



NEWCASTLE OBESITY PREVENTION HEALTH NEEDS ASSESSMENT 2017/18

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PUBLIC HEALTH TEAM

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1. Introduction

Newcastle City Council currently commission a wide range of activities to support the obesity prevention agenda in the city. We commission both Tier 1 (Primary prevention) and Tier 2 (secondary prevention) activities. These focus on both healthy eating and physical activity interventions.

The current commissioned programmes have evolved over several years and have (predominantly) been focused on child obesity prevention in the most deprived parts of the city. These have been organised and branded as the Change4Life East and Change4Life West programmes. These are delivered in schools and community settings with a coordinator for each area.

To date these programmes have provided a range of activities associated with individual behaviour change. However current thinking around the obesity problem suggests that a more holistic approach is needed to tackle the problem. This would involve not just focusing on behaviour change interventions but increasingly looking at how the social and physical environments promote obesity. This Whole Systems approach will require the involvement of a wider range of players across the city to deliver changes that will impact on obesity rates in the city.

To align our current work with the Whole Systems approach we need to put together a programme of commissioned and partnership work that better reflects the requirements of today's obesity prevention needs. To do this, we need to review current commissioned activity to review whether the mix of activities is right for the city and right for driving obesity rates down citywide.

2. Aims & Objectives

The aim is to review the current commissioned obesity prevention programmes to establish their effectiveness and make recommendations and commission future programmes.

The main objectives are to:

- Review current programmes:
 - Are the programmes focusing on the right populations?
 - How do the programmes contribute to a reduction in the rates of overweight / obese in the city?
 - What are the health outcomes associated with the programmes?
 - Do the programmes we currently commission meet current guidance and recommendations?
 - Are we duplicating activities?
 - How do the programmes address health inequalities in the city?
 - Do the programmes provide value for money?

- Consult with stakeholders on the optimum service to deliver obesity prevention
- Identify appropriate service provision
- Commission revised service

Scope: Commissioned obesity prevention services provided across the city.

- Obesity prevalence in Change4Life East and West areas compared to non Change4Life areas
- Change4Life trend data
- Rates of obesity in the whole population of Newcastle

3. Overview of Current Services

What does the service do?

The Public Health funded obesity programme is the Tier 1 prevention service to tackle overweight and obesity in Newcastle in all age groups. The services are largely based around the two Change4Life programmes in the East and the West of the city and therefore targeted more at children under the age of 11 and their families.

It offers a programme of physical activity and nutrition based initiatives which aim to support behaviour change in the targeted communities. The activities were commissioned based on NICE public health guidance:

- Obesity Prevention ([CG43](#)) December 2006

Since the programme began a further range of NICE guidance have been issued which have been reviewed to ensure the funded activities still adhere to the guidance:

- Weight management: lifestyle services for overweight or obese children and young people ([PH47](#)) October 2013
- Weight management: lifestyle services for overweight or obese adults ([PH53](#)) May 2014
- Preventing excess weight gain ([NG7](#)) March 2015

The guidance indicates that programmes should focus on core components of diet and healthy eating, increasing physical activity and decreasing sedentary time and on behaviour change of the person and their close family.

The objectives of the Change4Life programmes, and the additional funded activities, adhere to this guidance and aim to:

- Increase physical activity, specifically in inactive groups
- Improve nutritional and/or cooking skills of families and specific children's groups
- Help participants set realistic goals to achieve behaviour change
- Encourage children, young people and parents to develop skills to help others (e.g. peer support / young sport leaders / young cooks / health champions)
- Build capacity of front line staff to deliver key consistent messages through the Partnership

- Focus on improving the health of children 0-11 (early & primary years) to ensure early intervention and prevention
- Provide mentorship, volunteering and peer support opportunities specifically for teenagers and adults
- Provide a family focus

After commissioning of the programmes [Healthy Lives, Healthy People](#): A call to action on obesity in England (Department of Health, 2011) was issued which now guides the work of the Change4Life partnerships. The stated aims for this are:

- A sustained downward trend in the level of excess weight in children by 2020
- A downward trend in the level of excess weight averaged across all adults by 2020

The Public Health funded programmes work in partnerships with other programmes and organisations across the city to help tackle the rise in overweight and obesity. These help to fulfil the broad range of NICE guidance and a move towards a 'whole system' approach to tackling obesity. Within Public Health there are other streams of work which support the aims of increasing physical activity and promoting healthy eating. Most notably these include the Healthy School Programme, Active Newcastle and the Better Health at Work Award.

The Newcastle Healthy School Programme (HSP) supports schools to develop and improve their efforts to address pupil health and wellbeing. 'Healthier children do better in learning and in life' and schools can make a real difference modelling and influencing children and young people's health behaviour. Importantly, learning and early behaviour change creates a positive platform for better health in later life.

Active Newcastle want to get more people active and having fun. They offer over 100 activities across the city delivered by fully qualified coaches who support people throughout their journey. Their aim is to decrease inactivity levels within the city and get people moving.

In addition to this, Newcastle City Council received funding from the Department for Transport's Cycle City Ambition Fund to implement the Newcastle Fit for Cycling programme and develop cycling paths across the city. The programme is part of a ten-year plan to improve cycle routes and facilities across the city and make it a better place for walking and cycling.

As part of this programme, Public Health funded the Cycling in the City programme project to encourage more people to take up cycling. In line with NICE guidance [PH41](#) on walking and cycling, a suite of activities was developed, including cycle tuition, cycle maintenance training and led rides. Cycling in the City aims to encourage people who are new to cycling or returning to cycling to give it a go in the hope they will continue to cycle as part of their everyday lives.

Other public sector and community organisations deliver programmes which link into the work to address overweight and obesity. Because of the multi-factorial causes of overweight and obesity these organisations do not deal solely with physical activity or

healthy eating, but include aspects of this in their delivery. Funding for these services will come from various sources including public sector and charitable grants.

Who do you deliver this service for?

The Change4Life programmes in the East and the West of the city are targeted at the following wards: East – Byker, Walker, Walkergate; West – Scotswood & Benwell, Elswick, Wingrove. This includes linking in with the local schools, early years settings and community organisations.

Table 1: Public Health Funded Organisations in Change4Life Programmes

Organisation	Programme	Target Area	Target Demographic
Food Nation	Change4Life East Coordination	East Change4Life area	Organisations & Workers
Hat Trick	WAGS & Street Skillz	East Change4Life area	Children & Young People
Kids Kabin	Cycling Activities	East Change4Life area	Children & Young People
Newcastle Eagles Foundation	Hoops for Health	East Change4Life area	Children & Young People
YMCA Newcastle	Bizibodis Peer Project	East Change4Life area	Children & Young People
Newcastle United Foundation	Match Fit	East & West Change4Life area	Children & Young People
North East Dance	Dance & Physical Activity	East & West Change4Life areas	Children & Young People
HealthWorks	Change4Life West Coordination	West Change4Life area	Organisations & Workers
	Change4Life Champions Coordination	West Change4Life area	Organisations & Workers
	Early Years Health Trainers	East & West Change4Life areas	Under 5s & Families
Newcastle Nutrition	Specialist Dietetic Service for Under 5s & Training Programme (to 31 March 2018)	West Change4Life area (but covers whole city)	Organisations & Workers
West End Women and Girls	Seeds for Health	West Change4Life area	Children & Young People

The remaining funded programmes have varied geographical and demographic targets:

Table 2: Other Public Health Funded Organisations / Programmes

Organisation	Programme	Target Area	Target Demographic
Newcastle United Foundation	Youth Worker for Obesity Prevention	City Wide	Children & Young People
Newcastle Eagles Foundation	Women Get Set Go	City Wide	Women & Children
Food Nation	Community Food Initiatives	City Wide	All
	Food Adventures	East Change4Life area	Children 5-11
	Cooking Skills / Ministry of Food / Cooking Club for Teens / Under 5s Family Service	City Wide	All
	Sustainable Food Cities	City Wide	All
West End Women and Girls	Obesity Prevention Cook	City Wide	Women and Girls

Do you have any statutory requirements?

There are no statutory requirements associated with the Public Health obesity prevention stream.

Delivery of the Public Health funded obesity programme should be underpinned by NICE guidance and robust evidence of the effectiveness of programmes.

How much do you spend on this service?

Gross expenditure	Gross income	Net budget	Capital projects
2017/18 - £532,238 2018/19 - £493,754	£0	2017/18 - £532,238 2018/19 - £493,754	£0

The budget for 2018-19 has been reduced due to the Newcastle upon Tyne Hospitals NHS Foundation Trust withdrawing Newcastle Nutrition's programmes from the Change4Life commissioned services from 1st April 2018.

What workforce delivers this service?

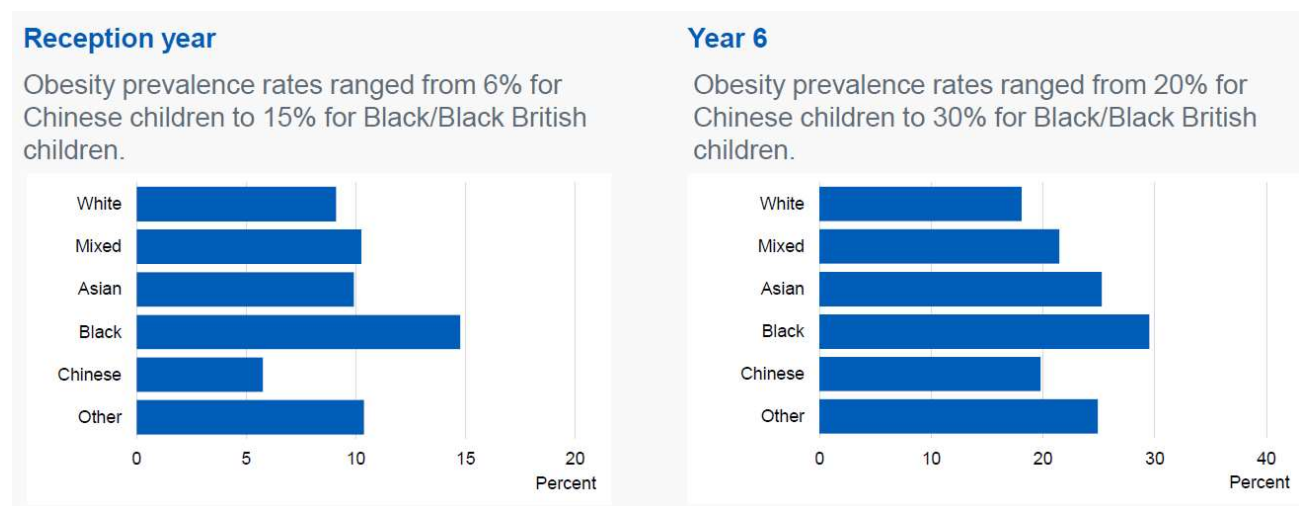
Posts	FTEs	Comments
N/A	N/A	Contracts stipulate delivery of services (outputs and outcomes). It is the responsibility of the funded organisation to decide on how they deliver these and how many staff are required so the number of posts varies per contract and organisation.

4. National Picture

Childhood obesity has increased worldwide since the 1980's, the UK is now ranked 9th for overweight prevalence (including obesity) in children aged 2 to 19 years, out of the 34 OECD (Organisation for Economic Cooperation and Development) countries (source: Child Obesity International comparisons data factsheet, PHE, September 2016).

In the UK 1 in 5 children (20%) in year 6 and 1 in 10 children (10%) in reception year are classified as obese in 2016/17 (Source: NCMP). Over time obesity prevalence has fallen slightly for reception children, but has slightly increased for the year 6 population. Obesity prevalence rates also vary for different populations for examples the rates vary in different ethnicities, e.g. there are higher rates in the black/black British children, shown in the charts below.

Chart 1: National Childhood Obesity - Prevalence by Ethnicity



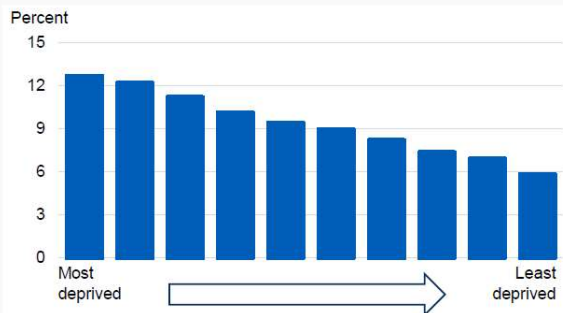
(source: Statistics on obesity, Physical Activity and Diet, England 2018, NHS Digital)

There are also higher rates of childhood obesity in the more deprived areas shown in charts 2 and 3: where the more deprived areas 13% of reception children and 26% of year 6 children are classified as obese compared to 6% of reception children and 11% of year 6 children living in the least deprived areas of the country. What is also concerning is that the difference between the level of obesity in the least and most deprived areas is increasing. For reception children that gap has gone from 4.5% in 2007/08 to 6.8% in 2016/17 and for Year 6 children it has increased from 8.5% to 15% in 2016/17, which shows an increase in inequality in obesity at a national level, shown in the charts below.

Chart 2: National Childhood Obesity - Prevalence by level of Deprivation

Reception year

13% of children living in the most deprived areas were obese compared to 6% of those living in the least deprived areas.



Year 6

26% of children living in the most deprived areas were obese compared to 11% of those living in the least deprived areas.

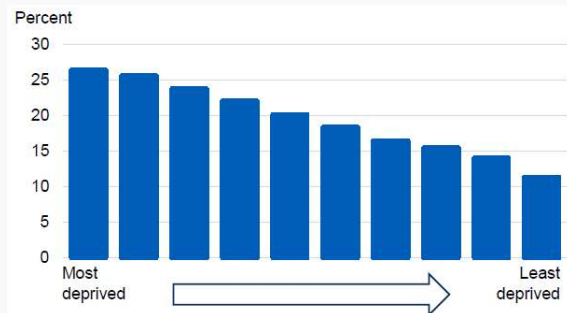
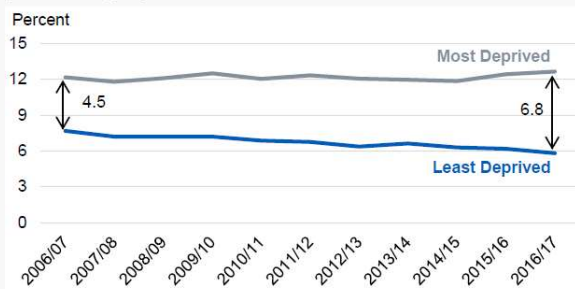


Chart 3: National Childhood Obesity - Difference in Prevalence by level of Deprivation

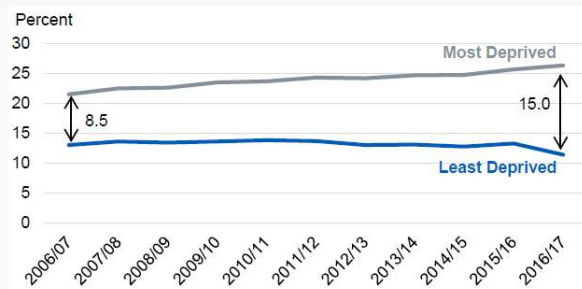
Reception year

Between 2007/08 and 2016/17, the difference between obesity prevalence in the most and least deprived areas has increased from 4.5 to 6.8 percentage points.



Year 6

Between 2007/08 and 2016/17, the difference between the most and least deprived areas has increased from 8.5 to 15.0 percentage points.

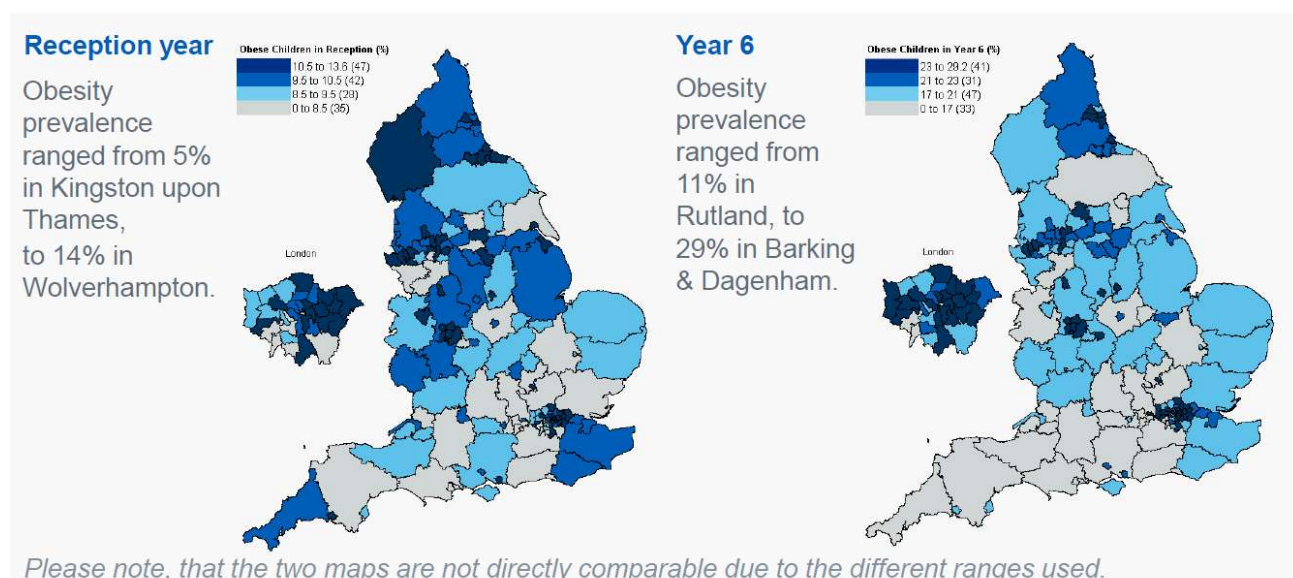


One interesting area around childhood obesity is perceptions, with parental perceptions of children's weight being key. The health survey for England found that often parents of overweight or obese children thought their child was the correct weight, with father more likely to think that than mothers. For obese children 55% of fathers felt their children as 'about the right weight' compared to 41% for mothers. There are similar issues with the perception of children and their own weight, with 55% of overweight children thinking they are about the right weight. (source: Statistics on obesity, Physical Activity and Diet, England 2018, NHS Digital).

The level of childhood obesity varies across the country for both reception year children and the Year 6 children. Map 1 shows the level of difference at a Local Authority Level, which clearly shows higher levels in the North of the country, but particularly the higher levels in the North East for the year 6 population.

Map 1: Childhood Obesity prevalence by Local Authority

Childhood obesity: Prevalence by Local Authority



5. Newcastle Profile

Newcastle Population

Between 2001 and 2011, the population of Newcastle upon Tyne has increased by 7.95%, from 259,536 to 280,177, the second largest increase in the North East region.¹ The most recent mid-year 2016 population estimates show Newcastle has an estimated population of 296,478; projected to increase to 312,393 by 2026².

There are an estimated **68,503** children and YP residing in Newcastle upon Tyne in 2016 aged between 0-19, which is 23% of the overall estimated Newcastle population. This is estimated to increase to **77,090** by 2026³ a 12.5% increase. Across Newcastle we know there are 61,048 0-18 year olds registered with Newcastle GP's in April 2017.

Table 3: Children & Young People in Newcastle

Age Group	Census 2011	2016 Mid yr. pop Est. (ONS)	Projection 2026 (2014 ONS)
0-4 years	16,500	17,154	19,074
5-14 years	28,500	31,240	35,039
15-19 years	22,400	20,183	22,977
Total	67,400	68,503	77,090

(source: ONS population estimates 2016 and 2014 population Projections)

¹ Census 2011, ONS

² Source: ONS Mid-2016 population estimates & ONS 2014 population projection

³ 2016 ONS mid-year population est. and 2014 mid-year population projections

Newcastle has seen a decline in the General Fertility Rate (GFR) between 2010 at 56.1 per 1,000⁴ to 50 per 1,000 in 2016, which is the lowest in the North East, however did see a slight rise in 2016. GFR can provide an indication of future population growth or decline in the population, Newcastle is experiencing a decline the GFR. This may be impacted by the high level of student population in Newcastle.

- There is also a decline in the conception rate from 70.3 per 1,000 women in 2009 to 64.4 per 1,000 in 2015.
- There has been a gradual decline in live births in Newcastle between 2010 and 2016, however between 2014 and 2016 there was a 33% increase in live Births in Newcastle.

The 2016 Health Survey for England found that in 2 to 15 year olds 16% were classified as obese⁵ and 12% were Overweight⁶. If applied to the Newcastle population estimates it means a potential 7130 children are obese and a further 5347 are overweight. This means an estimated 12,477 two to 15 years olds in Newcastle are either obese or overweight⁷, which could increase to 13,973 in 2026 based on current population projection.

Deprivation

The link between obesity rates and social and economic deprivation has been identified. It shows that obesity rates are highest for children in the most deprived areas. For children aged 5 and from the poorest income groups they are twice as likely to be obese compared to the most well-off children, and by 11 they are three times as likely to be obese⁸.

The Index of Multiple Deprivation (IMD) 2015 provides an overall deprivation score for small areas known as 'lower layer super output areas' (LSOAs) (see Map 2).

Newcastle is the 53rd most deprived authority out of 326 in the country (IMD 2015) but this hides significant differences across the city. Almost 22% of people in Newcastle live in the 10% most deprived areas nationally and around 12% live in the 10% least deprived areas nationally.

⁴ GFR: is per 1,000 females aged 15- 44 years

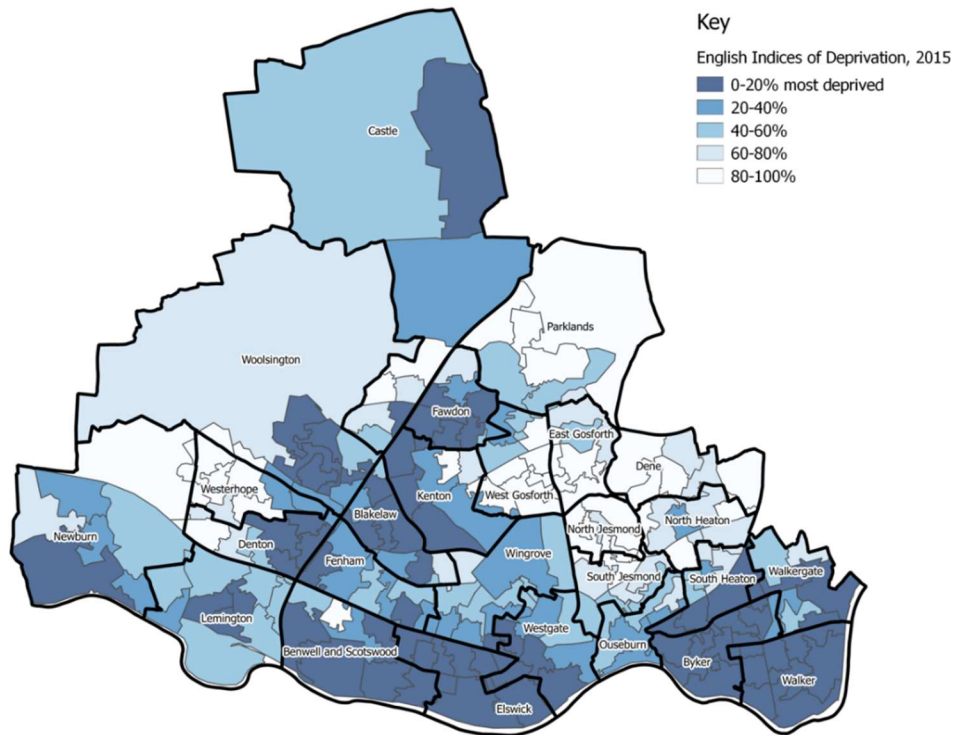
⁵ Obese: Defined as BMI (kg/m²) 30 or more, obese, including morbidly obese

⁶ Overweight: Defined as BMI (kg/m²) 25 to less than 30, overweight, not obese

⁷ Calculated using the ONS 2016 mid-year population estimations for those aged 2-15 years of age

⁸ Source: Childhood Obesity; A Plan for Action. Yvonne Kelly, Alice Goisis, and Amanda Sacker (2015), Why are poorer children at highest risk of obesity and overweight? A UK cohort study. The European Journal of Public Health

Map 2: Index of Multiple Deprivation 2015 in Newcastle



Please Note: The Ward Boundaries may be changing in Newcastle in 2018.

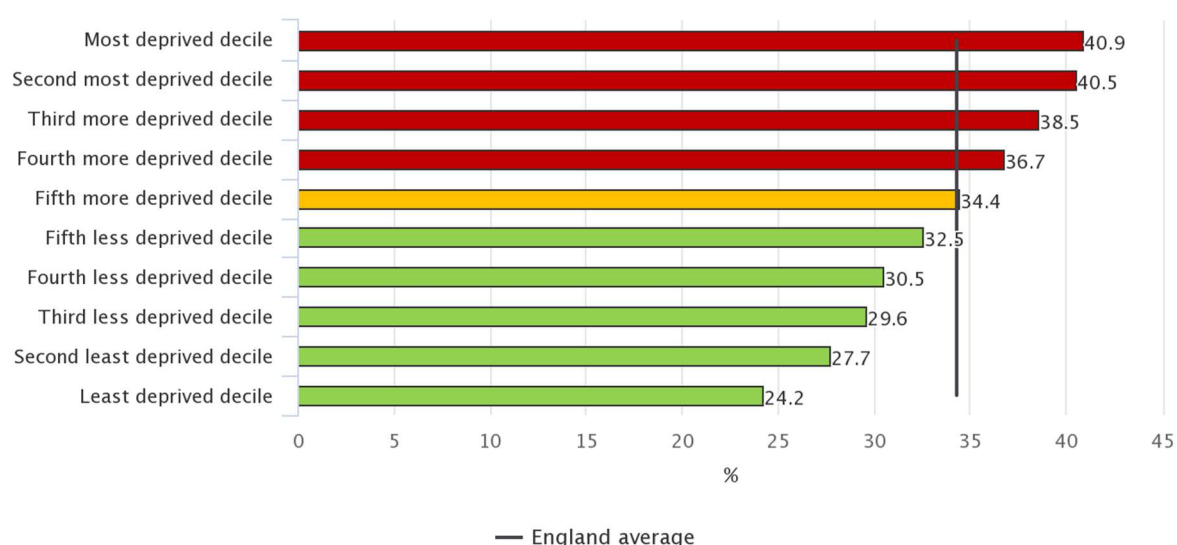
In Newcastle:

- There were 11,982 (25.4 % of the population) under 16yr olds and 13,693 (25% of the population) dependent children under 20 years of age in Low income families in 2015
- There were 9,306 (23.3%) children eligible for and claiming free school meals who attend a state funded nursery, primary, secondary or a special school in 2017, which is significantly worse than the England average

The level of inequality in childhood obesity can be seen with the National Child Measurement Programme (NCMP). Chart 4 shows the percentage of Year 6 children nationally that are classified as overweight in 2016/17 in the LSOA deprivation deciles. It shows that 40.9% of children in the most deprived areas are classified as overweight compared to 24.2% in the least deprived areas.

Chart 4: Year 6 England rates of overweight by deprivation deciles

Year 6: Prevalence of overweight (including obese) – England, 2016/17 – Data partitioned by LSOA11 deprivation deciles in England (IMD2015)



6. Level of Obesity in Newcastle's Children National Child Measurement Programme (NCMP)

The National Child Measurement Programme (NCMP) measures the height and weight of over one-million children aged 4-5 (Reception) and 10-11 (Year 6) years each year in primary schools in England. The NCMP data allows us to understand any patterns and trends in underweight, healthy weight, overweight, and obesity among the child in Newcastle, as well as the rest of the country. It has been running for several years so there is trend data from 2006/07 to 2016/17, which is discussed in this section.

Reception Year

In 2016/17 almost 25% (no. 774) of reception year children were classified as overweight (including obese), which is a slight increase on the previous 2 years, but the prevalence has fluctuated over the 10 year period, which means there is no clear upward or downward trend over the 10 year period. Newcastle is still classified as being significantly worse than the England average in 2016/17 shown in chart 5. There is a similar picture in term of obesity, which has fluctuated over the 10 year period, there was a decline in between 2011/12 to 2014/15, but the percentage of obesity then started to rise in 2015/16 and 2016/17 to almost 12% (no. 372), placing Newcastle above the England and North East Average, shown in chart 6.

Chart 5: Reception Children Overweight

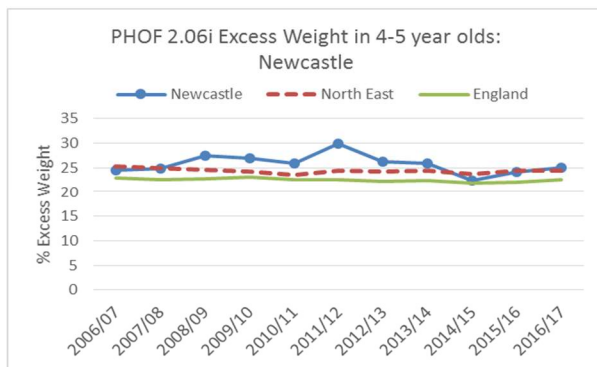
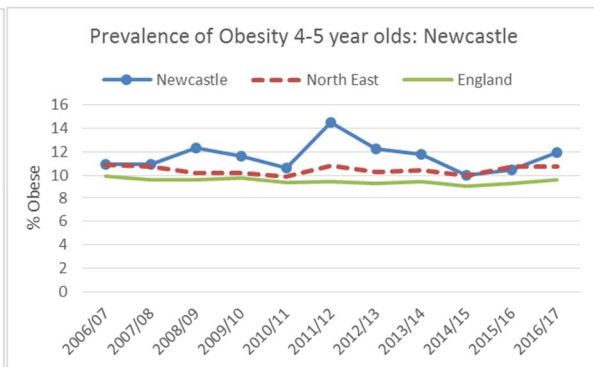


Chart 6: Reception Children Obese



Year 6

In 2016/17 38.4% (no. 1,036) of Year 6 children in Newcastle were classified as over weight (including obese). Between 2006/07 and 2011/12 there was a gradual increase in the prevalence of overweight year 6 children, however there was a reduction in 2012/13 which has subsequently fluctuated over recent years with a slight increase into 2016/17. Newcastle has consistently been classified as significantly worse than the England average.

In terms of Obesity there appear to be a gradual increase in the prevalence over the 10 year period, from 21% in 2006/07 to 23.6% (no. 637) in 2016/17, although there have been fluctuations over the 10 year period. Newcastle has consistently been classified as significantly worse than the England average and remains above the North East average.

Chart 7: Year 6 Children Overweight

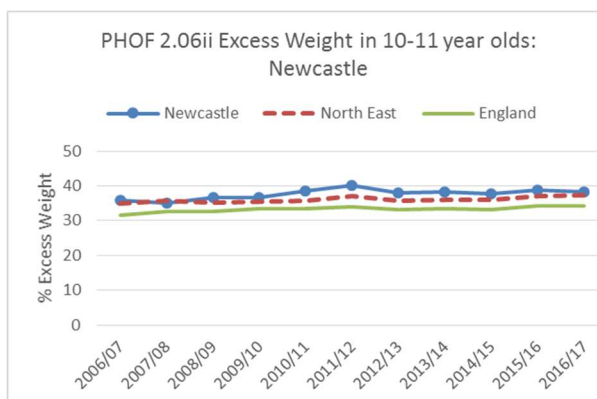
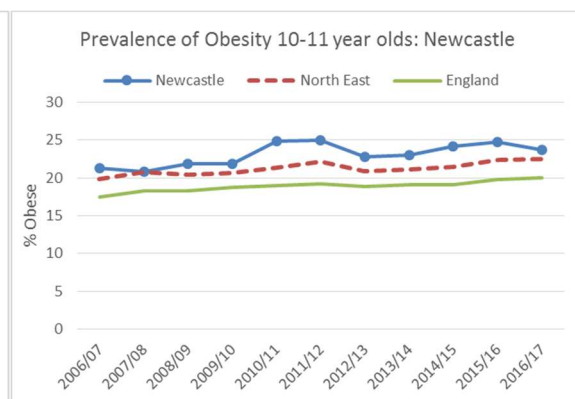


Chart 8: Year 6 Children Obese



Prevalence of Obesity at Ward Level

The NCMP data allows us to look at the prevalence of obesity at several levels including deprivation levels and Ward level. This enables us to look at the level of inequality that exists around childhood obesity in Newcastle as well as potential key geographical areas where higher levels of obesity are present. The next section looks at pooled data from 2013/14 to 2015/16 for Newcastle, by pooling the data it allows us to look at the smaller geographical areas without having to suppress vast sections of the data due to small numbers.

Deprivation

For Reception and Year 6 children there is a clear link between higher prevalence of obesity and higher deprived areas. Chart 9 and chart 10 show the prevalence of obesity at ward level in order of deprivation. A high IMD score means higher deprivation. Wards with low IMD score (low deprivation) have lower levels of obesity compared to ward with high IMD score (high deprivation) having higher levels of obesity

Chart 9: Reception Year link to deprivation

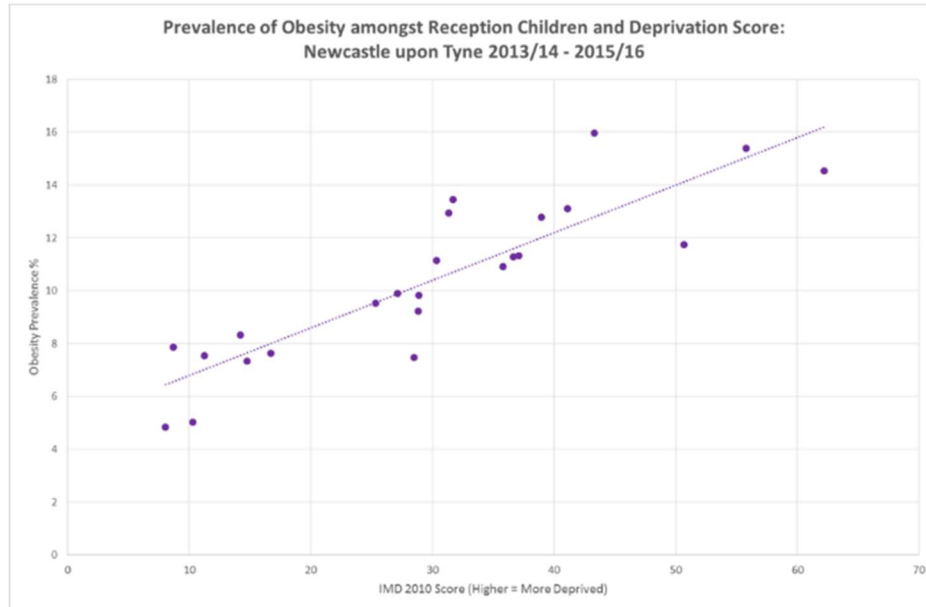
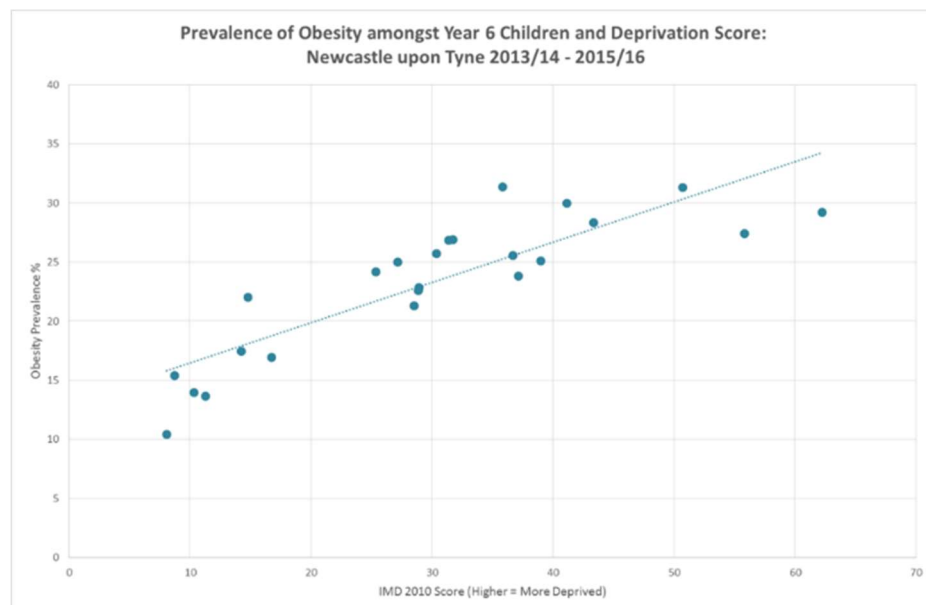


Chart 10: Year 6 link to deprivation



Ward Variation

There are also clear differences at ward level when looking at the prevalence of childhood obesity in Newcastle. Chart 11 shows the level of obesity for Reception year children at wards across Newcastle in order of deprivation from most to least deprived wards compared to the Newcastle average. Generally, there are higher levels of obesity in the more deprived areas, but there are three wards that are significantly higher than the Newcastle average, they are: **Walker, Byker** and **Benwell & Scotswood**. Chart 12 shows that same information but for Year 6 children, it highlights the difference between the least deprived wards compared to the more deprived wards, and shows 3 areas that are significantly higher than the Newcastle average, they are: **Walker, Elswick** and **Blakelaw**.

Chart 11: Reception Year Ward Level Obesity

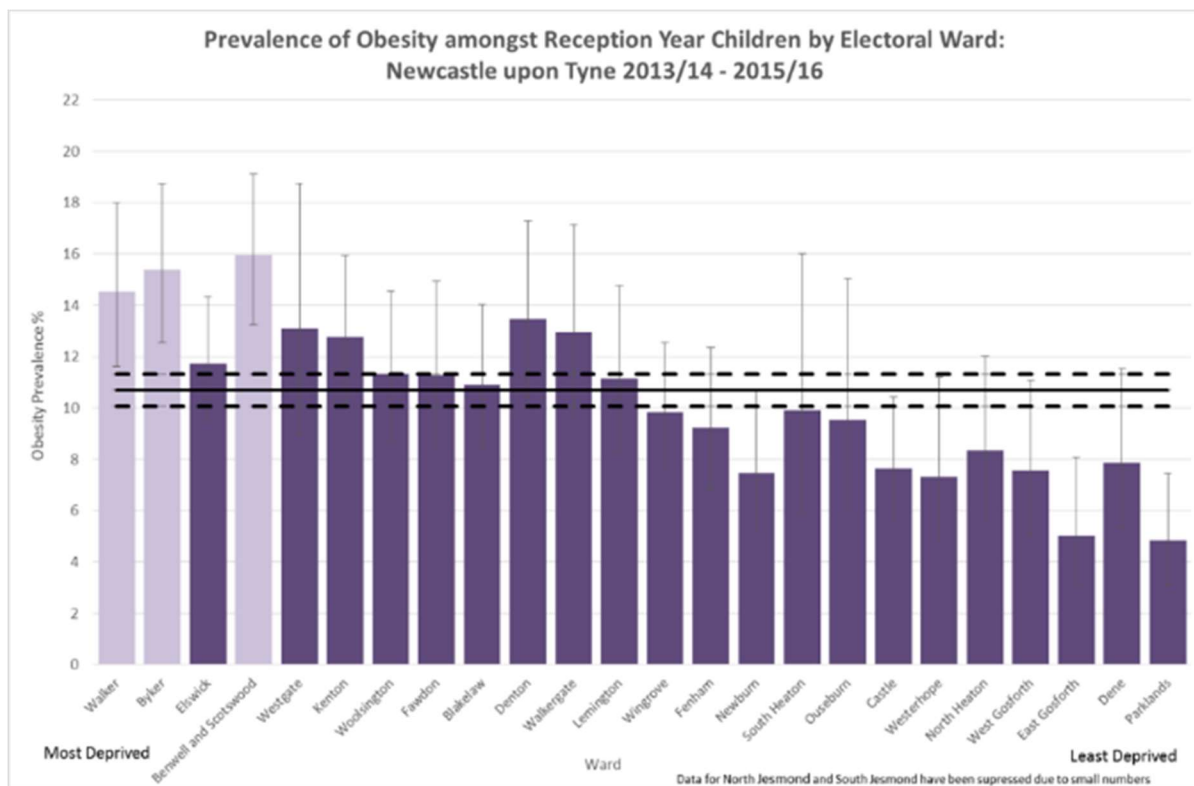
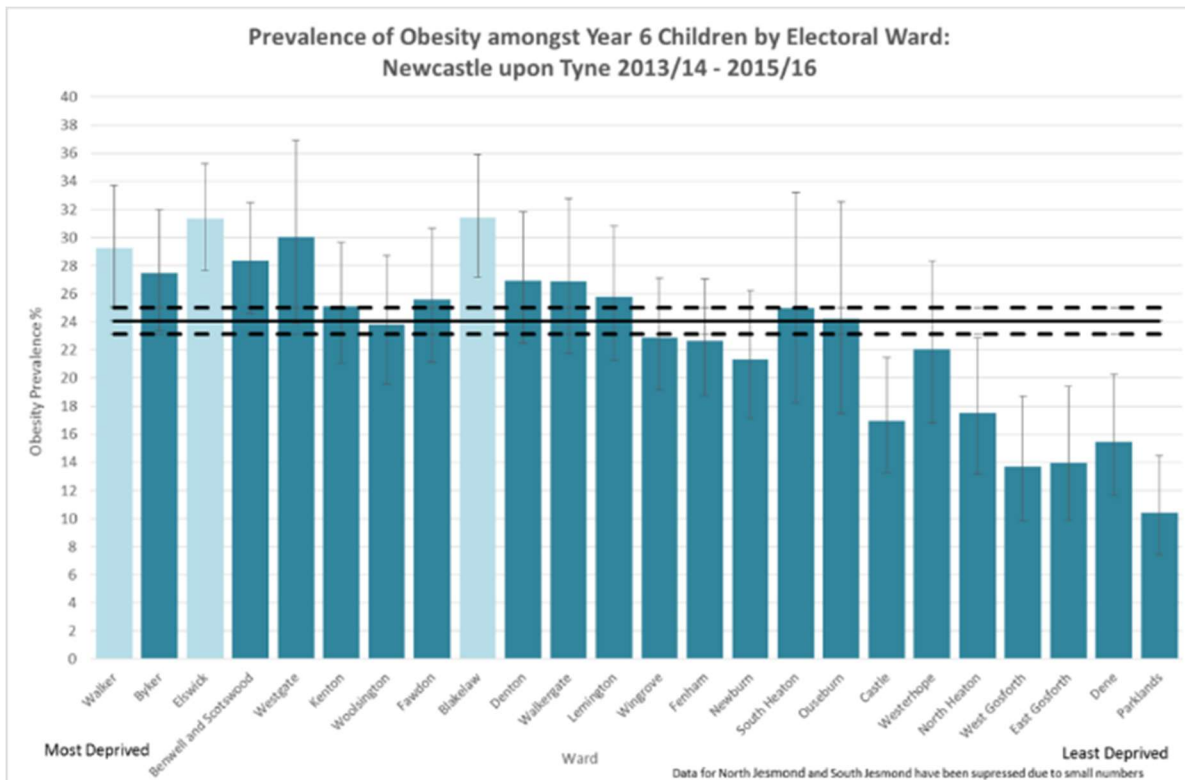


Chart 12: Year 6 Ward Level Obesity



Please see Appendix 1 and 2 for the ward level obesity trend data for Reception Year and Year 6 Children from 2008/09 to 2015/16.

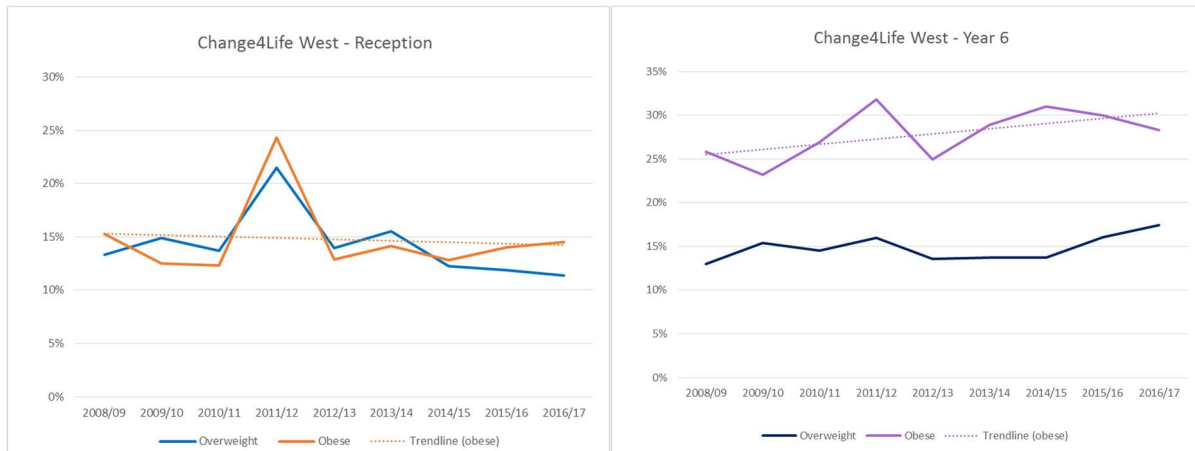
Change 4 Life Areas

There are currently two Change 4 Life Areas in Newcastle, Change 4 Life East and Change 4 Life West. Each area is a partnership of providers that link up services and projects to encourage families to 'Eat Well, Move More and Live Longer'. These partnerships were established in response to the high rates of overweight and obesity in children in the areas as measured by the National Child Measurement Programme (NCMP). The partnerships have been running for several years and have provided a wide range of data about the levels of childhood obesity.

Change 4 Life West

This covers the ward areas of Benwell and Scotswood, Wingrove and Elswick for both Reception year and Year 6 children. Chart 13 shows the percentage of children who are overweight and obese in each year group. There is no clear trend for obesity levels for Reception age children, as the percentage has fluctuated over the 9 year period. However, for the Year 6 population there does appear to be an increasing obesity trend over the 9 year period.

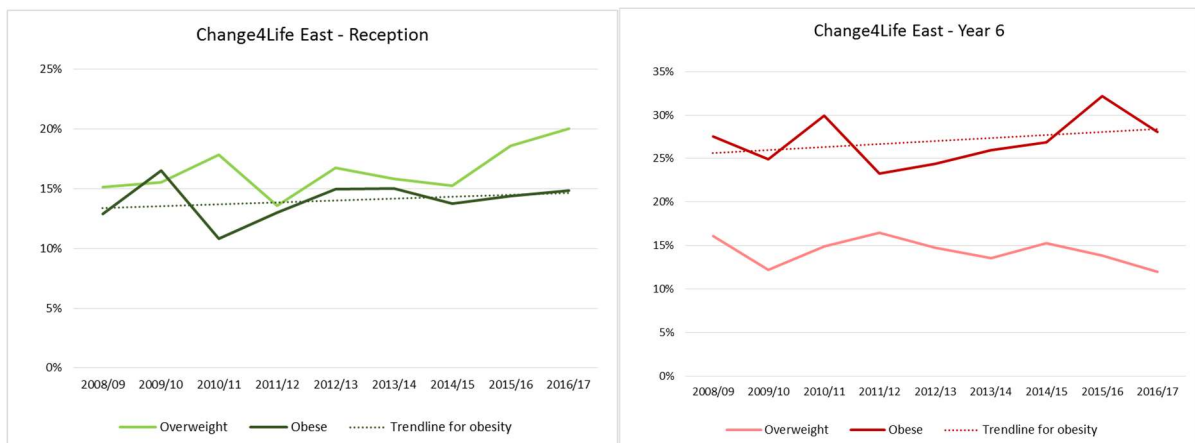
Chart 13: Percentage of children who are overweight and obese Change4Life West



Change 4 Life East

This covers the ward areas of Byker, Walker and Walkergate for both Reception year and Year 6 children. Chart 14 shows the percentage of children who are overweight and obese in each year group. There is no clear trend in the levels of Obesity and Overweight children in the Reception age group as the percentage has fluctuated over the 9 year period, but seems to have stabilised for obesity between 2012/13 to 2016/17, but increased for overweight children in the last 2 years. For the Year 6 population the percentage of children identified as overweight has fluctuated over the 9 year period, but there appear to be an increasing trend in obese children between 2011/12 to 2016/17.

Chart 14: Percentage of children who are overweight and obese Change4Life East



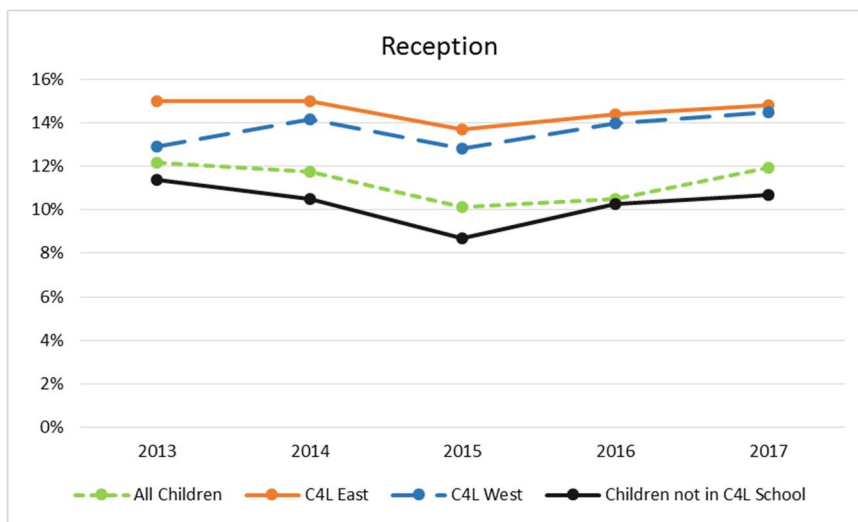
Across both Change 4 Life Areas there are clear differences in the percentage of children who are overweight and obese in the different age groups. When children get into Year 6 the gap between overweight and obese increases. In both areas there is an increase in the percentage of children in reception year now measuring as overweight in 2015/16 to 2016/17.

Change4Life (C4L) Compare to All Children

As there are only two Change4Life Areas in Newcastle it is important that the changing level of obesity across the city are compared to the C4L areas and non C4L areas to see what differences there are. Chart 15 shows the percentage of obesity in Reception children across Newcastle and in the C4L areas and non C4L Areas. All 4 categories have followed a similar pattern in levels of obesity e.g. with a dip in 2015 and increasing levels in 2016 and 2017.

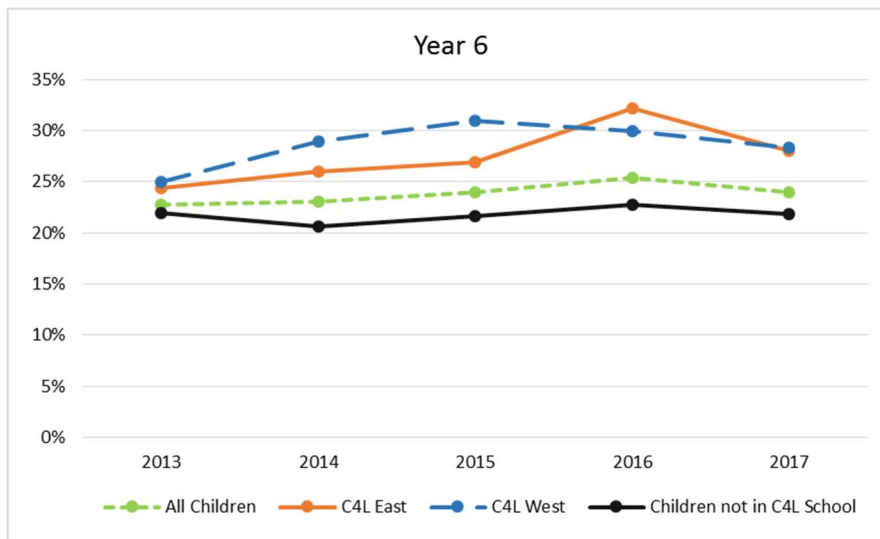
There are higher levels of obesity in the C4L areas compared to the non C4L areas. For Reception children in 2017, 10.7% of children in non C4L areas were obese compared to 14.5% C4L West and 14.8% in C4L East. The difference between C4L areas and non C4L areas has remained at around 4% between 2014 and 2017, with a peak in 2015 at 4.5%. (in 2017 C4L is 14.6% non C4L is 10.7%)

Chart 15: percentage of obesity in Reception children across Newcastle and in the C4L areas and non C4L Areas



For children in Year 6 the level of obesity is higher than for those in reception year, but there are also clear differences between the C4L areas and non C4L areas. In 2017, 21.9% of children in non C4L areas were obese compared to 28.3% in C4L West and 28.1% in C4L East 2017. However, the gap between C4L and non C4L areas is larger for the Year 6 population, so in 2014 that gap was 7% it had risen to 8% by 2016, but we start to see a decline in 2017 to 6.3%. (in 2017 C4L is 28.2% non C4L is 21.9%).

Chart 16: percentage of obesity in Year 6 children across Newcastle and in the C4L areas and non C4L Areas



7. Diet & Nutrition

The Health Survey for England found that in 2016, 16% of children aged 5 to 15 consumed the recommended 5 portions of fruit and vegetables a day, which has fallen from 23% in the 2014 survey. Most children consumed fewer than 3 portions of fruit and vegetables a day, at 54% of boys and 49% of girls. A slightly higher percentage of girls reported eating 5 or more fruit and vegetables than boys nationally.

The National Diet and Nutrition survey 2014/15 to 2015/16 found that that majority of children nationally:

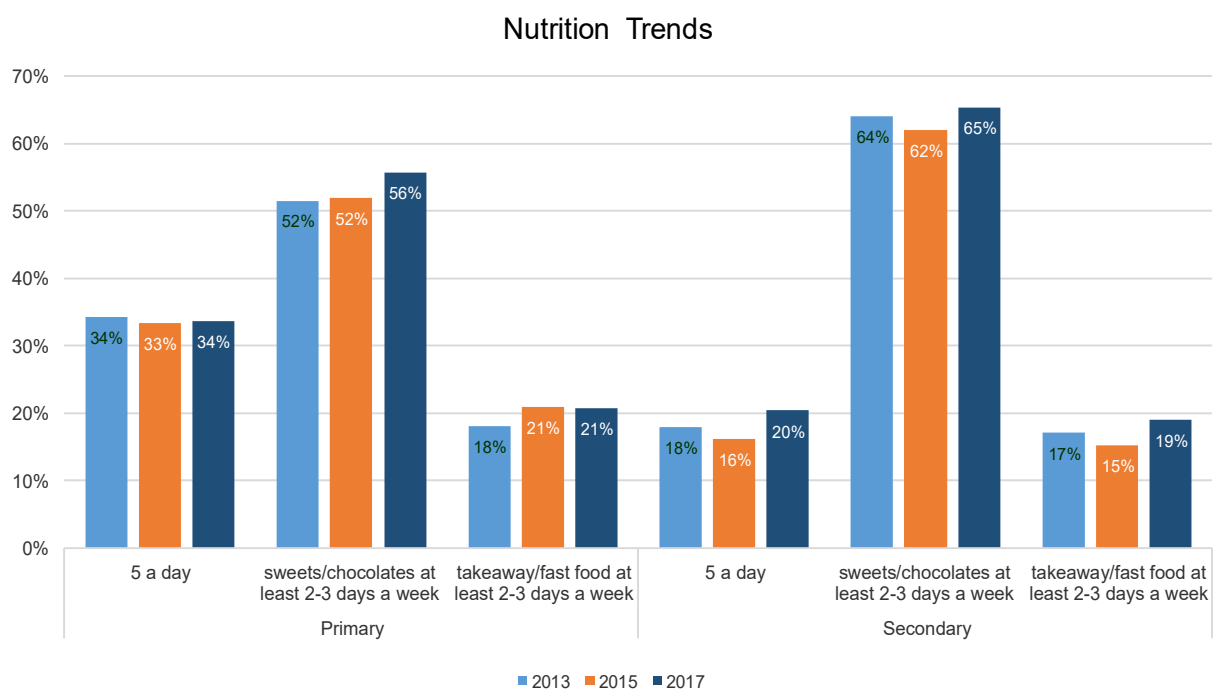
- exceed the government recommendation of the mean **intake of free sugars** providing no more than 5% of total calorie intake
- exceed the government recommendation of the mean **intake of saturated fat** providing no more than 11% of total calorie intake
- are well below the recommended level of at **least one portion per week of oily fish**

In Newcastle a Health Related Behaviour Survey (HRBQ) is carried out in participating schools within Newcastle amongst 8 to 15 year olds during 2017. The survey is a self-reported health related behaviours and perceptions survey which involved 6404 children and Young People attending 67 local schools. The survey has been conducted for several years which provides a range of trend information across a wide range of health-related topics such as diet and nutrition and physical activity. The overall trends are shown in Chart 17, but some of the key finding were:

- A third (34%) of primary school pupils in 2017 stated they had at least 5 portions of fruit and vegetables on the day before the survey. Which is an increase from 2011 at 22%

- A smaller percentage (20%) of secondary school pupils report they had at least 5 portions of fruit and vegetables on the day before the survey, but this is an increase on 2011 at 14%
- 8% of primary and secondary school pupils reported that they did not eat any fruit or vegetables the day before the survey in 2017.
- Over a quarter of children and young people report they eat sweets or chocolate on 'most days' (26% primary and 30% secondary), with 56% of primary and 65% of secondary school children reporting it at least 2-3 days a week.
- 1 in 5 children and young people report eating takeaways or fast food on at least 2-3 days per week (21% primary and 19% secondary).
- 12% of pupils report drinking low calorie (diet) fizzy drink on most days, with 13% primary and 19% secondary school pupils reporting they drink 'non-diet' fizzy drinks on 'most days'

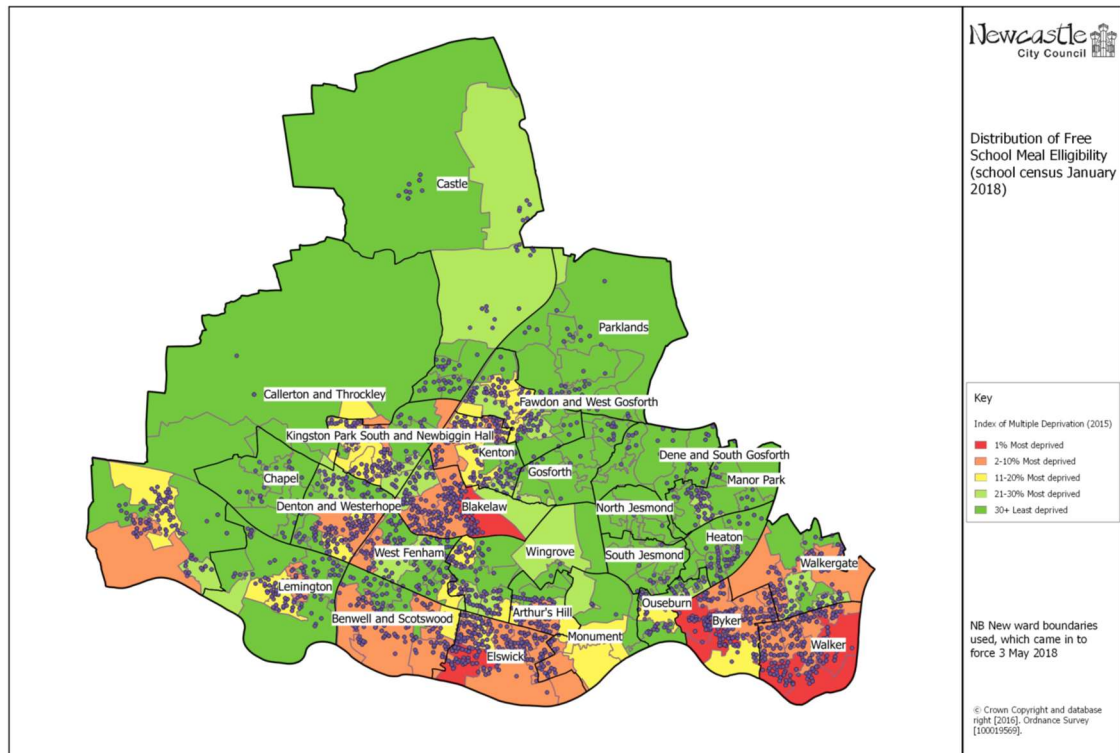
Chart 17: Newcastle HRBQ Nutrition Trends



Free School Meals

In 2016 there were 9,122 children in Newcastle eligible and claiming free school meals which is 23.4% of the population. This has declined from 2014, but is still significantly worse than the England average which is 14.3% and above the North East at 18.4%.

Chart 19: Rates of Free School Meals by Ward



8. Physical Activity

The Health Survey for England found that nationally in 2015, 23% of boys and 20% of girls reported doing moderate to vigorous intensity physical activity for at least 60 minutes every day (which excludes activity in schools and active travel to/from school). It also found that the proportion of children who report doing moderate to vigorous physical activity for at least 60 minutes every day reduced with age, from 28% in those aged 5-7 years of age to 12% for those aged 13-15 years (Source: Child Health: Health Survey for England 2016).

The What About YOUTH (WAY) survey conducted in 2014/15 estimated that 13.9% of 15 year olds in Newcastle are physically active for at least one hour per day seven days a week and that 73.3% have a mean daily sedentary time in the last week over 7 hours per day, which is significantly worse than the England average of 70.1% (source: What About YOUTH (WAY) survey).

The Newcastle Health Related Behaviour Survey (HRBQ) in 2017 found that:

- Two thirds (64%) of secondary school pupils report that they do at least 3 hours of moderate intensity physical activity per week, which is a significant reduction from 72% in 2011.
- 43% of secondary school pupils and 72% of primary school pupils describe themselves as 'fit' or 'very fit'.
- 1 in 5 (20%) primary school pupils report they do physical activity outside of school on at least 5 days in the week before the survey and 12% report they didn't do any

physical activity outside of school in the week before the survey. Yet 85% of primary school pupils say they enjoy physical activity 'quite a lot' or 'a lot'.

- 42% of primary school pupils walked to school compared to 28% in secondary school
- 3% of primary school and 3% of secondary school pupils report that they travelled to school on a bicycle in 2017, which has seen a slight increase since 2013.

9. Adult Obesity

Whilst it is recognised that a majority of the Public Health funded programmes focus on children with the intention of influencing their families, some programmes do cover adults and we should recognise that there is an issue with overweight and obesity across the city. Table 4 indicates the estimated rates in the city as compared to the North East and England for Healthy Weight, Overweight and Obesity. The rate of overweight adults is steady and just above the English average. The rate of obese adults is increasing and has overtaken the English average over recent years.

Table 4: Sport England: Active Lives Survey (ALS)

	BMI Healthy weight			BMI Overweight			BMI Obese		
	NCL %	NE %	Eng. %	NCL %	NE %	Eng. %	NCL %	NE %	Eng. %
2012-2014	37.6%	30.4%	34.2%	40.8%	41.9%	40.6%	20.5%	26.7%	24.0%
2013-2015	35.5%	30.2%	34.0%	41.1%	41.5%	40.4%	21.8%	27.1%	24.4%
2015-2016	36.4%	33.2%	37.7%	39.2%	39.1%	38.4%	24.0%	27.1%	22.9%

Body Mass Index is calculated by dividing body weight (kilograms) by height (metres) squared. The groupings are based on the World Health Organisation BMI classification system for adults.

Table 5 indicates that Newcastle is currently above the English average but below that for the North East as a whole.

Table 5: Public Health Outwork Framework

2.12 - Percentage of adults (aged 18+) classified as overweight or obese (BMI)			
Period	NCL %	NE %	Eng %
2015-16	63.2%	66.3%	61.3%

10. Summary of findings from commissioned partners

Newcastle City Council commission a range of activity to support child obesity prevention, including both Tier 1 (primary prevention) and Tier 2 (secondary prevention). This primarily focuses on healthy eating and physical activity interventions, with activity taking place within school and community settings.

These programmes have evolved over many years and predominantly target the most deprived East and West areas of the city. Lean East was set up approximately ten years ago with several organisations commissioned to tackle the growing obesity crisis. Funded programmes in the West followed a few years later. These partnerships have since been organised and branded as Change4Life East and Change4Life West. The Change4Life East programme is coordinated by Food Nation and the Change4Life West Programme by HealthWorks Newcastle.

Findings

Partners highlighted an apparent disparity of funded activity between the two areas.

Funded activity East	Funded activity West
Hat Trick - W.A.G.S. and Street Skillz	Newcastle United Foundation - Match Fit
Kids Kabin - Cycling Activity	Newcastle Nutrition – Weight Management Service for Under 5s & Training
Newcastle Eagles Foundation - Hoops for Health	West End Women & Girls – Seeds for Life
Newcastle United Foundation - Match Fit	
Newcastle YMCA - Bizibodis	
North East Dance - Dance and Fitness	

In the West partnership there has been one constant coordinator with wide experience of community development and local knowledge. In comparison, the East partnership has seen several changes in the coordinating role. Currently there is no dedicated coordinator but a team involved in running it for Food Nation.

The broader West partnership has greater engagement with external organisations than the East partnership and this is reflected in attendance at partnership events. HealthWorks and West End Women and Girls have been working in the west of the city for many years and are well established. The East historically has had less funded community development, which contributes to a smaller broader partnership.

Both partnerships have working Groups. Membership of each includes the coordinator, funded partners, early years representatives and representation from NCC Public Health and Active Newcastle teams. The Working Group in the West has fewer numbers of partners than the East. Some partners proposed one working group across both areas with joint partnership events.

The greater number of funded partners in the East is an historic arrangement from the days of 'Lean East'. The initial funding came from the Primary Care Trust and the Council's Neighbourhood Renewal Fund and has resulted in more funding allocated to the East partnership than the West with funding for the West only available from the Primary Care Trust.

Some partners felt they are more established within one partnership than the other. Although a few issues were raised, most partners work effectively together and have also developed good links with others, including Healthy Schools and School Learning Trusts.

Partners identified additional wards (notably Blakelaw, Kenton, Newbiggin Hall) where more targeted work is required. Some already work into these and other areas and some offer additional programmes of activity that schools can purchase.

Outside of the Change4Life programmes, some of the funded partners charge a cost for their cooking programmes whilst others subsidise funding to cover costs or use food distribution schemes such as Fareshare.

School specific funded activity – many partners within Change4Life East deliver physical activity and healthy eating within primary schools and encourage less active children into sport and dance based activity. Some aim to address gender inequalities by encouraging girls to participate in sport and dance based activity.

Several proxy measures are used to measure changes in knowledge, skill level and confidence. Partners are unable to measure sustained improvements.

Most of the school activity takes place in Key Stage 2 which was originally identified as the primary school age group to target. Partners were unaware if their programme of activity complimented or replaced the school's compulsory PE offer. One partner offers a teacher training programme which may promote ongoing engagement.

A variety of challenges were identified. When Lean East was established schools were asked to target interventions at those pupils who would most benefit, e.g. those inactive or not engaging at school. This was never embedded and partners rely on the school to select the class or year group to receive the funded activity, although they do advise which children would benefit most. Similarly, an attempt was made in the East to create a diary of activities in schools but this relied on partners regularly updating their information and was not successfully implemented. As a result, partners are not aware when other partners are in the same schools or whether schools select different classes of children for different funded activity.

Some partners were unable to access all the target schools. Some schools may allocate the sessions to one class or spread across the year groups so there is a lack of consistency around how long pupils receive an activity. Some partners are requested to do double class entry which means they meet their target of pupils without needing to meet their target of schools.

Funded partners had limited contact with parents and recognised the need to communicate with parents. Others had delivered interventions with families but acknowledged how difficult it can be to engage them. Further insight would be required if future funding is to focus on targeted family interventions.

Funded partners rarely signpost into local clubs or groups and therefore are unable to demonstrate sustained involvement in physical activity. Some encourage children showing promise to join their own academies of excellence, however due to small numbers the impact of this intervention is small.

Most partners felt that after school programmes are more successful in secondary school due to the age and maturity of the child who is perhaps given more freedom to attend afterschool clubs and travel home independently.

Holiday clubs were recognised as important and provided the only meal of the day for some children. Partners expressed frustration that these are often time restricted, leaving multiple weeks with no provision for families experiencing food poverty.

Community focused activity – Cooking skills, food growing and gardening are popular with several funded partners delivering programmes in schools and communities. These are seen to increase social engagement and community cohesion and create volunteering opportunities and the development of friendships. Many programmes conclude with fun social events that bring people together. Further insight is required to measure any long-term impact on overweight or obesity.

Some partners target very small numbers of children and further insight is required to measure any impact on overweight or obesity.

It is difficult to compare one funded activity with another as the focus of each is unique. Although partners target some of the most deprived communities within Newcastle and have built up positive relationships, they acknowledged the difficulty of targeting without stigma and recognised the need for further investment to affect lasting change.

Annual community events are often delivered in partnership with others which are open to all and held in local community spaces. These are positive examples of partnership working but involve much planning and are resource heavy.

Some partners engage children by using a 'carousal' model during celebration events and roadshows. There is no doubt these events are fun for all involved. However, any sustained involvement in physical activity needs to be reviewed.

Several reasons for obesity in very young children were identified by one partner. These included: patterns of eating; portion size; sleep patterns of children and family influences and need further consideration prior to commissioning future programmes that aim to reduce childhood obesity.

The meetings with partners highlighted several areas that would benefit from further insight and investigation. Those pertinent to the future commissioning of programmes of activity will be considered and national and international research will be reviewed to identify successful approaches to obesity prevention.

- Explore whether the Change4Life partnerships have resulted in a culture of dependence and inequality between these areas and the rest of the city
- Explore the effectiveness of food growing initiatives, cooking skills and budgetary skills with local communities, schools and families.
- Develop further insight into the links between obesity and emotional health and wellbeing; obesity and food poverty; engagement with parents and families.
- Develop an understanding of what works and how effective targeting of those most in need can be commissioned
- Consult on the re-distribution of funding away from schools as evidence is showing this is ineffective
- Schools to make use of the PE and Sport Premium to fund physical activity
- Consider funding holiday hunger programmes and look at research being carried out by Northumbria University on the Child Poverty North East pilots

11. Recommendations & Next Steps

Several recommendations from this review have been identified and will be considered when planning wider stakeholder engagement:

- Develop a whole systems approach to tackling obesity that addresses wider inequalities in health.
- Review the current geographical allocation of funding to consider the inclusion of other areas / wards in Newcastle, in line with NCMP data.
- Consult with wider stakeholders and partners across Newcastle to develop a revised model to address obesity prevention within Newcastle.
- It is important not to lose the positive relationships built by partners and organisations within the communities they serve when developing a new obesity model for the city.

Newcastle City Council will undertake further consultation with wider stakeholders and partners during May 2018. This process will inform the development of a new commissioning model to take forward the obesity prevention agenda in Newcastle.

12. Appendix 1: NCMP Ward Obesity Trends, Reception Year

Typology	Practice	Prevalence of obesity among children in Reception (age 4-5 years)						Trend
		2008/09 to 2010/11	2009/10 to 2011/12	2010/11 to 2012/13	2011/12 to 2013/14	2012/13 to 2014/15	2013/14 to 2015/16	
	Walker	13.6	13.6	14.5	15.9	15.2	14.5	
	Byker	12.2	11.2	12.4	14.1	15.3	15.4	
	Elswick	14.3	17.1	15.8	15.7	11.6	11.7	
	Benwell and Scotswood	13.4	13.8	14.7	15.6	14.3	16.0	
	Westgate	12.1	17.8	18.6	17.4	13.6	13.1	
	Kenton	12.4	12.8	13.8	15.4	13.9	12.8	
	Woolsington	12.2	13.4	13.4	13.9	12.5	11.3	
	Fawdon	13.4	13.2	14.1	12.9	12.7	11.3	
	Blakelaw	13.8	15.1	14.8	14.5	12.3	10.9	
	Denton	11.6	11.7	12.0	13.3	13.6	13.5	
	Walkergate	13.1	14.7	12.3	13.9	11.3	12.9	
	Lemington	12.0	10.4	11.6	13.3	12.8	11.1	
	Wingrove	10.3	14.1	15.1	14.6	10.7	9.8	
	Fenham	9.4	13.6	15.2	14.6	11.3	9.2	
	Newburn	12.5	12.9	11.6	10.2	8.8	7.5	
	South Heaton	9.1	11.2	13.4	11.1	11.8	9.9	
	Ouseburn	9.8	11.8	15.6	14.3	11.0	9.5	
	Castle	10.0	10.6	10.6	9.7	8.0	7.6	
	Westerhope	12.6	12.9	8.7	8.6	8.6	7.3	
	North Heaton	7.7	6.5	6.6	8.0	7.8	8.3	
	West Gosforth	5.3	8.2	7.2	8.3	6.9	7.5	
	East Gosforth	8.5	7.0	8.2	6.8	6.1	5.0	
	Dene	7.3	6.6	6.5	8.6	8.0	7.9	
	Parklands	9.1	9.0	7.2	6.5	5.3	4.8	

Source: National Child Measurement Programme, Prevalence of overweight and obesity by area of child residence (modelled), Electoral Ward, PHE

13. Appendix 2: NCMP Ward Obesity Trends, Year 6

Typology	Practice	Prevalence of obesity among children in Year 6 (age 10 to 11 years)						Trend
		2008/09 to 2010/11	2009/10 to 2011/12	2010/11 to 2012/13	2011/12 to 2013/14	2012/13 to 2014/15	2013/14 to 2015/16	
	Walker	28.7	27.0	26.6	25.1	27.7	29.2	
	Byker	28.1	28.4	28.7	25.2	24.0	27.5	
	Elswick	24.7	25.7	27.2	28.8	30.7	31.4	
	Benwell and Scotswood	26.9	30.8	31.2	31.3	29.5	28.4	
	Westgate	26.9	25.3	25.0	23.3	25.8	30.0	
	Kenton	18.2	23.2	25.6	25.9	25.0	25.1	
	Woolsington	23.0	22.6	23.4	24.4	24.2	23.8	
	Fawdon	27.8	26.5	26.0	25.1	24.5	25.6	
	Blakelaw	22.6	22.2	22.6	24.5	27.7	31.4	
	Denton	28.1	28.1	26.1	21.4	24.4	26.9	
	Walkergate	20.4	22.4	23.3	26.0	25.2	26.9	
	Lemington	22.9	23.0	25.7	26.1	26.9	25.7	
	Wingrove	24.0	27.7	26.4	23.8	21.6	22.9	
	Fenham	24.5	27.2	28.0	21.8	20.2	22.6	
	Newburn	26.6	30.4	26.9	25.7	22.4	21.3	
	South Heaton	15.7	18.8	20.6	27.8	24.5	25.0	
	Ouseburn	17.1	18.9	21.8	23.1	27.6	24.2	
	Castle	21.3	19.0	18.5	17.6	16.9	17.0	
	Westerhope	21.7	23.4	23.6	22.2	20.7	22.0	
	North Heaton	16.5	19.4	19.7	20.6	18.4	17.5	
	West Gosforth	17.0	17.8	17.4	18.2	14.9	13.7	
	East Gosforth	11.3	12.4	11.7	12.9	13.1	14.0	
	Dene	12.0	14.6	16.0	15.9	15.2	15.5	
	Parklands	18.0	16.2	14.9	11.4	10.8	10.4	

Source: National Child Measurement Programme, Prevalence of overweight and obesity by area of child residence (modelled), Electoral Ward, PHE