P37 AREA DEPRIVATION, ETHNIC DENSITY AND FAST FOOD OUTLETS, SUPERMARKETS AND PHYSICAL ACTIVITY STRUCTURES IN ENGLAND

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[1]O R Molaodi, [1]S Harding, [1]A H Leyland, [1]A Ellaway, [2]A Kearns. *[1]MRC/CSO Social and Public Health Sciences Unit, Glasgow, UK; [2]University of Glasgow, Glasgow, UK*

Background In the UK, obesity is more common in some ethnic minority groups than in Whites but little is known about the extent to which ethnic minorities are more exposed to obesity promoting environments. We examine whether area deprivation and ethnic density are associated with access to fast food outlets, supermarkets and physical activity structures.
Design Population sizes of Indians, Pakistanis, Bangladeshis, Black Caribbeans and Black Africans (2001 Census), income deprivation (Index of Multiple Deprivation), and number of fast food outlets, supermarkets, indoor (eg, sports clubs) and outdoor physical activity (eg, football grounds) structures were obtained for lower super output areas (LSOA). Ethnic density was measured using index of dissimilarity (evenness in distribution of a group relative to the White group), isolation index (extent to which ethnic minority group members are exposed to each other), cluster size (proportion in LSOA) and concentration (proportion of local authority district's ethnic population in an LSOA).
Setting England
Main Outcome Measures Rate ratios (RR), derived from multilevel Poisson models, using the rate of structures in low ethnic density areas as baseline rate.
Results Ethnic densities were generally higher in the most than least deprived areas, least consistent for Indians. Fast food outlets and supermarkets were also more likely to be found in the most than least deprived areas. In contrast, outdoor PA structures were more likely to found in least deprived areas. Adjusted for area deprivation, the index of dissimilarity and concentration measures reflected a pattern of more fast food outlets in high than low ethnic density areas. For example, RRs for fast food outlets in the highest ethnic density areas using the concentration measure were: Indians 1.91 (95% CI 1.22 to 3.00), Pakistanis 1.41 (1.05 to 1.89), Bangladeshis 1.80 (1.43 to 2.26), Black Caribbeans 1.29 (0.85 to 1.96), Black Africans 1.42 (1.01 to 1.98). Supermarkets were more likely to be in higher than lower-density Pakistani and Bangladeshi areas using these two ethnic density measures. Across all ethnic groups the concentration measure reflected a positive association with occurrence of indoor PA structures, while all ethnic density measures reflected a pattern of inverse association with occurrence of outdoor PA structures.
Conclusion These findings indicate that ethnic minorities might be more exposed to fast food outlets and less exposed to outdoor PA structures in high than low ethnic density areas. These issues might contribute to ethnic differences in food choices and engagement in physical activity.

P38 THE IMPACT OF URBAN RENEWAL ON ENGAGEMENT IN PHYSICAL ACTIVITY IN A SOCIO-ECONOMICALLY DISADVANTAGED POPULATION: A QUALITATIVE EVALUATION

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[1]R F Hunter, [2]M A Tully, [1]C Cleland, [2]M E Cupples, [2]F Kee, [2]L Prior, [2]M Donnelly. *[1]Centre for Public Health, School of Medicine, Dentistry and Biomedical Sciences, Queen's University Belfast, Belfast, UK; [2]UKCRC Centre of Excellence for Public Health (NI), Queen's University Belfast, Belfast, UK*

Background Most adults in Europe lead sedentary lives; their physical inactivity is associated with a rising prevalence of obesity and is considered to contribute significantly to health inequalities.

A recent NICE (2006) review concluded that, "there is an urgent need to conduct research into the effectiveness of environmental interventions, particularly within socially excluded sectors of the population who have the highest prevalence of physical inactivity".
Objective To investigate and utilise the community "knowledge" of individuals living in a socio-economically deprived community and of relevant stakeholders in statutory and voluntary organisations, regarding the design of community-based initiatives on increasing physical activity (PA) levels.
Setting The Connswater Community Greenway is a £32 million investment in East Belfast. The aim of the Greenway is to provide a safe and accessible area which increases PA and improves the people's quality of life.
Method Semi-structured interviews with leading community representatives were conducted regarding (i) the nature and extent to which there are specific groups of residents who would benefit from increased PA, (ii) the nature and provision of PA initiatives, and (iii) practical advice regarding the selection of focus group participants from "Physical Activity Need Groups". Transcriptions were audio recorded and transcribed verbatim. Interim thematic analysis was conducted after each interview to inform the primary questions for subsequent interviews. Findings were validated by a second researcher.
Results Preliminary analysis identified emerging themes relating to the design of successful initiatives. These include the perceived relationship between PA and health, financial and community support, access to facilities, programme content and current service provision. Participants acknowledged that promoting PA has associated health benefits but attributed higher priority to interventions focused on social issues. Short-term funding was a problem for sustaining initiatives and a need for volunteer support was identified. Participants reported local physical and social barriers to community engagement and emphasised the need to involve the local community in planning, to ensure relevance of possible components of interventions to the locality. Perceived needs of particular groups for PA promotion related both to their individual health needs and the geographical area in which they lived. The extent to which groups were perceived as being "hard to reach" influenced the provision of current services.
Conclusion The promotion of PA in a socio-economically deprived area is a complex issue. Results will inform focus group discussions with community representatives and theory-based Intervention Mapping to guide the design of PA initiatives.

P39 HEALTHY EATING FOR CHILDREN IN EARLY YEARS SETTINGS: A SYSTEMATIC REVIEW OF CURRENT GUIDANCE AT LOCAL AND NATIONAL LEVELS

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[1]K S Bristow, [2]M Mwatsama, [1]S Capewell, [1]F Lloyd-Williams. *[1]Public Health, University of Liverpool, Liverpool, UK; [2]Global Health Equity Group, University College, London, UK*

Background Children's dietary habits are often well established by 5 years of age. However, statutory guidelines to promote healthy food currently only apply to schools, *not* pre-school nurseries. Furthermore, good practice evidence has been well summarised in the Caroline Walker Trust (CWT) Guidelines to Encourage Healthy Eating in Children Under Five. (2006).
Objectives To evaluate the extent to which national and local UK guidelines for the early years sector address key recommendations based on the Caroline Walker Trust healthy eating guidelines for under-fives.
Methods A. Mixed method systematic review to identify new evidence to augment CWT "Eating Well for under fives in childcare"

guidelines; B. Evaluation of local to national level government early years sector health eating guidelines using updated CWT guidelines as the "gold standard"

Main Outcome Measures Identification of new evidence to augment CWT 2006 guidelines. Identification of gaps in early years sector health eating guidelines at local to national levels.

Results Seven studies were deemed appropriate for analysis alongside the CWT eat well guidelines. Ten key recommendations and sub-recommendations were identified in relation to promoting healthy eating in the early years setting: role of government; nursery policy/guidelines; training; information and communication; menu planning; parents; atmosphere and encouragement; learning through food; sustainability; and equal opportunities. The evaluation of the seven government guidelines revealed that they had all included the ten key recommendations but there was sporadic cover of sub-key recommendations and in several cases detail was limited.

Conclusions The CWT guidelines for healthy eating in children under five remain highly appropriate. However, further work needs to be done to understand the optimal content and detail of such guidelines to maximise their effectiveness. Guidelines are only one element of what should be an integrated approach to implementing healthy eating across the early years sector. All key and sub-key CWT recommendations should be included in government guidelines. Guidance on the presentation of food and practical tips to encourage children to eat their food needs to be included, especially at local level. The wider role that food and meal times can play in children achieving Early Years Foundation Stage competencies should be explored. And crucially, the possible ways that nurseries can support parents to achieve healthy eating within the home.

P40 *LOCAL FOOD ENVIRONMENTS AND DIETARY QUALITY

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[1]R Layte, [2]J Harrington, [1]E Sexton, [2]I J Perry, [1]S Lyons. *[1]Economic and Social Research Institute, Dublin, Ireland; [2]Department of Epidemiology and Public Health, University College Cork, Ireland*

Introduction Dietary quality is an important predictor of health outcome and plays a prominent role in premature death from a number of chronic health conditions including cardiovascular disease and some cancers. Socio-economic gradients in food consumption are observed worldwide. Inadequate nutritional intake and poor dietary habits are also associated with food poverty, a well documented global public health problem, which is a complex and multi-faceted problem, with widespread consequences for dietary intake. Many definitions of food poverty have appeared in the literature, the majority of which include, to a more or lesser extent, the issues of food affordability, access to and availability of a healthy and nutritious diet to be consumed in a socially and acceptable way. Much of the published literature on the associations between access to and availability of healthy diets focuses on the food environments and individual dietary components for example, fruit and vegetables. However, due to the complex nature of the determinants of dietary habits, measuring dietary quality using an overall dietary index may provide additional insight. The physical availability of food has been shown to be a significant predictor of dietary quality.

Objectives This paper investigates the influence of the economic and physical availability of food on individual dietary quality.

Methods Data are drawn from a two-stage clustered sample of 10 364 individuals aged 18+ from the Republic of Ireland. Diet is assessed via a food frequency questionnaire and the results scored in terms of cardiovascular risk. Food availability is measured in terms of distance to and density of different types of food outlets. Dietary quality is decomposed using fixed effect multi-level regression models.

Results More socio-economically advantaged individuals are likely to live closer to a larger food store and to consume a better diet. Controlling for individual and household characteristics, individuals who live closer to a larger food outlet or who live in an area with a higher density of larger food outlets have a significantly better diet.

Conclusions There are significant and pronounced socio-economic gradients in diet and nutrition in the Republic of Ireland that may contribute to health inequalities. Food availability may also be a significant contributor to poorer dietary quality with the result that poorer households in poor areas are doubly disadvantaged.

*High scoring abstract.

P41 YOUNG CHILDREN'S FOOD IN DAY CARE SETTINGS: A QUALITATIVE STUDY OF PRESCHOOL NUTRITION POLICY AND PRACTICE

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K S Bristow, S Capewell, F Lloyd-Williams. *Public Health, University of Liverpool, Liverpool, UK*

Objectives To explore nutrition in local day care settings in order to develop a package of interventions that will promote healthy eating in Liverpool across deprived communities.

Design Qualitative—participant observation, direct observation, interviews.

Setting Community—preschool nurseries.

Participants Nursery managers, cooks, staff, parents, children (total=36).

Main Outcome Measures Up to date assessments of food policy and provision in a range of nursery settings highlighting inequalities in good practice and gaps in existing evidence. Identification of specific needs and barriers in nurseries serving areas of deprivation.

Results Nurseries have a potentially important role in supporting parents in their children's and their own healthy eating. Level and depth of communication between the nursery and parents is important regarding what children have eaten both at home and at the nursery. Private nurseries have minimal access to information and guidelines compared to those based in Sure Start children's centres. Most nurseries do not have a specific healthy eating policy but use their menu planning as the way to maintain a focus on healthy eating. Most nurseries have an appropriately balanced 4-week menu plan. Use of gravy and pre-prepared sauces is problematic and needs attention. Cooks' level of knowledge, experience and motivation is important. None had been trained in healthy eating for under fives. Meal times can be an important means of developing social skills and achieving Early Years Foundation Stage competencies. Making meal times fun and appropriate-sized cutlery and crockery are important to encourage children to eat. Communication between different levels of government and departments needs strengthening. Additional funding for training will be, essential to promote menu planning and cooking, but also for encouraging healthy eating and learning through food.

Conclusions Nurseries are genuinely interested in implementing healthy eating policies and need further support to achieve this. Support should include: improved mechanisms for effective communication between all government levels as well as with nurseries; funded training for cooks and managers in menu planning, cost effective food sourcing, and food preparation. Classroom staff should receive training in strategies to encourage healthy eating habits and how to facilitate food related learning and social skills development. Nurseries appear to have a key role in working with parents to encourage healthy eating at home. Further research is needed to understand the ways in which nurseries can be supported to achieve this.