

# Diet and Physical Activity in Hull:

## Summary



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## Key points/headlines

- 62% of boys and 58% of girls in Hull secondary schools reported they ate a healthy diet
- Percentages of secondary school pupils eating 5-A-DAY fruits and vegetables decreased by 18% in boys and 36% in girls between years 7 and 11
- 55% of boys and 35% of girls in Hull's secondary schools engaged in at least 1 hour of physical activity per day on average
- Percentages of adults in Hull aged 16+ years eating 5-A-DAY fruits and vegetables decreased by 24% in men and 29% in women between 2009 and 2011-12
- 27% of adults living in Hull's most deprived areas reported not eating a healthy diet, almost twice as high among adults living in the least deprived areas of Hull
- 41% of men and 45% of women took no moderate or vigorous activity in the week before completing the 2011-12 survey
- More than 173,000 adults in Hull do not eat 5-A-DAY fruit and vegetables
- More than 156,000 adults in Hull do not get sufficient exercise

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## **Introduction**

This brief report on diet and physical activities in Hull uses data collected from health and lifestyle surveys in Hull of both adults and young people in secondary school. The full reports from each of the surveys may be found at [www.hullpublichealth.org](http://www.hullpublichealth.org). Also included in this report are data from the Hull JSNA at [www.jsnaonline.org](http://www.jsnaonline.org).

## **Poor diet/insufficient exercise as risk factors for ill health**

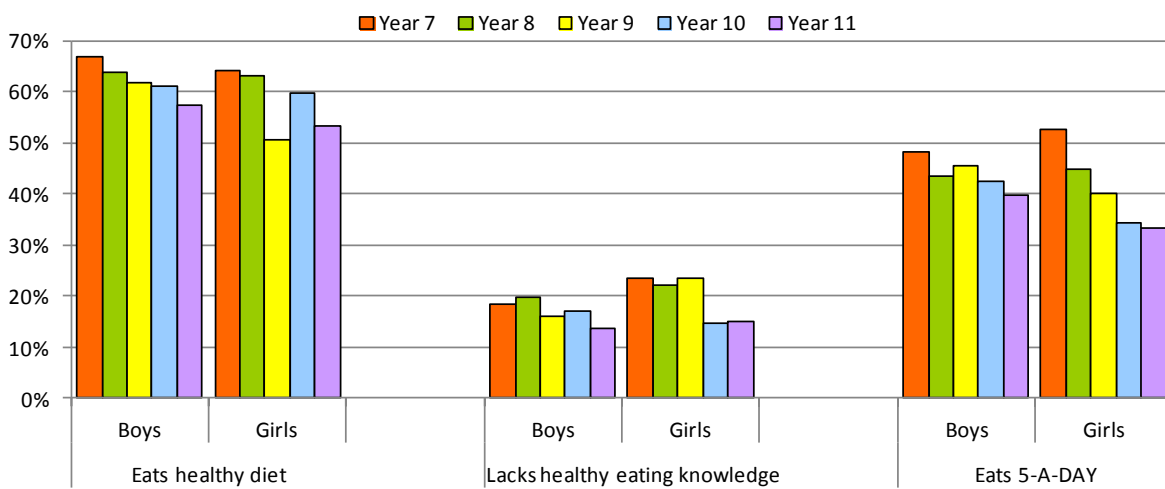
Poor diet has been linked to several types of cancer including cancer of the bowel, stomach, breast, lung, prostate, pancreas, oesophagus and bladder (Cancer Research UK 2009). A fatty salty diet is also a risk factor for cardiovascular disease as fatty build-ups within the arteries can cause heart attacks, stroke and other cardiovascular events and salt increases the risk of hypertension which is also a risk factor for cardiovascular disease.

Regularly exercise in conjunction with a balanced diet reduces the risk of obesity and helps maintain healthy weight levels. Insufficient exercise is also an independent risk factor for poor health such as cardiovascular disease. Furthermore, regular exercise can reduce the risk of injury from falls and conditions such as osteoporosis later in life. It is also important in improving mental health.

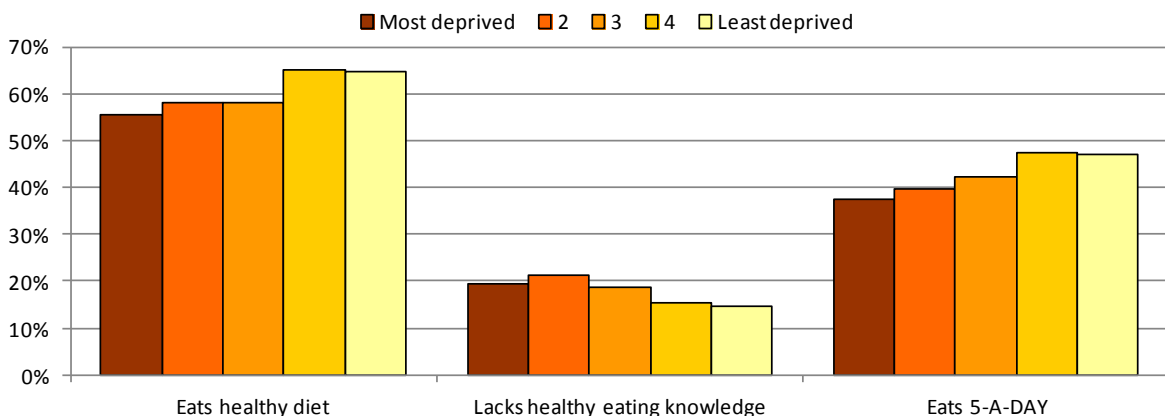
## Diet and physical activities among young people in 2012

62% of boys and 58% of girls reported they ate a healthy diet, while 44% of boys and 41% of girls reported eating at least 5 portions of fruits and vegetables per day. Percentages eating 5-A-DAY were greatest in year 7 (aged 11-12 years), decreasing with each succeeding year group (**Figure 1**). However, these percentages are likely to be over-estimates, as they are far higher than those from the England survey, where pupils were given very detailed guidance and asked about different types of fruits and vegetables.

**Figure 1 Percentage of pupils reporting eating a healthy diet or eating 5-A-DAY fruits and vegetables**



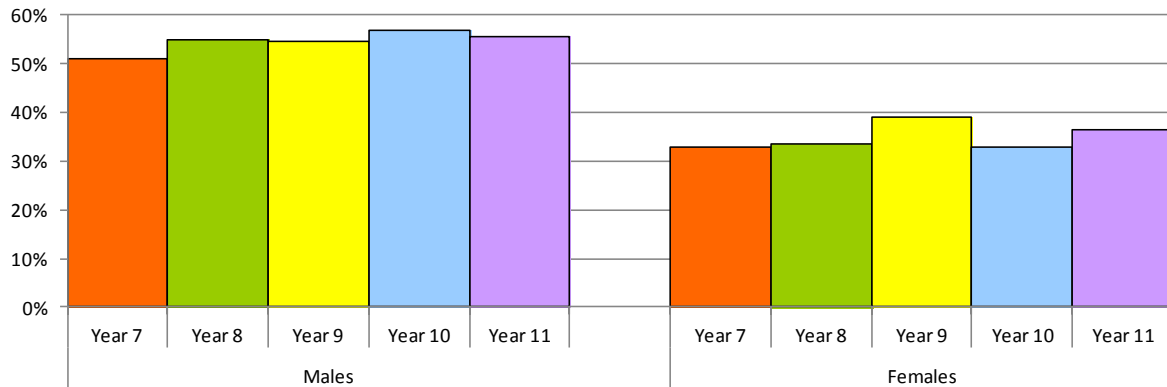
**Figure 2 Percentage of pupils reporting eating a healthy diet or eating 5-A-DAY fruits and vegetables by local IMD 2010 deprivation quintiles**



78% of boys and 87% of girls were involved in cookery related activities, ranging from lessons at school (more than one third of pupils), after school cookery clubs (2% of pupils) or helping to prepare meals at home (one fifth of pupils often helping, more than half occasionally helping). 17% of girls and 11% of boys reported never eating breakfast on a school day, higher in older year groups, while 2% of boys and 3% of girls reported never eating lunch on a school day.

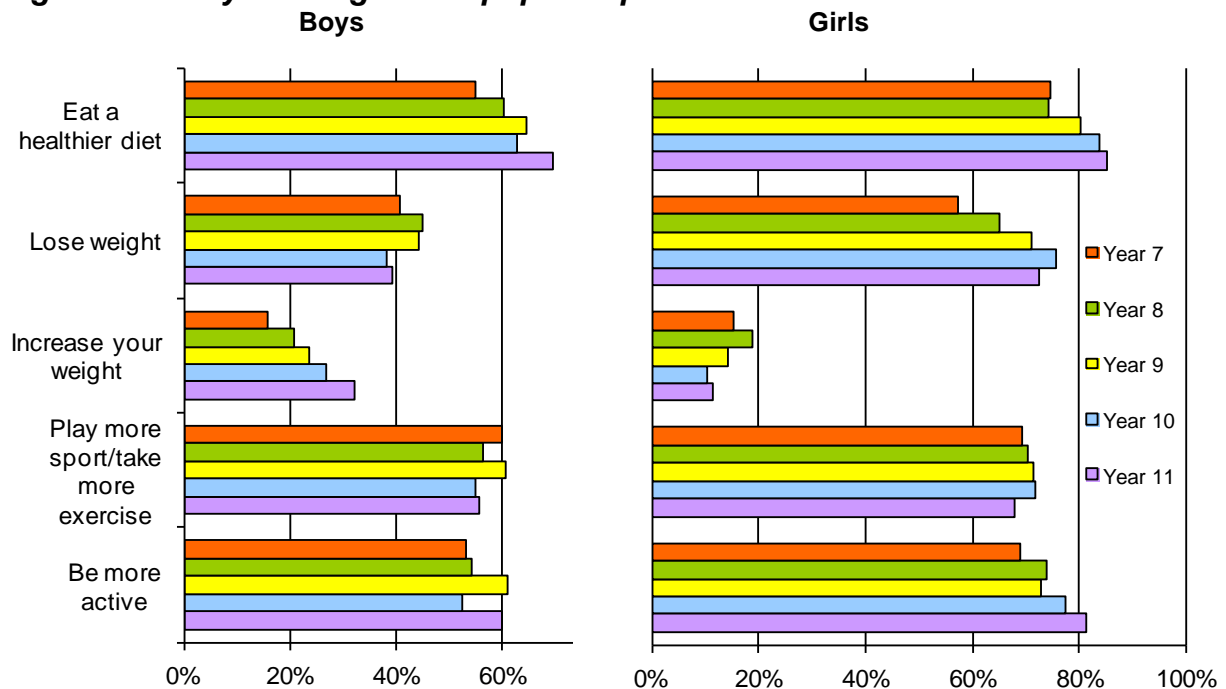
55% of boys engaged in at least 1 hour of physical activity per day on average, with similar percentages for each year group. Percentages of girls doing so were lower at 35%, again similar across year groups (**Figure 3**).

**Figure 3 Percentage of pupils taking at least 1 hour of physical activity per day on average**



Most pupils reported that they would like to make positive changes to their lifestyles (**Figure 4**). More than two thirds of girls wanted to eat a healthier diet (85%), lose weight (73%), play more sport/take more exercise (68%) and generally be more active (81%). Among boys 40% wanted to lose weight, while more than half wanted to play more sport/take more exercise (56%) and generally be more active (60%), and more than two thirds wanted to eat a healthier diet (69%).

**Figure 4 Lifestyle changes that pupils aspire to make**



Following the 2012 health and lifestyle survey of young people, a series of 5 reflector groups were held in order to examine some of the issues behind the risk factor data collected. Each reflector group was conducted at a separate school, with one group from each of years 7, 8 and 9, and two groups from year 10. Alongside these reflector groups, 10 in-depth interviews of key stakeholders were held. The report from these qualitative elements of the survey is available at [www.publichealth.org](http://www.publichealth.org). The main findings regarding diet and exercise from this report were as follows:

*There was significant disparity between the healthy diets that were reported by the young people and the perception which key stakeholders had of the diet of young people. Within the focus groups, young people showed high levels of understanding as to what comprised a healthy diet and felt it was something which they themselves followed in their day to day life however, it became apparent that there was confusion and a lack of understanding over what constituted a 'take-away' food, with many not categorising McDonalds as a take-away product (one group even classed this as a healthy option). Perhaps this is where the biggest challenge lies in terms of breaking this perception, as although attendees felt they were eating healthy there were very strong indications these were misinformed comments and actually could apply to their parents; this needs further exploration from a parents' perspective*

*In both focus groups and stakeholder interviews parents were identified as the main influence on a young person's diet (although some young people did admit that their parents were unaware of the unhealthy foods they were consuming) and are therefore key to changing this aspect of a young person's health. Stakeholders consistently identified a correlation between poor diet and deprivation, particularly with the current economic climate and financial restrictions within households. In addition, and perhaps more significant, was a recognition that both parents and schools have altered their perceptions of obesity because it is such common place; this acceptance was a key barrier in taking action and a considerable challenge for all moving forward.*

*Stakeholders considered inactivity and an unwillingness to participate in activities to be an issue among some young people (particularly females) however, schools and local schemes were cited as being increasingly pro-active in developing activities which were designed to be more appealing to those who would usually be reluctant to take part, the challenge however still lies in increasing participation.*

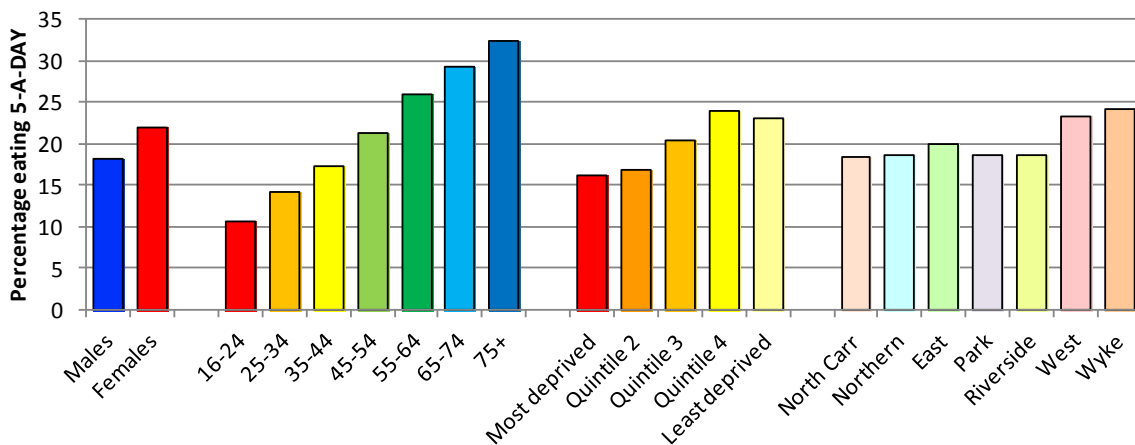
*Although interviewees identified a large number of sport and exercise facilities, concerns were expressed regarding the suitability and location of some activities and therefore the limitations on the demographic that the facilities / activities would appeal to.*



## Diet among adults in Hull 2011-12

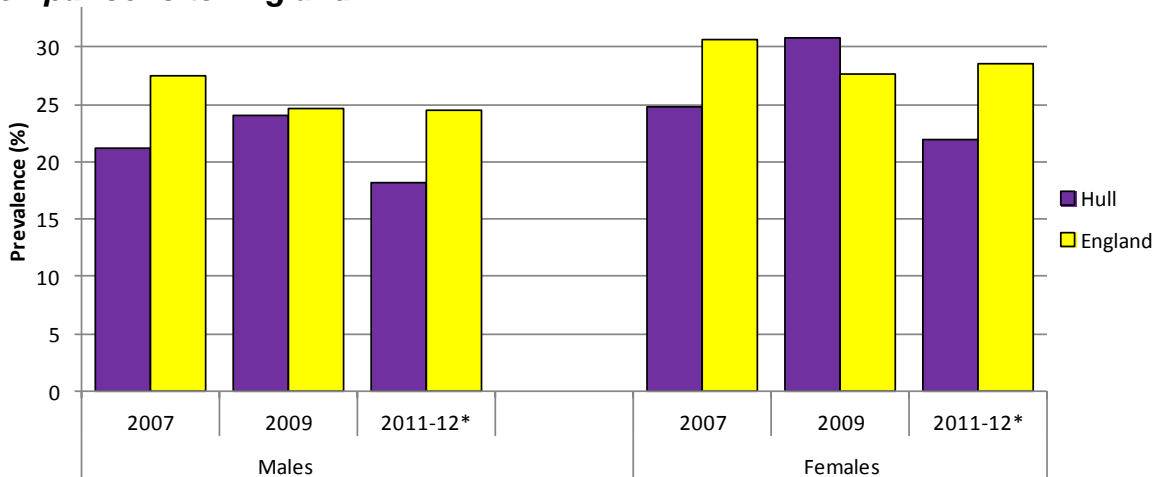
18% of men and 22% of women ate at least 5 portions of fruit and vegetables per day (5-A-DAY), with percentages doing so increasing steadily with age from 11% aged 16-24 years to 32% aged 75 years and over (**Figure 5**). Adults living in the two most deprived fifths of areas of Hull were the least likely to eat 5-A-DAY, with one in six doing so, compared with one in five adults living in the two least deprived fifths of areas of the city. Almost one in four adults living in Wyke and West ate 5-A-DAY, as did one in five living in East, with fewer than one in five in each other area.

**Figure 5 Percentages eating 5-A-DAY fruits and vegetables by gender, age, local IMD 2010 deprivation quintile and Area Committee Area**



The percentages eating 5-A-DAY decreased in 2011-12 relative to 2009, by 24% in men and 29% in women, and were lower than the percentages reported in 2007 (**Figure 6**). The percentages of men and women eating 5-A-DAY in Hull in 2011-12 were one quarter lower than the national average in 2011. This marks a reversal of the situation in 2009, when more women in Hull than England ate 5-A-DAY, with similar percentages among men.

**Figure 6 Trends in percentages eating 5-A-DAY fruits and vegetables, with comparisons to England**

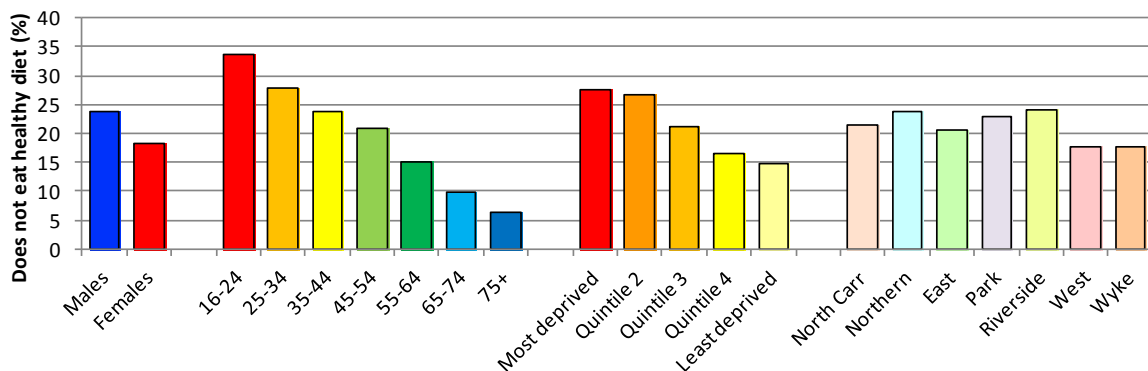


\*2011 for England

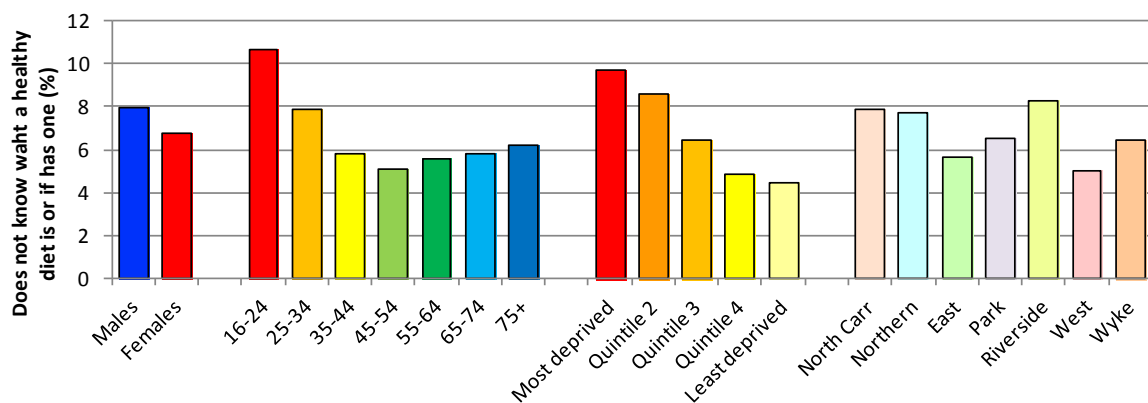
Almost one in four men and one in five women reported that they did not eat a healthy diet (**Figure 7**), while a further 8% of men and 7% of women either did not know what a healthy diet was, or whether they ate one (**Figure 8**). Young adults were the most likely to not eat a healthy diet (one in three) as well as the most likely to not know (one in ten). Percentages not eating a healthy diet decreased steadily as age increased, to 6% of adults aged 75 years and over, while the percentages not knowing decreased until adults aged 45-54 years after which they increased with age to 6% in adults aged 75 years.

Adults living in the most deprived fifth of areas of Hull were the most likely to not eat a healthy diet, at 27% almost double the percentage among those living in the least deprived fifth of areas of the city. They were also the most likely to not know if they had a healthy diet, at 10%, more than double the percentage among those living in the two least deprived fifths of areas of Hull. Adults living in Riverside and Northern Area Committee Areas were the most likely to not eat a healthy diet, at 24% one quarter higher than residents of Wyke and West. Residents of Riverside, North Carr and Northern were the most likely to not know if they had a healthy diet (8%), compared with 5% of residents of West Area Committee Area.

**Figure 7 Percentages not eating a healthy diet by gender, age, local IMD 2010 deprivation quintile and Area Committee Area**



**Figure 8 Percentages not knowing if they eat a healthy diet or not knowing what constitutes a healthy diet by gender, age, local IMD 2010 deprivation quintile and Area Committee Area**



A series of reflector groups were held after the 2007 health and lifestyle survey in order to understand some of the factors influencing the prevalence of various risk factors. The groups were recruited by telephone and on a face-to-face basis with a target of 12 attendees for each group. The groups recruited were: (i) all female – mixed age and living in the most deprived areas of Hull (18–64 years); (ii) all male – mixed age and living in the most deprived areas of Hull (18–64 years); (iii) male and female – mixed age and living in the least deprived areas of Hull (18–64 years); (iv) male and female aged 18–24 years; (v) male and female aged 60+ years; and (vi) male and female ethnic minority/immigrant<sup>1</sup> (18–64 years). The full report is available at [www.hullpublichealth.org](http://www.hullpublichealth.org). The following key findings around diet were reported:

*There was broad understanding of the components of healthy and unhealthy diets and agreement that the cost of a healthy diet barred some people from eating the right food. The poor access to fresh fruit and vegetables in some areas, and the availability and the convenience of junk food were major factors, particularly for young people who were also most likely to ignore messages about consumption of good food. A lack of knowledge about shopping and cooking was identified as a serious issue for young families and there were suggestions from several people about how healthy eating education and advertising could be improved and made more effective. Only in the young people's group was there an obvious lack of knowledge and disinterest about the long-term effects of eating badly and the health implications of a persistently bad diet were well understood by most participants.*

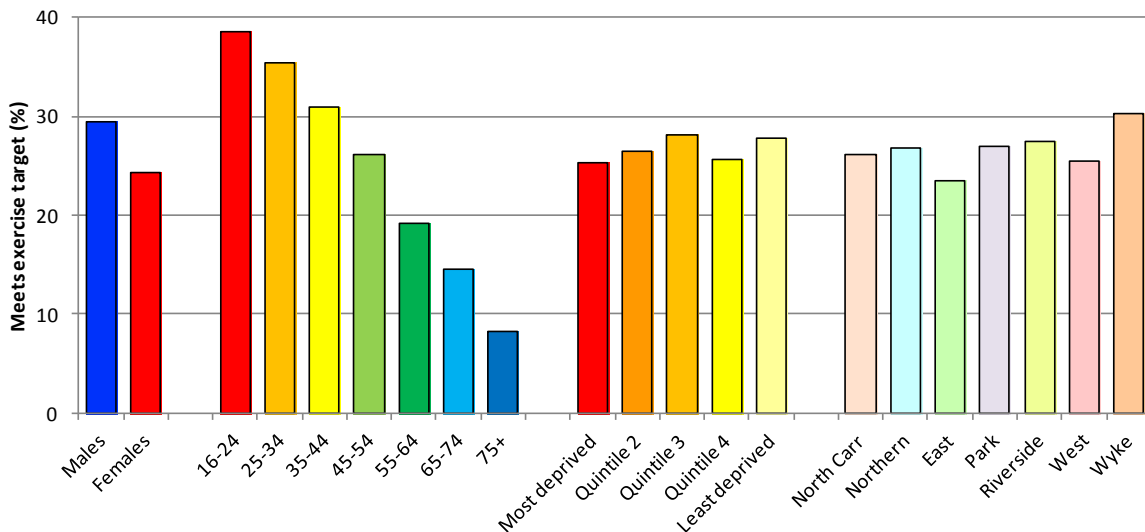
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<sup>1</sup> As the survey found Africans and Asians tended to have the worst health as a relatively high proportion were asylum seekers, failed asylum seekers or refugees, the Black and Minority Ethnic (BME) reflector group focused on these BME groups.

## Physical activity among adults in Hull 2011-12

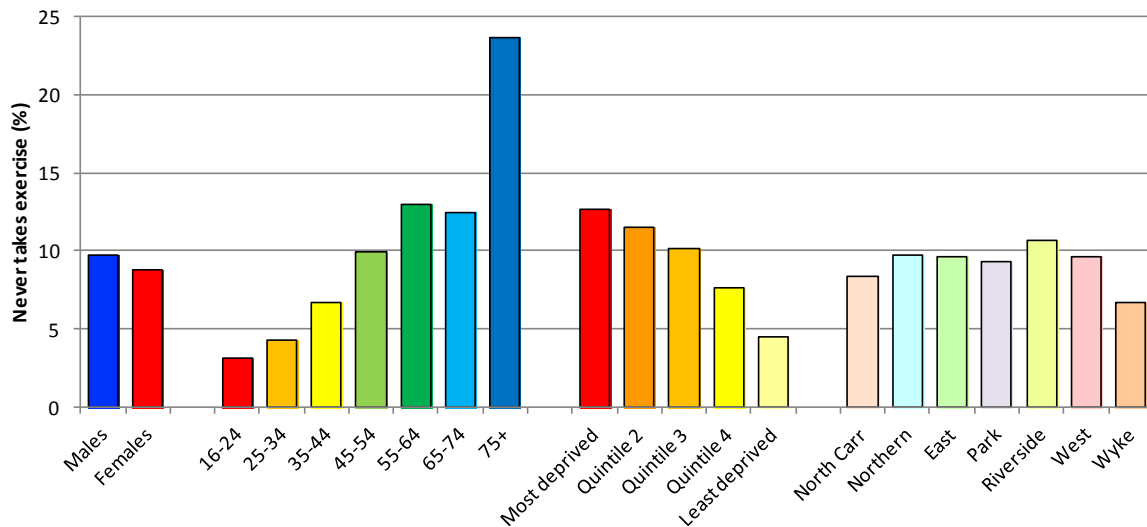
Almost three in ten men and one in four women in Hull met the recommended level of 30 minutes of moderate or vigorous intensity activity on at least five days per week in 2011-12 (**Figure 9**). Percentages meeting this target were highest amongst young adults (39% aged 16-24 years), then decreasing steadily as age increased to 8% of those aged 75 years and older. Although percentages meeting the activity target were lower amongst those living in the most deprived fifth of areas of Hull, and higher amongst those living in the least deprived fifth of areas of the city, the differences were not large. Differences in the percentages meeting the physical activity target between Area Committee Areas were larger, with 30% meeting the target in Wyke, compared with less than 24% in East.

**Figure 9 Percentages meeting the national exercise recommendation of 30 minutes moderate or vigorous intensity exercise at least 5 times per week by gender, age, local IMD 2010 deprivation quintile and Area Committee Area**



Almost one in ten men and one in eleven women reported that they never took any exercise (**Figure 10**). Very few young adults took no exercise, but more than one in eight aged 55-74 years and almost one in five aged 75 years and over reported that they never took any exercise. Almost three times as many people living in the most deprived fifth of areas of Hull, compared with those living in the least deprived fifth of areas of the city, took no exercise. Residents of Wyke were the least likely to report never exercising. Percentages in each other Area Committee Area reporting that they never exercised were around one third higher.

**Figure 10 Percentages reporting they never take any exercise by gender, age, local IMD 2010 deprivation quintile and Area Committee Area**

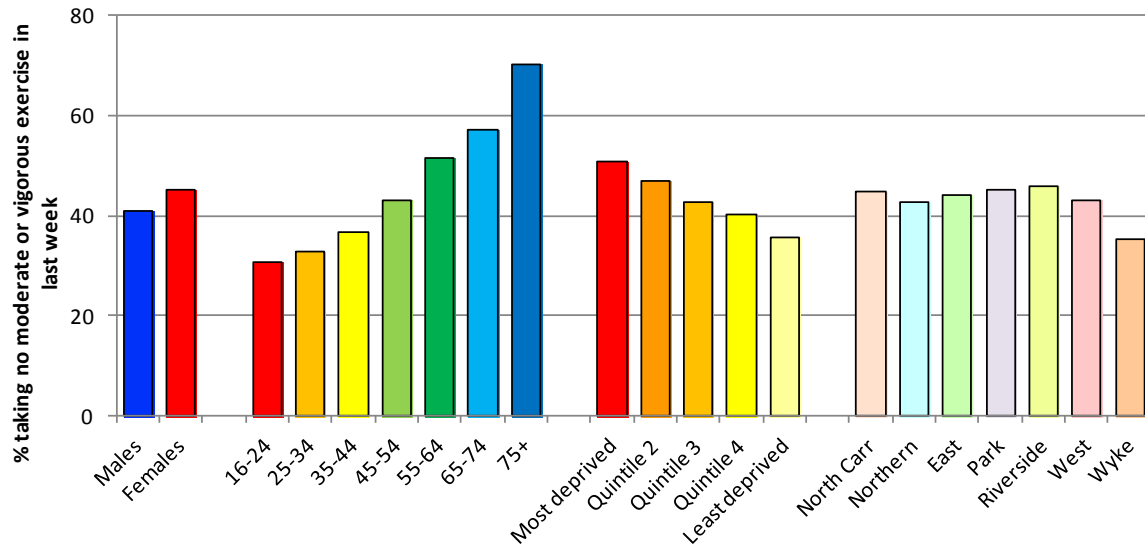


As well as asking about respondents' usual pattern of exercising, they were also asked about the numbers of hours of moderate or vigorous activity they had undertaken on each of the previous seven days. 41% of men and 45% of women reported taking no moderate or vigorous exercise in the week before completing the survey (**Figure 11**). This was around one fifth higher in men and one quarter higher in women than the percentages reporting they usually only took light exercise or never exercised, suggesting that when asked in general about levels of exercise, respondents are likely to overstate how much they do.

Fewer than one third of the youngest respondents aged 16-24 years reported taking no moderate or vigorous exercise in the past week (31%), rising with age to more than two thirds of respondents aged 75 years and over (70%). This oldest age group was the only subgroup where the percentage reporting no moderate or vigorous exercise in the past seven days was lower than the percentage reporting they usually took only light exercise or none at all. Differences between these two figures decreased as the age of respondents increased, with 70% more respondents aged under 35 years saying they had taken no moderate or vigorous exercise in the past week than said that in general they took only light exercise or none.

Half of respondents living in the most deprived fifth of areas of Hull reported having taken no moderate or vigorous exercise in the past seven days, more than one third higher than among those living in the least deprived fifth of areas of the city. There were few differences between Area Committee Areas in the percentage taking no moderate or vigorous exercise in the past week, with the exception of Wyke, which had the lowest percentage (35%).

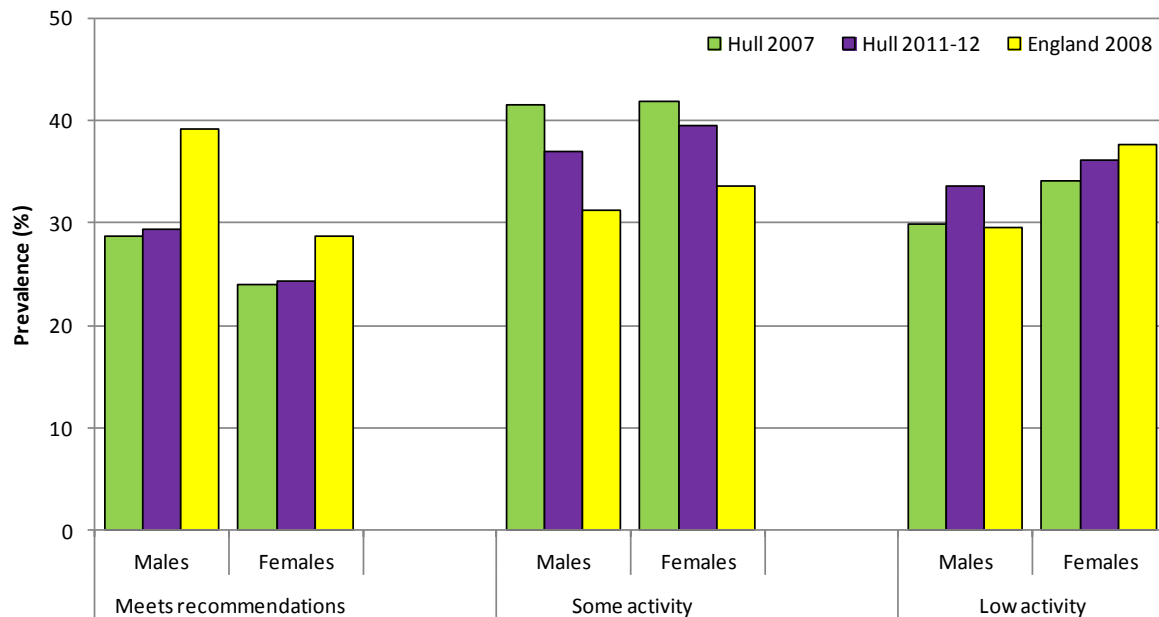
**Figure 11 Percentages taking no moderate or vigorous exercise in the week before completing the survey by gender, age, local IMD 2010 deprivation quintile and Area Committee Area**



The most recent national data on exercise levels among adults were from the 2008 Health Survey for England<sup>2</sup>. The percentage of men in Hull in 2011-12 meeting the recommended level of 30 minutes of moderate or vigorous activity on at least five days per week was one quarter lower than the average for men in England in 2008, having increased by less than one percentage point since 2007 (**Figure 12**). The difference between Hull and England was lower among women (15% lower, having increased since 2007 by less than one percentage point). Men and women in Hull in 2011-12 were each almost one fifth more likely than men and women in England in 2008 to be getting some moderate or vigorous activity, but less than the recommended amount, although these percentages had decreased since 2007, by 11% among men and 6% among women. Men in Hull in 2011-12 were 14% more likely to have low activity levels (only light exercise or no exercise) than men in England in 2008, having increased by 12% since 2007. Women in Hull in 2011-12 were 4% less likely than women in England in 2008 to have low activity levels, although this represented an increase of 6% since 2007.

<sup>2</sup> Health and Social Care Information Centre 2009. <http://www.hscic.gov.uk/pubs/hse08physicalactivity>

**Figure 12 Trends in the percentages meeting the national exercise recommendation of 30 minutes moderate or vigorous intensity exercise at least 5 times per week, with comparisons to England**



Reflector groups after the 2007 health and lifestyle survey, as outlined in the previous section, also examined issues around exercise. The following key points around exercise were reported:

*On the whole, women in the groups were more likely to be taking regular exercise and conform to national exercise guidelines than men. Though many walked regularly, most were unenthusiastic about exercise and targets were considered to be unrealistic. Things that prevented people from exercising were related to finance, which prevented many from taking gym memberships; insufficient local facilities that caused queuing and discouragement; and reduced access to public spaces, where family and retirement leisure and activity had been curtailed by the abuse of parks and open spaces.*

## Estimated numbers with poor diet in Hull

The estimated numbers of adults in Hull with poor diets are shown in **Table 1**. Age-specific prevalence of diet indicators was applied to the Hull population aged 16 years and older as at 1<sup>st</sup> October 2011 (215,467 people). It was estimated that, at just over 173,000, four fifths of adults in Hull were not eating enough fruit and vegetables, almost 90,000 men and 84,000 women. More than one fifth of adults in Hull, or almost 48,000 people, did not eat a healthy diet, while a further 15,000 adults did not know what a healthy diet was, or if they had a healthy diet.

**Table 1 Estimated numbers of Hull residents aged 16+ years with poor diet**

Area Committee Area	Poor diet indicator	Estimated number of Hull residents aged 16+ years (as at 1 <sup>st</sup> October 2011) with poor diet		
		Men	Women	All
North Carr	Does not eat healthy diet	2,827	2,445	5,272
	Lacks knowledge*	1,108	810	1,919
	Eats less than 5-A-DAY	9,506	9,454	18,959
Northern	Does not eat healthy diet	3,913	2,844	6,758
	Lacks knowledge*	1,170	986	2,156
	Eats less than 5-A-DAY	11,384	11,051	22,434
East	Does not eat healthy diet	4,038	2,834	6,873
	Lacks knowledge*	964	859	1,823
	Eats less than 5-A-DAY	12,844	12,339	25,183
Park	Does not eat healthy diet	4,520	3,931	8,450
	Lacks knowledge*	1,405	1,024	2,429
	Eats less than 5-A-DAY	14,552	14,377	28,929
Riverside	Does not eat healthy diet	5,972	4,173	10,145
	Lacks knowledge*	2,073	1,398	3,471
	Eats less than 5-A-DAY	18,709	14,791	33,499
West	Does not eat healthy diet	2,968	2,566	5,535
	Lacks knowledge*	837	706	1,544
	Eats less than 5-A-DAY	11,455	11,729	23,184
Wyke	Does not eat healthy diet	2,882	2,189	5,072
	Lacks knowledge*	1,123	715	1,838
	Eats less than 5-A-DAY	11,367	9,996	21,363
<b>Hull</b>	<b>Does not eat healthy diet</b>	<b>27,019</b>	<b>20,962</b>	<b>47,980</b>
	<b>Lacks knowledge*</b>	<b>8,674</b>	<b>6,450</b>	<b>15,124</b>
	<b>Eats less than 5-A-DAY</b>	<b>89,671</b>	<b>83,744</b>	<b>173,416</b>

\*Does not know what a healthy diet is, or whether they eat a healthy diet.



## Estimated numbers taking insufficient exercise in Hull

The estimated numbers of adults in Hull taking insufficient exercise are shown in **Table 2**. Age-specific prevalence of insufficient exercise indicators were applied to the Hull population aged 16 years and older as at 1<sup>st</sup> October 2011 (215,467 people). It was estimated that, at just over 156,000, almost three-quarters of adults in Hull were not getting enough exercise, more than 75,000 men and 80,000 women. Of those getting insufficient exercise, most were getting some moderate or vigorous intensity exercise, 41,000 men and 42,000 women. However, almost 20,000 adults in Hull are estimated to be taking no exercise, with a further 53,000 taking only light exercise.

**Table 2 Estimated numbers of Hull residents aged 16+ years taking insufficient exercise**

Area Committee Area	Insufficient exercise indicator	Estimated number of Hull residents aged 16+ years (as at 1 <sup>st</sup> October 2011) taking insufficient exercise		
		Men	Women	All
North Carr	Never exercises	993	835	1,828
	Light exercise only	2,518	3,119	5,637
	Under 5 times per week*	4,295	4,896	9,191
Northern	Never exercises	1,282	1,261	2,543
	Light exercise only	2,434	3,722	6,156
	Under 5 times per week*	5,694	5,391	11,085
East	Never exercises	1,361	1,647	3,008
	Light exercise only	4,091	4,566	8,657
	Under 5 times per week*	5,796	6,184	11,980
Park	Never exercises	1,802	1,435	3,238
	Light exercise only	3,804	4,936	8,740
	Under 5 times per week*	6,480	6,865	13,345
Riverside	Never exercises	2,234	1,997	4,232
	Light exercise only	5,969	5,148	11,116
	Under 5 times per week*	7,125	6,898	14,023
West	Never exercises	1,429	1,462	2,891
	Light exercise only	3,105	4,412	7,517
	Under 5 times per week*	5,505	6,091	11,597
Wyke	Never exercises	1,026	777	1,803
	Light exercise only	2,761	2,998	5,759
	Under 5 times per week*	5,929	5,851	11,780
<b>Hull</b>	<b>Never exercises</b>	<b>10,084</b>	<b>9,399</b>	<b>19,483</b>
	<b>Light exercise only</b>	<b>24,550</b>	<b>28,933</b>	<b>53,483</b>
	<b>Under 5 times per week*</b>	<b>41,035</b>	<b>42,157</b>	<b>83,192</b>

\*Vigorous or moderate intensity exercise of at least 30 minutes

## **Physical activity strategy**

The strategy must emphasise that providing more services is insufficient on its own to ensure an increase in physical activity. An assets based approach should be utilised to complement existing service provision and inform future development. Some of the most powerful influences on behaviour change are family and neighbours, people seen as part of the local community. Using Health Trainers and Health Champions recruited from within the communities themselves can help to support people who want to make changes to their lives to improve levels of exercise. Through becoming more empowered as individuals these people then become more engaged in their community and build better social networks. People can help each other and act together to make healthy choices easier for the whole community, making activities self sustaining. This is the aim of the many strands of the Hearty Lives initiative, promoting health walks, sports schemes, dance clubs, workplace activities, education in schools, empowering individuals and communities to expand and continue the work to make it self-sustaining after the British Heart Foundation funding has ceased.

Hull's Physical Activity Strategy – Pride, Passion and Participation 2008-2013 was developed by a multi-sector group and following its launch a Steering Group was established to lead its implementation. This group fed into the Health and Wellbeing Strategic Delivery Partnership. Hull's Physical Activity Strategy is currently being refreshed.

The Active Hull Strategy and Action Plan (2006-2011) complemented the above and aimed to raise awareness of the importance of being physically active, strengthen partnership working around physical activity, and drive forward work to increase activity levels in Hull. Implementation of Active Hull was overseen by the Hull Physical Activity Development Group – a multi-agency group with partners from a wide range of organisations including NHS, local authority, university, sports clubs, schools etc.

## Diet

From the Attitudes to Health project completed during 2007 in Hull for people aged 40-60 years and the reflector group work following the 2007 Health and Lifestyle Survey it is apparent, even in a relatively deprived area like Hull, that lack of knowledge is not necessarily an issue in terms of knowledge about risk factors for poor health. Participants knew reasonably well what a healthy weight was, what a healthy diet consisted of, and that they should exercise regularly. It is likely that people who are more health conscious and have more knowledge about healthy diets and feel more confident cooking would participate in such focus groups. Participants attributed lack of cooking skills to others, and felt that there had been a loss of skills and knowledge across several generations in relation to home cooking and that the family practice of preparing meals no longer exists in many homes. Many people saw low income as a barrier to eating healthily and thought that people did not know how to cook on a budget. Processed foods, supermarkets and advertising were seen as the source of the problem. Older people were concerned about who would teach the young. Therefore, there could be a need for more education on home cooking, in particular how to cook simple meals on a budget.

Further information about the commissioning of services is available within the NHS Hull Clinical Commissioning Group Commissioning Strategy 2012-2015 at [www.hullccg.nhs.uk/publications/](http://www.hullccg.nhs.uk/publications/). City Health Care Partnerships is commissioned to provide a number of weight loss and exercise services across Hull and East Riding of Yorkshire, many of which incorporate a dietary advice element. Further information is available at [www.chcphull.nhs.uk](http://www.chcphull.nhs.uk) which provides links to their services including their “healthy routes” weight loss and exercise services on [www.healthyroutes.co.uk/](http://www.healthyroutes.co.uk/). Services include Bitesize, Ready to Lose Weight, Weight Less, Why Weight? and Active Lifestyles. Nutritional and healthy eating advice is included in the Fit Fans programmes. The Nutrition and Dietetics Service includes tailor-made advice on diet and nutrition for people with physical health problems. The local structured education programmes available to people with diabetes also include elements about diet and nutrition.

## Further Information

For further information on this survey and other surveys, and more information about Hull and health inequalities, as well as other publications and documents produced by the Public Health Sciences team, formerly part of NHS Hull, please visit our website: <http://www.hullpublichealth.org>





## Public Health Sciences

The Public Health Sciences team are now located in the old nursery at Brunswick House, Strand Close, Beverley Road, Hull.

### What we can do for you:

#### *Epidemiologists*

- Help understand the health and wellbeing needs of Hull's population in terms of the following:
  - Population
  - Age / gender
  - Deprivation (IMD)
  - Ethnicity
  - General physical and mental health status of population
  - Prevalence of risk factors (smoking, alcohol, obesity, diet, exercise, etc)
  - Prevalence of diseases
  - Hospital admission rates
  - Mortality and life expectancy
- Questionnaire design and survey design and advice
- Evaluation of services/interventions
- Health needs assessments
- Explanation of and help in using statistical terms like confidence intervals, standardisation, etc
- Explanation of data including data presented in tables or plots/charts, etc
- Predictive modelling / predicting future trends or needs or towards targets
- Mapping, analyses and presentation of a wide range of segmentation tools (including ACORN, Healthy Foundations and IMD), social marketing and behavioural insight, inequality, etc to assist psychographic and socio-economic differentiation
- Provide a critical friend to all those collecting and using health-related data and information

#### *Clinical Policy Support*

- What NICE guidance is published or in progress
- Critical appraisals and evidence overviews – evidence of cost/clinical effectiveness of drugs and treatments

[www.hullpublichealth.org](http://www.hullpublichealth.org)

[www.jsnaonline.org](http://www.jsnaonline.org)