

Takeaway use among Brent's school students

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1.0 Executive summary

Background

Over the years, people's eating habits and attitudes towards food have changed and there is increasing demand for convenience and fast foods, with one in every six meals now eaten out of the home in the UK¹.

Obesity levels are also increasing, and it is now the second largest cause of ill health and preventable disease worldwide². National figures report that about 46% of men and 35% of women are overweight and an additional 24% of men and 24% of women are obese in England. In Brent, 21% of adults are obese, similar to the national average of 24% and 40% of year 6 children are carrying excess weight, compared to the England average of 33%³.

The evidence of a relationship between living close to fast food takeaways and obesity rates are still unclear, however research shows that where there are a large number of fast food outlets in an area, there is an association with increased BMI in children⁴. There are 246 takeaway outlets in Brent⁵, and it is clear that our environment is becoming increasingly obesogenic with increasing amounts of fast food available and decreasing opportunities for incidental physical activity.

NICE guidance supports the notion that action on food environments needs to be taken, and recommends that planning restrictions for takeaways and other food outlets should be implemented by local planning authorities⁶. Government policies have recently recognised the impact of the environment on health and its ability to promote healthy decision making, and there is an opportunity, through planning policy, to promote healthier diets and reduce obesity.

A popular planning amendment has been to implement a hot food takeaway buffer zone around schools, and many local authorities have done, or are working towards this. Brent council is looking to implement this and the Council's healthy lifestyles team undertook some research with local students to determine whether an amendment such as this might result in a decrease of takeaway consumption among under 16s.

The healthy lifestyles team designed a bespoke questionnaire, and surveyed nearly 2500 local school students, to determine whether students who attended schools in areas with an abundance of takeaway options near by, consumed more takeaways each week than students who attended schools with no takeaways within a 400 m radius.

¹ Food Standards Agency Website. 2010. Available at: www.food.gov.uk/healthiercatering/healthycatering/cateringbusiness/calorie (Accessed October 2010). Cited In Takeaway briefing paper Mersey health

² Butland, Jebb, Kopelman P, et al. (2007). Tackling obesities: future choices – project report (2nd Ed). London: Foresight Programme of the Government Office for Science. www.bis.gov.uk/assets/bispartners/foresight/docs/obesity/17.pdf

³ http://www.apho.org.uk/resource/view.aspx?QN=HP_RESULTS&GEOGRAPHY=AE

⁴ Lin Biing-Hwan and Guthrie J. 1996. The Quality of Children's Diets At and Away From Home. *Food Review*. May-August 1996, 45-50. Cited in; In Takeaway briefing paper Mersey health

⁵ <http://bhh2nt44.env.brent.gov.uk/scripts/phase1/pr/acolnetcgi.exe?UNWRAP&RIPNAME=Root.Scoresondoors2>.

⁶ Department of Health. Healthy Lives, Healthy People: a Call to Action on Obesity in England. London: Department of Health 2011. Cited in; Healthy people, healthy places briefing, Obesity and the environment: regulating the growth of fast food outlets.

All year 7 and year 10 students from selected schools participated in the research. Teachers were involved and handed out the self reported questionnaires in form class, which guaranteed a very high response rate.

Main findings:

Importance of healthy eating

- 96% felt healthy eating was important
- 70% think they have a healthy diet, 74% outside the buffer zone and 64% inside the buffer zone reporting this
- 76% would like to eat more healthily
- 42% thought takeaways were not unhealthy

Frequency of takeaway consumption

Family dinner meals

- 40% said they have takeaways for dinner once a week with their families and 19% never eat them
- 66% of students from outside the buffer zone have takeaways with their families once a week or less, compared to only 50% from inside
- 78% of students have 5 or more dinners a week freshly prepared at home

Lunch options

- School dinners were the most popular lunch option, accounting for 52% of all lunch time meals, packed lunches accounting for 36% and takeaways accounting for 12%
- 64% never have hot food takeaway at lunch times, 66% from outside and 60% inside, 4% of students said they had hot food takeaway for lunch every day, and 71% of these don't think its unhealthy

Takeaways on the journey home

- 50% of students visit a hot food takeaway after school at least once in an average week; students from schools with no nearby takeaways are less likely do so (43%) than students from schools with nearby takeaways (62%).
- 25% of students who eat hot food takeaways 5 times a week after school, don't think that they are unhealthy, compared to 66% of students who don't eat hot food takeaways after school.

Convenience of takeaways during lunch break

- 20% of students would walk 4 minutes, and 17% of students would walk up to 10 minutes for hot food takeaways at lunch time
- 27% of students said they would not bother going out at lunch if they had to walk more than 8 minutes

Reasons for takeaway consumption

- Of students who do not visit takeaways, 48% said the main reason they don't is because they are unhealthy, 52% from outside the buffer zone compared to only 38% inside, and 38% don't go as it takes too long, 43% of these from outside and only 29% from inside the zone thought this
- The most popular reason for visiting were the taste, 62%, and that its cheap, 39%, and easy, 37%

- Only 12% of students admitted that “they eat what they like and they don’t care about eating healthily”

Preferred takeaway options

- 79% of students bought chips as their preferred purchase, followed by pizza, 48% and fried chicken, 48%
- 57% of students buy medium portions, followed by 34% choosing small and 13% choosing large
- 66% of students buy a fizzy drink with their takeaways

Age

- 80% of year 7 students think they have a healthy diet compared to 58% of year 10s.
- 58% of year 10s visit a hot food takeaway after school, compared to 42% of year 7s.
- 32% of year 7 students who do not visit hot food takeaways say it is because their parents do not allow them, compared with only 16% of year 10s.

Free school meals

- 29% of students were entitled to free school meals, 34% from inside the buffer zone compared to 25% outside
- 84% of students entitled have their free school meals, 88% inside compared to 79% outside

Conclusion:

Obesity is a complex and multi faceted issue and the food choices we make are affected by a number of factors. Government policies are now beginning to recognise that the environment can influence resident’s food choices, and are making efforts to implement more health promoting policies.

The convenience of reaching takeaways is important for students, with 27% saying they wouldn’t travel more than 8 minutes at lunch time, and 17% said they would walk up to 10 minutes; supporting previous research that some children will walk up to 800m (10 min walk) to visit a takeaway.

Students who attended schools with takeaways within a 400m radius of the schools consumed takeaways more often at lunch times, on the journey home and for the evening meal. This research supports implementing a 400m buffer zone around schools could reduce the number of visits made. However, the introduction of a larger buffer zone of 800m around schools could further reduce visits to takeaways by students and gain maximum benefit from the policy.

2.0 Introduction

2.1 The changing food environment

Over the years, people’s eating habits and attitudes towards food have changed, and although some people aspire to a healthier diet, there is increasing demand for convenience and fast foods. In the UK, one in every six meals is now eaten out of home, with men deriving a quarter of their energy and women a fifth from these foods⁷. This has been accompanied by a dramatic rise in the number of takeaways⁸, and this increase is largely concentrated in city centres and along arterial routes^{9,10}.

There are currently 246 takeaway outlets in Brent,¹¹ and research shows that where there are a large number of fast food outlets in an area, there is an association with increased BMI in children¹². These social and environmental trends are contributing to rising levels of overweight and obesity.

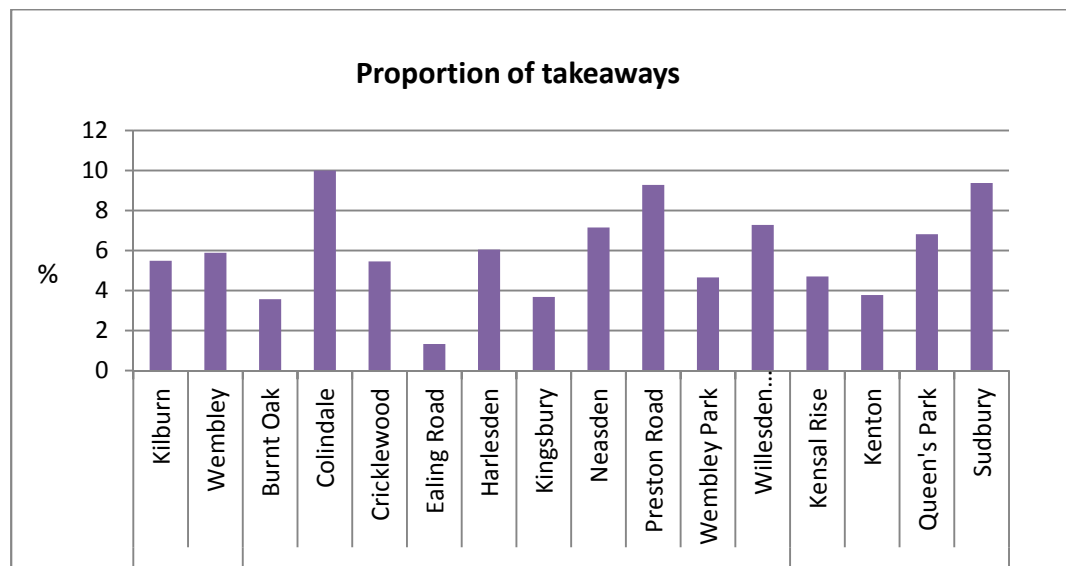


Figure 1-The average number of hot food takeaway (A5) businesses in Brent’s town centres.

The current food environment in the UK has been described as “obesogenic”, due to the saturation of takeaway outlets selling energy dense and nutrient poor foods, with options skewed towards unhealthy choices, making it increasingly difficult to choose the healthy option¹³.

⁷ Food Standards Agency Website. 2010. Available at:

www.food.gov.uk/healthiercatering/healthycatering/cateringbusiness/calorie (Accessed October 2010). Cited In Takeaway briefing paper Mersey health

⁸ Burgoine T, Lake AA, Stamp E, Alvanides S, Mathers JC, Adamson A. Changing foodscapes 1980-2000, using the ASH30 study. *Appetite* 2009;53:157-65. Cited in; Associations between exposure to takeaway food outlets

³ 4 Macintyre S, McKay L, Cummins S, Burns C. 2005. Out-of-home food outlets and area deprivation: case study in Glasgow, UK. *International Journal of Behavioral Nutrition and Physical Activity* 2(1), 16.

⁴ Caraher, Lloyd, and Madelin (2007). *Fast-Food in Tower Hamlets*. City University, London

⁵ <http://bhh2nt44.env.brent.gov.uk/scripts/phase1/pr/acolnetcgi.exe?UNWRAP&RIPNAME=Root.Scoresonddoors2>.

⁶ Lin Biing-Hwan and Guthrie J. 1996. The Quality of Children’s Diets At and Away From Home. *Food Review*. May-August 1996, 45-50. Cited in; In Takeaway briefing paper Mersey health

¹³ In Takeaway briefing paper Mersey health

Obesity is also correlated with socio-economic deprivation, and research undertaken by The National Obesity Observatory (NOO) found there are more fast food outlets per 100,000 population¹⁴ in areas of higher deprivation; providing further evidence that the food environment is impacting obesity levels, and more so in areas of higher deprivation¹⁵. It is widely accepted individuals from less affluent demographics have poorer diets than their more affluent counterparts, and Brent has high levels of both deprivation and takeaways, which is likely to contribute to the increasing obesity levels in the borough.

The body of evidence on the impact of the food environment and associated eating habits is increasing in response to rising obesity levels. A recent study carried out by Burgoine et al. (2014) found that “individuals more exposed to takeaway food outlets in their environment showed marginally higher consumption of takeaway food, greater body mass index, and greater odds of obesity”¹⁶, although a previous study found no relationship¹⁷. Government policies have recently recognised the impact of the environment on health and its ability to promote or inhibit healthy decision making, and there is an opportunity, through planning policy, to promote healthier diets and reduce obesity.

2.2 The importance of healthy food

Diets low in fruit and vegetables, and high in salt, fat, saturated fat and sugar can increase our risk of developing health problems such as, obesity, cardiovascular disease, type 2-diabetes and stroke.

Obesity is the second greatest cause of ill health and preventable disease worldwide, and continues to be a growing problem. The NOO estimated a cost of £15.8 billion per year to the UK economy from individuals who are overweight and obese (2007)¹⁸. Alongside this there is a growing burden on public sector resources, reaching far wider than the impact on health services alone. National figures report that about 46% of men and 35% of women are overweight and an additional 24% of men and 24% of women are obese in England. The PHO estimated in 2012 that approximately 21% of Brent’s population are obese, similar to the national average of 24%, and 24% of year 6 children are obese, compared to the England average of 19%¹⁹. Obesity is a multi faceted disease with many causes; though it is well known it can be primarily accounted for due to poor eating habits, consuming energy dense “junk foods”, increasing portion sizes and leading a sedentary lifestyle²⁰.

The average adult’s diet now contains too much saturated fat, salt, sugar, and is low in fruit and vegetables²¹. The NCSR estimate that only 34% of Brent’s adult population eat the recommended five portions of fruit and vegetables a day. The figures for children are better with approximately 52% of children eating enough fruit and vegetables, compared to 37% in the country as a whole.

¹⁴ <http://www.apho.org.uk/resource/item.aspx?RID=119493>

¹⁵ Am J Prev Med. 2005 Nov;29(4):308-10.

McDonald's restaurants and neighborhood deprivation in Scotland and England.

Cummins SC1, McKay L, MacIntyre S.

¹⁶ Burgoine T, Lake AA, Stamp E, Alvanides S, Mathers JC, Adamson A. Changing foodscapes 1980-2000, using the ASH30 study. *Appetite* 2009;53:157-65. Cited in; Associations between exposure to takeaway food outlets

¹⁷ Dolton P. (2010). Childhood obesity in the UK: is fast food a factor? Lessons to Take-Away Conference. 30 June 2010.

www.made.org.uk/images/uploads/2_Prof_P_Dolton_presentation.ppt

¹⁸ Butland, Jebb, Kopelman P, et al. (2007). Tackling obesities: future choices – project report (2nd Ed). London: Foresight Programme of the Government Office for Science. www.bis.gov.uk/assets/bispartners/foresight/docs/obesity/17.pdf

¹⁹ http://www.apho.org.uk/resource/view.aspx?QN=HP_RESULTS&GEOGRAPHY=AE

²⁰ <http://www.bis.gov.uk/assets/foresight/docs/obesity/17.pdf>

²¹ In takeaway tool kit

Takeaway meals generally have poor nutritional quality and high energy density²² compared to more traditional home cooked meals. Levels of salt, fat, saturated fat and sugar tested by WHICH?, showed that a single Indian takeaway could contain as much as 23.2g of saturated fat, more than the recommended 20g maximum allowance a woman should eat in a day²³.

The association between the overconsumption of takeaways foods and obesity has been widely researched; a systematic review published by the World Cancer Research Fund reported that regular consumption of fast foods, energy dense foods and sugary drinks was associated with weight gain and obesity²⁴.

2.3 Children and takeaway consumption

The uptake of school meals falls when children reach secondary school, with many students being allowed off site during lunch. Children who eat school meals are more likely to adopt a healthier diet in comparison to children who eat a packed lunch or takeaway²⁵. A report by the School Food Trust identified nationally, that there were 23 fast food outlets (including confectionary shops) per secondary school, and 25 outlets within urban areas²⁶, highlighting how individual food and drink choices can be influenced or determined by the environment we are in.

A wide range of high energy dense foods are easily accessible to children, whether this is during their journey to and from school or at lunch time. An environment saturated with unhealthy options is not conducive to supporting a healthy lifestyle; a previous study reported that children were consuming takeaway food on average 3 times a week²⁷. Research suggests that areas with a high density of fast food outlets are associated with increased BMI, and that a 5% increase in obesity rates can be seen where takeaways are within 160m of a school²⁸. As with adults, children who regularly eat takeaway foods often have less healthy diets, and they are more likely to come from families who have a higher level of deprivation.

The food choices children make outside of the home are often of poor nutritional quality and influenced by their peers. With more children traveling to and from school with their friends, independent of their parents, there is an increasing number of opportunities to choose unhealthy options.

²² Lloyd S, Caraher M, Madelin T: Fish and chips with a side order of fat: The nutrition implications of eating from fast-food outlets: a case study from east London. In submission 2011.

²³ Which? (2008) Pilau Talk.

²⁴ World Cancer Research Fund / American Institute for Cancer Research. Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective. Washington, DC: AICR, 2007. Cited in A Description and Characterisation of Food Catering Outlets near Glasgow Secondary Schools and Their Use by School Pupils: a Pilot Study

²⁵ Stevens L, Nelson M. The contribution of school meals and packed lunch to food consumption and nutrient intakes in UK primary school children from a low income population. *Journal of human nutrition and dietetics: the official journal of the British Dietetic Association*. [Comparative Study Research Support, non-U.S. Gov't]. 2011 Jun;24(3):223-32. Cited in; Healthy people, healthy places briefing, Obesity and the environment: regulating the growth of fast food outlets.

²⁶ <http://www.childrensfoodtrust.org.uk/news-and-events/news/junk-food-temptation>

²⁷ Lloyd, S, Madelin, T & Caraher, M (2010) The School Foodshed: Schools and fast-food outlets in a London borough. Sent for publication.

²⁸ Currie; DellaVigna; Moretti; Pathania (2010). The Effect of Fast Food Restaurants on Obesity and Weight Gain. *American Economic Journal: Economic Policy*, Vol 2, Number 3, August 2010, pp. 32-63(32).

2.4 The 400m buffer zone around schools

NICE guidelines for the “prevention of cardiovascular disease” supports the notion that action on food environments needs to be taken, and recommends that planning restrictions for takeaways and other food outlets should be implemented by local planning authorities. This view is supported by the government’s public health strategy ‘Healthy lives, healthy people’, which acknowledges that health considerations are an important part of planning policy²⁹. The National Planning Policy Framework (2012) states that planning principles should “take account of and support local strategies to improve health, social and cultural wellbeing for all and deliver sufficient community and cultural facilities and services to meet local needs³⁰”.

Recognising the importance of promoting healthy lifestyles, and the unique positions councils are in to create this opportunity, a number of local authorities are now implementing a hot food takeaway (A5) buffer zone around schools, as part of their commitment to combat obesity. A5 Hot-food takeaway premises are defined by the 2005 use Classes Order as "premises where the existing primary purpose is the sale of hot food to takeaway"³¹.

Most authorities implementing buffer zones have used a distance of 400m around schools, thus restricting planning approval to any new hot food takeaway business within this zone. This buffer zone equates to an 8 - 10 minute walk. Some areas have reported that children will walk 800m to visit a food outlet during the lunch break, and this concern is reflected in Brighton and Hove’s policy, which implements an 800m buffer zone.

Benefits to the restriction of takeaway outlets are expected, including increased kerb appeal, less discarded food waste and a greater variety in retail space used.

Brent council’s planning team are in the process of proposing an buffer zone to takeaway businesses (A5) in the borough. Planning permission will not be granted to any new takeaway (A5) within 400m of a secondary school or further education establishment and/or where it will result in more than 6% of the units within a neighbourhood centre frontage consisting of A5 uses; or where there are less than two non-A5 units between takeaways.

These changes to planning policy are a positive step to creating healthier environments, although it will not affect the takeaway outlets already in existence. To support this policy, more work needs to be done with takeaways to provide healthier options and schools to educate students about healthy choices.

²⁹ Department of Health. Healthy Lives, Healthy People: a Call to Action on Obesity in England. London: Department of Health 2011. Cited in; Healthy people, healthy places briefing, Obesity and the environment: regulating the growth of fast food outlets.

³⁰ DCLG, National Planning Policy Framework (2012), DCLG, page 6

³¹ Hot-food takeaways near schools; An impact study on takeaways near secondary schools in Brighton and Hove. September 2011

3.0 Methodology

3.1 Aims and objectives

Brent Council's Planning team are in the process of proposing a 400m buffer zone for new takeaway outlets around secondary schools in Brent. Other councils throughout England have already implemented this amendment, and it's been adopted in Wembley and Brent is looking to extend this to a borough wide policy. This research was undertaken to provide local data.

The aims of this research were to:

- provide the planning team with local evidence to support the 400m buffer zone policy amendment around secondary schools,
- to determine whether there was any measureable difference in takeaway use between students depending on the proximity of their school to local takeaway outlets;
- determine the frequency, time and type of takeaway visits made by secondary school children in Brent;
- understand the reasons as to why children in Brent choose to / not to visit takeaways;
- gain insight into the takeaway frequency of families in Brent; and
- measure student's perception and knowledge of healthy eating.

3.2 Questionnaire development

A bespoke questionnaire was designed by the Healthy Lifestyle Team at Brent Council for this research. The equalities and diversity and consultation teams at Brent Council approved the questionnaire.

There is substantial research surrounding the impact of children's food environment, and takeaways in particular, on children's eating habits. There are a few examples of surveys with small sample sizes that have been undertaken approaching children at takeaway outlets, however it was difficult to find any research with large sample sizes, or surveys asking all children rather than just those who visit takeaways. The questionnaire was developed taking into account previous research and advice from University Professors and other Councils about their work in this area. Aside from asking student's about their takeaway habits, questions regarding their perception of healthy eating and family eating habits were also included.

Takeaway outlets were defined within the questionnaire as Hot Food Takeaways (class A5 under the Town and country Planning 2005 Use of Classes Order), this is in line with the Planning teams planning proposal.

Following recommendations, the questionnaire was piloted at a local primary school prior to undertaking the formal research. A focus group was held with year 6 students to ensure they could follow the instructions and understand the wording, and led to a few minor changes being made.

You can see the full questionnaire in Appendix 1.

3.3 Data collection

3.3.1 Selecting secondary schools

The GIS team at Brent Council created a map showing all secondary schools and all 144 hot food takeaway outlets (A5) immediately surrounding schools in Brent. From this, schools were separated into two groups:

- schools with takeaway outlets within a 400m radius from the school (inside)
- schools with no takeaway outlets within a 400m radius from the school (outside)

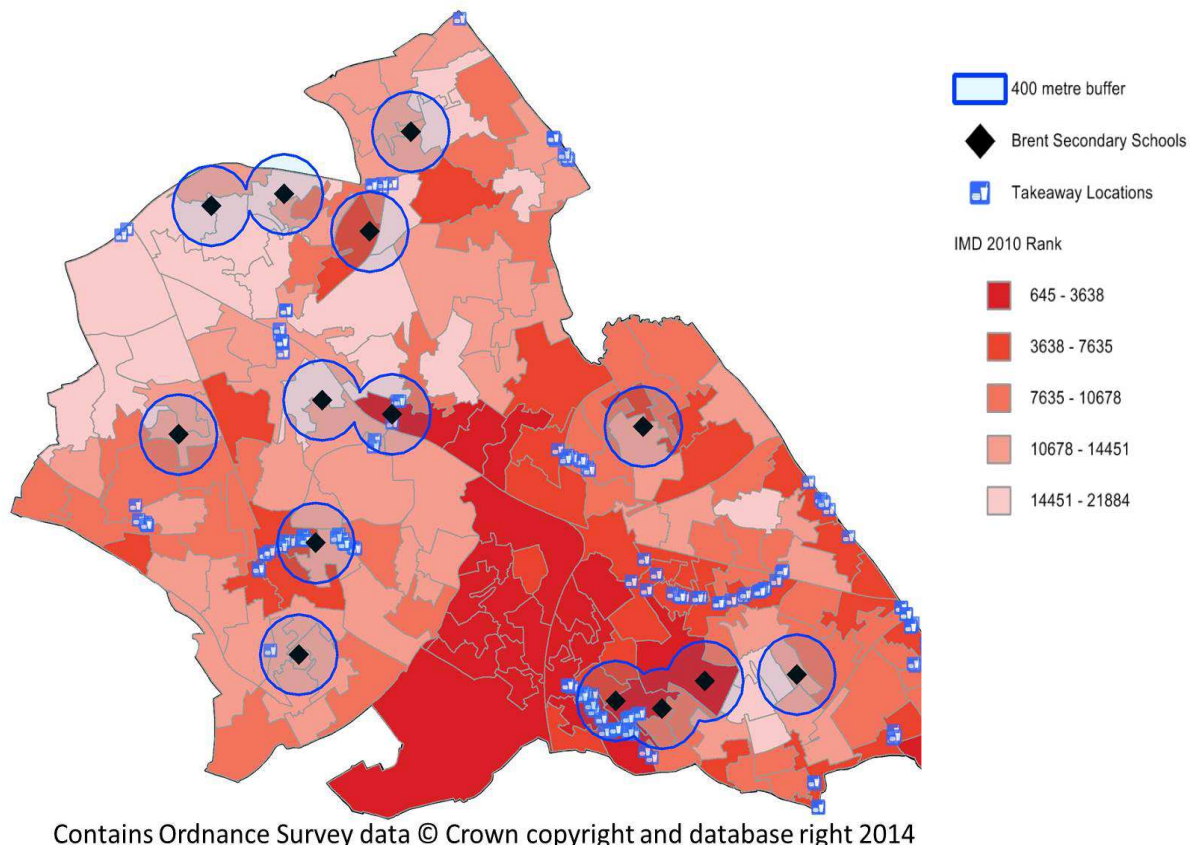


Figure 2 – Secondary schools in Brent mapped on the index of multiple deprivation (2010) with major takeaway areas. The blue circles represent a 400m radius around schools.

Schools were selected to take part in their study due to two main factors:

- a good geographic spread of schools throughout the borough
- proximity of schools to takeaway outlets – aiming for 50% of students to attend schools that had takeaway outlets within the 400m buffer zone, and 50% of those who don't.

The target sample size population was 2000 students.

3.3.2 Invitation to schools

Once selected, an initial email was sent to the head teacher at each school inviting them to participate in the research. The email included information about the purpose and aim of the research, and highlighted the importance of local data to support the proposed 400m buffer zone around schools (see Appendix 2).

Following this, each school was then contacted by telephone; the outcomes of these conversations varied and determined the next action.

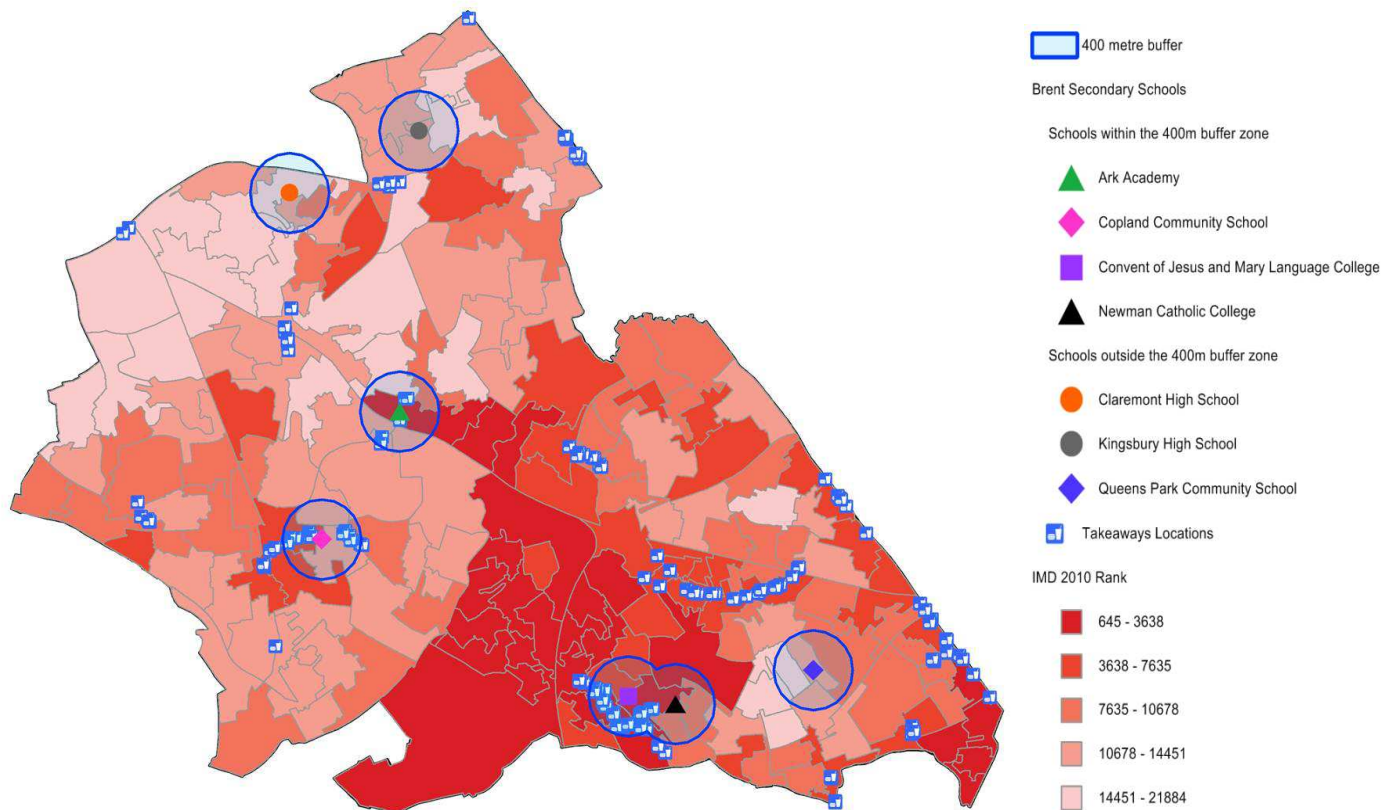
Once a school agreed to take part in the research, questionnaires were delivered to the school and completed during form time or PHE lessons. All year 7 and year 10 students at selected schools were expected to participate.

The questionnaires were then collected from the school by a member of the healthy lifestyles team.

Six secondary schools were contacted initially, three with takeaways inside the 400m radius, and three without, four agreed and two schools declined to take part. A further seven schools were then approached, and three of these agreed to participate. All schools which had takeaways within the buffer zone were contacted.

The seven schools which participated in the research are listed below. Kingsbury and Queens Park schools are larger than average, so it was anticipated that this split would give us approximately 50% of students from each group.

Schools with takeaway outlets within a 400m radius	Schools with no takeaway outlets within a 400m radius
Convent of Jesus and Mary Language College	Claremont High School
Copland Community School	Kingsbury High School
Newman catholic college	Queens Park Community School
Ark Academy	



Contains Ordnance Survey data © Crown copyright and database right 2014

Figure 3 – Participating secondary schools in Brent mapped on the index of multiple deprivation (2010) with major takeaway areas. The blue circles represent a 400m radius around schools.

3.4 Data entry

The completed questionnaires were sent to SNAP surveys, an independent consultancy company for input by an independent organisation ensuring no bias was entered into the results.

3.5 Data analysis

Data analysis was run by the Consultation Team and the Public Health Analyst at Brent Council.

4.0 Results

4.1. Sample size and response rate

Overall there was a positive response from schools to take part in the survey; a total of 2418 questionnaires were completed by seven secondary schools across the Borough. It is not possible to calculate the actual response rate, as class sizes on the day the survey was distributed were not counted. However, the survey was handed out by teachers to all attending students who were just told to complete it, and very few blank surveys came back from schools so it is expected that a very high percentage of those in attendance that day completed the questionnaire.

The table below shows the breakdown of completed questionnaires, 978 questionnaires were received from the four schools with takeaway outlets in a 400m radius, and 1440 from the three schools with no takeaway outlets within the buffer zone.

Table 2: Total questionnaires returned from each school

	Schools	Completed questionnaires	Percentage respondents
Within the 400m buffer zone	Convent of Jesus and Mary Language College	299	12.4%
	Copland Community School	241	10.0%
	Newman catholic college	130	5.4%
	Ark Academy	308	12.7%
Sub total inside:		978	40.5%
Outside the 400m buffer zone	Claremont High School	311	12.9%
	Kingsbury High School	503	20.8%
	Queens Park Community School	626	25.9%
Sub total outside:		1440	59.5%
Total		2418	100%

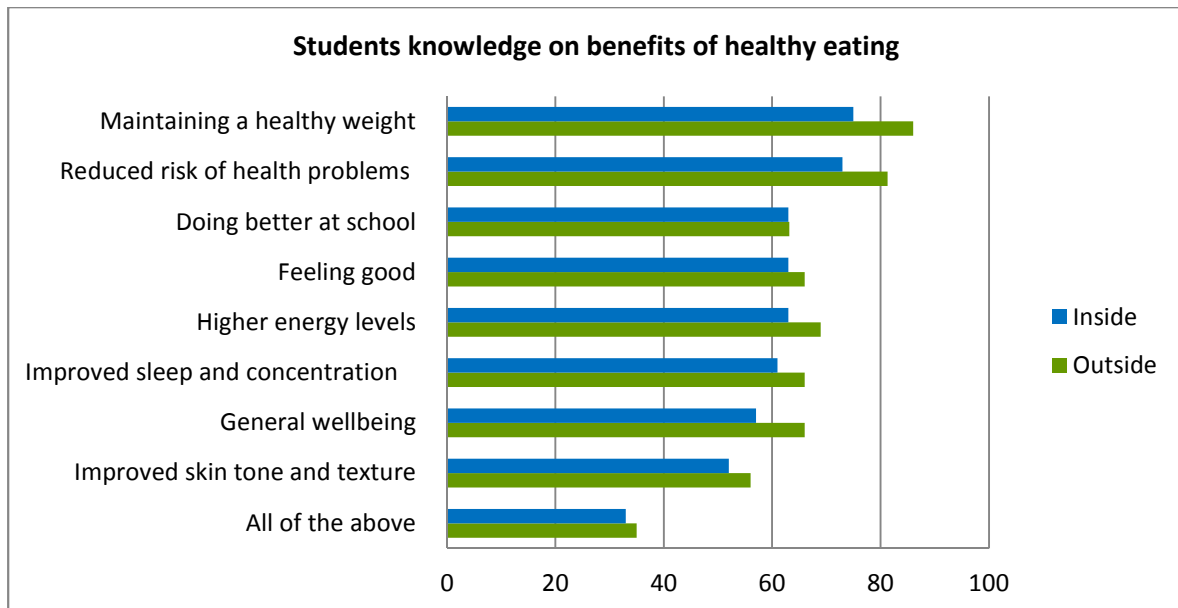
4.2 Questionnaire results

Where results below are split according to location, “inside” refers to schools that have takeaway outlets within a 400m radius, and “outside” refers to schools that do not.

4.2.1 Importance of healthy eating

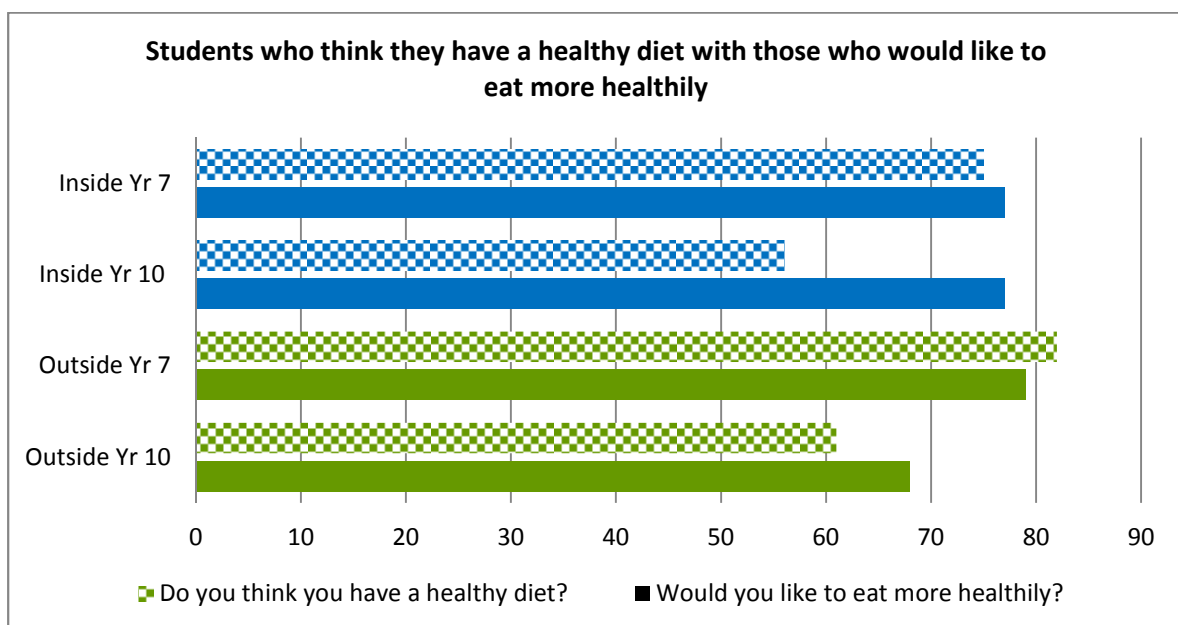
Overall 96% of students felt healthy eating was important. The results were similar between males, 96% and females, 97%, and year 7 students, 97%, and year 10 students, 95%, and a difference was noted between schools, with New Catholic College reporting 92%, and Claremont High School and Copland Community reporting 98%.

When looking at the overall responses from inside and outside the 400m buffer zone, the reported benefits of healthy eating are similar: maintaining a healthy weight, 75%, 86%, and reduced risk of health problems, 73%, 81%, are the highest selected benefits. Students from schools outside the buffer zone selected slightly more benefits of healthy eating.



70% of students reported positively to the question “Do you think you have a healthy diet?” More students outside the buffer zone felt they had a healthy diet, 74%, compared to inside, 64%. There was a clear divide between year groups; with 80% of year 7s compared to 58% of year 10s.

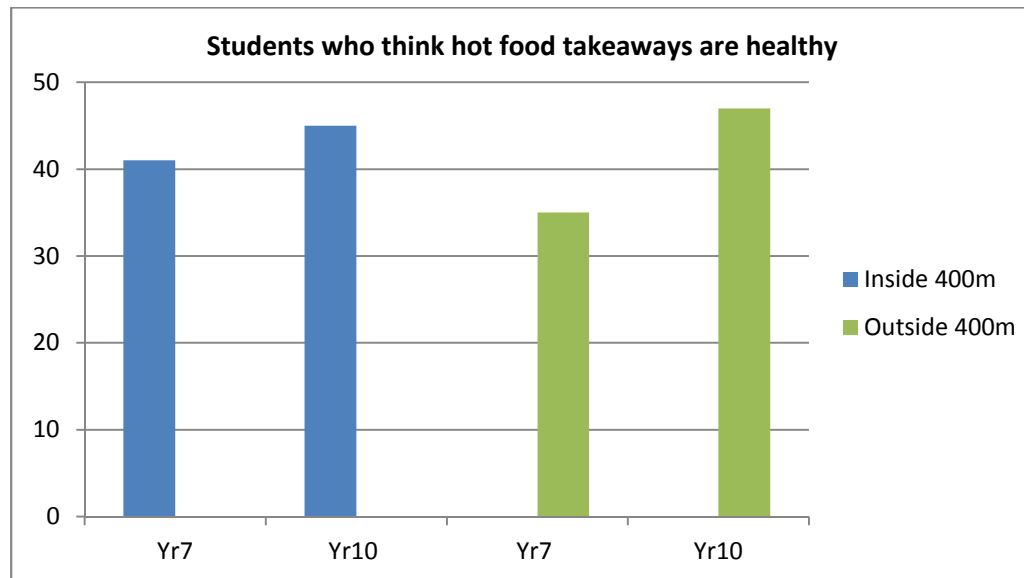
76% of students reported they would like to eat more healthily. More students inside the buffer zone responded “yes” to this question, 77%, compared to students outside, 75%. There was no difference inside the buffer zone between the year 7s, and year 10s, 77%, however there was a clearer divide outside the buffer between the year 7s, 79% and year 10s, 68%.



The biggest difference in students who think they eat healthily but would still like to eat more healthily is in year 10 students inside the buffer zone, with 21% thinking this. The only group who

didn't strive to eat more healthily was the year 7s outside the buffer zone, whom 82% think they have a healthy diet and 79% who would like to eat more healthily.

42% of students felt hot food takeaways were not unhealthy. This figure rose to 44% among students inside the buffer zone compared with 40% from outside. Looking at the graph below you can see overall that more year 10 students, regardless of location, think hot food takeaways are not unhealthy.



4.2.2 Frequency of takeaway consumption

Students were then asked about the frequency with which they ate takeaway foods, both alone and with their families.

Family dinner meals

40% of students reported eating one hot food takeaway a week with their family; this was followed by 21% who indicated twice a week and 19% who had no takeaways at all. 2% of students reported eating takeaways with their families seven days a week.

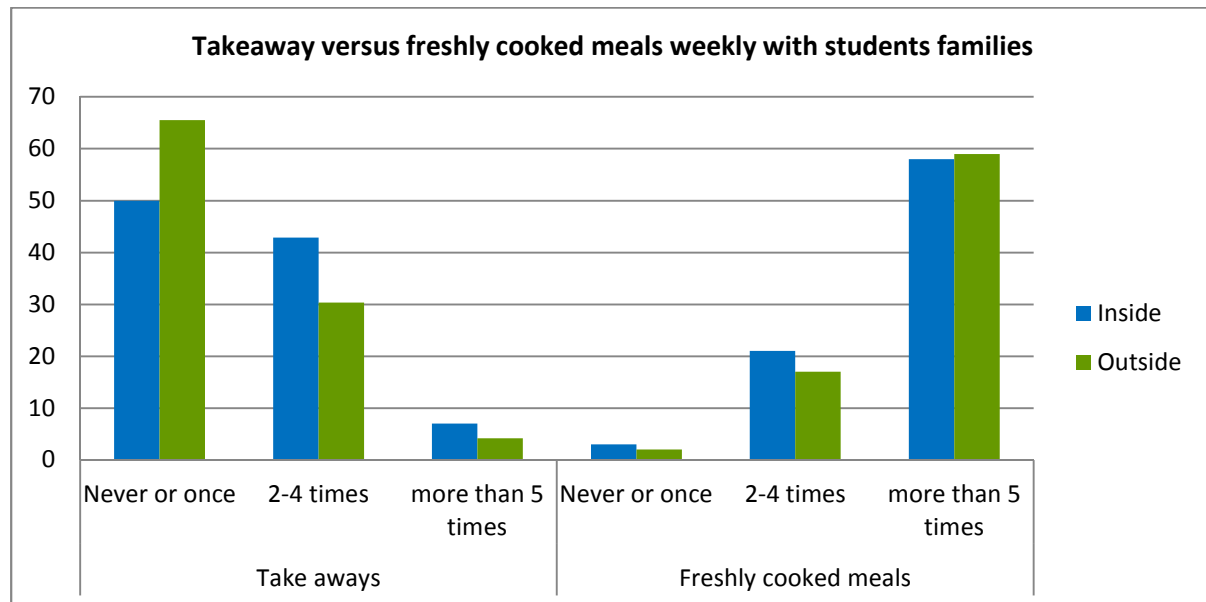
Looking at the difference between the schools, those students from outside the buffer zone had significantly fewer takeaways with their families; with 66% reporting never or once compared to 50%, 30% having 2 – 4 times compared to 43%, and 1% having it 7 times a week or more compared to 3%.

78% of students have five or more dinners cooked from scratch, with only 3% of students having a one or fewer meals a week freshly prepared. There is less difference between locations than for the number of takeaways consumed with families. There is little difference between locations for 5 or more meals prepared freshly with 76% inside and 80% outside.

19% of year 10 students inside the buffer zone have two-four meals freshly prepared from scratch, this is higher when compared to those outside, 15%, and this is also the case for the year 7s, with

25% inside compared to 18% outside the buffer zone. More year 10 pupils outside the buffer zone have more than 5 meals prepared from scratch, 61%, when compared to the inside, 59%, this is also the case for the year 7's with 58% outside and 57% inside.

Further analysis showed that 87% of students, who have 6 weekly meals prepared from scratch, have a hot food takeaway at least once a week with their family.

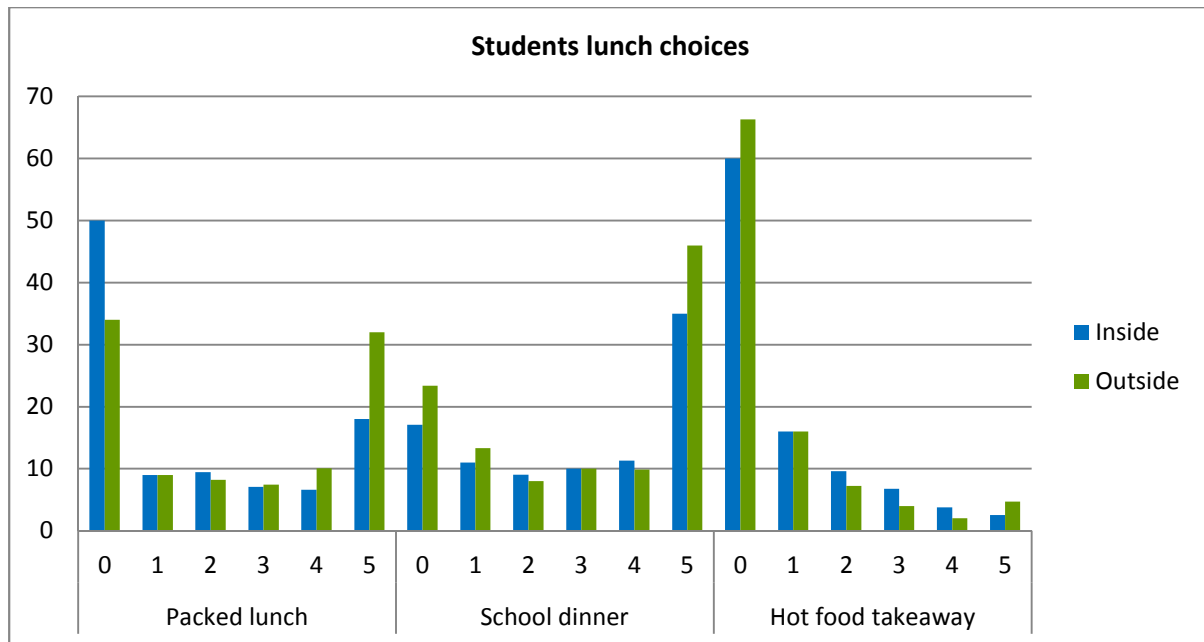


Lunch options – consumption of packed lunches, schools dinners and hot food takeaways

Students were asked how often they had packed lunches, school dinners and hot food takeaways for lunch.

School dinners were the most popular lunch option, accounting for 52% of all lunches, with packed lunches accounting for 36% and take ways 12%.

As a proportion of meals eaten in schools, these percentages were substantially different. Inside the buffer zone, packed lunches made up 28%, school dinners made up 59% and takeaway meals made up 13%. For schools outside the buffer zone, these figures were 42%, 47% and 11% respectively. The biggest difference was seen in packed lunches, with an extra 14% of students eating these from schools outside the buffer zone, and school dinners were 12% more popular from schools inside the buffer zone.



Overall 41% of students never bring a packed lunch from home; with this figure being 50% from students inside the buffer zone compared to only 34% for students outside. There is a big difference between the year 7 students with double the number, 63% of students, inside the buffer zone never bringing a packed lunch all, compared to 32% outside. This is not so extreme for the year 10s, with 42% and 36% respectively. A small number of students bring a packed lunch for just a few days in the week. Only 26% of students bring a packed lunch five days a week, and this is higher among students from outside the buffer zone, 32%, compared to inside 18%.

38% of students have school dinners 5 days a week, with this figure rising to 41% inside the buffer zone, compared to 35% outside. More year 7 students have school dinners every day, 46%, compared to the year 10s, 29%. 21% of students never eat school dinners, and this is higher among year 10 students, 26% inside and 29% outside, than year 7 students, 5% inside and 20% outside. Fewer students from inside the buffer never have school dinners, 17% compared to 23% outside.

Overall, 36% of students eat hot food takeaway for lunch at least once a week, although it should be noted that this question was poorly answered, with only 71% of students inside, and 68% of students outside, the buffer zone answering it. A higher percentage of year 10 students have hot food takeaway once a week a more, 43%, compared to only 28% of year 7s.

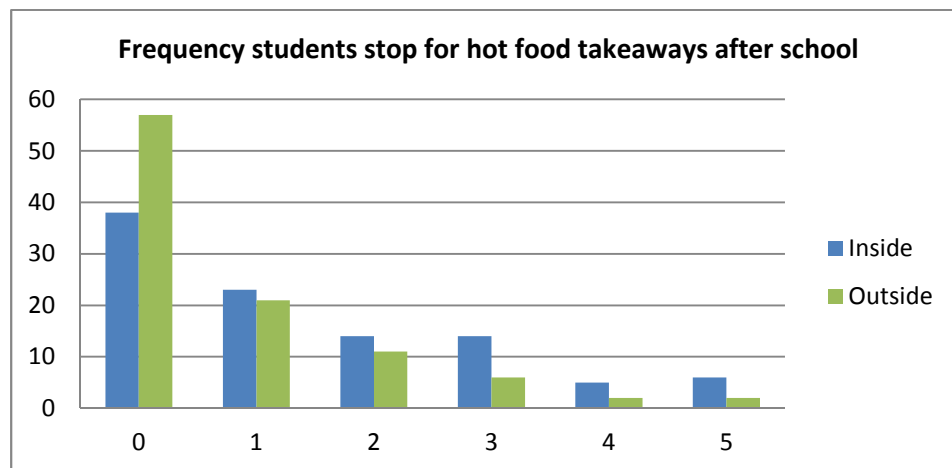
Surprisingly, a higher percentage of students outside the buffer zone, 5%, said they had hot food takeaways for lunch 5 times a week, compared to 3% inside. 6% of year 10s compared to 2% of year 7s eat hot food takeaways daily.

66% of students from outside the buffer zone never have hot food takeaways for lunch compare to only 60% from inside the buffer zone. A higher percentage of year 7 students, 72%, compared to year 10 students, 57%, also reported this.

62% of students who never have hot food takeaway for lunch, said that this food was unhealthy. Interestingly, 71% of students who have hot food takeaways 5 days a week for lunch, don't think takeaways are unhealthy.

Consumption of takeaways on journey home after school

50% of students visit a hot food takeaway after school at least once in an average week; students from schools with no nearby takeaways are less likely do so (43%) than students from schools with nearby takeaways (62%). 22% of students visit once a week on their journey home, and this is higher inside the buffer zone, 23% compared to outside, 21%. Across the whole week a higher percentage of students from inside the buffer zone have hot food takeaways on their way home from school. Year 10s are also more likely to visit a hot food takeaway on the way home than year 7s, 58% and 42% respectively.

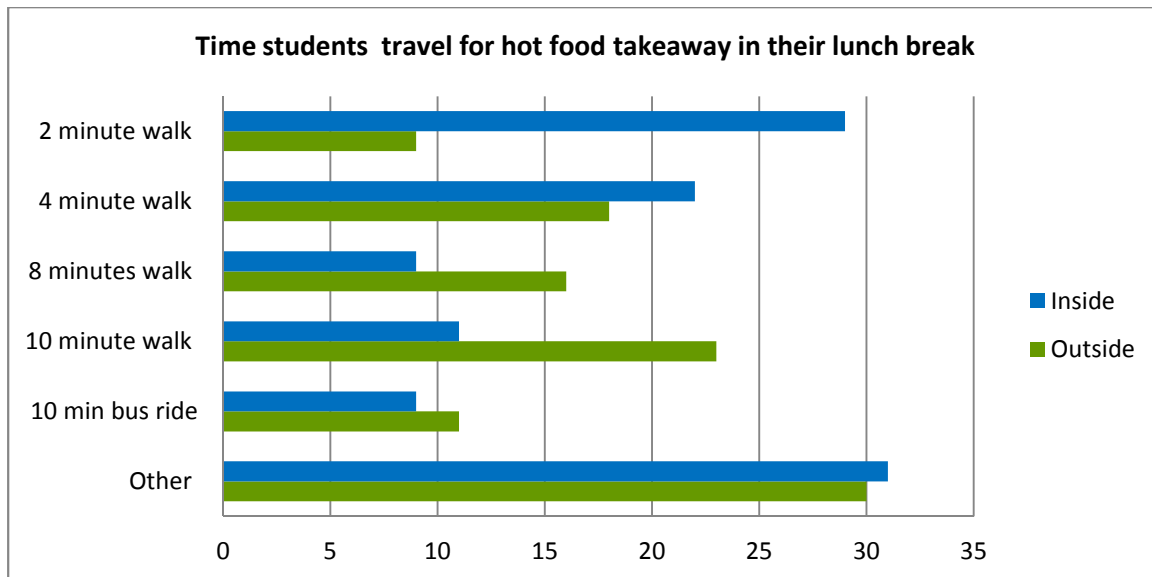


Only 25% of students that had 5 takeaways a week after school felt takeaways were unhealthy, compared to 66% of students that did not visit a hot food takeaway on their way home.

There is considerable variation in these responses when broken down by ethnicity. Black students are the most likely to visit takeaways after school, with 67% visiting at least once a week, compared to only 37% of white students. 46% of Asian students and 52% of mixed students also had hot food takeaways at least once a week after school.

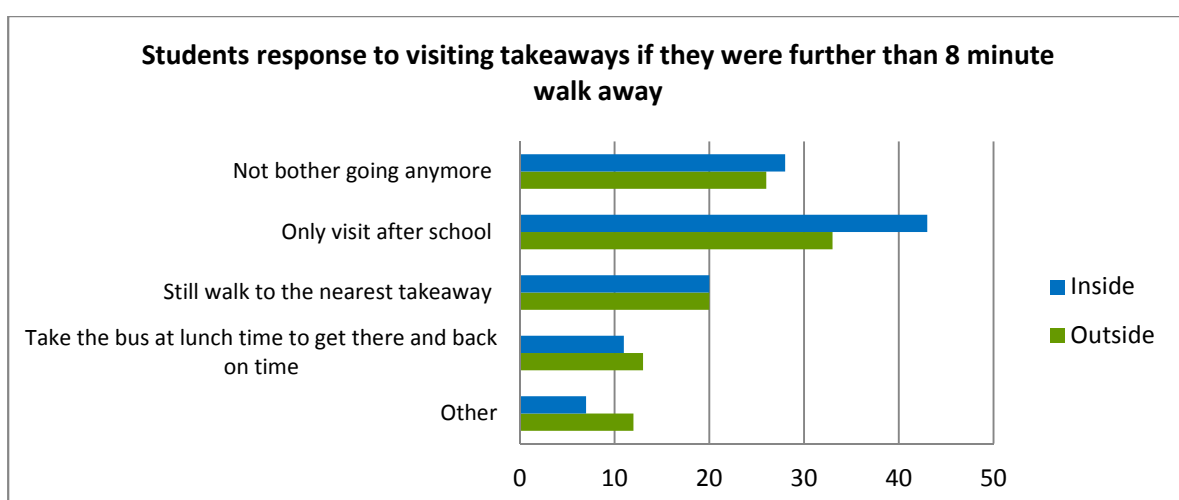
4.2.3 Convenience of takeaways during lunch break

When asked “how long they would spend travelling during a lunch break to visit a hot food takeaway” 30% of students chose the “other” with the majority of “other” responses being that they don’t go at all or the school does not allow them out at lunch. A smaller number of students suggested they travel up to 30 minutes walking or via public transport. Following this option, 20% would walk 4 minutes, 18% would walk 2 minutes, 13% would walk 8 minutes, 17% would walk 10 minutes and 10% would take the bus.



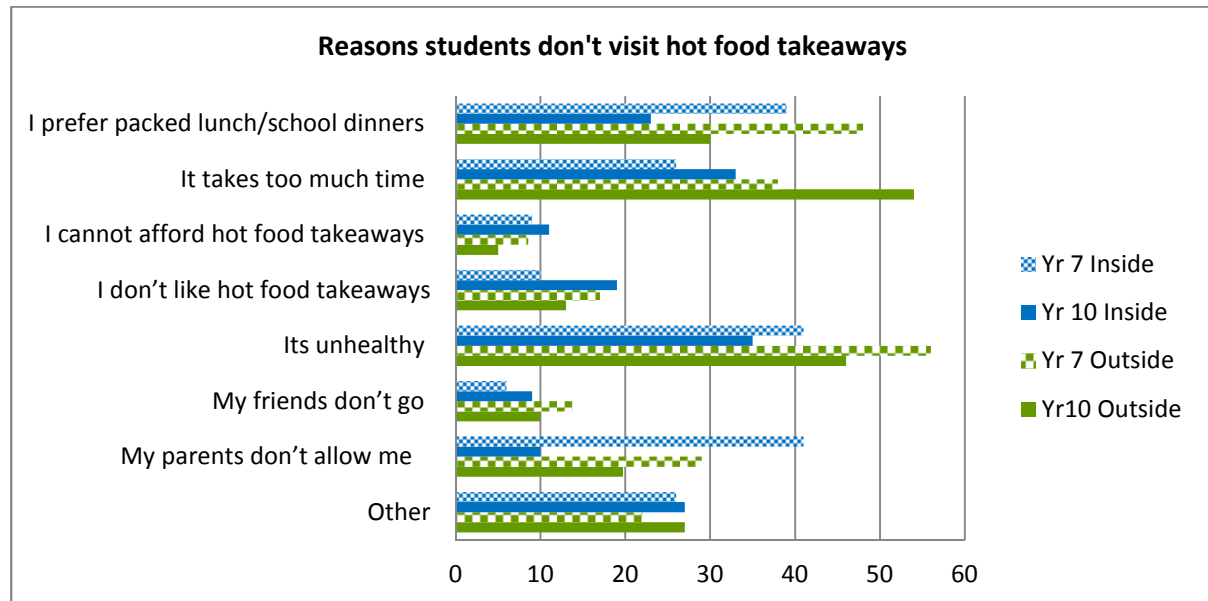
There is clear split in travel times between students attending schools inside and outside the buffer zone, with a higher percentage of students inside the buffer zone reporting a shorter journey, whereas more students outside said they would walk for a longer period. This contrast is also evenly represented between the year groups, for example 22% of year 7s and 22% of year 10s inside the buffer zone said they would walk 4 minutes to visit a hot food takeaway.

27% of students said that if there was no takeaway within an 8 minute walk then they would not bother going anymore, and this was evenly split between areas, with 28% inside and 26% outside the buffer zone. 37% said they would only visit after school, and this was higher among students inside the buffer zone, 43% than outside, 33%. Some students said they would still walk to the nearest takeaway, 20%, this was the same by area, though slightly more year10 students said they would continue to walk, 21% compared to 19%.



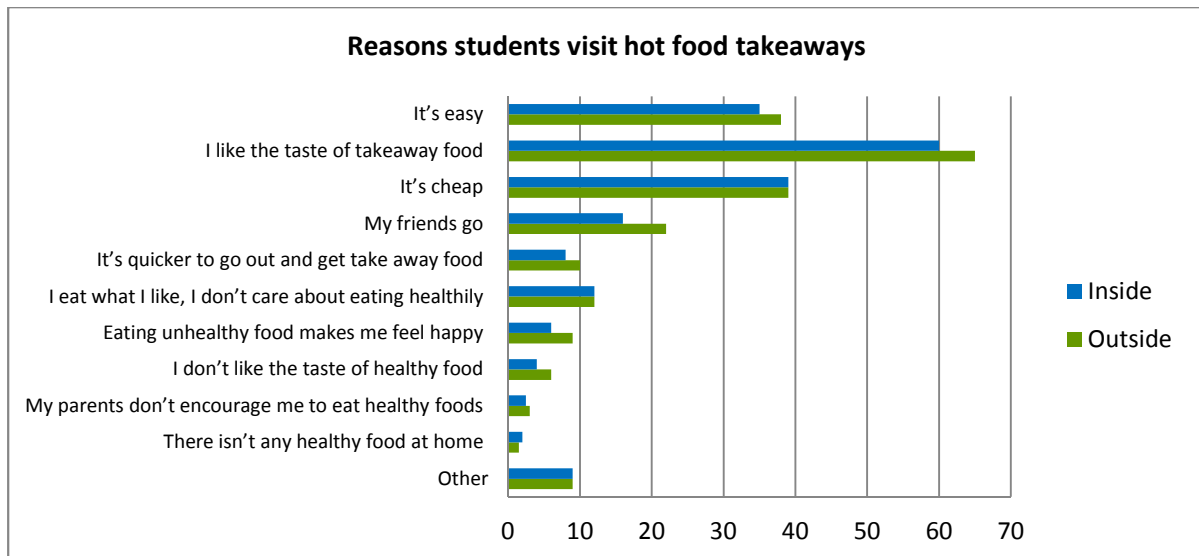
4.2.4 Reasons for takeaway consumption

Of the students who reported that they did not visit takeaways, 48% stated that this was because it was unhealthy; this figure rose to 52% outside the buffer zone compared with 38% inside. 38% of students said it takes too long, and more students outside the buffer zone selected this, 43% compared to inside, 29%. 38% stated they preferred to take a packed lunch or eat school dinners, with more students outside the buffer zone selected this option, 41%, compared to 30%. Only 8% said they did not buy takeaways as they couldn't afford it, and this was slightly higher inside the buffer zone, 10%, compared to outside, 7%.



More year 7 students said that their parents don't allow them to visit hot food takeaways compared to year 10s, this was highest amongst year 7s inside the buffer zone, 41%. More year 7 students said they preferred pack lunch/school dinners compared to the year 10s, this was highest for the year 7s outside the buffer zone, 48%. Only 5% of year 10 students from outside the buffer zone said cost was a factor compared to 11% inside. 54% of year 10 students from outside the buffer zone said it took too much time, compared to only 33% from inside.

Students who reported visiting hot food takeaways did so because of the taste, 62%, 60% inside and 65% outside. Other popular answers were its cheap, 39%, and its easy, 37%, both results similar between areas. 12% of students said they eat what they like, they don't care about eating healthily, and this was the same for both areas. The least reported reasons were that there is no healthy food at home, 2%, followed by my parents don't encourage me to eat healthy foods, 3%.



4.2.5 Preferred takeaway options

The most popular item to buy was chips, with 79% of students saying this was their preferred choice, evenly split between areas. Both pizza, 48%, and fried chicken, 48%, were also popular choices. The least popular options were a battered sausage, 7%, veggie burger, 7%, and curry 7%.

	Inside		Outside	
	Year 7	Year 10	Year 7	Year 10
Chips	77	79	79	80
Fried chicken	39	52	50	46
Pizza	45	46	53	49
Kebab	20	21	28	29
Battered sausage	8	4	11	8
Fish	13	9	17	8
Chicken Nuggets	26	23	30	22
Curry	8	4	12	7
Burger	35	42	42	48
Fried dumplings	9	6	7	8
Veggie burger	8	4	8	7
Fried onion rings	8	4	10	8
Other	15	12	14	12

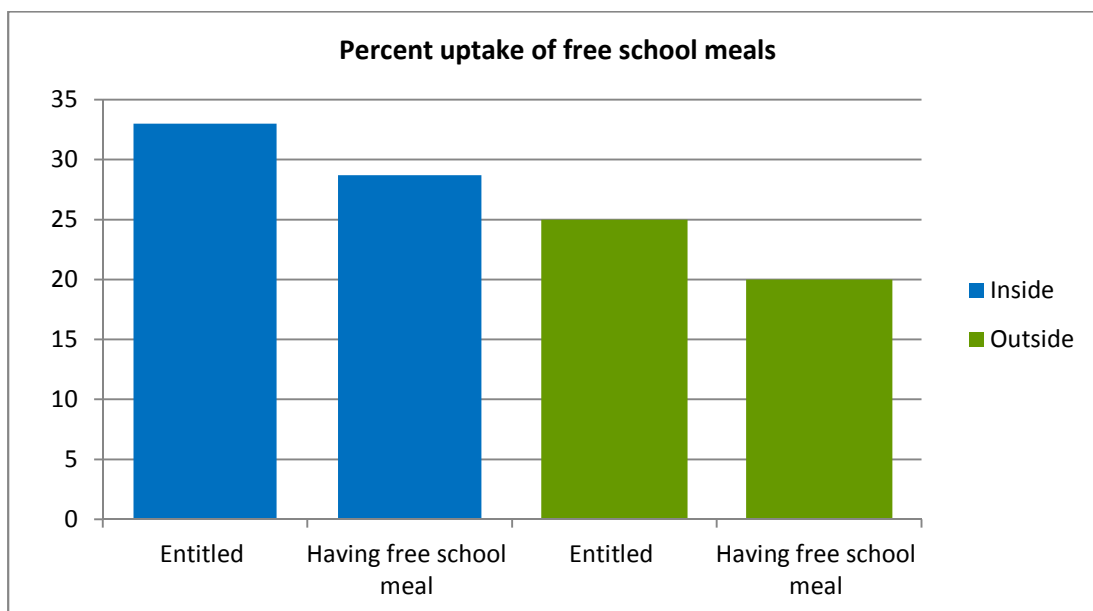
The majority of students, 57%, would usually buy a medium sized portion, with 34% choosing small and 13% buying a large portion. More year 7s choose smaller portion sizes compared to year 10s, 39% compared to 31%, with no real difference between areas, and more year 10s chose a medium portion compared to the year 7s, 60% compared to 53%.

	Inside		Outside	
	Year 7	Year 10	Year 7	Year 10
Small	40	29	38	33
Medium	53	64	52	55
Large	10	13	12	15
Other	3	2	4	3

66% of students usually buy a fizzy drink, and this selected by more year 10s than year 7s. Only 10% of students said they would purchase a diet fizzy drink. Water was also a popular choice with 28% opting to buy this. More students inside the buffer zone, 29%, would choose a fruit smoothie or juice compared to outside, 21%. There was no difference between buying an energy drink, squash, or milkshake, 23%.

4.2.6 Free school meals

29% of students said they were entitled to free school meals, and 84% of these said they ate them. 57% of students eligible for free school meals never have a takeaway during their lunch break and 15% would have one once a week. More students inside the buffer zone were both entitled to free school meals, 34% compared to 25%, and ate them, 88% compared to 79%.



4.2.7 Demographics

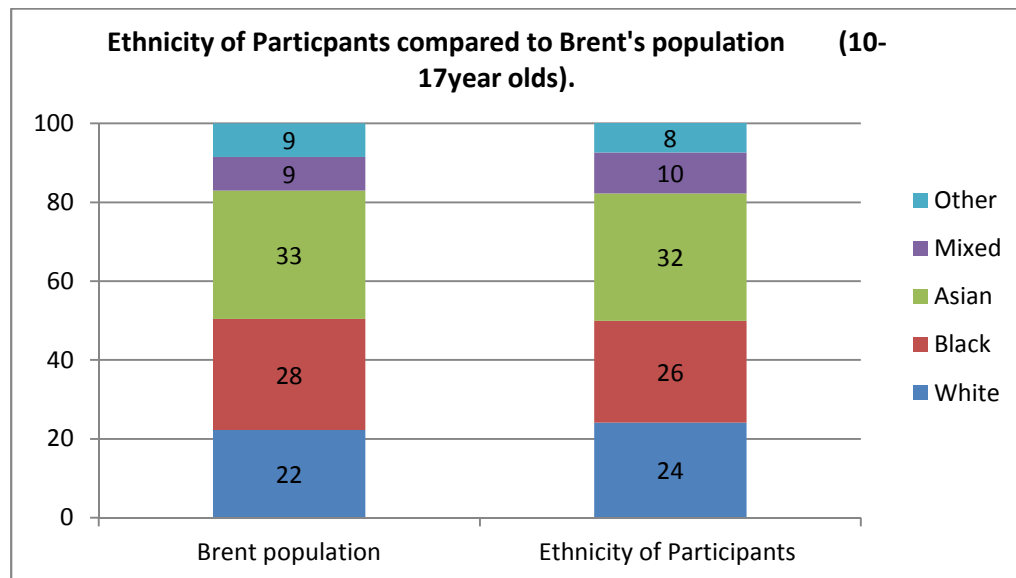
Gender breakdown

There was a fairly even split between male and females that completed the questionnaire, in total there were 1,162 females, 51% and 1,101, 49%, males. This is fairly representative of Brent's population, which is currently 52% female and 48% male

Age

52% of respondents were in year 7, and 48% of respondents were in year 10.

Ethnicity



Participants involved in the survey were fairly representative of Brent's diversity. There was a higher proportion of Mixed and Black students and fewer White students compared to Brent's population.

Religion

There are a couple of differences in the religion of participants compared to Brent's population, with fewer Christians and more Muslims responding than expected.

	Brent Population	Participants	Difference
Buddhist	1	1	0
Christian	38	35	-13
Hindu	15	15	-2
Jewish	1	0	-2
Muslim	31	30	18
Sikh	1	0	-1
No religious belief	7	8	-2
Prefer not to say	7	3	-5
Other	1	4	3

5.0 Discussion

5.1 Main findings

Importance of healthy eating

- 96% felt healthy eating was important
- 70% think they have a healthy diet, 74% outside the buffer zone and 64% inside the buffer zone reporting this
- 76% would like to eat more healthily
- 42% thought takeaways were not unhealthy

Frequency of takeaway consumption

Family dinner meals

- 40% said they have takeaways for dinner once a week with their families and 19% never eat them
- 66% of students from outside the buffer zone have takeaways with their families once a week or less, compared to only 50% from inside
- 78% of students have 5 or more dinners a week freshly prepared at home, and 58% have more than 5

Lunch options

- School dinners were the most popular lunch option, accounting for 52% of all lunch time meals, packed lunches accounting for 36% and takeaways accounting for 12%
- 64% never have hot food takeaway at lunch times, 66% from outside and 60% inside, 4% of students said they had hot food takeaway for lunch every day, and 71% of these don't think its unhealthy

Takeaways on the journey home

- 50% of students visit a hot food takeaway after school at least once in an average week; students from schools with no nearby takeaways are less likely do so (43%) than students from schools with nearby takeaways (62%)
- 25% of students who eat hot food takeaways 5 times a week after school, don't think that they are unhealthy, compared to 66% of students who don't eat hot food takeaways after school

Convenience of takeaways during lunch break

- 20% of students would walk 4 minutes, and 17% of students would walk up to 10 minutes for hot food takeaways at lunch time
- 27% of students said they would not bother going out at lunch if they had to walk more than 8 minutes

Reasons for takeaway consumption

- Of students who do not visit takeaways, 48% said the main reason they don't is because they are unhealthy, 52% outside the buffer zone compared to only 38% inside, and 38% don't go as it takes too long, 43% from outside and only 29% from inside the buffer zone
- The most popular reason for visiting were the taste, 62%, and that its cheap, 39%, and easy, 37%

- Only 12% of students admitted that “they eat what they like and they don’t care about eating healthily”

Preferred takeaway options

- 79% of students bought chips as their preferred purchase, followed by pizza, 48% and fried chicken, 48%
- 57% of students buy medium portions, followed by 34% choosing small and 13% choosing large
- 66% of students buy a fizzy drink with their takeaways

Age

- 80% of year 7 students think they have a healthy diet compared to 58% of year 10s
- 58% of year 10s visit a hot food takeaway after school at least once a week, compared to 42% of year 7s
- 32% of year 7 students who do not visit takeaways at all say it is because their parents do not allow them, compared to only 16% of year 10s

Free school meals

- 29% of students were entitled to free school meals, 34% inside the buffer zone compared to 25% outside
- 84% of students entitled have their free school meals, 88% inside compared to 79% outside

5.2 Discussion and implications

Overall, students who attended schools with no hot food takeaways within 400m of the school boundary scored “better” ie. the healthier option across all questions.

5.2.1 Importance of healthy eating

96% of students participating in the research felt that healthy eating was important and thought the main benefits of having a healthy diet were to maintain a healthy weight and reduce the risk of health problems, with students from outside the buffer zone able to identify more benefits to healthy eating. Only 34% of students agreed that all listed options were benefits of a healthy diet, showing that children are not aware of the extent to which healthy eating can benefit their general health and well being.

Although nearly all students recognised that a healthy diet is important, 70% of students felt their diet was healthy, and 76% of students indicated a desire to eat more healthily.

More students from outside the buffer zone reported eating a healthy diet, 74% compared to 64%. Year 10s from inside the buffer zone reported the lowest levels of healthy diet at 56%. 77% of students from inside the buffer zone would like to eat more healthily, compared to 75% outside.

58% thought hot food takeaways were unhealthy, and this was higher outside the buffer zone, 60%. 71% of students who had hot food takeaway for lunch 5 days a week, and 75% who had hot food takeaway after school 5 days a week did not think takeaways were unhealthy.

The majority of both females, 97%, and males, 96%, thought that healthy eating was important but more males, 73%, than females, 66%, thought they had a healthy diet.

Research shows that children's assumption of a healthy diet is based on how many pieces of fruit and vegetables they eat³²; and in Brent only half meet this recommendation. The health belief model proposes that if a person does not consider their diet or dietary choice to be unhealthy, they are unlikely to make any changes to improve their health³³.

This is reinforced in these findings, and students in Brent require better education on the benefits of healthy food, what constitutes healthy food, and the implications of poor eating habits throughout their lifecycle.

5.2.2 Frequency of takeaway consumption

Students who attended schools inside the buffer zone consumed more takeaway food during lunch times, on the journey home, and with their families for dinner.

Family dinner choices

Home post code data wasn't collected so it is not possible to determine whether more families live within 400m from a take way, if students attend a school that is. However, attending a school that is still provides them with exposure to takeaways.

Only 14% of students from within the buffer zone reported not eating takeaways for dinner with their families in a usual week, compared to 22% for those outside the buffer zone, and these figures rose to 50% and 66% respectively for once a week or less. 59% of students from outside the buffer zone had more than 5 freshly prepared meals compared meals a week compared to 58% from those inside.

Lunch options

66% of students from outside the buffer zone don't have a takeaway for lunch in a usual week, compared to 60% from inside, with higher percentages from inside reporting eating takeaway 1 – 4 times a week. Interestingly, more students from outside the buffer zone reported eating takeaway for lunch every day, and this was 5% compared to 3%.

Only year 10s from Kingsbury are officially allowed off site during lunch, however this was not reflected in the results, with some students from all schools and all years visiting takeaways at lunch time.

Students who attended schools inside the buffer zone, did consume more school dinners, 41% compared to 35% five times a week, and fewer students from inside the buffer zone never have school meals, 17% compared to 23%. This could be due to higher eligibility of free school meals, which would be expected if, as expected, clusters of takeaway shops are more popular in areas of deprivation. School dinners should be better promoted as a healthy option and work undertaken to increase uptake of these.

Takeaways on the journey home

50% of students don't visit a hot food takeaway on the journey home in a usual week, with 57% of students outside and 38% students inside the buffer zone reporting this. 22% of students visit once a week, with 23% from inside the buffer zone and 21% from outside. Across the course of a week more students from inside the buffer zone visit a hot food takeaway during lunch and on their way

³² 27 Knowledge and attitudes towards healthy eating and physical activity: what the data tells us. National Obesity Observatory. (May 2011).

home. This correlates with research that has shown that more exposure to takeaway food in the environment leads to a higher consumption of takeaway food.

The consumption of hot food takeaways on a student's journey home is likely to be an additional meal, and therefore extra calories, as students still eat both lunch and dinner. This is likely to be more important than food consumed at takeaways during lunch time as that would be instead of the usual lunch meal, which would likely lead to weight gain. The addition of fizzy drink to these meals causes further concern as these tend to be high in sugar giving little nutrient value and effectively empty calories.

5.2.3 Convenience of takeaways during lunch break

Students outside the buffer zone were prepared to travel further in their lunch break to reach takeaways, however, in reality, they made fewer journeys, and fewer students from outside the buffer zone visit takeaways at lunch time. 54% of year 10 students from outside the buffer zone who do not visit takeaways at lunch time said it was because it takes too much time.

27% of students who visit takeaways said that if they could not reach a takeaway within an 8 minute walk at lunch time, they wouldn't bother going, and a further 37% said they would only visit after school. These results have strong implications for the proposal of a 400 m buffer zone around schools showing that environmental restrictions such as these can reduce the consumption of takeaways in students.

5.2.4 Reasons for takeaway consumption

Of the students who didn't visit takeaways, 48% said it was because they were unhealthy; and this figure was higher outside the buffer zone, 52% compared to inside, 38%.

38% said it takes too long, and this was 43% from outside, compared to 29% inside, showing that distance from schools to takeaways does impact use.

Of the students who do visit takeaways, 62% did so because they like the taste. Only 12% of students said they eat what they like and don't care about whether its healthy or not. Only 2% of students said there was no healthy food at home, and 3% said that their parents don't encourage them to eat healthily which shows that most families and students do have access and knowledge about some healthy foods.

5.2.5 Preferred takeaway options

79% of students buy chips, which was the most popular option, and 57% purchase medium sized portions, with 34% getting a small and only 13% getting a large. As well as food choice, the students identified that taste was the most important factor, as well as price and ease of visiting an outlet in determining what they purchased. This correlates with the Burger Boy Report³⁴, and interestingly, research often suggests that friendship groups and peer norms have an effect on food choices, but only 19% of students suggested this as a reason for their visit to a takeaway. Being independent of parents is likely to give children more opportunity to visit takeaway stores, and 26% of students who do not visit takeaways identified their parents as a reason for this, and this response was higher amongst year 7 students.

³⁴ Ludvigsen, and Sharma (2004). Burger boy and sporty girl: children and young people's attitudes towards food in school. Barnardo's www.barnardos.org.uk/burger_boy_report_1.pdf. Cited in the Takeaway Toolkit.

66% of students reported buying fizzy drink with their meals. Fizzy drinks carry high sugar and calorie content, while offering no nutritional value, and are responsible for a large percentage of calories from these meals. Reducing attractiveness of fizzy drinks would help to reduce overall caloric intake.

5.2.6 Demographics

The demographics of students surveyed was a good sample population with close to a 50% split in both age groups and gender.

The percentage of free school meals in an area can be an indicator for the level of deprivation. The number of secondary students entitled to a free school meal in London is higher than other parts of the country, at approximately 19%³⁵. Brent has a higher level of deprivation than average, with 29% of students surveyed eligible for free school meals, with 34% of students inside the buffer zone compared to 25% outside, showing that deprivation is even higher in some areas. Uptake of free school meals also was higher in students inside the buffer zone at 88% compared to 79%. Higher saturation of takeaway outlets are often found in higher areas of deprivation and this pattern is repeated in this research. Both deprivation and availability of takeaway outlets have been linked to obesity.

5.3 Limitations

There are a few limitations using self-reported questionnaires as data collection method, one of these being both the honesty, and recall accuracy of the participants. Students could have under reported or exaggerated their responses, or just failed to accurately record these due to recall bias. It's not possible to check these, but there is no reason why one group of students would be more or less likely to recall correctly, so this should not introduce a systematic bias into either group.

Students' level of understanding and interpretation of the questionnaires may have also affected their response. The questionnaire was completed during school time, so students would have had the opportunity to ask clarification from their teachers, though no members of the healthy lifestyle team were present at the time of collection.

There were a number of blank responses throughout all of the questionnaires, which could affect the results. The blank responses could have been eliminated or reduced if it had been an interviewer led questionnaire, but with 2256 responders, the capacity this would have required was unfeasible.

The survey team considered using an electronic programme, such as survey monkey, which requires an answer to all questions before proceeding, however students would not have been able to complete this in form class and therefore the response rate overall would have been significantly lower.

More students who attended schools with no takeaways in a 400m radius completed the questionnaire, although more schools were involved from within the buffer zone, due purely to class / school size. The aim was to have equal numbers of students participating both from within an outside the buffer zone. All six schools which fall within a 400m buffer zone were invited to participate but only four agreed to do so. The final figure of 60% outside and 40% inside should not introduce any systematic bias.

³⁵ <http://www.londonpovertyprofile.org.uk/indicators/topics/low-educational-outcomes/>

Year 10s from Kingsbury are the only students who are actually allowed out during lunch break, however this was not reflected in the results. It's difficult to determine therefore whether other students are leaving school grounds at lunch time informally, or whether they mis-interpreted the questions and replied with how many times they would like to if they could.

There were also instances in the data where students reported having more than 5 lunches per school week when adding the numbers of packed lunches, school dinners and takeaways they had.

There was a limited number of options for students to select at lunch; school meal, packed lunch or hot food takeaway, students may have also visited a corner shops or sandwich outlets which were not included in the questionnaire.

Had post code data been collected, further analysis could have been done looking at deprivation and takeaway consumption, whether student's routes to school took them via clusters of hot food takeaways, and also determine how many students who attended schools within 400m, also lived within 400m of takeaways and visa versa. It would be interesting to undertake further research, to see if it's possible to determine a strong primary predictor of takeaway use among students.

5.4 Conclusion

Obesity is a complex and multi faceted issue and the food choices we make are affected by a number of factors. Government policies are now beginning to recognise that the environment can influence resident's food choices, and are making efforts to implement more health promoting policies.

The convenience of reaching takeaways is important for students, with 27% saying they wouldn't travel more than 8 minutes at lunch time, and 17% said they would walk up to 10 minutes; supporting previous research that some children will walk up to 800m (10 min walk) to visit a takeaway.

Students who attended schools with takeaways within a 400m radius of the schools consumed takeaways more often at lunch times, on the journey home and for the evening meal. This research supports implementing a 400m buffer zone around schools could reduce the number of visits made. However, the introduction of a larger buffer zone of 800m around schools could further reduce visits to takeaways by students and gain maximum benefit from the policy.

Appendix one: Questionnaire



Hot Food Takeaways

The environment we live in can have an impact on the healthy choices we make. The Healthy Lifestyle team at Brent Council are interested in finding out whether you eat hot food takeaways during and after school. Please ensure you answer all the questions below, by ticking the relevant boxes.

Q1. Do you think healthy eating is important?

Yes [] No []

Q2. What do you think are the benefits of healthy eating? (Please tick all that apply)

General wellbeing [<input type="checkbox"/>]	Reduced risk of health problems (heart disease, diabetes etc.) [<input type="checkbox"/>]
Feeling good [<input type="checkbox"/>]	Improved sleep and concentration [<input type="checkbox"/>]
Higher energy levels [<input type="checkbox"/>]	Improved skin tone and texture [<input type="checkbox"/>]
Doing better at school [<input type="checkbox"/>]	Maintaining a healthy weight [<input type="checkbox"/>]
All of the above [<input type="checkbox"/>]	Other [<input type="checkbox"/>] (Please State) _____

Q3. Do you think you have a healthy diet?

Yes [] No []

Q4. Would you like to eat more healthily?

Yes [] No []

Q5. Do you think hot food takeaways are unhealthy?

Yes [] No []

Q6. During an average week, how many hot food takeaways would you eat with your family? (circle)

0 1 2 3 4 5 6 7

Q7. During an average week, how many dinners at home are freshly prepared from scratch? (circle)

1 2 3 4 5 6 7

Q8. How often do you have the following for lunch during a school week? (circle)

<u>Packed lunch from home</u>	0	1	2	3	4	5
<u>Food from school canteen</u>	0	1	2	3	4	5
<u>Hot food takeaway</u>	0	1	2	3	4	5

Q9. On average, how many times a week do you visit a hot food takeaway after school?

0 1 2 3 4 5

If you eat hot food takeaways during or after school, please SKIP question 10 and go to question 11

Q10. If you don't visit hot food takeaways, why not? (Please tick all the reason/s why you don't below and then please go to Question 17, what school do you attend, on page 4)

- | | |
|--|---|
| My parents don't allow me [<input type="checkbox"/>] | I cannot afford hot food takeaways [<input type="checkbox"/>] |
| Its unhealthy [<input type="checkbox"/>] | I prefer packed lunch/school dinners [<input type="checkbox"/>] |
| My friends don't go [<input type="checkbox"/>] | It takes too much time [<input type="checkbox"/>] |
| I don't like hot food takeaways [<input type="checkbox"/>] | Other (Please State) _____ |
- _____

Q11. How long would you spend travelling during your lunch break to visit a hot food takeaway?

- 2 minute walk [] 4 minute walk [] 8 minutes walk [] 10 minute walk []
- I take the bus for less than 10 minutes [] Other (Please state) _____

Q12. If there were no hot food takeaways within an 8 minute walk from school, would you: (Please tick one box)

- | | |
|---|---|
| Only visit after school [<input type="checkbox"/>] | Take the bus at lunch time to get there and back on time [<input type="checkbox"/>] |
| Not bother going anymore [<input type="checkbox"/>] | Still walk to the nearest takeaway [<input type="checkbox"/>] |
- Other [] (Please state) _____

Q17. What school do you attend: _____

Q18. Are you entitled to free school meals?

Yes []

If Yes, do you have a school meal Yes [] No []

No []

I don't know []

Q19. Are you? *(Please tick one box)*

Male []

Female []

Q20. How old are you? *(Please tick one box)*

11 []

12 []

14 []

15 []

Other _____

Q21. Please state your ethnicity. *(Please tick one box)*

White []

Black []

Asian []

Mixed []

Other []

Q22. What is your religion/belief? *(Please tick one box)*

[] Agnostic

[] Buddhist

[] Christian

[] Hindu

[] Humanist

[] Jewish

[] Muslim

[] Sikh

[] No religious belief

[] Prefer not to say

[] Other, please specify: _____

Thank you for taking your time to complete this questionnaire.

Appendix two: Contact letter

Dear [*head teacher's name*]

I work in the Healthy Lifestyle team at Brent Council and we are working to support the planning team's proposal to implement the 400m hot food takeaway buffer zone around secondary schools in Brent. This buffer zone will prevent any new takeaway's from opening within 400m of a secondary school, a number of council's across the UK have implemented this planning restriction already.

The planning restriction for hot food takeaways is part of Brent's Obesity strategy and will support the multi-faceted approach to reducing obesity levels in Brent. There is a large body of evidence to support the link between hot food takeaways and obesity levels. The healthy lifestyle team are hoping to conduct a large scale research survey, focusing on children's takeaway behaviours. This research would be one of the first large scale surveys conducted and is an opportunity for Brent to lead the way in providing local evidence, supporting both the 400m hot food takeaway buffer zone and the Brent's Obesity strategy.

The environment we live in can ultimately have an effect on the choices we make, providing this local evidence to support the planning restriction is really important if we are to try and create healthy environments in Brent.

I am emailing you at [*insert school*] to see if you would like to be part of this research study, we want to find out if children in Brent are visiting hot food takeaways during or after school and the frequency of use. We have developed a questionnaire and would like to ask all Year 7 and Year 10 students, the questionnaire needs to be completed at school and takes around 10 minutes to fill out (please see attached). We don't want to disrupt the school day, but suggest that the questionnaire is completed during assembly or form time, ultimately though we are happy to come and administer the questionnaire at the school whenever suits you best.

I would really appreciate it if you agreed to take part in this research, if you would like to discuss it further then I am happy to meet up.

Thanks,

Brent Healthy Lifestyles Team