

**24<sup>th</sup> October 2013****HOT FOOD TAKEAWAYS IN BASSETLAW DISTRICT  
OCTOBER 2013****Purpose of the Report**

1. This report presents the location of hot food takeaway outlets in the Nottinghamshire district of Bassetlaw, alongside the location of schools and shops providing fresh fruit and vegetables.

The report explores the possible impact hot-food takeaways have on obesity within the area, and suggests the potential benefits of working with these businesses to develop healthier eating options.

**Information and Advice****Aim**

2. The aim of mapping hot-food takeaways, fruit and vegetable providers, and schools within Bassetlaw is to encourage conversation about how best to work with businesses in the area to promote healthy eating. The maps in this report may help in identifying areas with the highest potential to benefit from any healthy-eating schemes in the district.

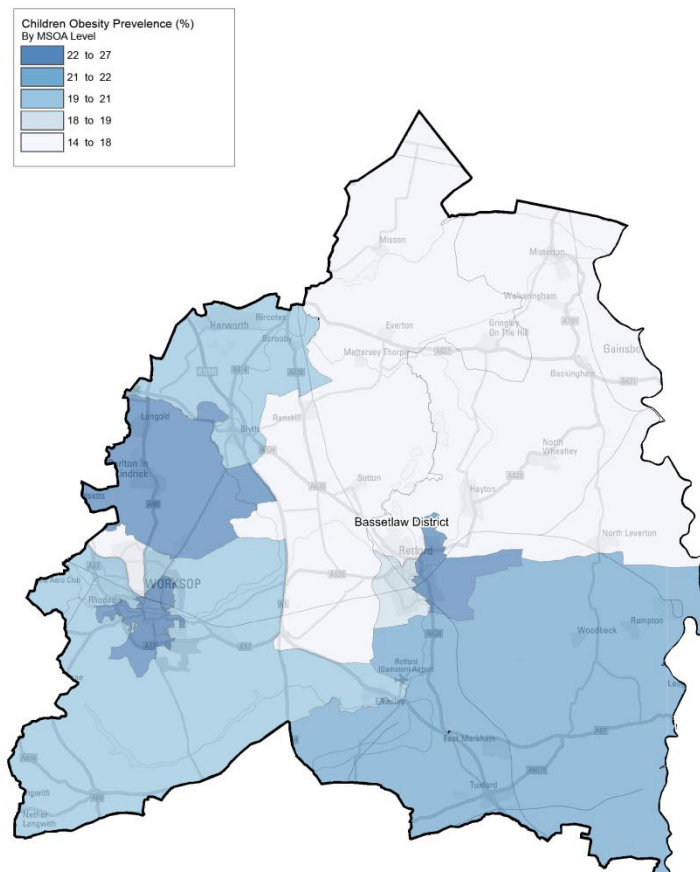
**Obesity as a Public Health issue**

3. In 2011, 24% of men and 26% of women in the UK were classed as obese. It is predicted that by 2050 between 50%-60% of adults will be clinically obese (National Obesity Observatory, 2013). This is not a condition exclusive to adults, as the National Child Measurement Programme (NCMP) shows that in 2011/12 over a third of 10-11 year olds were overweight or obese.
4. Obesity increases the risk of developing many serious health problems such as type 2 diabetes, colon cancer, heart disease, and strokes. There are also many potential emotional and psychological effects of being overweight or obese, which are seen particularly in children.
5. A report titled 'Tackling Obesity in Nottinghamshire' was presented to the Nottinghamshire County Health and Wellbeing Board on 27<sup>th</sup> June 2012. It provided a detailed review of Obesity as a national public health problem and highlighted two main contributing factors; lack of physical exercise, and unhealthy diet.

## Obesity in Bassetlaw

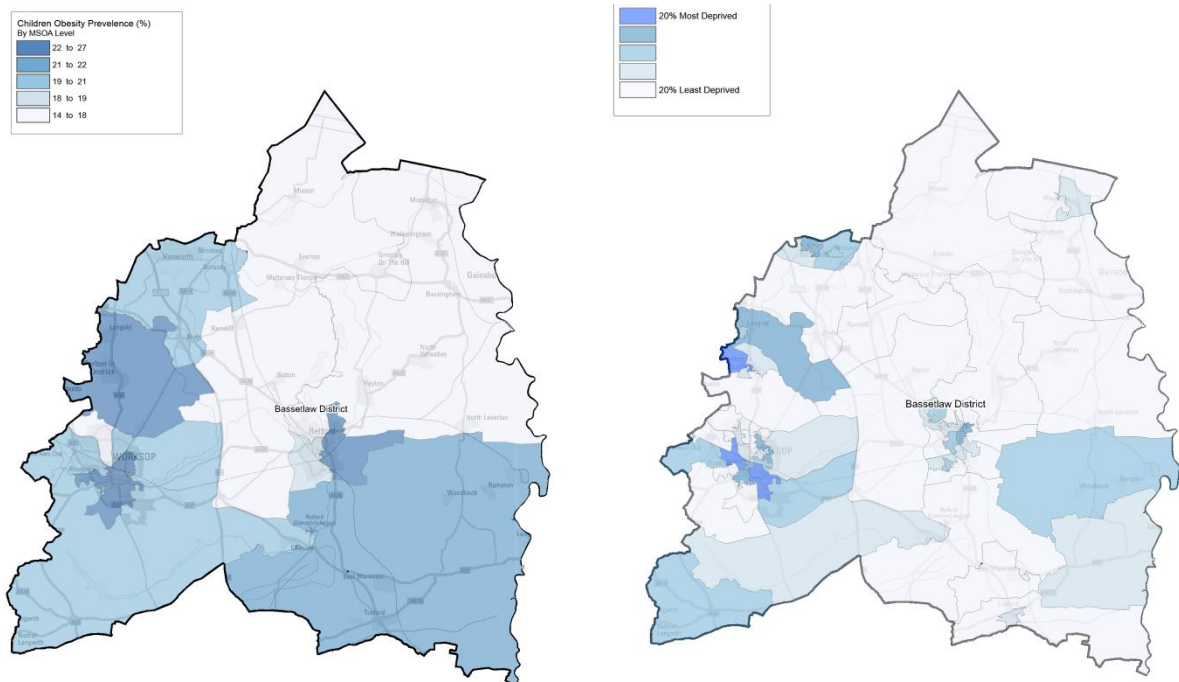
- Adult and child obesity levels in the East Midlands are above the national average, and have consistently been so for many years (PHE, 2013). Adult obesity prevalence is calculated using modelled estimates based on data from Health Survey for England (HSE), and as a result do not necessarily give a fully accurate picture. However, based on this calculation 24.5% of adults in Bassetlaw are estimated to be obese.
- The National Child Measurement Programme (NCMP) is a scheme in which all eligible children in reception and Year 6 are weighed and measured. This provides accurate local data on child obesity prevalence on an annual basis. The recently published Public Health Profile of Bassetlaw (2013) stated that 19.4% of year 6 children in Bassetlaw are obese, compared with 9.7% of reception children. Research shows that only 3% of 8 year old children are overweight or obese when neither parent is, compared to 29% when both parents are obese (NHS Choices, 2009). Therefore local child obesity prevalence is also a good indicator of adult obesity prevalence.
- Map 1 shows NCMP Year 6 child obesity prevalence by Middle Super Output Area (MSOA) in Bassetlaw district. The darker the colour, the higher the prevalence of obesity. There is a clear split between the south/west and the north of the district, with the highest prevalence of child obesity being in the town centres of Worksop and Retford.

**Map 1 – Child Obesity prevalence (%)**



- Obesity prevalence has a strong relationship with deprivation levels for both adults and children; figures show that obesity prevalence increases with greater levels of deprivation. *Map 2* shows the child obesity prevalence by MSOA and deprivation prevalence by Lower Super Output Area (LSOA).

**Map 2 – Child Obesity prevalence (%) and Deprivation (IMD quintile)**



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- Map 2* shows that the areas with the highest prevalence of child obesity also have the highest deprivation scores. Deprivation in Bassetlaw is greatest in the west of the district, particularly in Worksop where a number on LSOAs are within the highest quintile of deprivation nationally.

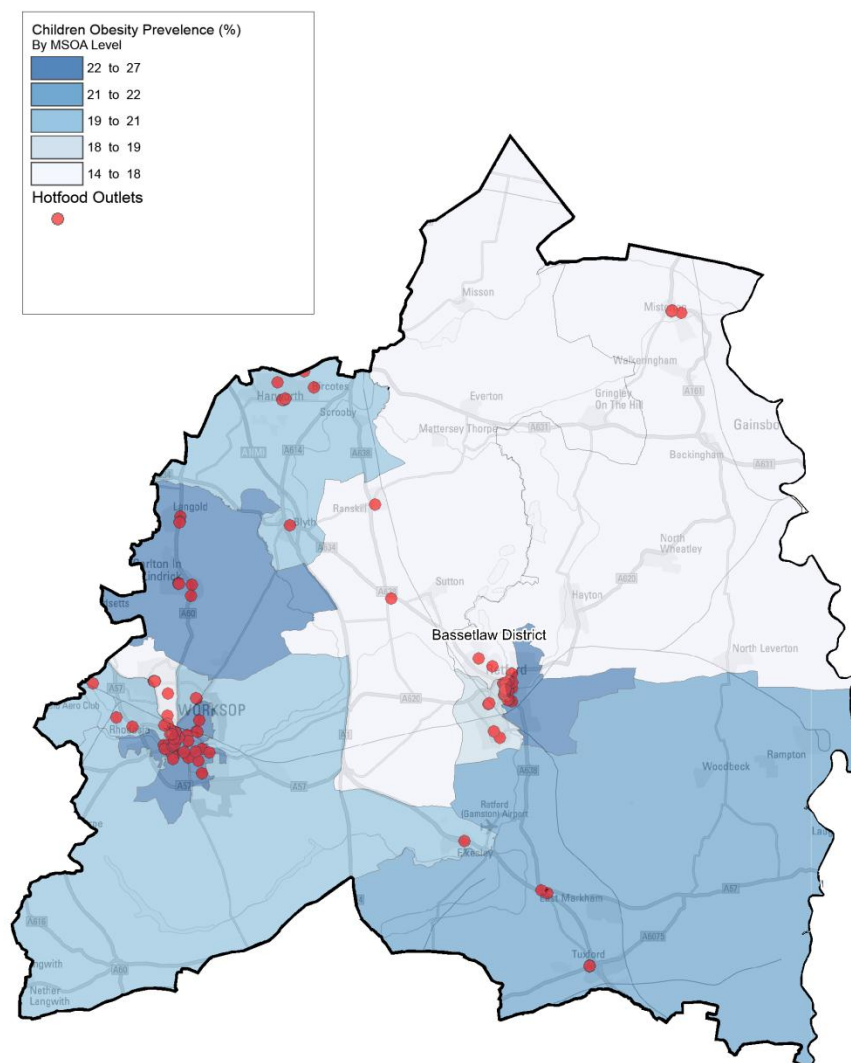
### Hot-food takeaways and Obesity

- One of the many factors believed to be contributing towards the rapid increase in obesity prevalence is diet. Good nutrition is vital to good health, and many people in England have an extremely poor diet consisting of high levels of fats, salt, and sugars.
- In November 2012 the Greater London Authority published the document 'Takeaways Toolkit'. This report provided an overall review of the increase in fast and hot food takeaways in Britain, highlighting evidence of the poor nutritional value of takeaway meals and the health problems they can create. The report concluded with 3 recommendations:

- Local authorities should work with takeaway businesses and the food industry to make food healthier
- Schools should introduce strategies aimed at reducing the amount of fast food school children consume during lunch breaks and on their journey to and from school
- Regulatory and planning measures should be used to address the proliferation of hot food takeaway outlets

13. The first recommendation suggests local authorities should work with hot food takeaways to help make healthier food available to the public. It recommends local mapping exercises to identify the locations of hot food takeaways. *Map 3* shows the location of hot food takeaways in Bassetlaw District.

**Map 3 – Hot food takeaway location with Child Obesity prevalence (%)**

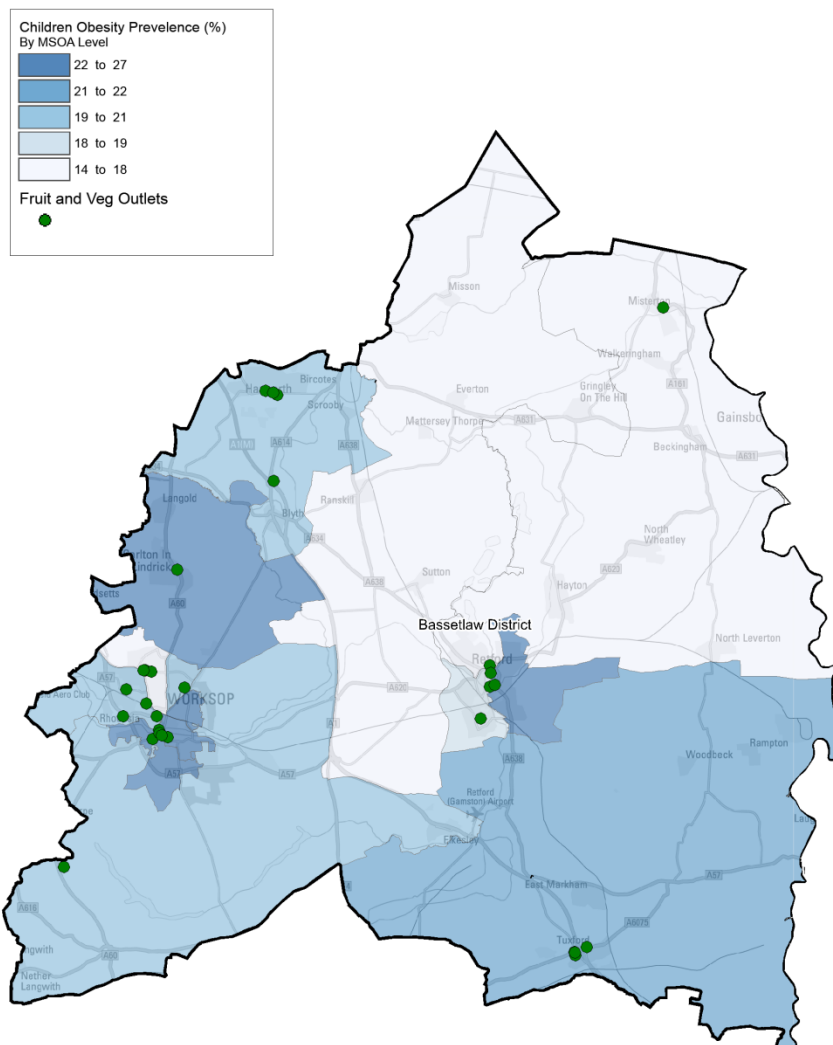


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14. *Map 3* shows a large number of hot food takeaways in and around the towns of Worksop and Retford, and then further outlets spread across the district. There are fewer hot food takeaways in MSOAs with lower obesity prevalence, and a larger number in areas of higher obesity prevalence.

15. *Map 4* shows the location of shops offering fresh fruit and vegetables in Bassetlaw District. This map has been produced in order to identify any areas where there are hot food takeaways but no healthy option alternative in the form of fruit and vegetables. The distribution of fruit and vegetable shops follows a similar pattern to that seen with hot food takeaways, with the highest density in the towns of Worksop and Retford. However there are far fewer of these businesses present (28 shops offering fresh fruit and vegetables in comparison to 126 hot food takeaways).

**Map 4 – Fruit and vegetable shop locations with Child Obesity prevalence (%)**

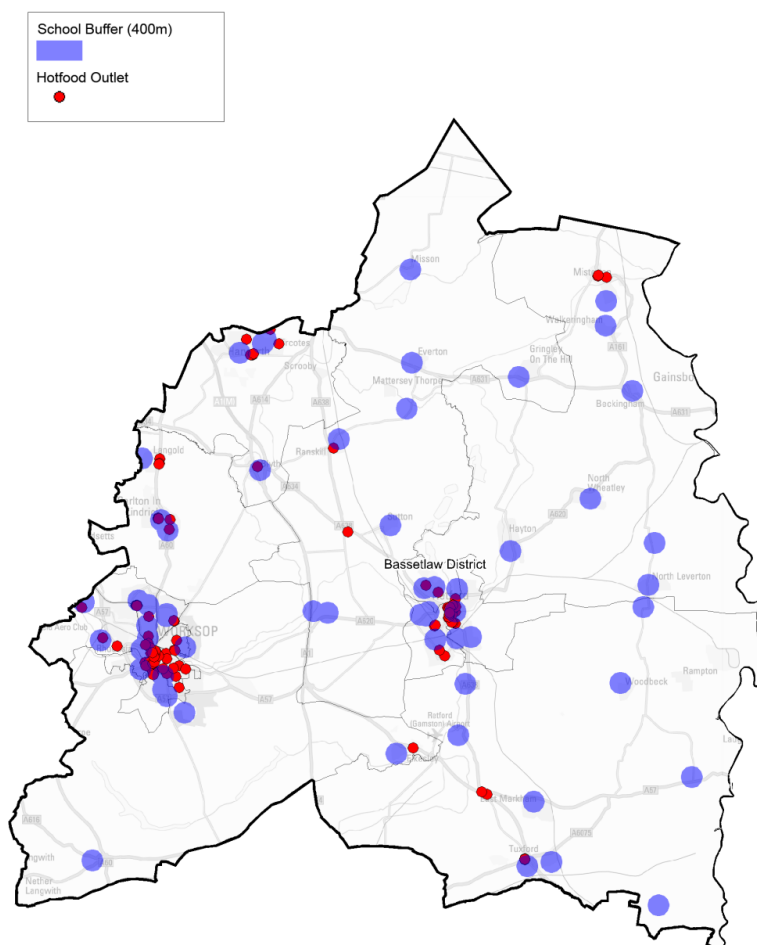


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## Hot food takeaways and Schools

16. The second recommendation made within the Takeaways Toolkit is that schools should introduce strategies to reduce the amount of fast food children consume during breaks and journey to/from school. As discussed earlier, child obesity is just as important an issue as adult obesity if not more so. *Map 5* shows all Primary and Secondary schools in Bassetlaw with a 400m buffer zone (roughly a 5-minute walk).
17. Sinclair and Winkler (2008) conducted research in two large schools to investigate the students' eating habits. They found that 80% of students bought food from local shops ('fringe' businesses), and 41% never ate at the school canteen. The products bought from these fringe shops, mainly chicken and chips, were found to be extremely high in salt and fats.
18. *Map 5* shows that schools are distributed relatively evenly across the district and many schools are not in close proximity to hot food takeaways, particularly in the rural areas to the east. However there is a high concentration of both hot food takeaways and schools in the towns of Worksop and Retford.

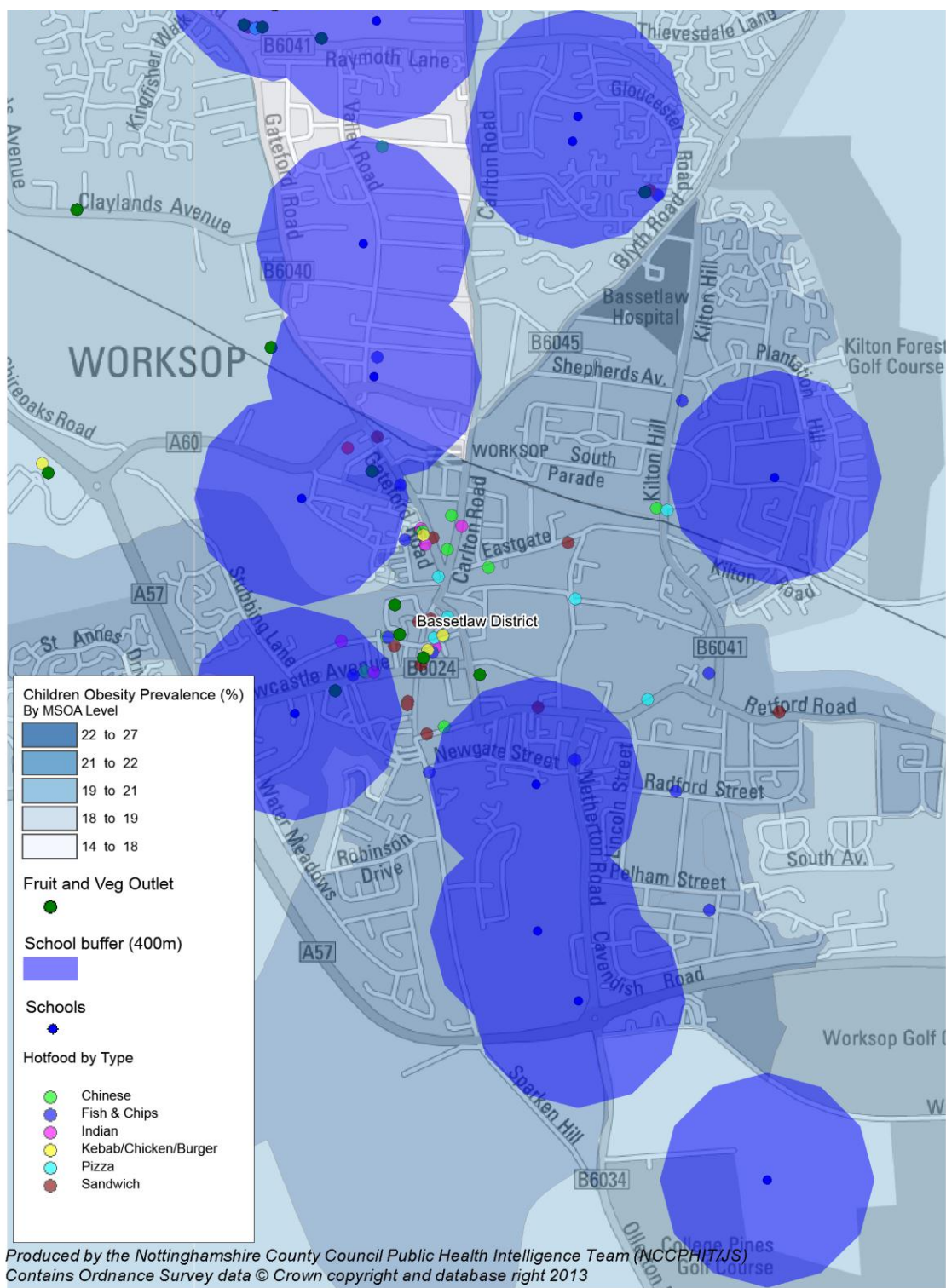
**Map 5 – Schools (400m buffer) mapped against hot food takeaway outlets**





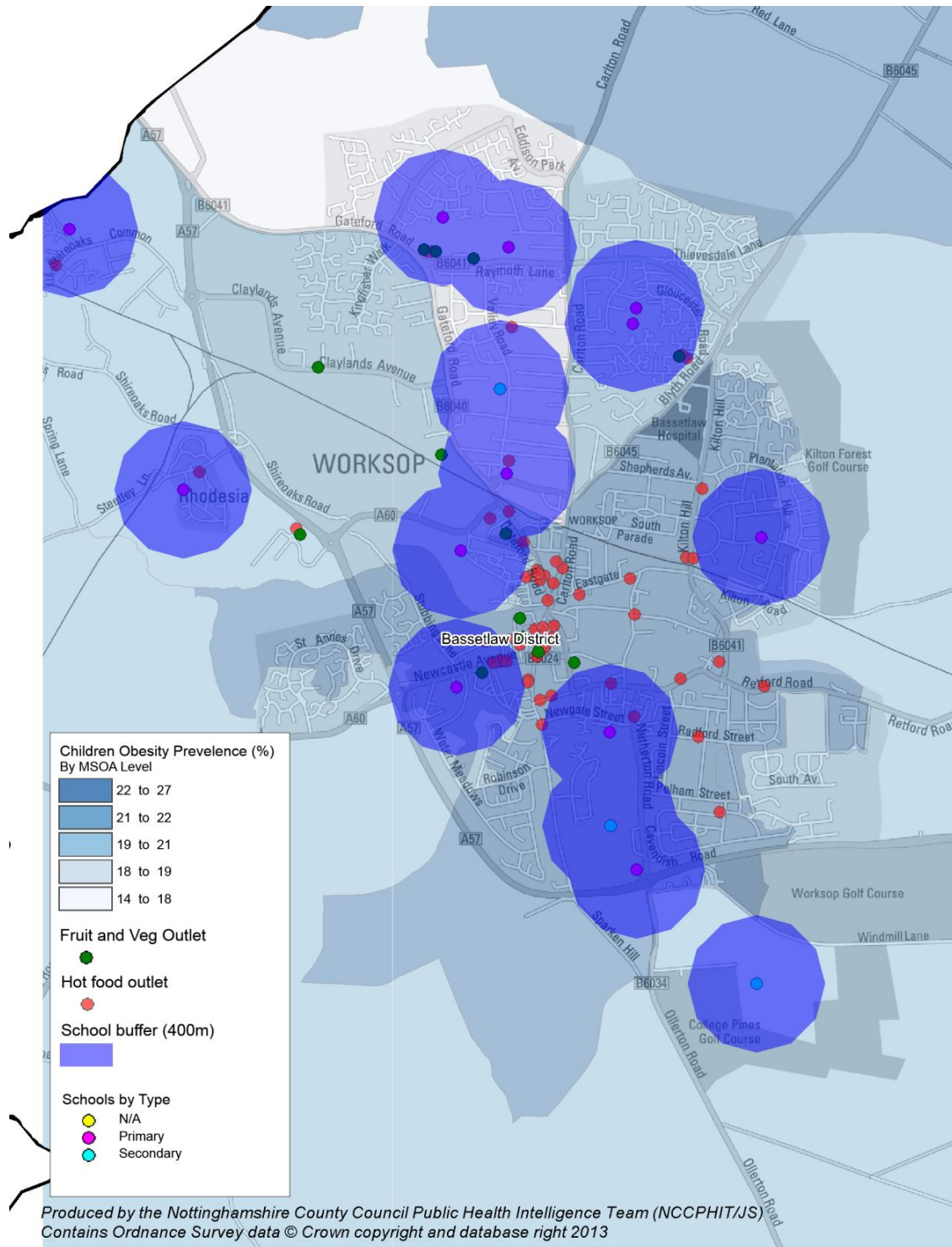
19. Map 6 shows the location and category of hot food takeaways, as well as fruit and vegetable shops and schools within Worksop. The map shows a clearer picture of the distribution of hot food takeaways, with the highest density in the town centre (indicating areas of highest demand). Of the 13 schools located in Worksop town, 9 have a hot food takeaway within 400m. Only 5 have a shop providing fruit and vegetables within 400m, and it should be noted that this includes supermarkets which also sell less healthy food options.

**Map 6 – enhanced view of Worksop with hot food takeaway category and schools**



20. Map 7 shows the location of hot food takeaways and shops providing fresh fruit and vegetables, and schools (split by primary, secondary, and other) within Worksop. There are three secondary schools identified within Worksop; two in the south of the town, and one in the north.

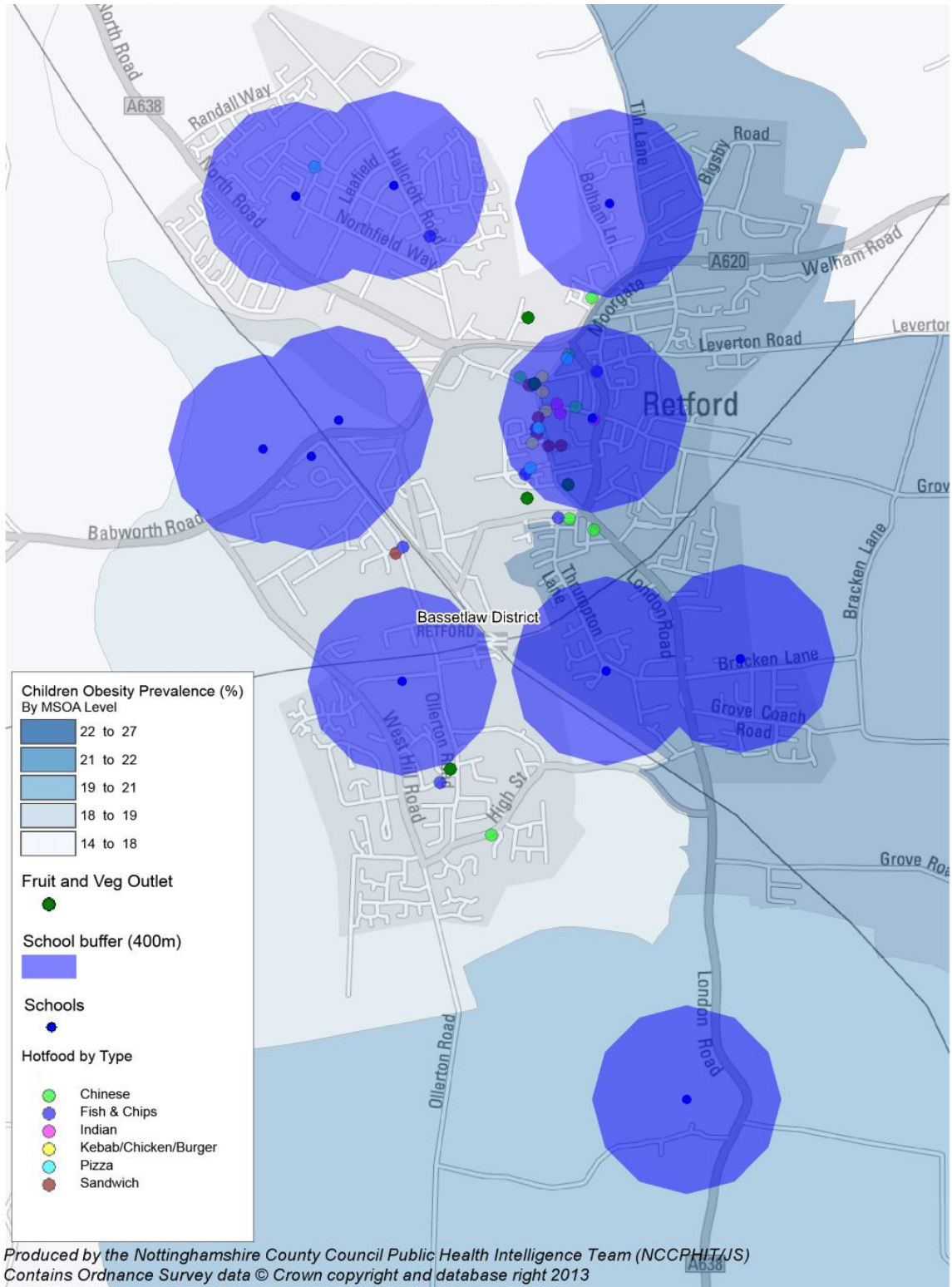
**Map 7 – enhanced view of Worksop with hot food takeaway category and school category**





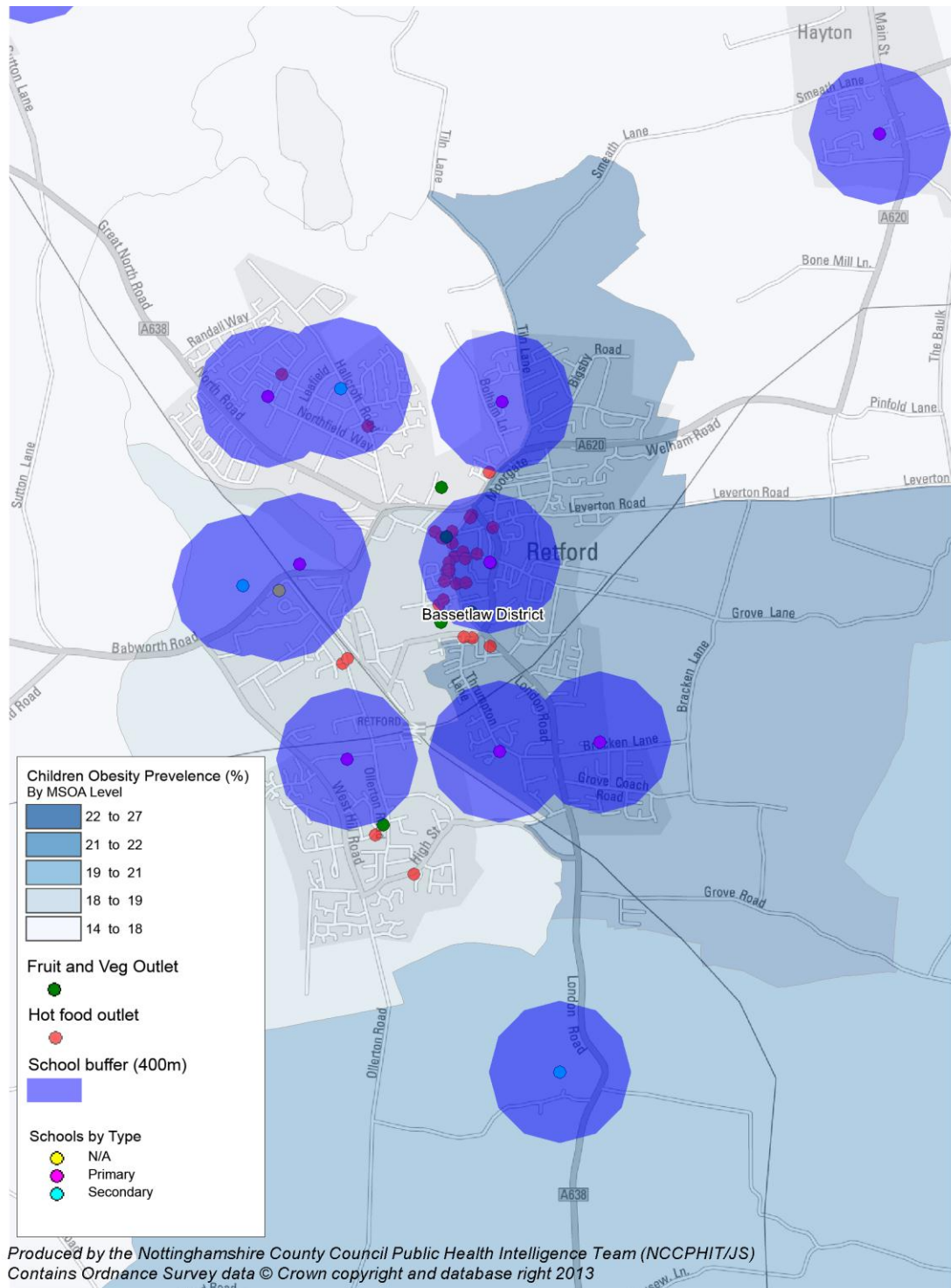
21. Map 8 shows the hot food takeaways location and category, as well as fruit and vegetable shops and schools within Retford. The highest concentration of hot food takeaways is in Retford town centre, as was also seen within Worksop. Of the 11 schools located in Retford, 3 have a hot foot takeaway within 400m. Only 1 has a shop providing fruit and vegetables within 400m.

**Map 8 – enhanced view of Retford with hot food takeaway category and schools**



22. Map 9 shows the location of hot food takeaways and shops providing fresh fruit and vegetables, and schools (split by primary, secondary, and other) within Retford. There are three secondary schools identified within Worksop; two in the northwest of the town, and one to the south.

**Map 9 – enhanced view of Retford with hot food takeaway category and school category**



## Summary

23. Obesity in adults and children is a serious public health issue, with adult obesity prevalence predicted to double in the next 35 years. Child and adult obesity prevalence in Bassetlaw, and the East Midlands as a whole, is higher than the national average. One of the main contributing factors to obesity is an unhealthy diet.
24. *Map 3* shows that child obesity prevalence in Bassetlaw is highest in MSOAs with a large number of hot food takeaways. *Map 2* shows that these particular areas are also the most deprived in the district. *Map 4* shows that shops providing fresh fruit and vegetables are distributed in a similar pattern to hot food takeaways outlets, but in much lower number.
25. *Maps 6 and 7* show that the majority of schools in Worksop have at least one hot food takeaway within 400m. A far lower number of schools are within 400m of a shop providing fresh fruit and vegetables. A smaller proportion of school in Retford have hot food takeaways within 400m, however only one school was within 400m of a shop providing fresh fruit and vegetables. These towns and the surrounding areas have the highest prevalence of child obesity in the district, as well as being the most deprived.
26. The Takeaways Toolkit recommends working with hot food takeaways to develop healthier eating options in an effort to reduce the customers' intake of salt, sugars, and saturated fats. Recent work in Rushcliffe explores the possibility of introducing a merit scheme to encourage businesses to make their menus healthier.

## Recommendations

It is recommended that:

1. The Obesity Integrated Commissioning Group note and discuss the content of the report.
2. The Obesity Integrated Commissioning Group note the strong correlation between child obesity prevalence and hot food takeaways, as supported by *Map 3* of Bassetlaw.
3. Similar mapping analysis is conducted in all other Nottinghamshire districts, specifically looking at the relationship between hot food takeaway locations and NCMP child obesity prevalence.
4. District councils in Nottinghamshire to consider how they could consult with schools in order to fully understand the specific eating habits of their students and the potential impact this has on obesity prevalence, particularly secondary schools and those with one or more hot food takeaway within 400m.

5. District councils in Nottinghamshire to consider how they could consult with shops providing fresh fruit and vegetable shops in order to fully understand accessibility of their products to the local population, particularly in terms of costing and competition.
6. Any interventions that promote healthier catering should target those businesses in areas with the highest density of hot food takeaways, as this indicates the highest demand and therefore greatest potential for improving population diet.
7. Mapping exercises are developed further to look at factors such as population density, and also to investigate in more detail the distribution of different categories of hot food takeaway (Chinese, sandwich shop etc), fruit and vegetable providers (greengrocer, supermarket), and schools (primary and secondary).
8. District councils in Nottinghamshire should consider restricting the opening of new hot food takeaways, and restricting the opening hours of existing hot food takeaways; particularly in areas with existing high density of hot food takeaways and in close proximity to schools.

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## **Appendix**

### **Data Sources**

The mapping documents were created using 'MapInfo' software.

The year 6 child obesity prevalence at Middle Super Output Area was mapped using NCMP 2011/12 data published by Public Health England.

Deprivation was mapped using 2013 national IMD data from the NCC data warehouse.

Data points for hot food takeaways, fruit and vegetable providers, and schools were provided by Bassetlaw Environmental Health.

This data was extracted using premises type, but also extensive local knowledge within the BDC Environmental Health team to identify businesses, such as Sandwich shops, which offer hot takeaway food despite not being classed as a takeaway. In order to replicate this mapping exercise reliably across all districts, a common food-outlet classification method must be agreed.