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PAPER

Designing healthier catering interventions for takeaways in deprived areas

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ABSTRACT

The increasing consumption of fast food has been identified as one of the key contributory factors to rising levels of obesity. To try to improve the healthiness of local food environments, many local authorities have developed initiatives designed to encourage takeaways and other out-of-home food businesses to adopt healthier menus and catering practices. However, few of these initiatives are reaching the least healthy takeaways in the most deprived areas.

The object of this paper is to highlight the type of interventions that *do* work with fast-food businesses operating in such contexts. It draws on a UK-wide survey of local authorities operating healthier catering initiatives, and interviews with 30 takeaways that have adopted healthier changes.

The results suggest that healthier catering interventions need to be designed to take account of the barriers businesses face, in particular, the highly competitive nature of the market place in deprived areas. Targeted approaches involving intensive outreach work focusing on a few key manageable changes tend to be more effective in encouraging business participation than generic schemes with more onerous criteria.

Successful engagement strategies focus on the economic benefits of adopting healthier practices. Takeaways need to be supported in developing a healthier

catering marketing mix appropriate to the business and the local context in which it operates. However, a 'whole systems' approach to tackling obesity, involving work with suppliers and consumers, together with government intervention, is needed, if more significant health benefits are to be achieved.

Key words: healthier catering schemes, fast-food takeaways, public health, deprived areas, regulation, nudge

INTRODUCTION

The increasing availability and consumption of food eaten outside of the home has been identified as one of the key environmental factors contributing to rising levels of obesity (Foresight, 2007). Seventy-five percent of the UK population now eat out at least once a week and 14% of these eat out at least six times each week (FSA, 2014). Fast food has come under the spotlight as it tends to be more energy dense and has a higher fat content than food prepared at home. This, together with the frequency of its consumption, has been shown to be linked to increased body weight and obesity (Prentice and Jebb, 2003). Levels of fast food consumption have also been increasing in recent years as the economic downturn and reduced purchasing power have pushed consumers to cut back and trade down, replacing restaurant meals with fast foods (Euromonitor, 2013).

For the reasons stated above, the fast food sector has become the focus of several recent initiatives designed to improve the healthiness of local food environments. In 2011 the government's obesity policy team suggested in its *Healthy Lives, Healthy People* report, that local authorities should 'work with local businesses and partners to increase access to healthy food choices' (DoH, 2011, p28).

Many local authorities have responded by developing healthier catering initiatives designed to encourage businesses in the out-of-home food sector to develop healthier menus and catering practices. Generally speaking, these healthier catering initiatives work on the basis of trying to encourage businesses to switch voluntarily to healthier ingredients, menus and cooking practices. They particularly focus on reducing salt, fat, sugar and portion sizes, whilst providing more fruit and vegetables. They often include 'nudging' techniques designed to encourage consumers to make better choices (Thaler and Sunstein, 2008). Popular nudges include serving food in a slightly smaller container, removing salt from tables, putting fruit and healthy snacks in prominent positions and healthy drinks at eye-level in fridges. Such an approach chimes well with current government policy which tends to favour voluntary

agreements with industry rather than the use of legislation as a means of controlling the quality of the food on offer (DoH, 2011).

The extent to which these healthier catering initiatives have been successful in engaging with fast-food takeaways remains unclear as there is limited evidence on these schemes (Hillier-Brown *et al.*, 2014). A recent evaluation of the *Healthier Catering Commitment* in London suggested that it had been more successful with businesses already offering relatively healthy menus, and in more affluent areas where the additional cost of better quality and more nutritional food can more readily passed on to customers (Bagwell, 2014; Bagwell and Doff, 2012). This is of particular concern since obesity has been found to be associated with social and economic deprivation (Marmot, 2010) and fast food outlets tend to be more concentrated in deprived areas (McDonald *et al.*, 2007; National Obesity Observatory, 2014; Pearce *et al.*, 2007; Rudge *et al.*, 2013). If healthier catering initiatives are largely improving the quality of food sold in more affluent areas they may in fact be contributing, albeit unwittingly, to increasing levels of health inequalities (Bagwell, 2014).

The research on which this paper is based set out to identify what can be done to address this problem. It sought to develop a better understanding of the business barriers to engaging in healthier catering schemes and if and how these could be overcome. In particular it aimed to identify the characteristics of interventions that are successful in engaging with fast-food businesses in deprived areas and the type of changes that businesses can realistically make without compromising their profitability.

METHODS

The study adopted an 'action research' approach (Lewin, 1946; Ram *et al.*, 2015) working with those implementing initiatives and businesses trialling suggested healthier practices. Playing a critical role in the design and strategic management of the project, the partners included the London network of public health personnel involved in implementing the *Healthier Catering Commitment*, the Chartered Institute for Environmental Health (CIEH), the Association of London Environmental Health Managers (ALEHM), and the Greater London Authority Food Team.

The first stage of the research involved a national telephone and online survey of healthier catering initiatives run by local authorities across the UK. The sample was compiled by drawing initially on a list of 27 local authorities that had responded to a request from the CIEH for information on local authority

initiatives that were aimed at encouraging healthier catering in the 'out-of-home' food sector. Those that might possibly include fast-food outlets were contacted and invited to participate in a telephone interview. Schemes that were targeted solely at workplaces, nurseries, schools, care homes and leisure centres were excluded.

A number of other local authorities were also identified from 'good practice' case studies on the CIEH and Food Vision websites and subsequently contacted. This led to a total of 20 telephone survey interviews being conducted. To help ensure that other relevant initiatives were not omitted, and to increase the sample size, the CIEH were asked to circulate an online version of the survey to their member networks. This was sent to regions and branches and through the electronic mailing system that goes to designated people working in about 90% of local authority environmental health teams. This resulted in a further 14 responses.

In total the interviews and online survey captured data from 34 public health respondents operating in 32 different local authorities who between them were overseeing 23 different schemes (Table 1). The survey was designed to gather data on the structure, scope, and operation of each scheme, key success factors and barriers. It particularly focused on the extent to which schemes had targeted fast-food outlets operating in deprived areas, the characteristics of these businesses, the local context, and aspects of the intervention that had been key in encouraging the successful adoption of healthier catering practices.

The second stage involved interviews with 30 fast food takeaways operating in different deprived areas of London. Businesses were selected with the assistance of local environmental health practitioners (EHPs) and/or other public health personnel administering the healthier catering schemes in each borough. These officers were asked to identify best practice cases of businesses offering affordable food in the most deprived areas. Affordable was defined as a price point of £3–5 for a main meal and £1–1.50p for a child's meal or snack based on earlier research in the London Borough of Tower Hamlets, one of the UK's most deprived areas (Bagwell and Doff, 2009).

Deprived areas were identified using a map of the Index of Multiple Deprivation 2010 (Department for Communities and Local Government, 2011) with only businesses operating in the 20% most deprived areas in England being considered. The sample also sought to include a mix of different geographical areas across the capital and to cover the range of fast food cuisine and business types (i.e. fish and chips, chicken and chips, kebab, pizza, Indian, Caribbean, Chinese, cafes, mobile vans). Interviews with businesses sought to

Table 1 Summary of schemes in survey sample

Scheme name	Award scheme	Number of award tiers	Target group	Number takeaways/ all businesses	Local authorities surveyed
1) Better Butchers Bangers	Yes	1	Independent butchers	N/A	Norfolk
2) Catering for Health	Yes	1	All with 3*+FHRS	0/50	Slough
3) CHEFS	Yes	3	All	?/120	Cornwall
4) Eatright	Originally, not now		Restaurants and takeaways	7/7	Liverpool
5) Eat Out Eat In Healthy	No		Indian restaurants	23/23	E Midlands Beacon Partnership Project
6) Eat Out Eat Well	Yes	3	All with 3*+FHRS	6/74, 1/23, ?/160, 0/42	Bath & NE Somerset, Crawley, Surrey, West Berkshire and Wokingham
7) Essex Healthy Eating Awards	Yes	2	All with 3*+FHRS	9/162	Southend
8) Good Food Award	Yes	3	All with 3*+FHRS	N/A	Bradford
9) Healthier Catering Commitment	Yes	1	All with 3*+FHRS	20/77	12 during 2012 Pan London evaluation
10) Healthier Menus Award	Yes	1	All with 4*+FHRS	1/34	South Lakeland
11) Healthier Takeaways	No		12 fish and chip outlets	12/12	Antrim, N Ireland
12) Healthier Business Award	Yes	1	All	12/251	Wigan
13) Healthy Choice Award	Yes	3	All with 3*+FHRS	0/70	Brighton and Hove
14) Healthy Choice Awards	Yes	3	All with 3*+FHRS	5/c500	Kirklees
15) Healthy Options Award (Hull)	Yes	1	All with 3*+FHRS	2–3/130	Hull City Council
16) Healthy Options Award	Yes	3	All with 3*+FHRS	4/50	Rhondda Cynon Taff
17) Healthy Options Norfolk Award (Honor)	Yes	1	All with 3*+FHRS	3/88	Norwich
18) Heartbeat Award	Yes	2	All with 3*+FHRS	4/30	Kettering
19) Lighter Bites	No		Outlets close to secondary schools	15/15	Magherafelt, N Ireland
20) Salt & Fat Reduction Project	No		All fish and chip shops	70/c70	Stoke on Trent
21) Takeaways	No		All takeaways with 3*+ FHRS	54/54	Slough
22) Takeaways /Eat well live longer (Shropshire)	No		Mainly chip shops in areas of social deprivation or close to schools	20/220	Shropshire
23) Truckers Tucker, On The Road	No		Mobile catering vans in laybys, truck stops, industrial estates	10/10	Stoke on Trent Worcestershire, Shropshire

gain an in-depth understanding of: the business; its owner; the context in which it operated; the level of interest in healthier catering (and any changes made); the impact of any healthier catering intervention; and any barriers to change.

The data collected was analysed using a 'grounded theory' approach (Strauss and Corbin, 1990). This involved identifying and coding emergent themes from the survey and interview responses which highlighted the key features of initiatives, lessons learnt, and intervention approaches that worked with different types of businesses and contexts.

RESULTS

Barriers to engagement

Analysis of data on business take-up suggests that with few exceptions healthier catering initiatives are not having a great deal of success in engaging with takeaway businesses. Table 1 highlights the number of takeaways participating in each scheme surveyed. Exact numbers were sometimes hard to determine due to differing definitions of what constituted a takeaway. For example, some schemes included sandwich bars and cafes as these often provide takeaway food, whilst most Indian restaurants also provide takeaways so these have been included where the initiative particularly focused on their takeaway menus. However, the general picture is very clear – most schemes are having little impact on the least healthy types of businesses.

A mixture of institutional and business barriers accounted for these poor take-up rates. Institutional barriers included policy objectives with targets for business participation which led to a tendency to focus on businesses that would easily secure an award. One scheme manager explained, "We went for quick wins as we wanted to show the validity of the project." Four other schemes had tried engaging with takeaways but found that there was little interest. A typical comment was, "We targeted fast food outlets in the beginning but they proved resistant to the idea."

Lack of time and/or funding was a key barrier for at least seven of the schemes. Those administering schemes were predominantly EHPs who have a statutory responsibility for monitoring hygiene standards in local catering establishments. This work inevitably takes priority when resources are tight. In deprived areas more work has to be done on bringing businesses up to the necessary standard, as well as overcoming language and cultural barriers, since a large proportion of business owners are from ethnic minority communities where English is not the mother tongue.

Business barriers included more limited menus of takeaways, which provided less scope for adopting the criteria of many healthier catering schemes, vegetables seldom featuring on the menu of a typical fried chicken shop! However, fast-food takeaways trading in deprived areas often face a number of additional barriers. They tend to have lower Food Standards Agency (FSA) food hygiene scores (Collins, 2015). This served to exclude many from participating in award schemes where a minimum standard of 3 stars (the scale runs from 1 star to 5 stars) is generally required. Lack of space or equipment also meant that some businesses found it harder to adopt recommended healthier cooking practices such as grilling or baking. The limited profitability of the business often meant that investing in such equipment was out of the question, whilst others were constrained by the lack of space in their cooking area.

Businesses were also limited in what they could do by the nature of their supply chain. Most suppliers charge more for many healthier products. So, for example, rapeseed oil costs 25% more than less-healthy vegetable oil, and wedges cost twice the price of chips. Others were tied into deals with major multi-national drink manufacturers who, in return for a free refrigerator were obliged to keep it stocked predominantly with branded drinks rather than the water or unsweetened fruit juices advocated by healthier catering initiatives.

Finally, most of the businesses interviewed claimed to be operating on the margins of survival in highly competitive price-sensitive markets. Despite rising costs, most had not felt able to increase their prices for several years for fear that this would deter customers. A key business concern (real or perceived) was that healthier food costs more, and that their customers would be unwilling to pay the additional cost, and/or didn't want healthier food. The tendency was to 'play safe' and not risk losing custom by changing products, prices or catering practices.

Healthier catering interventions clearly need to be able to address these barriers if they are to effectively target fast food businesses in deprived areas.

Scheme design and business engagement

Whilst the 23 schemes considered adopted very similar healthy catering objectives, they had differing criteria, names, and branding, raising the question as to whether this created confusion for both businesses and consumers.

The schemes could broadly be characterised by: the type of businesses targeted; whether or not an award was offered; and whether the scheme was targeted at a specific geographical area or across the whole local authority area.

Generic schemes sought to target a wide range of 'out-of-home' catering outlets e.g. restaurants, pubs, workplace canteens, leisure centres etc., including those selling fast food. However take-up by fast food takeaways was generally low as their more limited menus provided less scope for making the relatively wide range of changes these generic schemes require. *The Healthier Catering Commitment* (HCC) operating in London has less stringent criteria, and no doubt as a result of this, has managed to encourage the participation of a relatively high proportion of takeaways. A recent pan-London evaluation of the HCC identified 20 of the 77 participating businesses to be takeaways (Bagwell and Doff, 2012).

Most generic schemes offered an award to those businesses that successfully met a minimum number of healthier catering criteria. This might be a single-tier award i.e. the businesses either passed or failed, or a tiered award scheme (generally bronze, silver or gold depending on the number of criteria the business met). Fast food outlets in deprived areas rarely achieved more than a bronze level, which some businesses felt would not reflect well on the business and acted as a disincentive to participation. As a dietician working in public health at Tower Hamlets and managing the *Food4Health* award scheme explained:

> *"Our bronze award was developed specifically for takeaways – we probably wouldn't expect them to get silver or gold. But a lot of businesses did not like it. Now we have changed the name of the bronze award to a standard award"*

Specialist initiatives targeted particular food or business types such as fish and chip shops, Indian takeaways, and mobile catering vans. They generally involved a lot more intensive outreach work to encourage business engagement and work on product reformulation. Often a nutritionist was included in the project to help with the development of new healthier menus. However, only six of the 23 schemes identified were targeted specifically at takeaways (schemes 11, and 19 to 23, in Table 1) These six schemes tended to focus on a more limited number of simple but key changes that takeaways can make, but ones that can have a significant impact on public health. Changes typically included action that can be taken to reduce the saturated fat and salt content of food by using oil with less saturated fat such as rapeseed oil, and selling fatter chips and adopting frying practices that help reduce oil absorption. Notably these schemes tended to be time-limited interventions linked to particular funding streams, and they did not necessarily offer an award. Unfortunately many were not sustainable once the funding ended.

Both generic and specialist schemes were often targeted at particular areas – typically areas of deprivation or around schools or leisure centres. This approach

worked particularly well where local community organisations were also involved in encouraging consumers to ask for healthier choices. So, for example, staff promoting Wakefield's *Eatwell* scheme linked up with the local authority's community food and health team, who were involved in promoting healthier eating habits in local communities, and this encouraged local people to start requesting healthier options from their local takeaways.

Effective engagement strategies

Whilst the design of a scheme was found to be important in attracting the participation of takeaways, the manner in which it was presented to businesses was also key. The survey of initiatives identified a number of strategies for encouraging businesses to make healthier changes.

Using economic arguments – it's good for business

Scheme managers, who had successfully encouraged takeaways in more deprived areas to make changes, emphasised the importance of understanding the business owner's perspective. Since the issue of profitability is the primary concern of these outlets, using economic arguments and emphasising the financial benefits of engaging in a scheme was found to be crucial to business participation. As a respondent for the Wigan Healthy Business Team operating the *Healthier Business Award* put it:

> *"We go in with a view that at worst it is cost neutral, but hopefully we are actually going to save you money… Once you show them how it can be done they are willing to give it a go."*

Some businesses also found that offering a healthier alternative attracted new customers. The *Eat Out Eat Well* scheme run by Bath and North East Somerset persuaded one fish and chip shop to start offering baked potatoes, poached fish and salads. This attracted new customers who were on a diet. Similar outcomes were found in Antrim where one fish and chip shop even teamed up with *Weight Watchers* and highlighted menu items with *Weight Watcher* points.

Demonstrating to businesses that customers were keen on healthier food was a technique used to persuade businesses to make changes in a number of areas. In the East Midlands, the Indian restaurants targeted were initially sceptical that their customers would accept the changes suggested by the *Eat out Eat in Healthy* project. But when consumer tasting sessions showed that most customers preferred the taste of curries made with dry spice mixes and less oil, the businesses were converted. According to the scheme manager the initiative was so successful that a leading manufacturer of ready-made curry mixes claimed that their sales had been badly affected by the project.

Carrot-and-stick approaches

Of those adopting a 'carrot' approach, most schemes provided at least some publicity for participating businesses and this generally acted as a major incentive. This typically included: listing award winners on the council website; holding award ceremonies; encouraging local press coverage; and, issuing businesses with stickers, posters and certificates. Some schemes also had stands at local food festivals and other events. Wigan produced a regular monthly *Healthier Business Award* newsletter with 5,000 copies being widely distributed including through doctors' surgeries in the area. In Slough an annual event was held which gave one local business the chance to be *Catering for Health* premises of the year. The press coverage this attracted inspired other businesses to sign up to the scheme.

However, whilst businesses in most areas were keen to receive publicity for providing healthier food, some preferred not to advertise the changes they were making as they felt that this might deter their core customers. Scheme managers from Antrim, Liverpool, Slough, Stoke and Worcestershire all reported that some of the businesses they dealt with had rejected offers of posters promoting their new healthier status.

A further incentive offered by some schemes was free training for participating businesses. For example, Wigan's *Healthier Business Award* included free food hygiene level 2 training for the business owner and staff. Bradford's *Good Food Award* offered free nutritional training for up to two members of staff. Other schemes offered grants or gifts of healthier catering equipment or ingredients to encourage business participation. The *Truckers Tucker* scheme, for example, offered a box of healthier cooking equipment including oil dispensers, kitchen towel for absorbing excess oil, etc.

'Stick' approaches included using the 'threat' of implementing legislative measures. For example, those administering the *Eat Out Eat Well* Scheme in Surrey drew businesses' attention to the fact that a number of vegetable oils are made from genetically modified (GM) oils. It is a legal requirement where food contains GM products for menu items to be labelled accordingly. Businesses were advised that if they switched to rapeseed oil they wouldn't have this additional administrative burden as rapeseed oil is not a GM crop.

Peer-group pressure

Providing businesses with information about the dangerously high levels of salt and fat content of the food they served was also used as a means of encouraging change. In Antrim the fat and salt content of the 12 fish and chip shops targeted by their *Healthier Takeaways* project was analysed and a table

of the test results of all 12 outlets was produced. Businesses were shown where they were on this table and those with higher results than others were shocked into making changes.

Enlisting the support of enthusiastic staff working in outlets was found to be one way of persuading the owners to engage with the healthier catering scheme. Staff that had relatives with health problems were often particularly keen. As the EHP from Antrim explained:

> *"We found that even if the food business owner wasn't keen and his staff were he got a lot more interested – particularly when he knew that if he didn't participate he wouldn't get any publicity."*

Encouraging a 'health by stealth' approach

Finally, where businesses were worried that customers would reject healthier changes, some healthier catering initiatives advocated a 'health by stealth' approach where businesses were encouraged to make small gradual changes that would be less likely to be noticed by customers. Wigan's Healthier Business team found that persuading businesses to gradually remove salt from cooking was easier than expecting them to make a large reduction immediately. Other types of healthier changes which had little impact on taste were relatively easy to introduce. For example, in Antrim, customers did not notice when the businesses switched to lower fat cheese, skimmed milk and salt shakers with fewer holes. Other changes that could be made included reducing the amount of salt used in sauces, adopting better frying practices and using healthier oil.

Successful healthier business models

The interviews with the best practice businesses sought to ascertain how they had managed to introduce healthier changes whilst still remaining profitable and keeping their prices affordable. The analysis adopted the 4Ps – product, price, promotion, place – framework taken from the marketing industry (Borden, 1965), to identify changes that could be made to the products and prices, and the way in which these were promoted and displayed, that would encourage customers to make healthier choices.

Healthier products

Encouraging businesses to swap unhealthy menu items such as chips for healthier rice or salad was a classic intervention that formed part of a number of initiatives. One kebab house in the London Borough of Tower Hamlets found that offering customers salad instead of chips gave his business a distinct competitive advantage over similar nearby outlets and led to a 15% increase

in sales. Other businesses found that offering new healthier menu items brought in new customers, and, as the owner of one pizza outlet explained 'Introducing pasta to the menu has brought in more customers and has added an additional 20% to profits'.

The type of healthier swaps that businesses were able to make depended on the nature of the customer base. Customers could be persuaded to take rice instead of chips in Asian, African and Afro-Caribbean communities since rice is a staple part of their diet, but this was less likely to be acceptable in white, working class areas or when children were the intended consumer. Businesses also claimed that consumers had entrenched views on what should be included with certain types of cuisines and these were hard to change. So, for example, rice and salad could be offered with kebabs instead of chips, but if chips were requested they had to be of the less healthy, thinner variety, since 'fat chips' were only acceptable in fish and chip shops, with the manager of a kebab outlet insisting that 'Customers don't want chip shop chips'.

A key 'nudging' intervention designed to encourage the use of less salt was the introduction of a salt shaker with fewer holes. This worked well in cafes, kebab houses, and chicken and chip shops where the salt shaker could even be hidden behind the counter and only brought out on request. But in many fish and chip shops using copious amounts of salt as a norm, the five-hole shaker led to long queues of frustrated customers attempting to dispense the required amount of salt. In such contexts businesses felt forced to re-introduce the old shakers.

Some businesses could be persuaded to offer smaller portions in areas where they were able to offer quality over quantity and/or the competition was not offering larger portions at the same or lower prices. Such a strategy worked well for a kebab house facing little competition in an area moving up market, but not for a chicken outlet which was sandwiched between a McDonalds and a Kentucky Fried Chicken – both offering larger portions of chips at the same price.

Cutting out or cutting down on unhealthy ingredients was acceptable as long as it didn't significantly impact on taste and/or where customers were particularly health conscious. For example, because of their higher pre-disposition to heart disease, the Caribbean community are now particularly aware of the health risks associated with salt consumption. As a result two of the Caribbean takeaways interviewed reported that their customers had asked them to reduce the amount of salt in their food long before the local healthier catering initiative was introduced. Adopting healthier cooking practices such as this also saved the business money.

Healthier pricing strategies

Pricing strategies were also used by some businesses to encourage customers to choose healthier options. Selling healthier options such as water more cheaply than less healthy fizzy drinks worked for some businesses. Alternatively, additional charges were made for unhealthy extras. One kebab house switched from automatically including chips with kebabs, to providing salad instead, whilst charging extra for chips if customers wanted them.

Four of the healthier catering initiatives persuaded businesses to operate healthier meal deals. For example, the East Midlands *Eat Out Eat In Well* scheme developed '2 for 1' deals on healthier meals and promoted these in local magazines. One of the Caribbean outlets interviewed ran a loyalty scheme for those purchasing porridge on a regular basis, which now has over 100 members. After their fifth purchase cardholders got the next one free.

Healthier promotions

The way in which food is presented and promoted can encourage customers to view a healthier alternative as an attractive option and this can lead to increased sales. Offering free healthier side dishes encouraged the consumption of these and gave some businesses a competitive advantage. The mobile burger van interviewed, for example, allowed customers to help themselves to as much salad as they wanted.

A couple of the more enthusiastic businesses produced special healthier menus. These included a chicken franchise which promoted healthier options on one side of the menu board above the counter, and the less healthy options on the other side, making it easy for customers to see which was which. This business also put a lot of effort into making the packaging on its healthier items, such as school approved children's drinks, look really attractive.

At one Caribbean outlet, staff were trained to encourage customers to choose healthier options. Customers were offered rice or rice and peas, but not chips (which were not listed on the menu board and were only available if requested), and were asked *which* free side salad they would like rather than if they would like one.

Healthier placing strategies

Finally some businesses used placing strategies to make it easier for customers to access healthier varieties rather than the unhealthy alternatives. Placing attractive looking healthier dishes on the counter or at the front of the display has been found to increase the likelihood that customers will choose these over less healthy options (Thaler and Sunstein, 2008). Placing water, diet drinks and

drinks with no added sugar at eye level in the drinks cabinet is also thought to increase sales of these drinks instead of the less healthy fizzy drinks (*ibid*.). Similarly one Indian outlet interviewed placed plain rice at the top of the list on its menu of rice options with the result that customers were more likely to choose this than the fried rice alternatives.

DISCUSSION

The results suggest that with the exception of initiatives specifically targeted at takeaways, most of the healthier catering initiatives surveyed were not having a great deal of impact on the least healthy types of outlets in the areas with the highest levels of obesity. The poor hygiene ratings, limited menus, and highly competitive trading conditions that characterise many takeaways, acted as particular barriers to their participation, whilst limited resources and the pressure of meeting targets encouraged some local authorities to focus instead on less hard-to-reach businesses.

Working with takeaways in deprived areas is undoubtedly challenging. This paper has highlighted the importance of understanding the business perspective and the local context when designing an intervention. Key contextual variables that need to be considered are summarised in Figure 1, and an analysis of these should be used to help determine the type of healthier catering intervention that is likely to be most effective. In general a more targeted approach, involving intensive outreach work with businesses, and focusing on a few key manageable changes, was found by this study to be more successful in engaging with takeaways in deprived areas, than more generic schemes focused on a wider range of businesses and with more onerous criteria.

Whether awards are likely to increase participation rates, again depends on the local context and business views on how consumers will react to them. Of course it could be argued that takeaways, or at least those involved in deep fat frying, are inherently unhealthy and should not be branded with a healthier catering award, even if they do make some healthier changes. To do so could give the public the wrong impression and actually encourage greater levels of fast food consumption.

There is clearly a need for further research on how consumers interpret healthier catering awards, and if and how they influence consumption behaviour. If award schemes are to be used as a means of encouraging healthier catering and consumption they need to be widely recognised. At present the plethora of local schemes being adopted is a source of potential

confusion. Future research could usefully explore if there is scope for a national 'healthier catering' award scheme that encompasses the diversity of businesses and cuisines, or whether several different award schemes are needed for different types of catering establishments.

The research suggested that *some* takeaways in deprived areas can be encouraged to make *some* healthier changes to products and can adopt pricing, promotional and placing strategies that encourage customers to choose healthier options. Drawing on the concept of the classic 4 Ps of the marketing mix (Borden, 1965), it is suggested that businesses might be encouraged to make some of the changes found in this study to be feasible, and which are listed in Table 2. These incorporate a variety of 'nudging' tactics to encourage both businesses and consumers to make healthier changes.

However, their success cannot be taken for granted in an environment shown to be highly context dependent in respect of the type of food, location and customer base, and subject to individual motivation. A detailed assessment of the business and the local context is needed to identify the most appropriate strategy for each business. This clearly has significant resource implications. It is notable that most of the healthier catering interventions that did manage

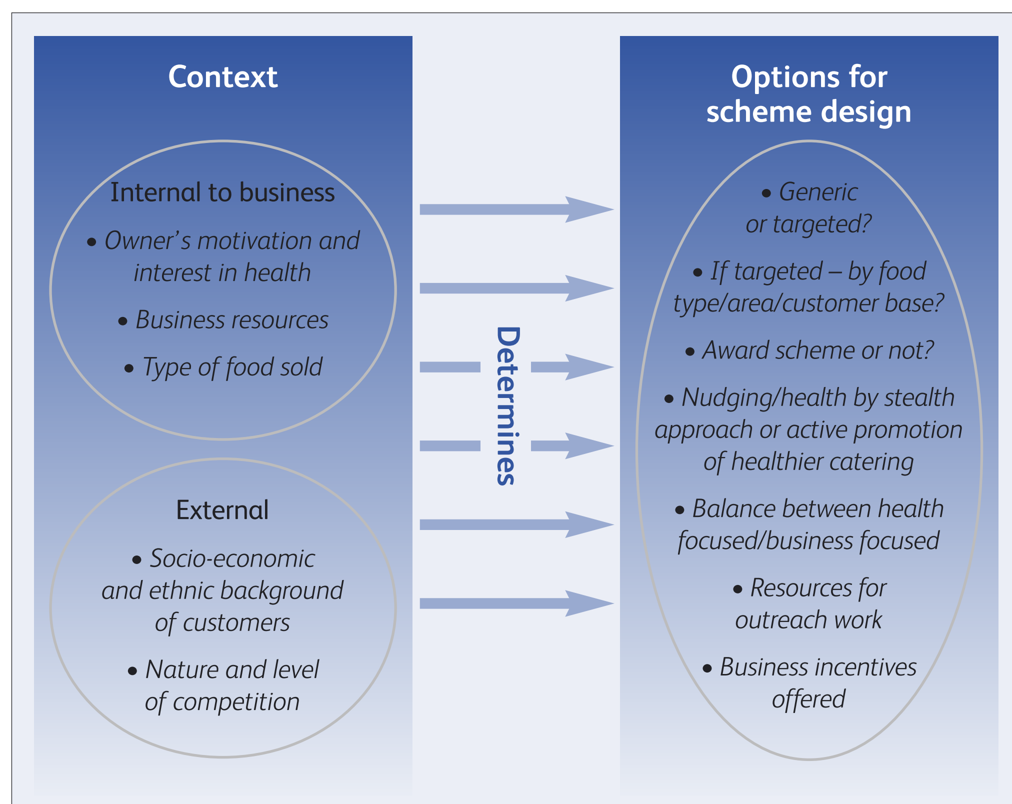

Figure 1
Variables to consider in developing healthier catering initiatives

to engage with takeaways were in receipt of dedicated funding that allowed for intensive work with businesses, and that most were not sustainable once this funding came to an end.

It also needs to be remembered that these schemes are voluntary initiatives which takeaways are only likely to engage with if it makes good business sense. Many businesses in this study were willing *in principle* to offer healthier menus but were constrained by what customers were willing to buy, what suppliers offered, and their need to make a living. Thus, for more significant changes to be achieved, work with this wider range of stakeholders is required and government intervention in the form of legislation or taxation on the sale of unhealthy foods needs to be considered. As one of the scheme managers noted,

> *"One of the things that will force the independent sector is the government saying that you have to display nutritional information. Or for customers to start demanding it."*

Table 2
The healthier catering marketing mix

Product	Price
• New healthier products • Healthier swaps • Healthier cooking practices • Better quality smaller portions	• Price healthier options cheaper than unhealthy alternatives • Charge extra for unhealthy alternatives • Use meal deals and loyalty card schemes
Benefits: Saves money, or is cost neutral, brings in new customers	**Benefits**: Increases turnover – at least on healthier options
Promotion	**Place**
• Free healthier sides • Healthier menus and advertising panels • Attractive packaging of healthier products • Personal selling of healthier alternatives	• Place healthier options in more visible locations • Hide or reduce access to unhealthy options • Reduce the size of containers or serving implements
Benefits: Sales of healthier varieties likely to increase	**Benefits**: Sales of healthier varieties likely to increase

Finally, resource constraints meant that the business interviews undertaken for this study were limited to outlets in London. Fast-food outlets trading in other deprived areas outside the capital, particularly those in less ethnically diverse areas, may face very different trading conditions, and the type and extent of changes they are able to adopt is likely to vary accordingly. However, the general principles outlined here, and in particular the need to undertake a detailed assessment of the business and the market in which it operates prior to the introduction of any intervention, might be just as applicable.

CONCLUSION

This study set out to identify how fast-food takeaways trading in deprived areas could be effectively engaged in the healthier catering agenda. The results, drawn from a survey of best practice from across the UK, and business interviews, suggest that both the design of a healthier catering initiative, and the engagement strategy adopted, can influence business participation rates and the willingness to make healthier changes.

The evidence suggests that specialist initiatives designed to address the particular type of food offered, and focused on a limited number of key changes such as healthier frying practices and reductions in salt, sugar and fat, may be more effective than more generic schemes. However, it is the potential of a scheme to generate new customers and increased profits, be it through offering free publicity or supporting the development of menus that save money or increase sales, which is likely to be of most interest to businesses. Thus engagement strategies need to emphasise the economic benefits to the business. Using peer-group pressure, carrot-and-stick tactics (promises of free publicity and threats of implementing legislative measures) and suggesting 'health by stealth' approaches were also found to be effective.

In determining the type of healthier changes a business can realistically make, public-health practitioners need to have a detailed understanding of the business and the local context in which it operates. They should then be able to determine the healthier 'marketing mix' and adopt 'nudging' tactics that might work for particular businesses. This requires intensive outreach work with businesses, together with follow-up and monitoring, all of which needs to be adequately resourced. Those involved in implementing healthier catering initiatives may also need further training to enable this detailed assessment of the business and its environment to be undertaken.

Thus voluntary agreements and nudging tactics such as the healthier catering

initiatives considered here can help encourage healthier catering and consumption, but are not necessarily a cheaper or more effective alternative to other forms of regulation, particularly with businesses in deprived areas. Further, more 'up-stream' intervention is also needed (perhaps through the taxation of unhealthy foods) if a more significant impact on obesity levels is to be achieved and health inequalities tackled. Healthier catering schemes should therefore form part of a much wider 'whole systems' approach to tackling obesity involving the supply chain and consumers, and, if need be, central government intervention.

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PROJECT OUTPUTS

A key output from the project has been the development of a toolkit designed to support those working to encourage healthier catering amongst fast-food businesses in deprived areas.
http://www.ifsip.org/takeaways_in_deprived_areas_toolkit.html?RequestId=4f5c7765

A webinar has been produced to highlight the wider policy issues of this research.
http://www.tifsip.org/areasoffocus/nutritionandhealth/practice/item.aspx?id=510&RequestId=ee17793b

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