit of monitoring and informing world health officials and governments about the escalating rates of childhood obesity, evaluating various aspects of financial costs associated with obesity and also of devising obesity prevention and treatment programmes, along with providing educational information and training resources for health care professionals. In 2003 the WHO report into diet, nutrition and prevention of chronic diseases identified obesity as a world-wide epidemic, which it attributed to the increased consumption of foods high in sugars and saturated fats, in conjunction with a reduction in physical exercise (WHO, 2003).

The prevalence of obesity in England has increased dramatically over the past 20 years and is now nine and eleven percent in men and women aged 16 to 24 years through to 28 percent and 29 percent in those aged 55 to 64 years (Department of Health, 2002a). The issue of overweight and obesity is important as both are associated with higher risks of having Type 2 diabetes, cardiovascular disease, hypertension, stroke, osteoarthritis and certain forms of cancer. Coronary heart disease and cancers are the two leading causes of morbidity and mortality in England.

Reasons for the increased levels of obesity seen in many populations are fairly clear. Whilst caloric consumption has steadily increased through the consumption of easily available, inexpensive, energy-dense foods, served in large portions, daily physical activity has significantly declined. Reasons for this include an increased reliance on cars, increased numbers of sedentary jobs and the proliferation and increased use of modern technology (video games, television, computers).

Interventions to Address Obesity

There are a number of options for addressing the problem of obesity, and these include primary and secondary prevention activities. Primary prevention options instigated at government level are seen in government policies targeting the whole population through, for example, transport, food, education, advertising, and awareness raising. Whilst more local initiatives embrace activities around diet and exercise targeted at at-risk sectors of the population, such as people who are in a vulnerable period of their life (mid-childhood, adolescence, pregnancy, menopause) or those who belong to ethnic and socio-economic groups at greater risk of developing obesity. At a secondary prevention level community initiatives provide diet and exercise programmes for already overweight/obese community members, often with co-morbidities, whilst medical interventions to manage the problem are prescribed through the health care system. Whilst primary prevention is a relatively new area in the field of obesity, it is one that could play a fundamental role in controlling the spread of this condition. Its role is made more important by the fact that there is no definitive, long-lasting treatment for obesity. In 2000 the WHO set the main targets for a preventive programme for obesity 'to stabilise the level of obesity in the population, to reduce the incidence of new cases, and, eventually, to reduce the prevalence of obesity' (WHO, 2000). However health promotion campaigns targeting obesity need to be aware, and take account, of the impact of social determinants of health during the whole life course of an individual (Power et al., 2003; Langenberg et al., 2003). This paper outlines a number of local community interventions, provided through a national community-led programme to address inequalities, and considers their contribution to the prevention or management of obesity within such communities.

Tackling Obesity Using a Community Led Approach

The National Strategy for Neighbourhood Renewal, commissioned in September 1998, was established to address inequality and to narrow the gap in outcomes between deprived areas and the rest, by tackling the adverse conditions seen in poor neighbourhoods. Working from a grassroots level, it aims to tackle those factors identified in both the Black (1988) and Acheson (1997) reports as contributors to inequalities, that is, to improve education and employment opportunities, to provide safer communities and decent housing, to develop a greater sense of community, and to improve the physical and mental health of residents.

Under the Neighbourhood Renewal Strategy two billion pounds was allocated to 39 areas across England, the New Deal for Communities (NDC) areas in 1998/1999 to address problems associated with poor health, education, and housing, limited employment opportunities and unsafe environments over a ten year period. These communities have total and average populations respectively of 417,000 and 11,000. Eligibility criteria for applying for New Deal status included being an area with relatively high levels of deprivation based on a current index of local deprivation. Because of the community-driven nature of NDCs, communities identify their own projects, programmes and expected outcomes, to address their own needs.

Evidence suggests that community involvement is central to the success of interventions that address health inequalities (Department of Health, 2003). Such community participation includes being involved in the assessment of local needs and in the design of initiatives, working together with other organisations and represented on planning and management teams, as well as being provided with support and training. All of these features are at the core of Neighbourhood Renewal and the New Deal for Communities initiative. To promote community involvement and ownership, members of the community are on New Deal management boards, sometimes providing majority membership on the board, although the degree to which they contribute to the New Deal programme tends to vary between NDCs.

In this paper we address the following questions:

- Is tackling obesity/diet/exercise an issue for communities?
- What are the NDCs contributing to tackling overweight/obesity?
- What success are local NDC obesity prevention programmes having?

METHOD

Evaluation of NDC health theme interventions uses a combination of quantitative and qualitative methods through a questionnaire survey of local residents and case studies with semi-structured interviews conducted with local project and theme co-ordinators. A local resident questionnaire survey was conducted in 2001 by MORI, of 500 people in each NDC area. Health-related questions included those on the amount of fruit and vegetables consumed daily, exercise undertaken regularly, levels of perceived health and the mental health questions from the SF36. To provide focused, in-depth material a series of case studies have been conducted in selected NDCs who are implementing projects to address healthy eating and physical exercise.

RESULTS

The resident survey revealed that levels of perceived health and mental health were considerably lower in the 39 NDCs (health self reported as good ranged from 67% to 86%) compared with the average level for the national population (91% reported their health as good). Levels of fruit and vegetable consum-ption and exercise undertaken varied across the 39 NDCs and showed no specific relationship with self-reported health of the same community members (Fig.1). The 39 NDC areas each identified a number of problems and issues, some of which are common to the majority of the NDC areas, whilst a few were particular to a single NDC area. Obesity-related initiatives included healthy eating and exercise initiatives and these were identified as key issues for intervention by 27 and 20 NDCs respectively, whilst mental health was also included by 11. Within each of these problem areas, each NDC has initiated projects raging from a single pilot project to a maximum of ten projects. Table 1 provides a list of proposed and ongoing projects relating to healthy eating and physical exercise.

School and community-based health education campaigns and interventions tailored to cultural backgrounds, gender, and age group can help correct behaviours that contribute to

Table 1: Community based projects that contribute to primary and secondary prevention of overweight and obesity

Healthy Eating		*Physical Exercise*	
Project	*Number*	*Project*	*Number*
Food Mapping	8	Walking Group	9
School-Based	10	School-Based	8
Food Co-op	9	Exercise Referral Scheme	6
Allotment	10	Exercise Taster Sessions	15
Lunch Club	3	Gym-Based	5
Shopping Scheme	1	Swimming Projects	3
Cookery Programme	14	Chair-Based Exercise	7
Education Seminar	8	Sports Facility Improvements	8
Retailer Promotion	2	Walking/Cycling Routes	2
Art and Health	2	Education Seminar	1
Breast Feeding	1	Incentive Scheme	5
Coronary Heart Disease action plan	2	Sports Development Worker	3
Weight Loss trainers	3	Bike Loan Scheme	1
Referral Scheme	3	Weight Management	3
Dietetic support	10	Green Gym	5

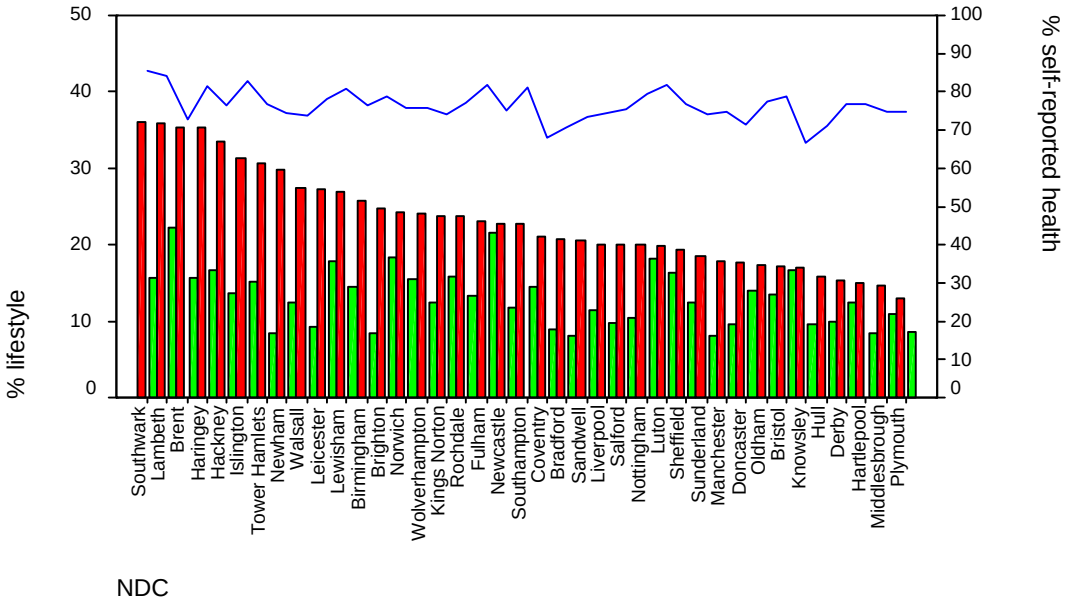

Fig. 1. % NDC population consuming 5 portions offruit and vegetables per day (bars, ranked), doing recommended levels of physical activity defined as 20 minutes moderate intensity activity on 5 or more days per week (bars, not ranked), and reporting health as good or fairly good

unhealthy eating and thus obesity, as well as to promote healthy eating lifestyles.

School-based healthy eating interventions are proving successful as a way of accessing large numbers of children, parents and teaching staff, and also as a method for promoting the development of healthy eating habits at an early age. One approach has been to provide fresh fruit as a response to the government's five a day programme (Department of Health, 2002b). A second approach has been the introduction of breakfast clubs in local primary schools. A pilot project in Southampton NDC evaluated very positively by staff, pupils and their parents. In some secondary schools, fruit tuck shops and juice bars have replaced vending machines.

In order to address problems with respect to access and consumption of healthy food, a number of NDCs have set up food co-ops and community allotment projects. Both types of project have long term potential and can make a contribution to addressing the issue of rising obesity by providing good quality nutritious food at affordable prices. Food co-ops and allotment projects are appropriate for a wide range and large numbers of community members, of varying ages, ethnicities, abilities, and both sexes.

Public health initiatives need to also target behavioural and structural barriers to physical activity by increasing the number of pedestrian routes in public places and encouraging people to walk or cycle to work or school. Other initiatives hope to foster regular exercise by increasing the availability of sports and leisure centres, parks, and workplace gyms, as well as physical education in schools.

A variety of physical activity initiatives are provided by Bristol NDC including Tai Chi, Yoga, women only keep fit classes, and aerobic dance, all with a crèche provided free of charge. The activities are specifically designed to enable all to take part regardless of age, ability or fitness by having 3 levels: beginners, intermediate and advanced.

Oldham NDC has a variety of projects that aim to encourage more sedentary people to improve physical fitness and reduce inactivity and stress related medical conditions. The Active Life, Active Leisure project provides funding for improvements to the walking and cycling infrastructure, by increasing the number, enhancing the accessibility and distance grading of walking and cycling routes through the NDC area. This project also supports the work of the 16 Volunteer Walk Leaders (under the Walking the Way to Health initiative) by providing a more varied and distance graded programme of walks.

A free community bike loan scheme in Bristol

NDC aims to encourage family activity, promote physical and mental health and improve family cohesion whilst addressing issues around obesity and coronary heart disease. New Deal Flyers, launched in August 2001, was the first scheme of its kind in the country.

Many NDCs are addressing the issue of access to sports and leisure facilities by providing subsidised rates or providing membership free of charge to specific groups i.e. low-income families. Some also provide funding for transport for local residents and free child-care in order to facilitate the uptake of activities.

A physical activity project taking place in local schools in Middlesbrough NDC is training school staff to become Volleyball coaches. The project provides 2 sessions each day as part of the schools Physical Education curriculum. The project is not just about sports and exercise but also team activity, and an opportunity to engage young people in community activities.

DISCUSSION

At a basic level, the New Deal evaluation provides an opportunity to assess the impact of community-led and community-focussed interventions that target obesity through eating and exercise initiatives. At the higher level, given the difficulties with interpreting research evidence from some interventions to reduce health inequalities (Bauld et al., 2002), there is a unique opportunity with the NDC programme, given its scope and planned duration, to develop an understanding of the relationship between complex urban regeneration programmes and reductions in health inequalities.

The very wide range of interventions relating to healthy eating and exercise across the 39 different areas allows us to study the relative impact of different interventions. In addition, because the NDC programme includes sectors other than health, the impact of initiatives in these other sectors on health-related outcomes can also be examined; for example, a reduction in fear of crime may facilitate greater involvement in physical activities outside the home.

The evaluation aims to measure the effectiveness of the NDC initiatives, whatever their size and also to consider the best ways of delivering change in the local NDC communities. The longer-term intention is to move from effective small one-off initiatives into a mainstreamed programme, especially for those interventions that are effectively addressing the major health problems in society, the cancers and circulatory diseases.

It is most unlikely that the major impacts on obesity will be limited to 'health' interventions and more likely that, particularly in the medium and long-term, improvements in, for example, education and crime will also contribute to tackling illhealth, overweight and obesity. However community-based interventions targeted at specific determinants of local health problems and needs have the potential to reduce the health inequality gradients in obesity. Change will take time and therefore needs committed sustained support. Some innovative projects and programmes are being introduced by NDCs that will contribute to addressing the problem of obesity. It is important that their impact is fully evaluated not only to ensure they deliver the required change but also to provide evidence for consideration for adoption by other areas with similar health issues.

The promotion of a healthy diet and exercise will address not only the narrower objectives of reducing obesity, but also tackle the health inequalities seen across and between communities. It is too soon to determine if these NDC led initiatives are successful, especially as some of the expected outcomes such as prevention of premature mortality from coronary heart disease will manifest much later in a person's life. Other prevention approaches and options, including Government driven and clinical care are still needed but community-based projects have a role and a contribution to make in the primary and secondary prevention of overweight and obesity.

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ABSTRACT Obesity is an increasing problem world-wide, which has been attributed to a number of environmental factors including changes in diet and a reduction in physical activity. Primary prevention of obesity may be achievable through community based interventions. We describe initiatives undertaken within some of the 39 New Deal for Communities areas in England, that are targeting obesity. A diverse range of interventions are in operation targeting both dietary factors, such as increasing access to healthy food, cooking classes, educational seminars and weight management groups and levels of physical activity, with projects to reduce barriers to accessing sports facilities and improving the sports and leisure opportunities within communities. This paper considers the contribution of these community-based interventions to addressing overweight and obesity in local populations.

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