

**Cambridge – MIT Institute Workshop
Poverty and Place in the US-UK**

**Food Poverty and Retail Access
What Recent UK-US Research Reveals**

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In USA

‘Low-income and predominately African-American neighbourhoods may have particularly poor access to healthy foods. [In particular] supermarkets are less accessible in such neighbourhoods’ Zenk et al, 2005 *Am J. Prev Med*

For example

- **Study of eastside Detroit (\geq 90,000 residents, 97% African-American, 35% households below poverty line) revealed 0 chain supermarkets, 13 independent grocery stores, 93 liquor stores**
- **In comparison, nearby racially heterogeneous middle-income community (78,000 residents) had 8 chain supermarkets, 11 other grocery stores, and only 18 liquor stores**

Harlem NYC – provides well-known example

- **Not until 1999 that first full-range chain supermarket opened – 53,000 sq ft Pathmark (125th Street) – despite 45,000 households within 1 mile of site**
- **Store subsequently credited with helping kick-start revitalization of East Harlem and considerable community pressure to bring a supermarket to Central Harlem**
- **But construction of Harlem's second full-range supermarket did not begin until 2004**

In UK

- Situation not as extreme, nor as polarized racially
- Despite considerable concern over emergence of 'food deserts' – term coined by DH Low Income Project team mid 1990s

Some areas of Britain have become 'food deserts' exacerbating the problems those on low incomes face in affording a healthy diet (Social Exclusion Unit 1998)

and Labour Gov making food access a central issue of its social exclusion agenda

I want to see planners place more emphasis on developing local solutions to solve problems of social exclusion from services. This will involve defining the food shopping needs of local people ... and identifying 'food deserts' – areas that lack retail services within say a 500-metre radius (Minister for Local Government & Regions, 2000)

- **Parts of Gov (Competition Commission/DTI) remained sceptical of concept, suggesting little evidence exists in UK of significantly poorer-access in low-income areas to full-range supermarkets**
- **Also, empirical studies found low-income, inner-city areas (particularly if ethnically diverse) frequently relatively well served within 500 metres by a range of shops stocking a variety of 'healthy foods'**

- But that doesn't mean (as Comp Comm acknowledges) that areas of poor food retail access don't exist
- In particular, **local food environment** in many peripheral/semi-peripheral low-income local authority housing estate areas deteriorated markedly during 1980s/90s. By late 1990s many of those estates extremely poorly served
- E.g. in ESRC study of 1000 households in Seacroft, Leeds (highly deprived, peripheral, local authority estate of 38,000 people, dominantly white) almost **70%** located beyond **500 metres** (reasonable walking distance) of stores selling range of 'healthy foods

- So, despite less extreme position in UK c/f to US cities, many highly **unsupportive local food environments** had clearly emerged in UK by late 1990s
- Also evidence exists (Guy & Clarke, 2004 study of changes in access to food retail provision in Cardiff over 20 yrs) that poor levels of food access had become increasingly polarised into areas of social deprivation

- In turn, as in USA, these **underserved** areas increasingly recognized as frontier of commercial opportunity
- Driven by what food retailers acknowledge as ‘enlightened self-interested’, such areas recently become focus of **regeneration-partnership store** development (Wrigley et al 2002 *Urb Stud*)
- Leading UK food retailer, Tesco, opened 16 of these stores by end of 2005, others developed by Asda/Wal-Mart and Sainsbury

What then are the implications of restricted food access, food poverty in low income communities on dietary behaviour and public health?

- **What are the findings?**
- **What do the US/UK studies agree on, where do they diverge?**
- **Where do research and public policy frontiers lie?**

All studies assume as background

- **Contribution of diet to development of chronic diseases**
- **Protective effects of certain dietary behaviour (e.g. high fruit & veg intake)**
- **Inverse relationship between low-income/ disadvantage and protective dietary behaviour**

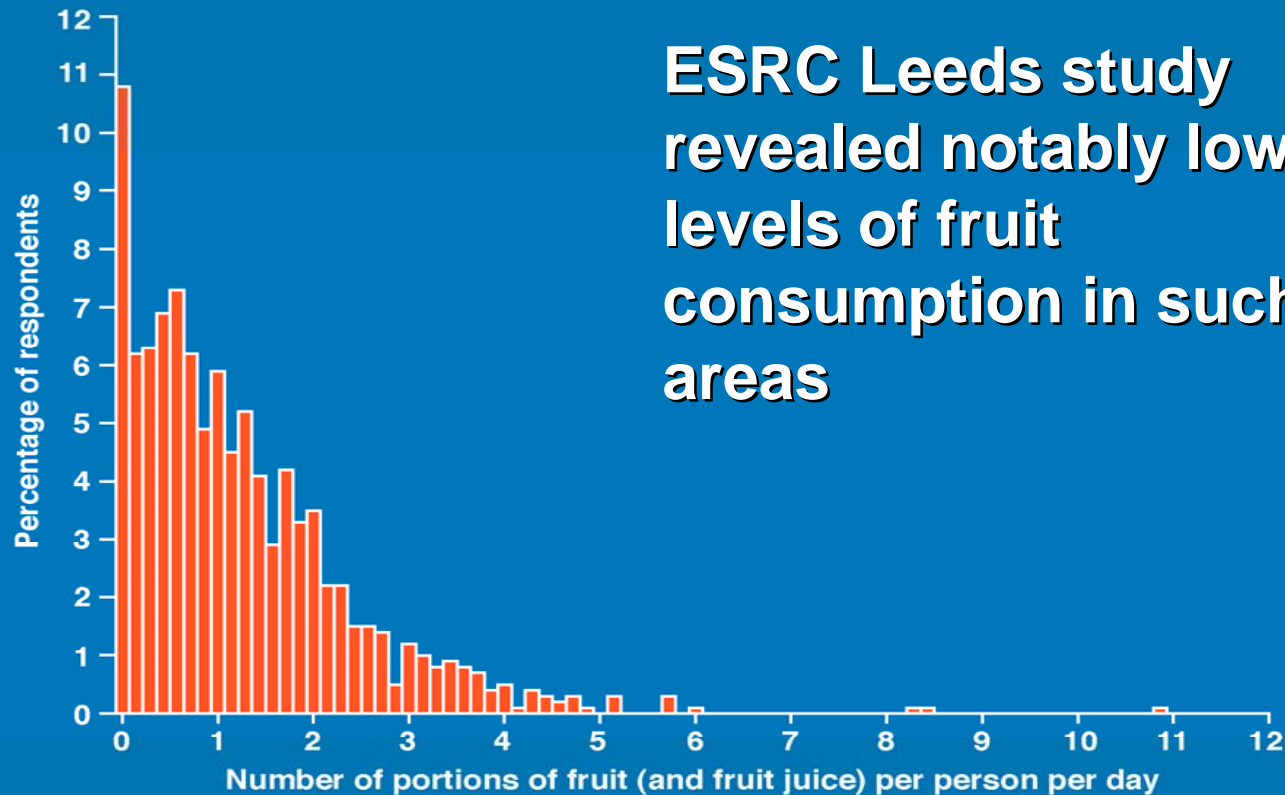
US studies then find important relationships between dietary behaviour, health, & local food environment

- Healthier diets amongst African-Americans in census tracts where supermarkets available (Morland et al, 2002, *Am J. Pub Health*)
- Healthier diets amongst African-American women able to shop at full-range supermarkets rather than other outlets (limited assortment/independent grocery stores), and adverse dietary consequences among those unable to access supermarkets located outside their neighbourhoods (Zenk et al, 2005, *Am J. Prev Med*)

- Healthier diets associated with 'easy' access to supermarkets amongst nationally representative sample of low-income households in Food Stamp Program, when dietary knowledge/attitudes, etc controlled (Rose & Richards, 2004, *Pub Health Nut*)
- Adverse dietary consequences in low-income, African-American neighbourhoods whose local food environment makes it more challenging for residents to eat healthily **away from home** – more fast food restaurants etc, (Black et al, 2004 *Am J. Prev Med*, Lewis et al, 2005 *Am J. Pub Health*)
- Decreased prevalence of obesity and over-weight amongst residents of census tracts in which supermarkets available, increased prevalence among residents of census tracts whose local food environment restricted to convenience/local grocery stores (Morland et al, forthcoming)

UK studies usefully added to US cross-sectional work with large scale/more detailed local investigations

- Highlighted extreme nature of poor diets in low-income unsupportive local food environments



Distribution of fruit (and fruit juice) consumption among 1009 respondents in pre-intervention period

- Also high levels of 'food insecurity' e.g. 13% of Leeds study respondents reported having to miss meals in last 12 months because of lack of money
- Also **qualitative insight** into experience of life in an unsupportive local food environment – complex coping mechanisms required in struggle to eat well on a low-income in such areas

- **Sometimes, however, contradicted US work**
 - **E.g. Food Standard Agency/Univ of Newcastle multi-level study of food access & dietary intake in Newcastle suggested much stronger influence of dietary knowledge and skills relating to acquisition and preparation of healthy diet, and weaker influences of retail access than in some of the US work**

- But UK work notable for being first to add a **longitudinal** and **experimental** study approach to research on food access, dietary behaviour & public health
- ESRC Leeds 'food deserts' study (Wrigley et al 2002 *Urb Stud*, 2003 *E & PA*) first to attempt **before/after** study of amelioration of access problems in an unsupportive local food environment consequent on opening of new full-range food store – natural experiment of type Wanless Report (2004) recommended should be more frequently exploited in public health research
- Opening of new supermarket found to have **big impacts on accessibility** and **beneficial effects** (albeit modest – 0.4 portions of fruit & veg per day) **on diet** of certain groups

- **Followed by similar Dept of Health funded before/after, 'natural experiment' study of opening of new full-range supermarket in Glasgow (Petticrew et al, 2004)**
 - **Found similar increases to Leeds study (around 0.35 portions per day) in switchers to new supermarket – but not statistically significant (due to small sample size problems?)**
 - **Found also substantial positive impact on one measure of psychological health, plus a weak positive impact on self-reported health amongst switchers to new store**

So, given rapidly escalating concern with food poverty, food access public health issues in N. America and Europe, where do research and public policy frontiers now lie?

Research

- **Investigating effects of local food environments on dietary behaviour & health extremely complex task**
- **Differences in study designs, sample quality, measurement of local food environments/dietary behaviours, levels of experimental control, etc make interpretation of evidence base extremely difficult. Need for NSF/UK Res Councils/ Gov Dept group to evaluate the evidence**

- **US work on whole (perhaps due to more intense racial dimension) reporting stronger relationships between retail access and dietary behaviour (and by extension diet-related ill-health) than in UK. Also beginning to explore relationships with health outcomes**
- **Opportunity for large-scale, interdisciplinary US/UK comparative studies combining best of methodological approaches used in existing US/UK work**

Public Policy

- Term **food desert**, although striking metaphor, has clouded picture, polarising opinion. Better to talk about **unsupportive local food environments**, issues of **food insecurity**, **food equity** etc, in debates on food poverty
- Appropriate **balance of policy interventions** – individual versus area-based - i.e. those directed to improving dietary knowledge & skills, motivation to consider health, versus improving retail provision in deprived communities, **not yet known**

- **Know that changing attitudes/knowledge has, despite very best intentions, increased health inequalities**
- **But, equally, ambiguity remains over whether large-scale food retail interventions work in public health terms (despite community pressures for such interventions in USA)**
- **Solution most UK researchers calling for involves some mixture of/joined-up-strategy for changing attitudes and access simultaneously**

- **In addition, retail provision intervention raises spectre of advocating policies which might be seen to advantage corporate retail interests**
- **As result, alternative food network solutions frequently advocated**
- **But to what extent are such networks/solutions elitist?**
- **And given that dietary/public health impacts of new full-range food stores in deprived areas are, at best, relatively modest**
 - **to what extent can we expect alternative food networks to penetrate low-income areas & help alleviate diet-related public health problems of such socially-excluded areas?**