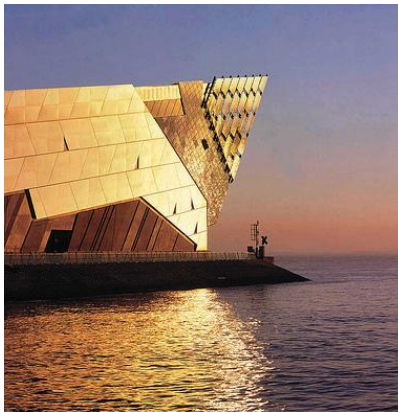


Smoking in Hull: Summary



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Key points/headlines

- In the last 3 years 1,600 people in Hull died because they smoked
- 23% of deaths in Hull during 2009-11 were caused by smoking
- For 15 year olds, two thirds more girls (24%) than boys (15%) smoked
- More than half of pupils lived in homes where at least one other person was a smoker (65% in most deprived areas, 38% in least deprived areas)
- About 75,000 adults in Hull smoke, a smoking prevalence of 34% in 2011-12
- Smoking levels are higher in Hull than England, by 47% for men and by 83% for women
- Almost half of adults living in the most deprived fifth of areas of Hull smoked, compared with less than one fifth of adults living in the least deprived fifth of areas of the city
- NHS smoking cessation services in Hull helped more than 3,500 adults stop smoking in 2011-12

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Introduction

This brief report on smoking 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. Also included in this report are data from the NHS stop smoking service, as well as a summary of information that is available from the Hull JSNA at www.jsnaonline.org.

Smoking as a risk factor for ill health

Action on Smoking and Health (ASH) has collated information on the contribution of smoking to mortality from different causes of death. From ASH's factsheet¹ "*Smoking is the leading cause of preventable death and disease in the UK. About half of all life-long smokers will die prematurely, losing on average about 10 years of life*²." ASH goes on to state "*Most smoking-related deaths are from one of three types of disease: lung cancer, chronic obstructive pulmonary disease (COPD which incorporates emphysema and chronic bronchitis) and coronary heart disease (CHD). In 2010, there were a total of 450,571 deaths of adults aged 35 years and over in England of which 81,700 (18%) were estimated to be attributable to smoking*³.

ASH, from this factsheet, go on to state "*There are many medical conditions associated with or aggravated by smoking which may not be fatal but still cause years of debilitating illness. These include: angina, Buerger's Disease (severe circulatory disease), peripheral vascular disease, colon polyps, Crohn's disease (chronic inflamed bowel), duodenal ulcer, stomach ulcer, acute necrotizing ulcerative gingivitis (gum disease), tooth loss, tooth discolouration, injuries of ligaments, tendons and muscles, neck and back pain, osteoporosis, rheumatoid arthritis (in heavy smokers), cataract, macular degeneration, nystagmus (abnormal eye movements), optic neuropathy (loss of vision), ocular histoplasmosis (fungal eye infection), tobacco amblyopia (loss of vision), psoriasis, skin wrinkling, depression, hearing loss and type 2 diabetes*". Furthermore, ASH state that there are other "*diseases that can be significantly aggravated by smoking and that these include: asthma, common cold, Crohn's disease (chronic inflamed bowel), chronic rhinitis (inflammation of the nose), diabetic retinopathy (eye disease), Graves' disease (over-active thyroid gland), influenza, multiple sclerosis, optic neuritis, tuberculosis*". ASH also state that "*reproductive functions are affected by smoking with female fertility 30% lower, menopause onset 1.74 years earlier on average, impotence, reduced sperm count and motility, sperm less able penetrate the ovum and increased shape abnormalities*".

¹ Action on Smoking and Health (2010). Factsheet 02. Smoking statistics: illness and death. www.ash.org.uk. London, Action on Smoking and Health.

² Doll, R., R. Peto, et al. (2004). "Mortality in relation to smoking: 50 years' observations on male British doctors. www.bmj.com." *BMJ* **328**: 1519.

³ Information Centre for Health and Social Care (2011). Statistics on smoking, England 2011. www.ic.nhs.uk. London, Information Centre for Health and Social Care.

Mortality from smoking

Based on ASH's attributable percentages, one in five deaths in Hull is directly attributable to smoking (**Table 1**), including almost one in four deaths under the age of 75 years. More deaths in men (one in four deaths) are attributable to smoking than in women (one in six deaths), although differences between men and women are smaller for deaths under the age of 75 years (one in four deaths in men, one in five deaths in women).

A total of 1,452 deaths during 2008-2010 were directly attributable to smoking, including 657 under the age of 75 years. This equates to 484 deaths per year or more than 40 deaths every month that are directly attributable to smoking.

More than 700 deaths from cancer were attributable to smoking (including more than 500 lung cancer deaths), as were almost 400 deaths from respiratory diseases and almost 180 from heart disease.

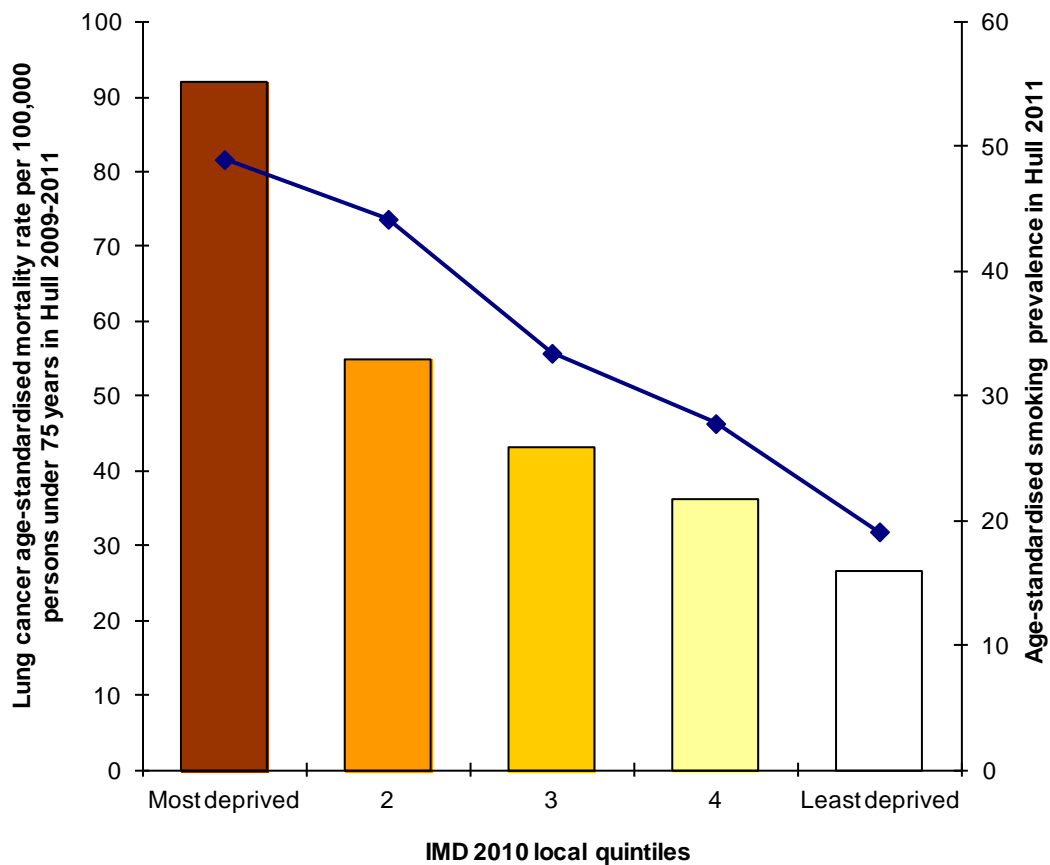
The table might well under-estimate the number of deaths due to smoking. Some people might have an underlying health condition that is smoking-related, but die from another cause. For example, a person could have died of an infectious disease but might have had CHD, although if the CHD was the underlying cause it should have been coded as such on the death certificate, but this may not happen in every case.

Table 1 Number of deaths in Hull during the three-year period 2009-2011 estimated to be directly attributed to smoking

Underlying cause of death (ICD10)		Total number of deaths in Hull residents estimated to be directly attributable to smoking 2009-2011					
		All ages			Under 75		
		Men	Women	Persons	Men	Women	Persons
Lung cancer	C33,C34	293	226	519	168	126	294
Oesophageal cancer	C15	41	20	61	23	6	28
Bladder cancer	C67	16	8	24	6	3	9
Pancreatic cancer	C25	11	13	24	8	5	13
Head and neck cancer	C00-C14	17	4	21	14	3	17
Stomach cancer	C16	16	3	20	7	1	8
Kidney cancer	C64	10	1	11	7	0	7
Larynx cancer	C32	13	2	15	11	2	13
Myeloid leukaemia	C92	5	1	6	2	1	3
Cervical cancer	C53	0	3	3	0	2	2
Unspecified cancer site	C80	29	15	44	14	6	20
COPD	J40-J44	212	210	421	83	64	147
Pneumonia	J16-J18	35	34	69	11	4	14
Ischaemic Heart Disease	I20-I25	94	46	140	45	11	57
Aortic aneurism	I60-I69	32	25	57	10	3	13
Cerebrovascular disease	I71	28	172	199	9	24	33
Other heart disease	I30-I52	6	6	12	0	1	1
Atherosclerosis	I72-I79	0	1	1	0	0	0
Stomach/duodenum ulcer	K25-K27	12	11	23	4	2	7
Total caused by smoking		869	800	1,669	422	264	686
Total number of deaths (2009-2011)		3,535	3,578	7,113	1,702	1,090	2,792
Percentage caused by smoking		25	22	23	25	24	25

One of the strongest links between smoking and ill health is in lung cancer, as more than 80% of lung cancer deaths are caused by smoking. Given the very low survival rate from lung cancer, lung cancer deaths are a very good proxy for lung cancer diagnoses. **Figure 1** shows how smoking prevalence, as well as lung cancer mortality, is very different between people living in areas that experience different levels of deprivation. The ratio of lung cancer mortality between those living in the most deprived fifth of areas of Hull and those living in the least deprived fifth of areas of the city is similar to the ratio for smoking prevalence. It is not precisely the same, as even when one stops smoking, there is still an increased risk of developing lung cancer for some years, even though this excess risk diminishes with each year since stopping smoking.

Figure 1 Smoking prevalence (line), lung cancer mortality (bars) and deprivation in Hull



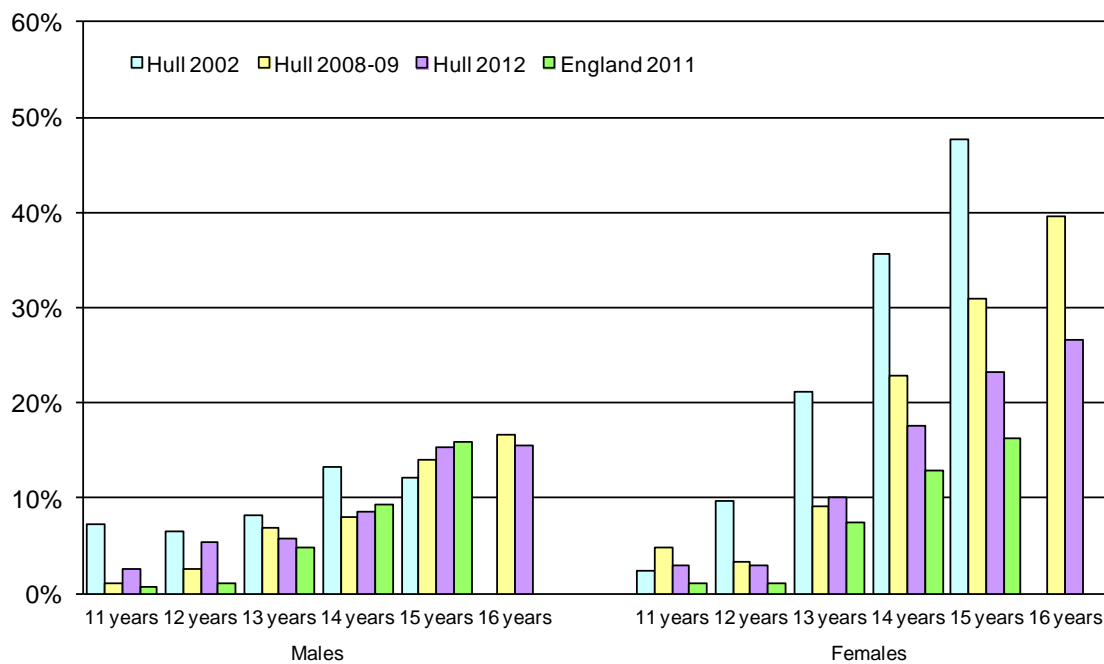
Smoking among young people in 2012

Girls started to smoke earlier than boys and in greater numbers than boys. Excluding year 7 (aged 11-12 years), higher percentages of girls than boys in each year group reported smoking in the past week. By year 11 (aged 15-16 years) two thirds as many girls (24%) than boys (15%) reported smoking in the past week.

The percentages of pupils reporting they smoked during the past week increased among boys in year 7 to 10 since 2008-09, decreasing among year 11 boys. Among girls the percentages reporting they had smoked in the past week decreased for each school year since 2008-09 except for year 8.

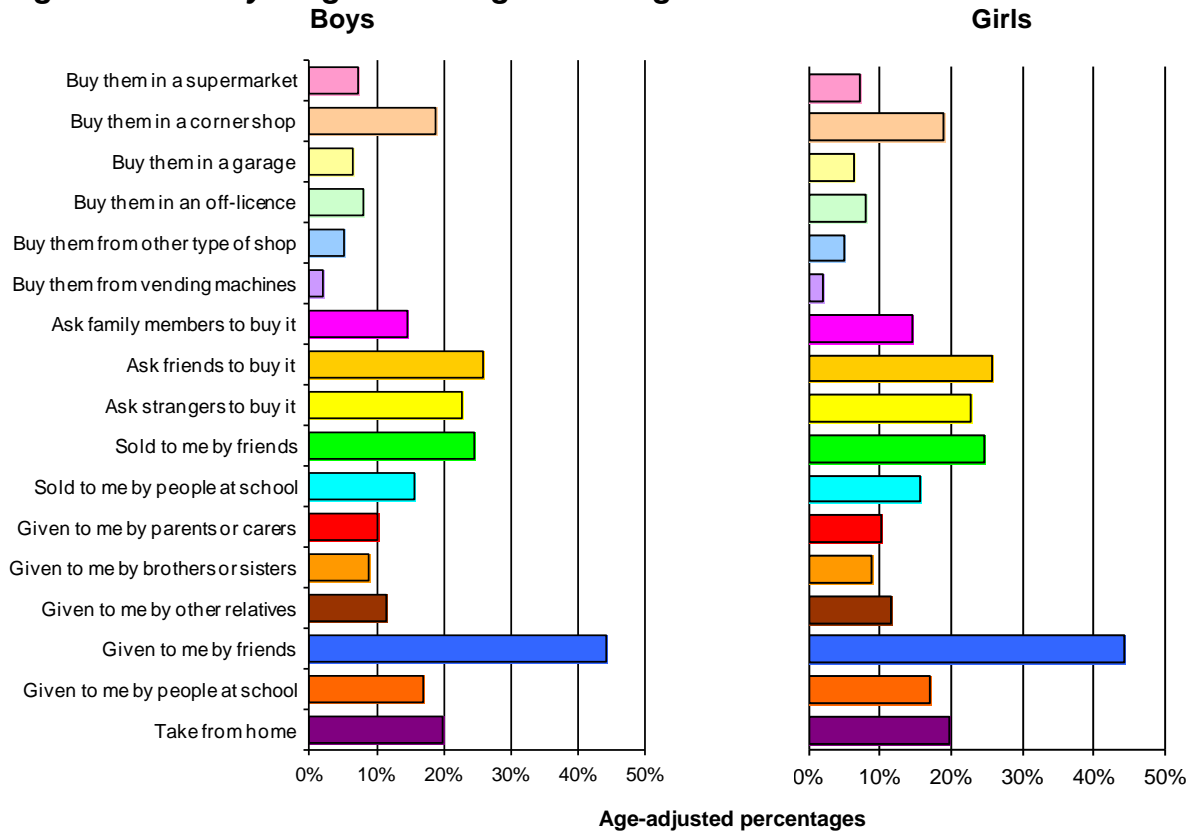
Comparing against England 2011 (**Figure 2**), higher percentages of girls in Hull smoked than in England at each age, whereas among boys percentages were higher in Hull for boys aged 11 and 12, but lower for boys aged 13 to 15 years. There are no comparisons for pupils aged 16 years as the England survey was restricted to pupils aged 11 to 15 years.

Figure 2 Smoking prevalence (%), by school year and gender, comparisons with England 2011 and previous Hull surveys



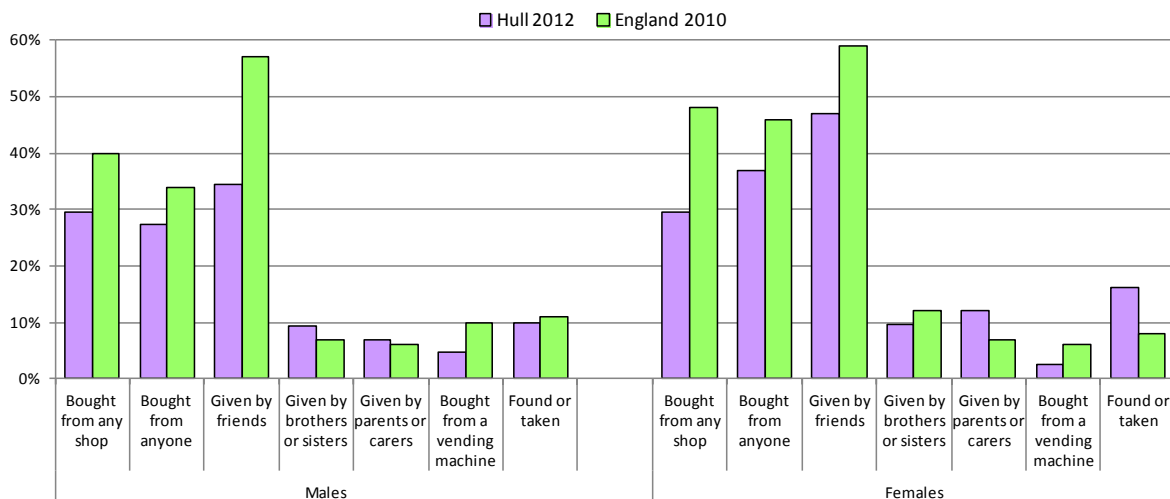
26% of pupils that smoked bought cigarettes from shops (**Figure 3**); 27% of boys and 23% of girls asked strangers to buy cigarettes for them; 9% of boys and 10% of girls were given cigarettes by their parents or carers.

Figure 3 Where young smokers get their cigarettes



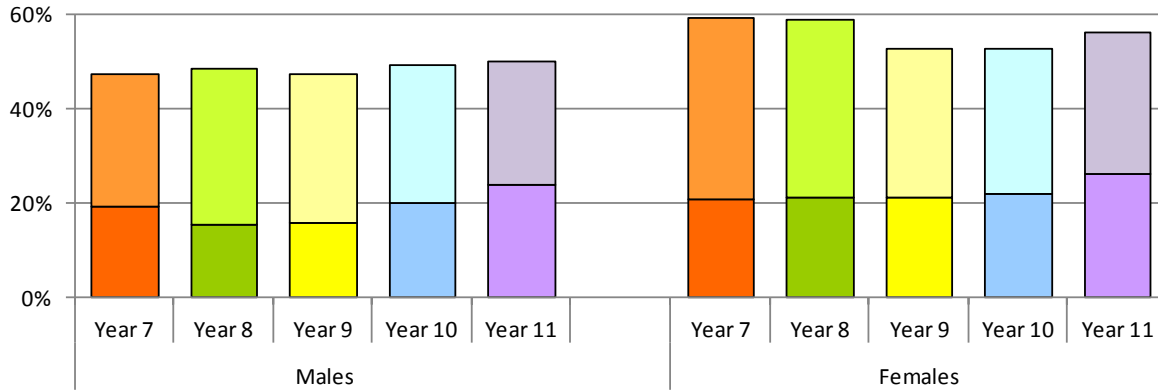
Compared with England, boys aged 11-15 years in Hull were one sixth more likely to be given cigarettes by parents or carers, one third more likely to be given them by siblings, but one quarter less likely to buy them in shops and more than one third less likely to be given cigarettes by friends. Compared with England, girls in Hull aged 11-15 years were three quarters more likely to be given cigarettes by parents or carers, one fifth less likely to be given them by siblings but twice as likely to take them from home.

Figure 4 How pupils (11 to 15 years) get their cigarettes by gender, compared with England 2010



More than half of pupils lived in houses where at least one person was a regular smoker, 49% of boys and 56% of girls (**Figure 5**). In homes where pupils lived with a regular smoker 40% smoked in the home, compared with more than half in 2008-09.

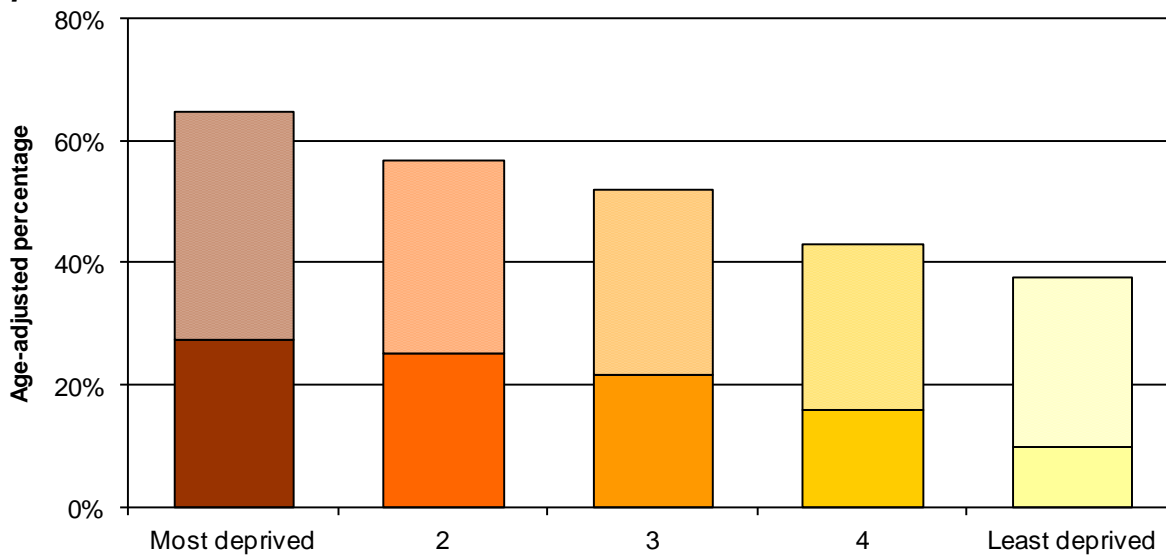
Figure 5 Percentage of pupils living with a regular smoker



Lower bar = smoke inside the home; upper bar = smoke but not in the home

Differences by deprivation quintile were stark (**Figure 6**), with almost three-quarters more pupils living in the most deprived fifth of areas of Hull living with at least one smoker (65%) than pupils in the least deprived fifth of areas in the city (38%).

Figure 6 Percentage of pupils living with a regular smoker by deprivation quintiles

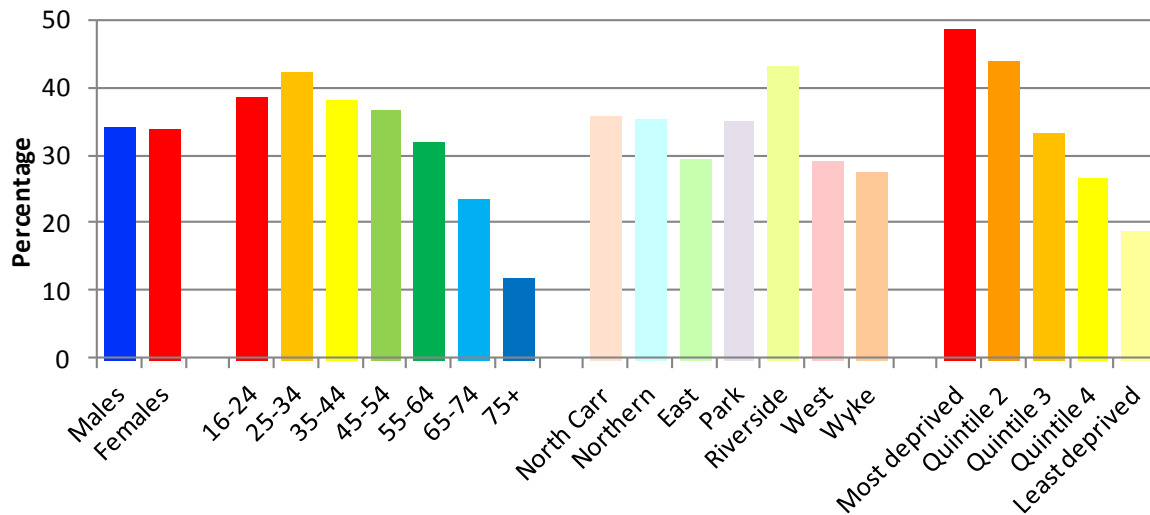


Lower bar = smoke inside the home; upper bar = smoke but not in the home

Smoking among adults in 2011-12

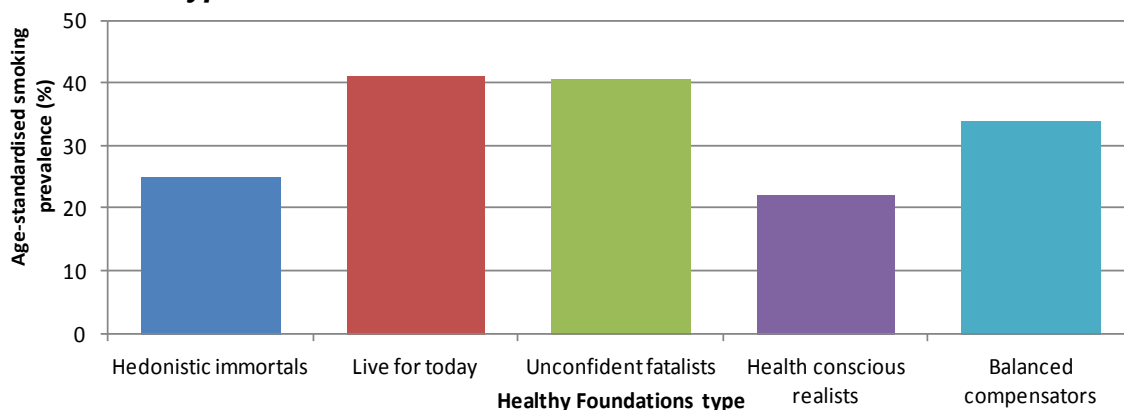
Overall smoking prevalence in 2011-12 among Hull residents aged 16+ years was 34% (**Figure 7**). Smoking prevalence was highest amongst respondents aged 25-34 years (42%), decreasing as age increased to 12% of respondents aged 75+ years. At 43% Riverside had the highest smoking prevalence (including St Andrews, the ward with the highest smoking prevalence of 50%) while at 28% the lowest smoking prevalence was seen in Wyke (including Bricknell, the ward with the lowest smoking prevalence of 17%). Almost half of respondents living in the most deprived fifth of areas of Hull smoked, compared with fewer than one fifth of those living in the least deprived fifth of areas of the city.

Figure 7 Smoking prevalence in residents aged 16+ years by gender, age, local IMD 2010 deprivation quintile and Area Committee Area



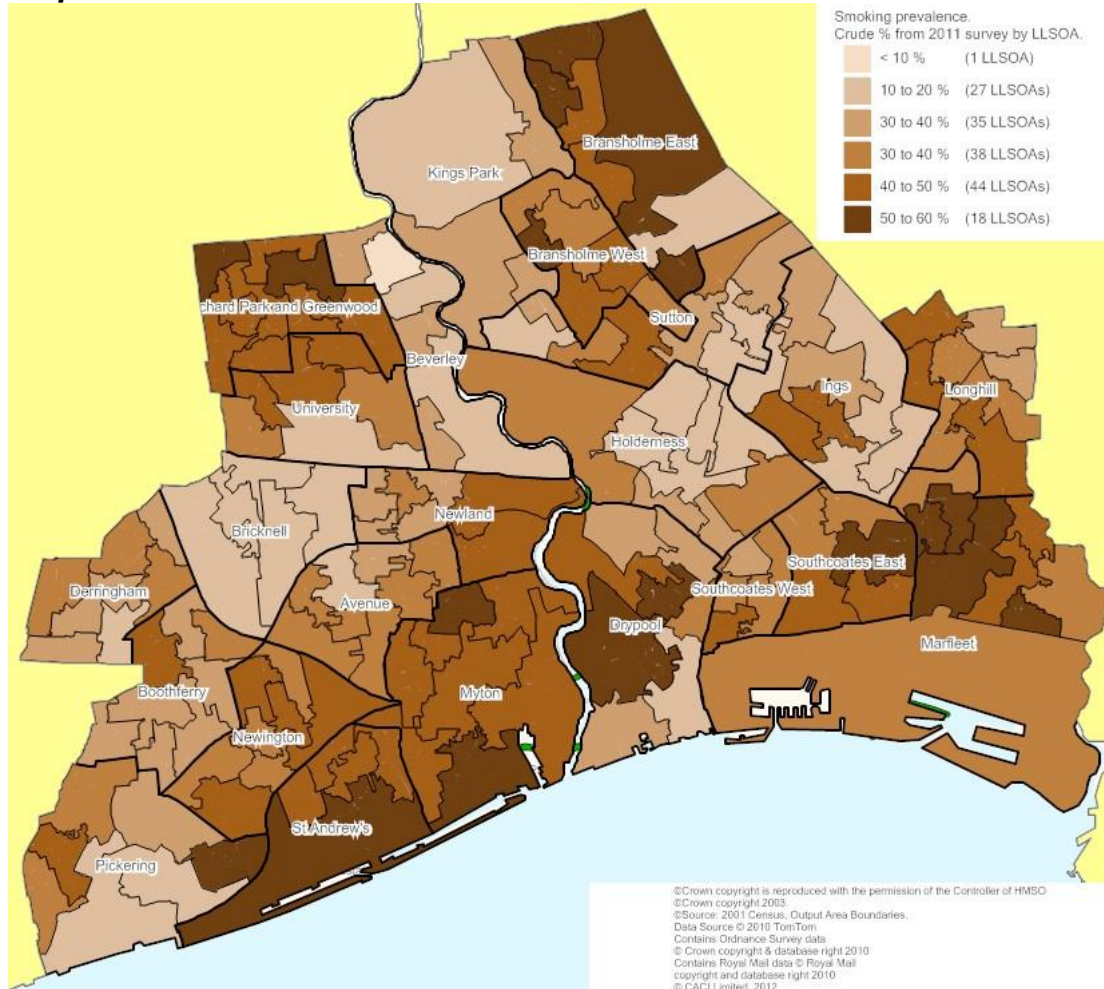
Splitting respondents into Healthy Foundations types (**Figure 8**), smoking prevalence was highest amongst those categorised as 'Live for today' (41%) or 'Unconfident fatalists' (40%), with the lowest prevalence among respondents classified as 'Health conscious realists' (22%).

Figure 8 Smoking prevalence among Hull residents aged 16+ years by Healthy Foundations type



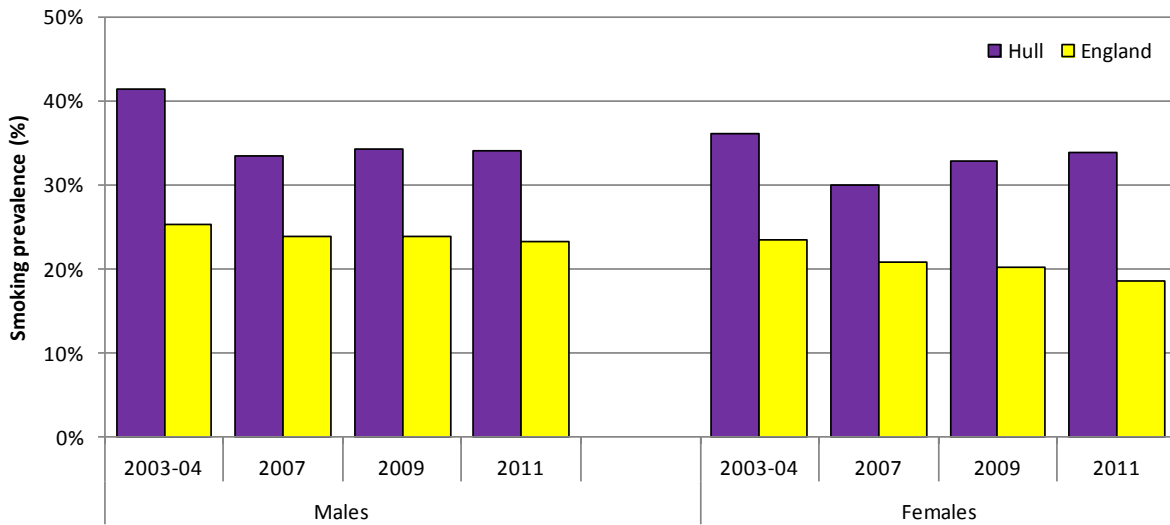
Smoking prevalence reached more than 50% in pockets throughout the city (**Figure 9**), in parts of Bransholme, Orchard Park and Greenwood, Marfleet, Southcoates East, Drypool, Myton, St Andrews and Pickering wards. Bricknell was the only ward where less than one in five respondents from each part of the ward smoked.

Figure 9 Smoking prevalence in residents aged 16+ years by lower layer super output areas



Smoking prevalence in Hull decreased substantially between 2003-04 and 2007, by almost one fifth in men and women (**Figure 10**). Since 2007 there have been few changes in smoking prevalence among men, while among women prevalence has increased with each subsequent survey. In 2003-04 men were 15% more likely than women to smoke. Differences between men and women reduced with each subsequent survey such that in 2011-12 men were less than 1% more likely than women to smoke. This is different to the trends seen for England overall, where the gap in smoking prevalence between men and women increased from 8% in 2003-04 to 24% in 2011. In Hull in 2011-12 men were 47% more likely to smoke, and women 87% more likely to smoke, than men and women in England as a whole

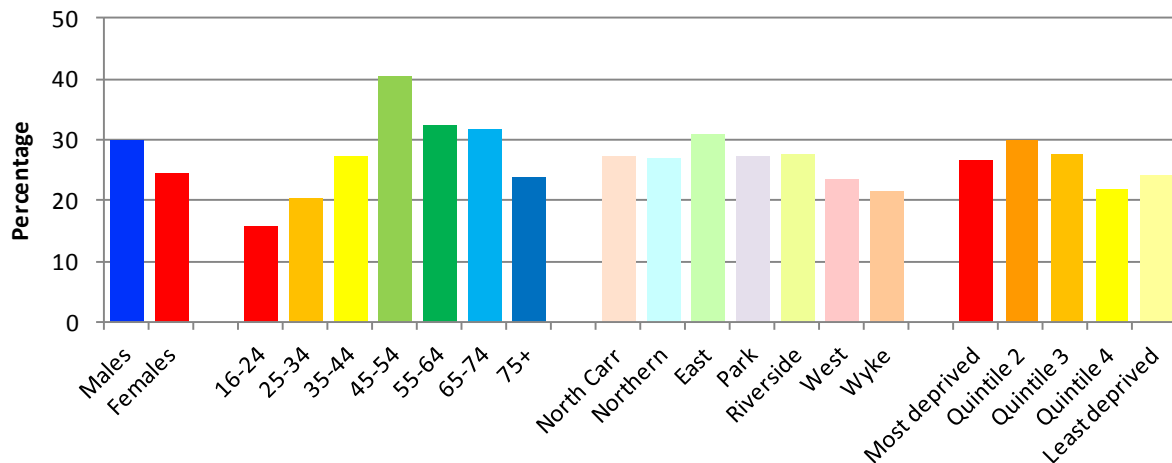
Figure 10 Trends in smoking prevalence in Hull and England, by gender



Just over one quarter of survey respondents who smoked cigarettes were heavy smokers (27%), that is they smoked on average at least 20 cigarettes per day (**Figure 11**), with more men (30%) defined as heavy smokers than women (24%). Younger cigarette smokers were the least likely to be heavy smokers, with the proportions increasing with age from 16% amongst cigarette smokers aged 16-24 years to peak in cigarette smokers aged 45-54 years (40%), thence decreasing with increasing age to 24% in cigarette smokers aged 75+ years.

Cigarette smokers living in East Area Committee Area were the most likely to be heavy smokers (31%) while cigarette smokers residing in Wyke were the least likely to be heavy smokers (21%), which in part reflects the different age structures of these Areas. There was greater variation in heavy smokers at ward level, ranging from 19% of cigarette smokers in Avenue ward to 33% in Ings ward. There was no clear gradient in heavy cigarette smoking by deprivation quintiles, although higher proportions were seen in the three most deprived quintiles than in the two least deprived quintiles.

Figure 11 Percentage of cigarette smokers smoking 20+ cigarettes per day



Estimated numbers of smokers in Hull

The estimated numbers of adults in Hull that smoke are shown in **Table 2**. Age-specific rates of smoking were applied to the Hull population as at 1st October 2011 (215,467 people). Of course, even once someone has stopped smoking they do remain at an increased risk of a range of smoking related diseases for some time, although the risk diminishes with each successive year since stopping smoking. Therefore it is useful to look at those that used to smoke as well as current smokers, if one wants to assess future health burden. To this end the estimated numbers of ex-smokers are also shown in **Table 2**.

Table 2 Estimated numbers of Hull residents aged 16+ years that smoke, or used to smoke, tobacco products

Area Committee Area	Estimated number of Hull residents aged 16+ years (as at 1 st October 2011) that smoke, or used to smoke, tobacco products					
	Smokers			Ex-smokers		
	Men	Women	All	Men	Women	All
North Carr	4,177	4,192	8,369	2,787	2,756	5,542
Northern	4,800	5,164	9,965	3,466	3,319	6,784
East	4,501	4,698	9,199	4,373	4,199	8,572
Park	5,903	6,558	12,462	4,664	4,047	8,711
Riverside	10,462	7,626	18,088	4,874	4,666	9,540
West	4,370	4,462	8,832	4,355	4,096	8,451
Wyke	4,299	3,566	7,864	3,589	3,505	7,094
Hull	38,359	36,262	74,620	28,038	26,577	54,615

The estimated numbers of smokers among the 14,780 young people in Hull aged 11-15 years as at 1st October 2011 are shown in **Table 3**. Whereas in adults there are more smokers among men than women, in young people 50% more smokers among girls than boys.

Table 3 Estimated numbers of Hull young people aged 11-15 years that smoke tobacco products

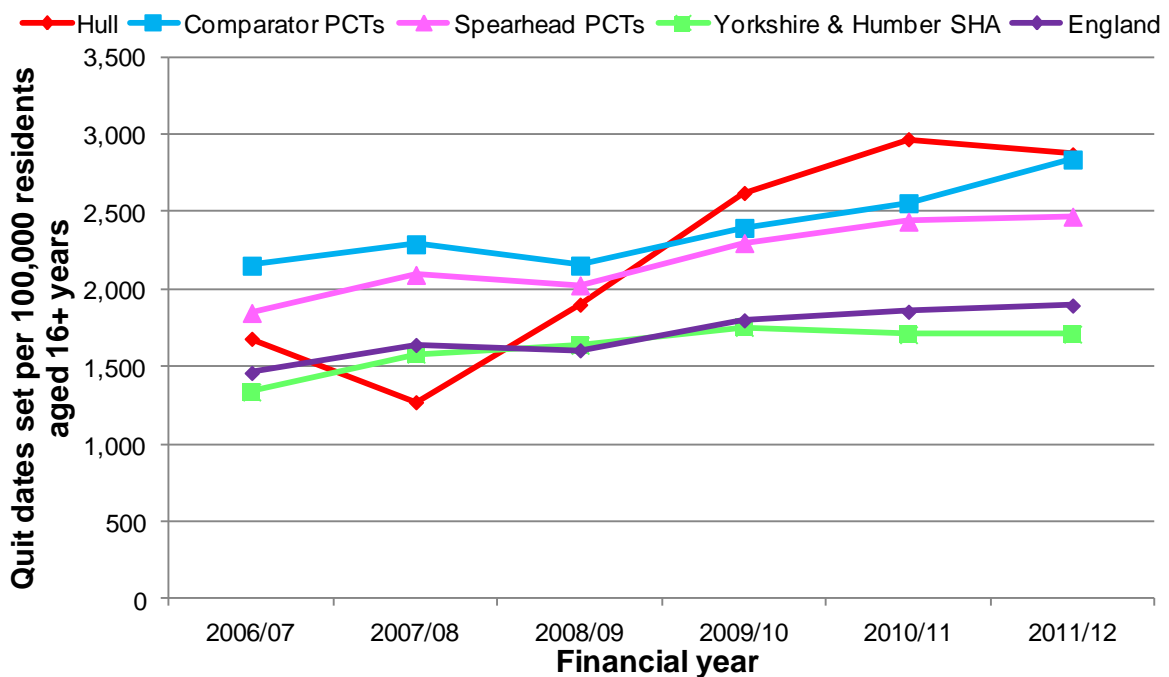
Area Committee Area	Estimated number of Hull residents aged 11-15 years (as at 1 st October 2011) that smoke tobacco products		
	Boys	Girls	All
North Carr	116	121	237
Northern	128	234	362
East	83	132	215
Park	98	210	308
Riverside	113	166	279
West	82	117	198
Wyke	62	85	147
Hull	710	1,064	1,774

NHS smoking cessation service statistics

The NHS smoking cessation services in Hull helped 3,500 residents of Hull to stop smoking during 2011-12. 61% of people setting a quit date through the smoking cessation services in Hull went on to successfully quit smoking, 4-week quitters⁴. The percentage of those setting a quit date that then successfully quit was the 13th highest of the 151 PCTs in England. The rate of 4-week quitters (1,747 per 100,000 residents) was 40% higher than the average of a group of 10 comparator PCTs, 53% higher than the average of all Spearhead PCTs, 91% higher than the average for the Yorkshire and Humber region, and 88% higher than the average across England. Of these self-reported successful quitters, two thirds (67%) in 2011-12 were confirmed by carbon monoxide validation, lower than for comparator areas.

Since 2008-09 Hull has consistently performed as well as, if not better than, comparator areas in the rate of quit dates set per 100,000 residents (**Figure 12**). Since 2006-07, when these smoking cessation statistics were first published, the rate of quit dates set per 100,000 residents has increased by 71%, statistically significantly higher than seen for each comparator area.

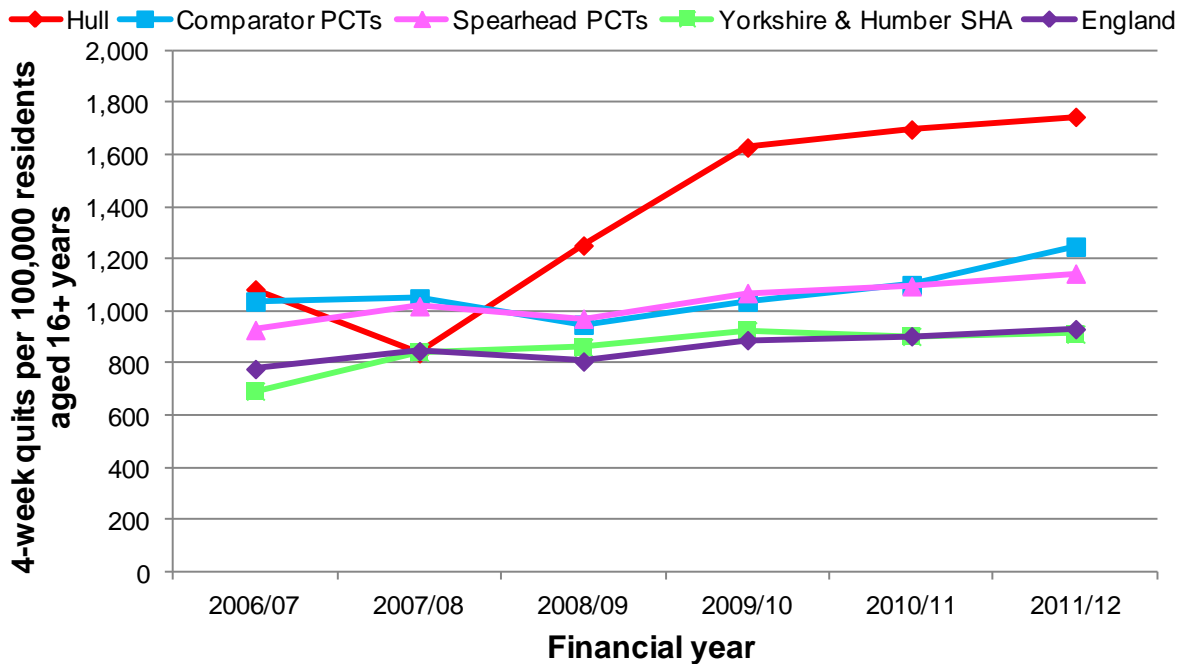
Figure 12 Trends in quit dates set per 100,000 residents aged 16+ years



The smoking cessation service in Hull outperformed all comparators in the rate of 4-week quitters per 100,000 in every year since 2007-08 (**Figure 13**). Since 2006-07 the rate of 4-week quitters per 100,000 has increased by 61%, a statistically significantly higher increase than seen for any of the comparator areas.

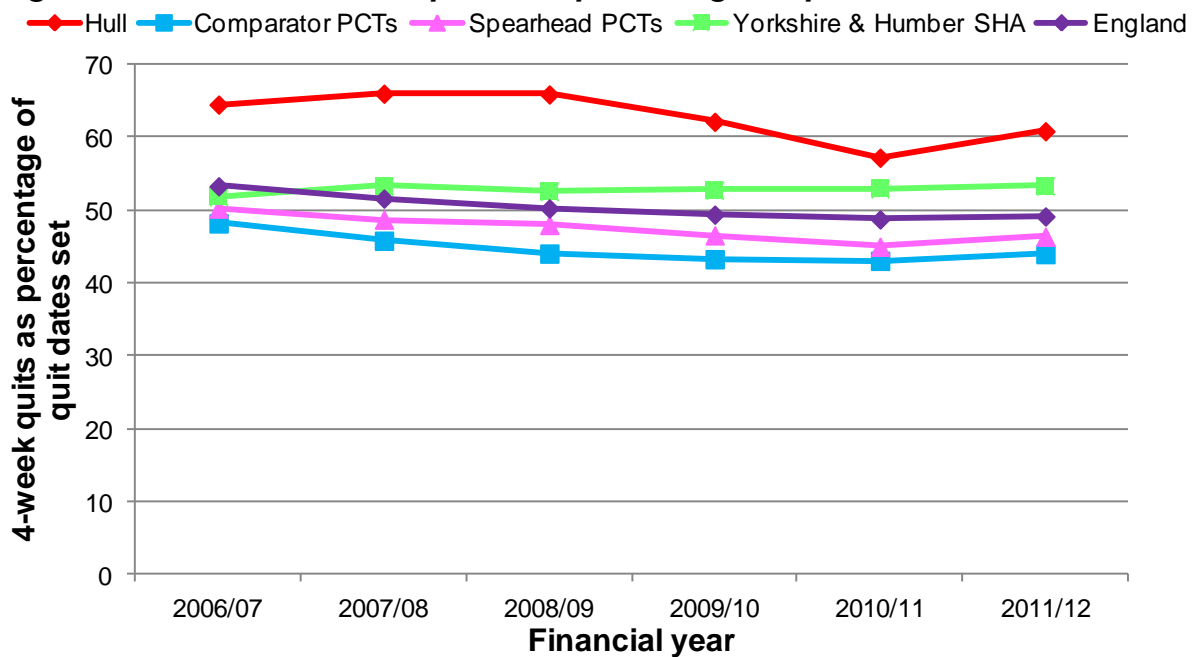
⁴ 4-week quitters are those that, when followed up 4-weeks after their designated quit date, declare they have not smoked, not even a single puff of a cigarette, in the past two weeks.

Figure 13 Trends in 4-week quits per 100,000 residents aged 16+ years



Despite decreasing slightly between 2008-09 and 2010/11, the percentage of 4-week quits amongst those that set a quit date consistently outperformed all comparator areas in every year since these smoking cessation statistics were first published in 2006-07 (**Figure 14**), and increased in 2011-12.

Figure 14 Trends in 4-week quits as a percentage of quit dates set



Hull's stop smoking strategy

Hull has a free phone telephone number for support to stop smoking. One-to-one, group sessions, and telephone or online support are all offered by the Hull and East Riding Stop Smoking Service (www.readytostopsmoking.co.uk/) provided by City Health Care Partnership. People can also access support from GPs, pharmacies, or a local voluntary/community organisation: Goodwin Development Trust. Nicotine Replacement Therapies are available to people accessing Hull's smoking cessation services from a range of different providers across the City. One to one and group sessions are held throughout Hull on an appointment or drop in basis. A local Smoke Free Families Service provided by City Health Care Partnership assists pregnant women to quit smoking.

All commissioned smoking cessation interventions follow NICE and Department of Health Guidelines.

Social Marketing advertising campaigns have been commissioned following insight work into why people smoke locally and information gathered from this has been used to reconfigure and commission new services.

There is a Smoke-free Homes initiative, provided by Goodwin Development Trust, which supports local families especially those with expectant women and/or young children and aims to eliminate smoking within the home or limit smoking to specific rooms within the home.

There are resources provided by NHS Hull to parents at every birth promoting not smoking in cars.

A Social Norms approach is being piloted in the Thornton Estate in Hull to engage local residents to take forward interventions initiating a positive shift towards smoke free norms within their community. Local residents will be encouraged to become smoke-free ambassadors and assisted to influence a shift towards a smoke-free norm e.g. extending smoke free environments into homes and cars.

The Humber Alliance on Tobacco (HALT) is a multi-agency partnership which provides a focus through which all tobacco control activities can be fully coordinated. The Alliance includes: NHS Hull, NHS East Riding of Yorkshire, Hull City Council, East Riding of Yorkshire Council, Humber Fire and Rescue, City Health Care Partnership, Goodwin Development Trust, Yorkshire & The Humber Trading Standards Group, HM Revenues and Customs, Hull and Goole Ports Authority, Humber Police, UK Border Control and Hull and East Yorkshire Pharmacies.

HALT's five year plan was published in October 2011, which incorporates the 'ambitions' of Healthy Lives, Healthy People: A Tobacco Control Plan for England. The Alliance has three subgroups delivering very targeted initiatives across; data collection, prevention, protection and cessation and enforcement.

HALT is a well respected Alliance locally, regionally and nationally.

Smokesnojoke (www.smokesnojoke.com) is a web-site for children parents and teachers, developed in consultation with its users. The site is a one-stop-shop for information and resources. The site was shortlisted for a Regional Health and Social Care Award in 2010.

NHS Hull commissioned the production of an information booklet for local people with details of local healthy lifestyles services and support. This booklet aimed to help increase access to, and awareness of, a number of services available to help local people to improve their lifestyles e.g. lose weight, be more active, stop smoking, manage alcohol consumption.

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

www.jsnaonline.org