HALTON BOROUGH COUNCIL

NHS Halton Clinical Commissioning Group

# Health Profile 2014

# Respiratory Health in Halton

The term respiratory disease covers a range of conditions, but the key areas for the JSNA are:

- Asthma
- Bronchitis, emphysema, and other COPD
- Pneumonia

Respiratory disease is one of the key contributing factors to reduced life expectancy in Halton and is the third leading cause of death after circulatory disease and cancer.

There are significant health inequality issues in Halton concerning respiratory diseases where the mortality rate in our most deprived areas is double that of Halton as a whole, and historically, COPD detection rates have been lower in these more deprived areas.

Whilst most respiratory illnesses are associated with smoking or exposure to tobacco smoke in the environment, smoking is not the only risk factor to explain the relationship between deprivation and respiratory illness. Work related conditions, housing conditions, fuel poverty, and exposure to outdoor air pollution are all associated with respiratory disease, independently of smoking.

## Headline Facts

- It is estimated about 3,916 people aged 16+ living in Halton had Chronic Obstructive Pulmonary disease (COPD) in 2010. By 2020 this figure may be as much as 4,420.
- There have been improvements in case finding since 2009/10 closing the gap between the modeled estimated number of people with COPD and those of GP disease registers. However, the number of people on the asthma register remains lower than the expected number.
- The management of patients with COPD and asthma are similar to the North West and England averages
- There is significant ward level variation in emergency hospital admission rates and at GP practice level. There is also a relationship with temperature, with a greater percentage of admissions seen in the winter months.
- Death rates for COPD have been falling but are above the North West and England rates. Death rates from respiratory causes in those aged under 75 years and pneumonia are also higher than England but similar to the North West.

| Contents | |
|---|---|


## Future Estimates

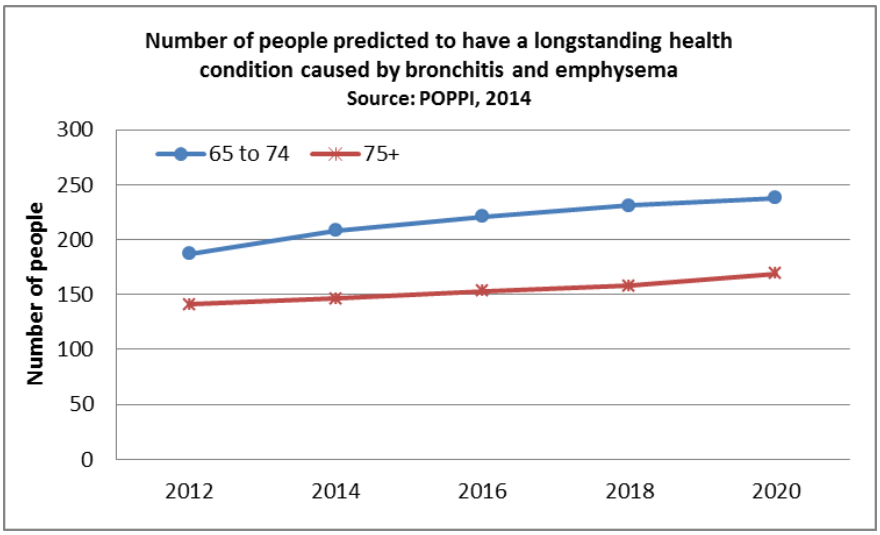
**Modelled estimates of prevalence of COPD, numbers and prevalence (person aged 16+)**

| Halton | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Persons 16+ | | 16-44 | | 45-64 | | 65-74 | | 75+ | |
| | Number | Prevalence | Number | Prevalence | Number | Prevalence | Number | Prevalence | Number | Prevalence |
| **2010** | 3916 | 4.0% | 678 | 1.5% | 1614 | 4.9% | 888 | 9.0% | 737 | 9.8% |
| **2015** | 4168 | 4.2% | 651 | 1.4% | 1592 | 4.8% | 1095 | 9.0% | 829 | 10.0% |
| **2020** | 4420 | 4.4% | 644 | 1.5% | 1611 | 4.9% | 1216 | 8.9% | 950 | 10.1% |

Source: Association of Public Health Observatories

In Halton it is estimated that 3,916 residents over the age of 16 had COPD as of 2010, rising to 4,420 by 2020. The biggest increase is predicted to be in the 65 plus age group.

Estimations have also been calculated for the number of people predicted to have a longstanding health condition caused by bronchitis and emphysema. It was estimated that 328 people over the age of 65 were affected by this in 2012, and that the number will rise to 406 by 2020.

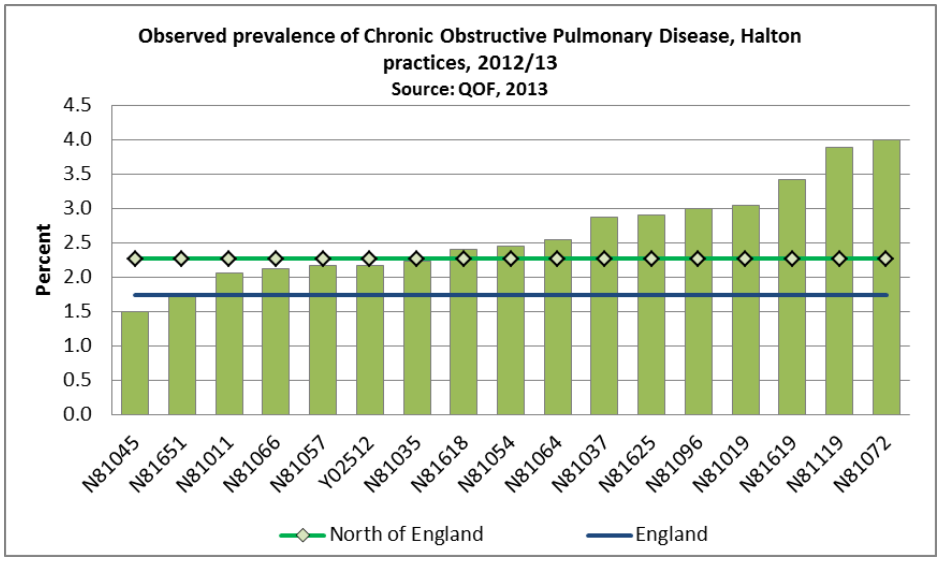


# Diagnosing Respiratory Disease in GP Practices

The GP contract includes the requirement for practices to establish a disease register for people with COPD and asthma.For the breakdown of all diseases included the GP contract (QOF data), as well as previous years data for Halton, please visit: http://www.gpcontract.co.uk/browse/01F/13.

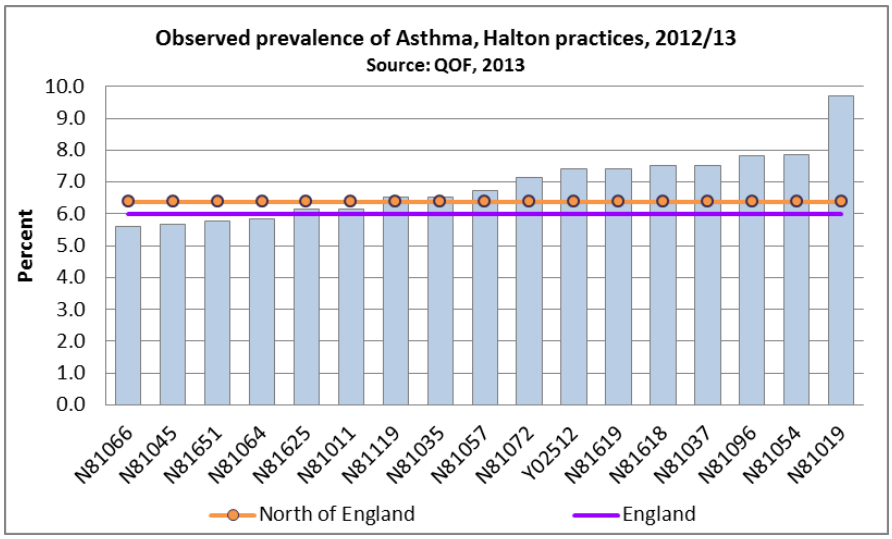
| | COPD Prevalence |
|---|---|
| Halton CCG | 2.5% |
| Merseyside Area Team | 2.8% |
| North of England | 2.3% |
| England | 1.7% |

QOF data for 2012/13 indicates that 3,210 patients who are registered at GP practices in Halton have COPD, which is 2.5% of the registered population. Seven out of the 17 practices in Halton have an observed prevalence above the CCG average and all but 2 are above the England average.




For 2012/13, the QOF data indicates that 8,886 people are registered as having asthma within the 17 GP practices in Halton. This means that 6.9% of the registered population have been diagnosed as having asthma. Eight of the 17 practices have an observed prevalence above the CCG average and 13 above the England average.

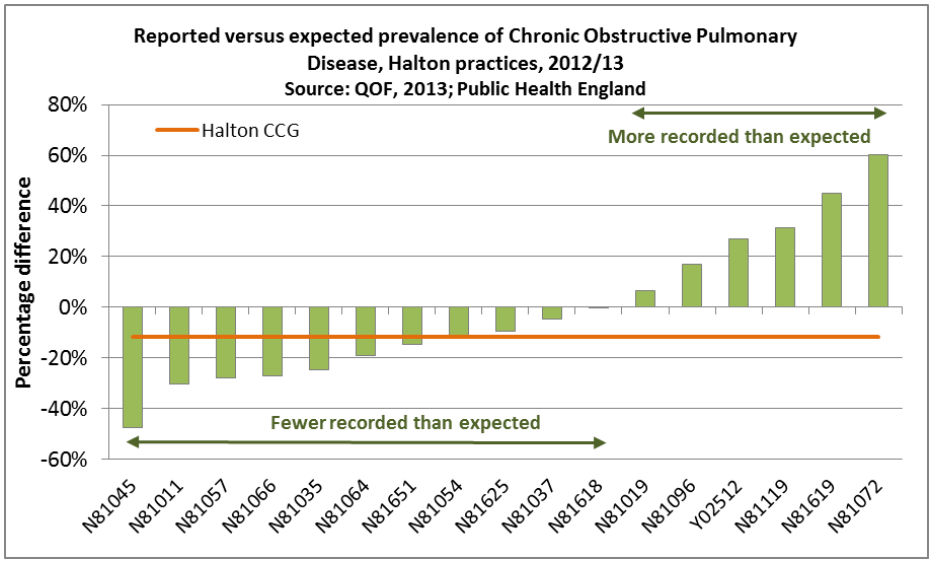
| | Asthma Prevalence |
|---|---|
| Halton CCG | 6.9% |
| Merseyside Area Team | 6.2% |
| North of England | 6.4% |
| England | 6.0% |




## Observed Against Expected Prevalence (COPD)

It has been estimated that there are many more patients with COPD who have not been diagnosed. To try to determine the total prevalence of disease a model has been developed by the Association of Public Health Observatories (APHO). It has used national prevalence findings from the Health Survey for England weighting prevalence rates in each area according to population structure and smoking status.

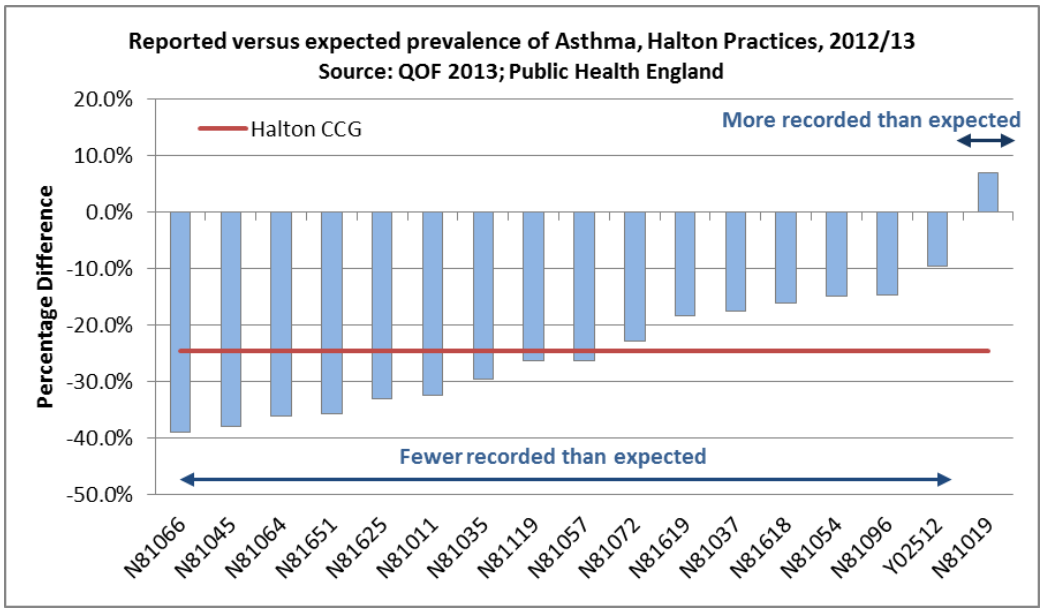
By applying the same age-specific prevalence rates as used in the APHO estimates to GP populations, they have estimated the estimated numbers of people with COPD per practice. Although most practices in both boroughs have less people registered as having COPD than the model estimates there has been considerable improvement since the analysis was run using 2009/10 QOF data.



Ten out of the 17 practices in Halton had fewer recorded patients with COPD than was expected. However, there were 6 practices that had more patients registered as having COPD than were expected and one practice which the expected number diagnosed.

## Observed Against Expected Prevalence (Asthma)

Expected Prevalence of asthma calculated using national age / sex specific rates from the Doncaster model applied to GP practice list size data by age and sex.




Only one practice, out of the 17 in Halton, had more than the expected number of patients registered as having asthma. The remaining 16 practices had a range of 9.6% to 39% fewer recorded patients that was expected.

# GP Management of people with COPD and Asthma

The GP contract requires practices to manage patients in line with best practice. For COPD this relates to diagnosis, recording of FEV1 (maximal amount of air you can forcefully exhale in one second), influenza vaccination and an assessment of the level of breathlessness a patient is experiencing.

**Achievement against COPD clinical indicators, 2012/13**

| Practice Code | Practice Name | COPD08 | COPD10 | COPD13 | COPD15 |
|---|---|---|---|---|---|
| N81011 | Beaconsfield | 96.9% | 89.4% | 92.1% | 100.0% |
| N81019 | Castlefields | 96.6% | 87.6% | 96.4% | 97.2% |
| N81035 | Appleton Village | 88.9% | 80.5% | 97.0% | 97.2% |
| N81037 | Beeches | 97.1% | 85.0% | 90.8% | 90.0% |
| N81045 | Peelhouse | 93.0% | 90.0% | 91.3% | 86.2% |
| N81054 | Weaver Vale | 87.4% | 95.1% | 93.3% | 90.0% |
| N81057 | Tower House | 97.4% | 98.4% | 98.6% | 100.0% |
| N81064 | Newtown | 31.9% | 88.1% | 96.0% | 91.7% |
| N81066 | Grove House | 90.6% | 93.2% | 91.1% | 87.5% |
| N81072 | Murdishaw | 94.0% | 89.1% | 97.4% | 98.8% |
| N81096 | Brookvale | 96.3% | 80.9% | 90.1% | 90.9% |
| N81119 | Hough Green | 81.5% | 93.9% | 94.6% | 88.9% |
| N81618 | Heath Road | 92.7% | 95.1% | 95.0% | 88.9% |
| N81619 | Oaks Place | 94.9% | 94.0% | 92.0% | 85.7% |
| N81625 | West Bank | 94.5% | 95.6% | 97.1% | 85.7% |
| N81651 | Upton Rocks | 97.6% | 92.7% | 93.0% | 83.3% |
| Y02512 | Windmill Hill | 85.7% | 87.5% | 92.5% | 100.0% |
| **Halton CCG** | | **89.8%** | **89.4%** | **94.2%** | **93.6%** |
| **Merseyside Area Team** | | **92.4%** | **82.8%** | **91.0%** | **92.0%** |
| **North of England** | | **92.7%** | **87.9%** | **91.1%** | **91.3%** |
| **England** | | **92.7%** | **88.4%** | **91.1%** | **91.3%** |

| |
|---|
| **COPD08:** The percentage of patients with COPD who have had influenza immunisation in the preceding 1 September to 31 March |
| **COPD10:** The percentage of patients with COPD with a record of FEV1 in the preceding 15 months |
| **COPD13:** The percentage of patients with COPD who have had a review, undertaken by a healthcare professional, including an assessment of breathlessness using the MRC dyspnoea score in the preceding 15 months |
| **COPD15:** The percentage of all patients with COPD diagnosed after 1 April 2011 in whom the diagnosis has been confirmed by post bronchodilator spirometry |

For asthma, the management required in the GP contract relates to diagnosis, assessment of control and smoking status in young people.

### Achievement against asthma clinical indicators, 2012/13

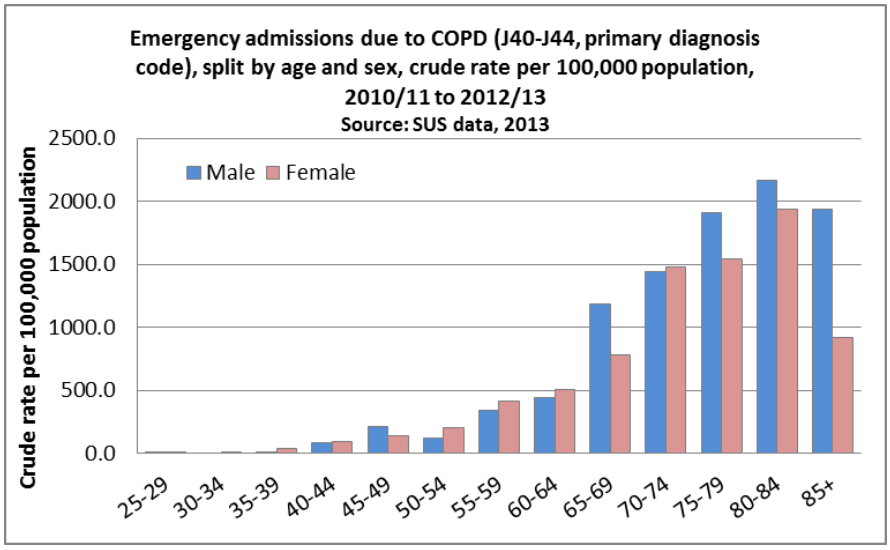
| Practice Code | Practice Name | ASTHMA08 | ASTHMA09 | ASTHMA10 |
|---|---|---|---|---|
| N81011 | Beaconsfield | 82.6% | 79.3% | 85.1% |
| N81019 | Castlefields | 95.9% | 73.4% | 87.5% |
| N81035 | Appleton Village | 83.1% | 71.1% | 100.0% |
| N81037 | Beeches | 85.5% | 62.3% | 75.6% |
| N81045 | Peelhouse | 89.0% | 78.9% | 89.4% |
| N81054 | Weaver Vale | 94.9% | 81.9% | 86.8% |
| N81057 | Tower House | 97.5% | 90.7% | 95.7% |
| N81064 | Newtown | 82.2% | 78.0% | 88.5% |
| N81066 | Grove House | 95.6% | 74.5% | 85.5% |
| N81072 | Murdishaw | 94.4% | 77.2% | 87.5% |
| N81096 | Brookvale | 81.9% | 76.7% | 87.5% |
| N81119 | Hough Green | 98.1% | 74.2% | 100.0% |
| N81618 | Heath Road | 91.9% | 62.1% | 100.0% |
| N81619 | Oaks Place | 94.0% | 75.0% | 90.0% |
| N81625 | West Bank | 91.4% | 89.4% | 84.6% |
| N81651 | Upton Rocks | 82.8% | 78.3% | 100.0% |
| Y02512 | Windmill Hill | 87.5% | 77.9% | 83.3% |
| **Halton CCG** | | **90.5%** | **76.1%** | **88.9%** |
| **Merseyside Area Team** | | **87.4%** | **76.4%** | **90.6%** |
| **North of England** | | **87.8%** | **75.4%** | **89.6%** |
| **England** | | **87.6%** | **74.8%** | **89.3%** |

| |
|---|
| **ASTHMA08:** The percentage of patients aged 8 years and over diagnosed as having asthma from 1 April 2006 with measures of variability or reversibility |
| **ASTHMA09:** The percentage of patients with asthma who have had an asthma review in the preceding 15 months that includes an assessment of asthma control using the 3 RCP questions |
| **ASTHMA10:** The percentage of patients with asthma between the ages of 14 and 19 years in whom there is a record of smoking status in the preceding 15 months |

# Hospital Admissions due to COPD

COPD is a rare condition before the age of 40. Most people who develop the condition are managed within primary care. As previous data in this profile has shown the vast majority of patients are managed within evidence-based national standards of practice.

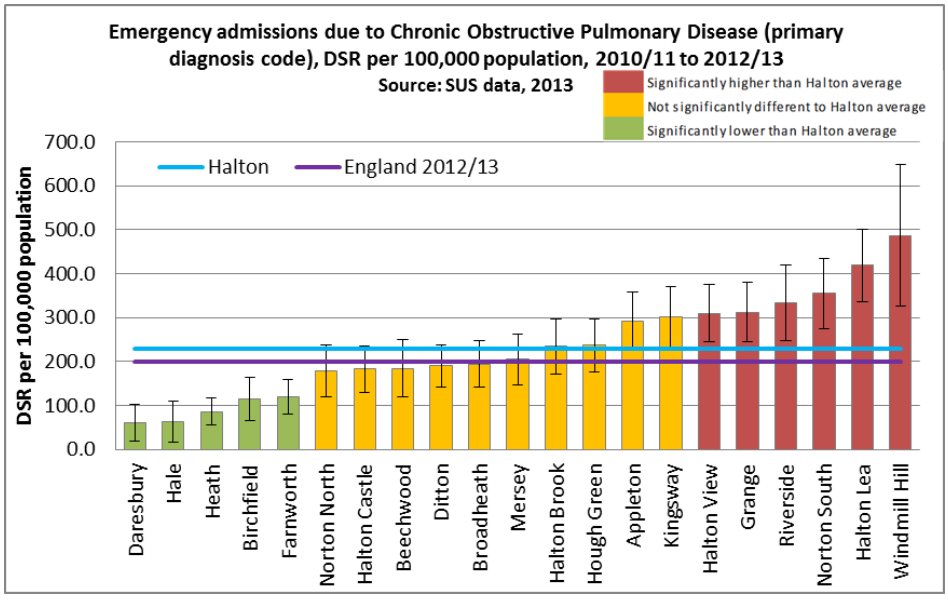
However, for some, they will develop exacerbations of the condition or they may be undiagnosed. This can result in an emergency (unplanned) admission to hospital.




As the data for 2010/11 to 2012/13 shows, admissions rise from age 45 onwards for both males and females with admissions generally being higher for males than females.

Small numbers at ward level means, for most of the analysis in this profile, having to combine multiple years' worth of data to achieve statistically robust analysis.

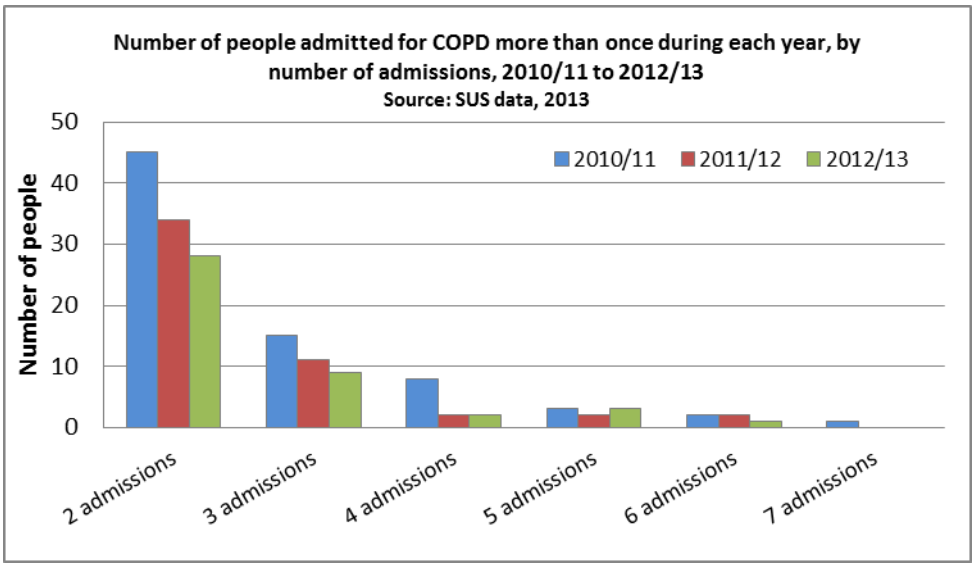
Six Halton wards had a statistically significantly higher admission rate compared to the borough average during 2010/11 to 2012/13.



# 'Frequent Flyer' admissions for COPD

Research suggests that there are nearly half a million 'frequent flyers' in the United Kingdom and that they cost the health service approximately £2.3 billion a year (2003-4 figures). These tend to be ambulatory care sensitive (ACS) conditions – such as chronic obstructive pulmonary disease (COPD), asthma and heart failure. 'Frequent flyers' is the term used to describe patients who regularly admitted to hospital. The report does not suggest that the unplanned hospital admissions are unnecessary, but that further research could avoid patient stays in hospital and the costs.

***This analysis used the definition of a frequent user, as a patient who is admitted as an emergency into hospital more than once in a financial year.***



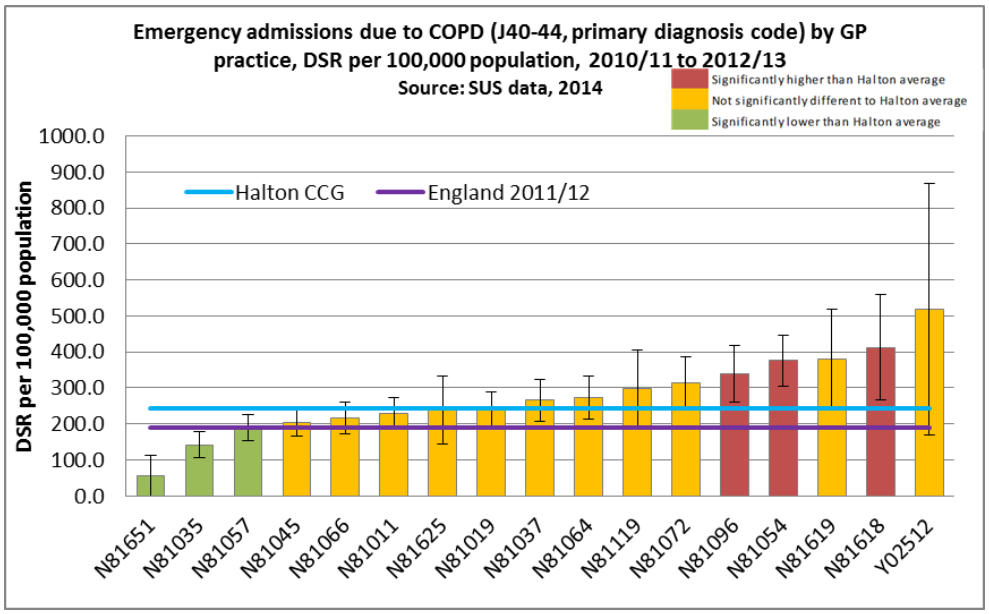

Local analysis shows that most people admitted on more than one occasion are admitted twice or three times during the financial year.

During 2012/13 there were over 100 readmissions due to COPD, however, the number,and percentage of total COPD admissions, has decreased from 2010/11

| | 2010/11 | 2011/12 | 2012/13 |
|---|---|---|---|
| Total number of admissions | 452 | 331 | 358 |
| Number of readmissions | 201 | 131 | 112 |
| Percent | 44.5% | 39.6% | 31.3% |

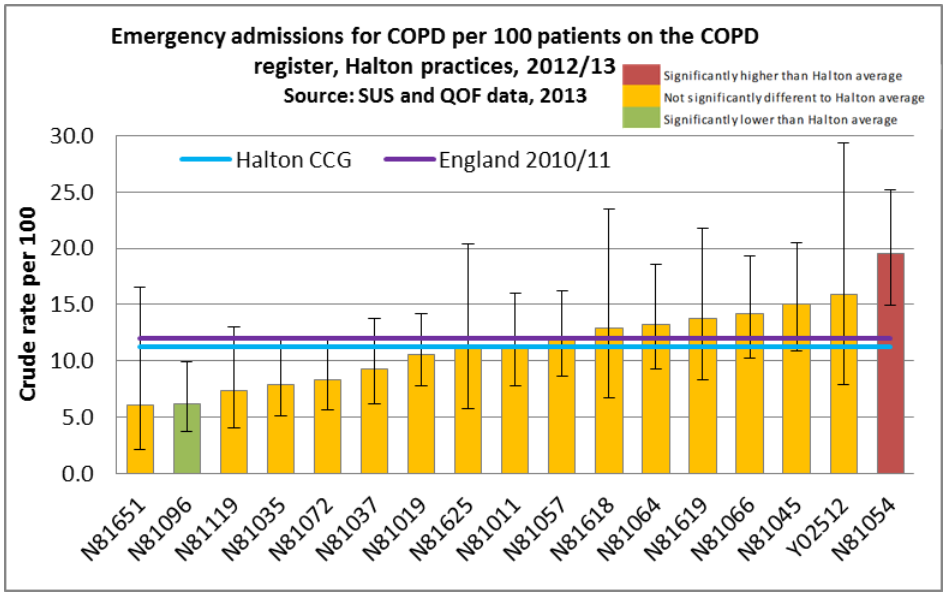
# GP Practice Level Hospital Admissions for COPD

Earlier in this profile emergency admission rates were calculated at ward level, however, it is also useful to calculate the rates at GP practice level. This data can be used to see how well each practice is managing their registered patients who have COPD.



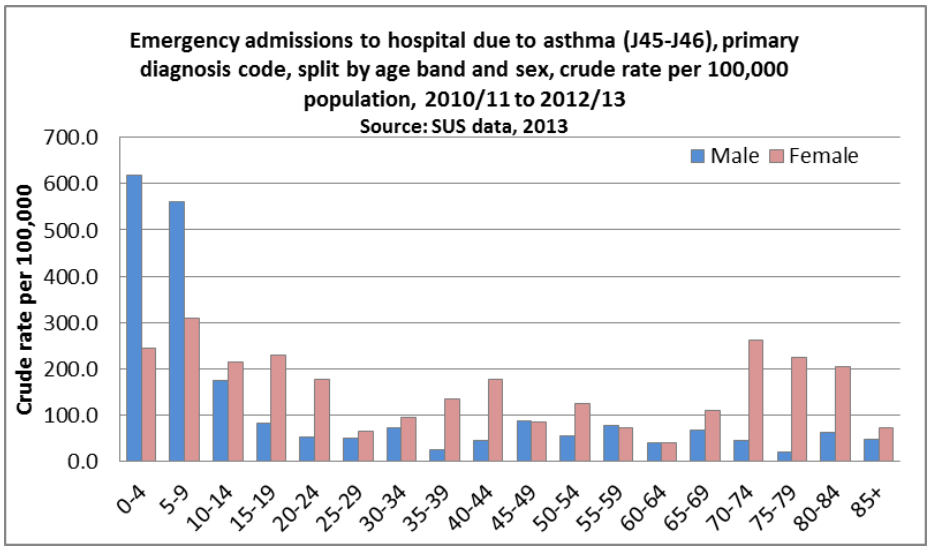

The data for 2010/11 to 2012/13 shows that 3 practices had a rate which was statistically significantly higher than the borough rate. However, there were also 3 practices that had a significantly lower rate than the Halton average. The Halton rate was also higher than the England rate for 2011/12.

When comparing emergency hospital admissions to the number of people on the COPD register, for each practice during 2012/13, the data shows that only one practice had a significantly higher admission rate compared to the borough.



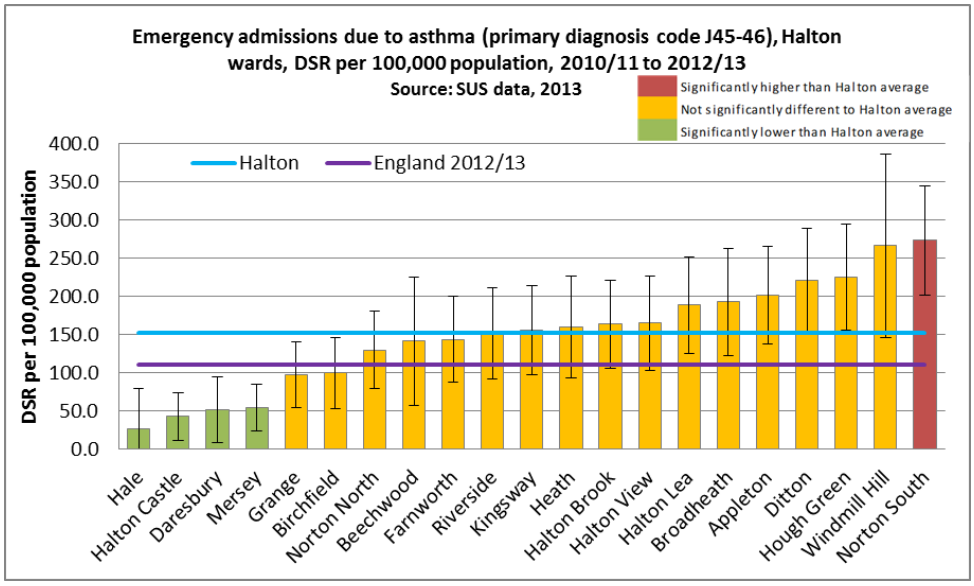
## Hospital admissions due to asthma

Unlike COPD, asthma is common in every age group. The majority of people who develop the condition are managed within primary care, as previous data in this profile has shown. However, for some, they will develop exacerbations of the condition or they may be undiagnosed. This can result in an emergency (unplanned) admission to hospital.



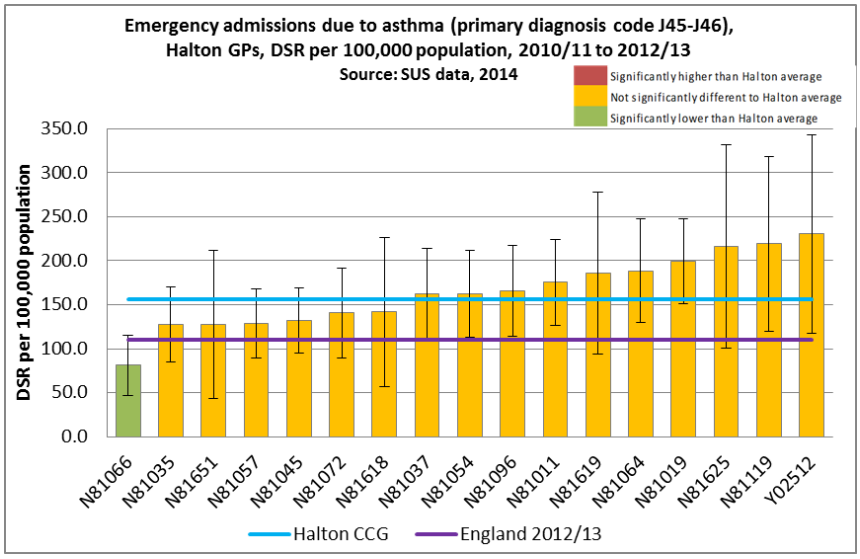

The data for 2010/11 to 2012/13 shows that the age band with the highest rate of admissions are males aged 0-9 years. However, females have a higher rate of admission than males for ages 65+.

Only one ward in Halton had a statistically significantly higher rate of emergency admissions compared to the borough, however, there were 4 wards that had a significantly lower rate.



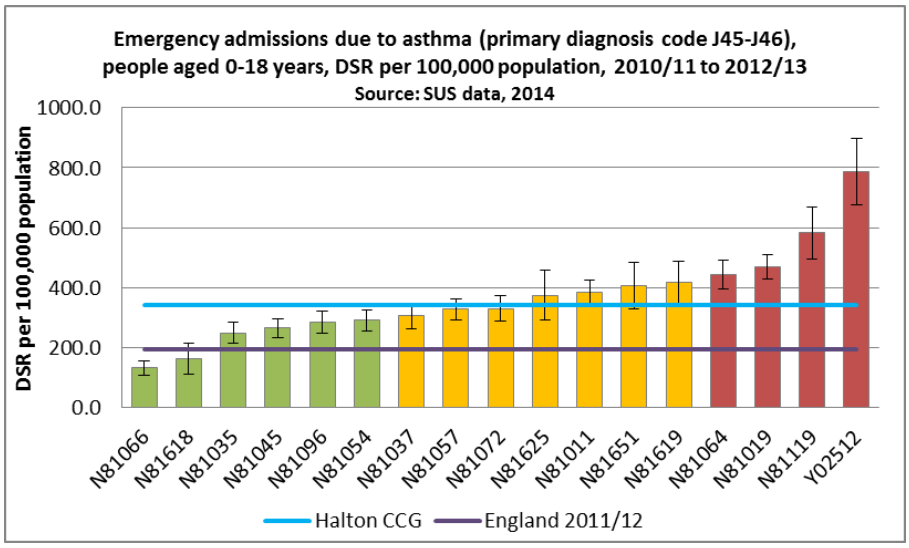
# GP Practice Level Hospital Admissions for asthma

It is also useful to calculate the rates at GP practice level. This data can be used to see how well each practice is managing their registered patients who have asthma.




The data for 2010/11 to 2012/13, for all ages, shows that only one practice had an admission rate which was significantly lower than the CCG average. This same practice was also the only one (out of the 17 in Halton) who had a rate which was lower than England.

The emergency admission rate for 0 to 18 years was also calculated at GP level. This was due to the Child and Maternal Health Intelligence Network (ChiMat) publishing the rate at a national level.




There were 4 wards during 2010/11 to 2012/13 that had a rate which was significantly higher than the Halton average. However, there were 6 wards that had a significantly lower rate.

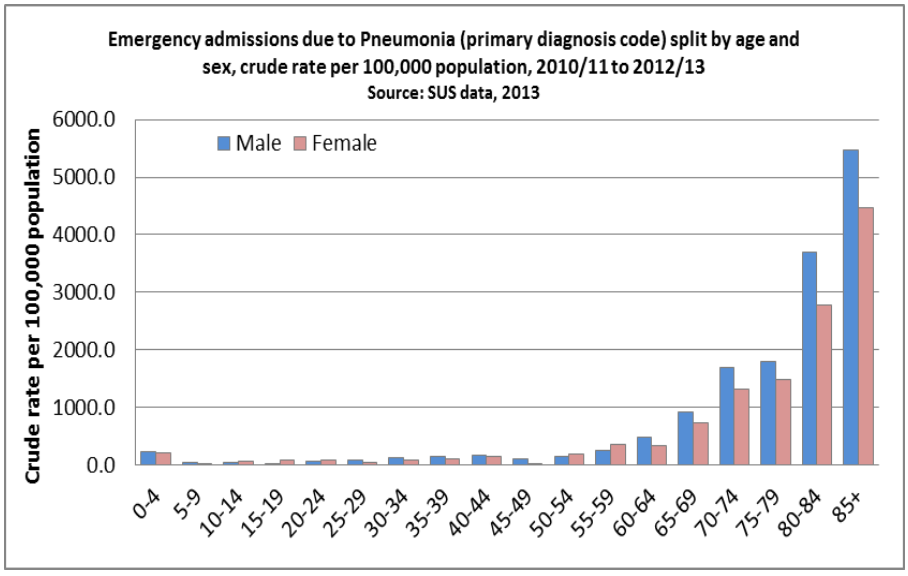
Fifteen out of the 17 practices in Halton had a rate which was significantly higher than the England rate during 2011/12.

# Hospital admissions due to pneumonia

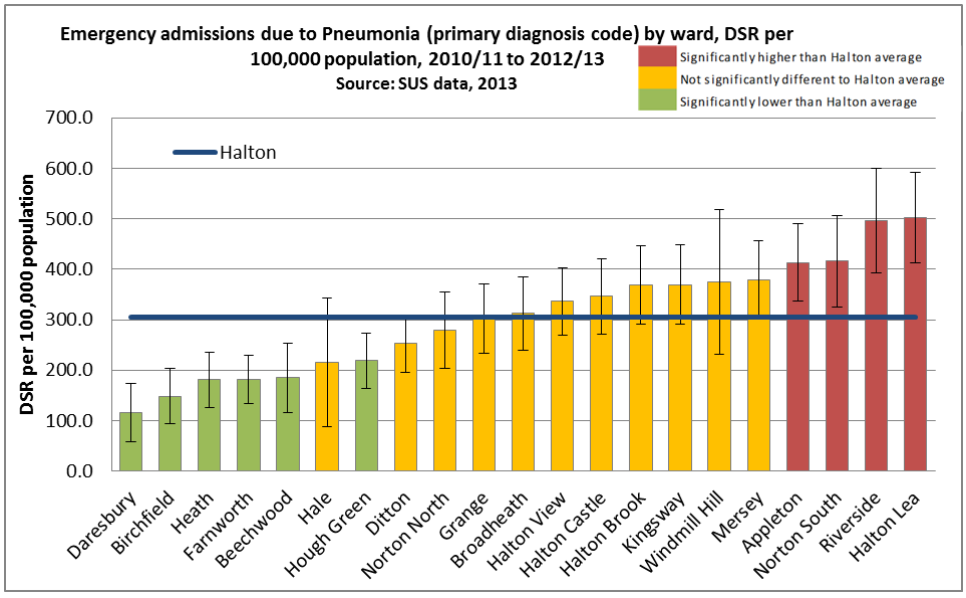
Pneumonia can affect people of any age; however, it is more common and can be more serious for:

- Babies, young children and the elderly
- People who smoke
- People will other health conditions, such as a lung condition or weakened immune system

Mild pneumonia can usually be treated at home with antibiotics, rest and fluids. For people with other health conditions, pneumonia can be severe and may need to be treated in hospital.



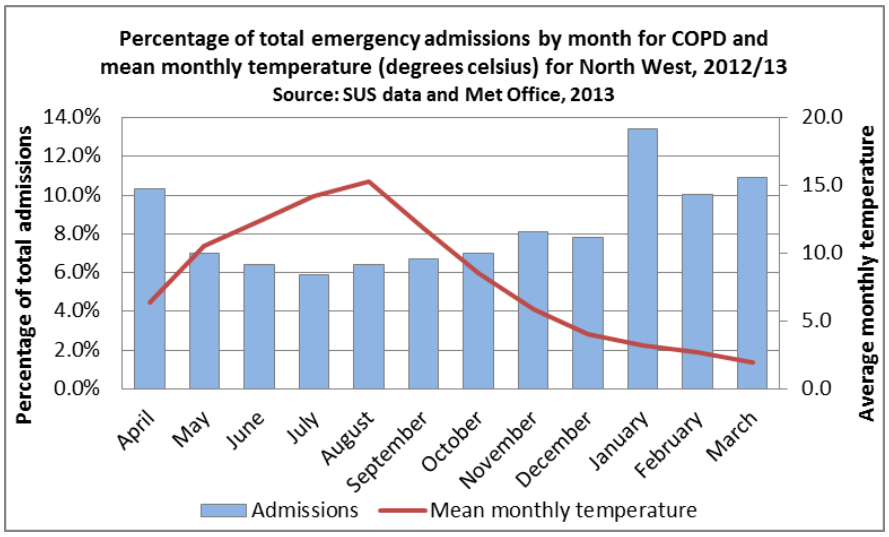

The data for 2010/11 to 2012/13 shows that the rate of emergency admissions increases from 55 year of age onwards for both males and females. However, the admission rate in the 0-4 age group is higher than the 5-9 to 50-54 age groups.




Four wards in Halton had a statistically significantly higher admission rate than the borough during 2010/11 to 2012/13.

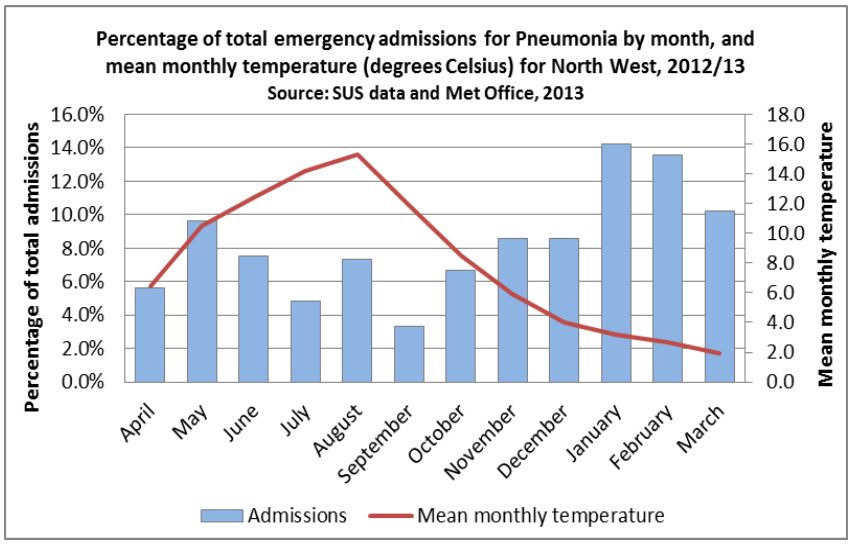
## Seasonal Hospital Admissions

There is a link with both the quality of air, especially in towns and cities, and changes in temperature. With air quality declining due to increased urban pollution and emissions more people are becoming affected by heart and lung illnesses. There is good evidence that cold houses increase mortality across all social classes. Indoor temperatures [i] as well as outdoor temperatures [ii], are related to increased risk of exacerbations and extra respiratory deaths. The charts below show that there is a relationship between colder outdoor temperatures i.e. during the winter months and higher levels of admissions for COPD and pneumonia in those corresponding months. This is similar to the national picture.




The data shows that, during 2012/13, as the average monthly temperature decreased the number of admissions for COPD increased.

For pneumonia, as the average monthly temperature decreases from October onwards, the number of admissions increases. However, the number of admissions did decrease in March even though the temperature continued to decrease.



## Smoking Cessation Services

The integrated household survey estimates that, during 2011/12, 23.1% of the population of Halton were current smokers. This is higher than the estimations for the North West (22.1%) and England (20.0%).

During 2012/13, a Lifestyle Survey was carried out in Merseyside. As part of this survey people were asked about their smoking status, and the results suggest that 30.5% of the Halton population currently smoke.

The result of the Merseyside Lifestyle Survey therefore suggests that the smoking prevalence within Halton may be higher than was previously thought; however, the actual percentage is likely to be between 23.1% and 30.5%.

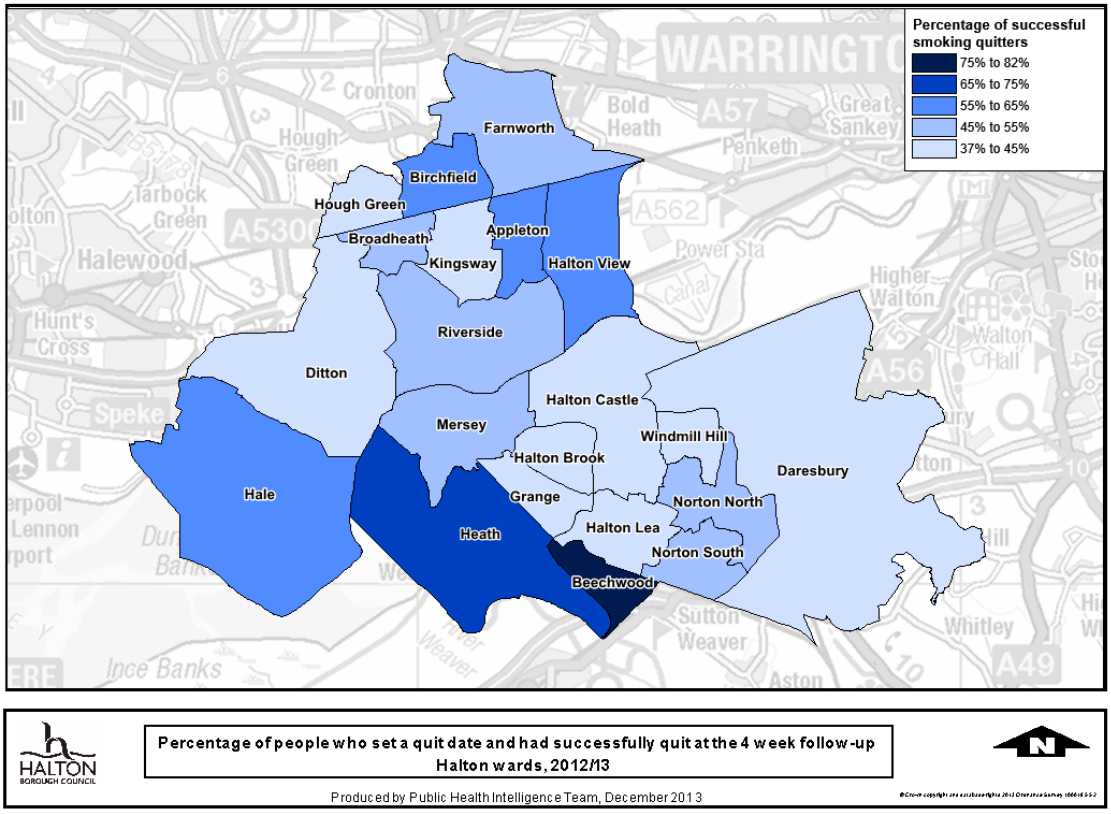
Smoking cessation comparator data is available annually from the Information Centre. It was available at PCT level only until the end of 2012/13; therefore local has been used to calculate the Halton rate. This data refers to successful quitters at the 4 week follow up.

| | 2012/13 |
|---|---|
| Halton | 930.4 |
| North West | 1024.3 |
| England | 867.9 |

The data shows that during 2012/13 there were more successful quitters per 100,000 population aged 16+ in Halton when compared to England. However, it also shows that the rate was lower in Haltonthan the North West.

Source: NHS Information Centre; Health Improvement Team (Bridgewater Trust)

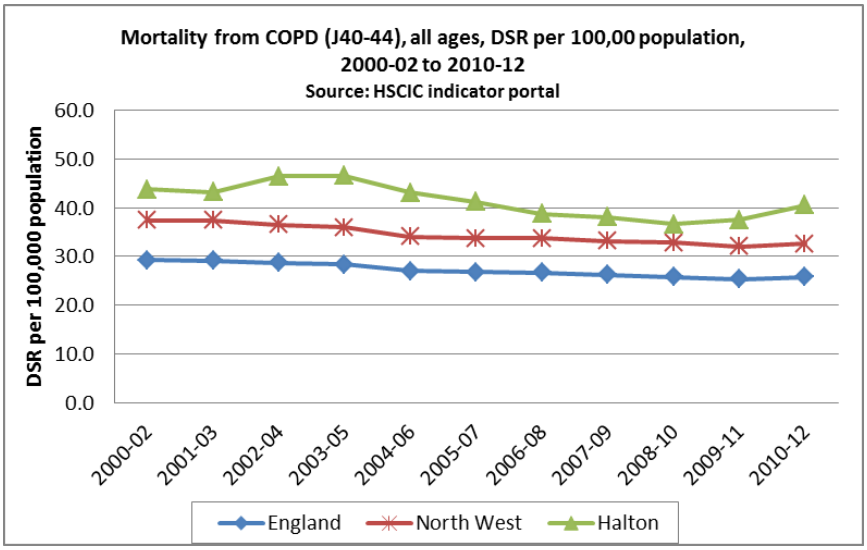
In Halton during 2012/13 there were 1,962 quit dates set by people accessing the NHS Smoking Cessation Service (NHS SCS). Of these, 938 had quit at the 4-week follow-up.Thismeans that the average success ratein Halton for 2012/13 was 47.8%. At a ward level this varied from 37.5% in Daresbury to 81.8% in Beechwood.




The percentage of successful quitters at the 4-week follow-up for Beechwood and Appleton were statistically significantly higher than the borough percentage.

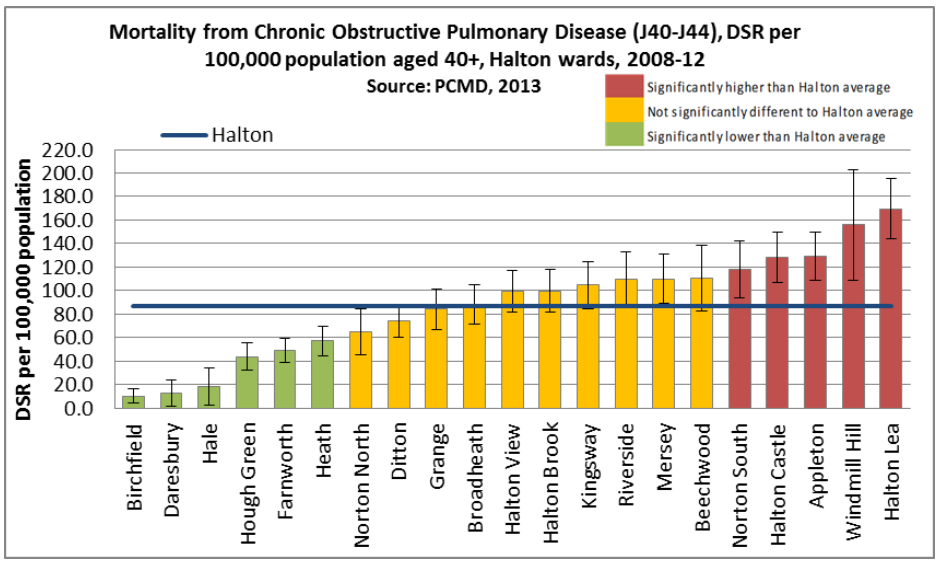
## Deaths due to COPD

Death rates due to COPD have, overall, decreased in Halton over the past few years; however, they still remain significantly higher than the rates for England and the North West. Halton rates fell between 2003-05 and 2008-10, but increased slightly in 2009-11 and again in 2010-12. An increase in rate also occurred for England and the North West during 2010-12.




As was the case for the hospital admissions, the small numbers at ward level also mean having to combine multiple years' worth of mortality data to achieve statistically robust analysis.

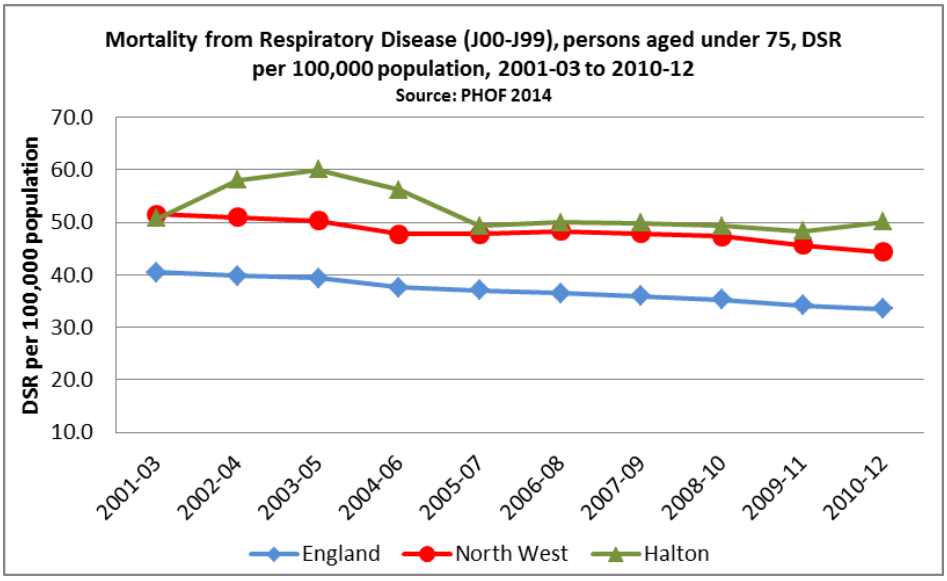
There were no deaths in Halton residents under 40 years of age due to COPD during 2008-12; therefore the rate was calculated for ages 40+.

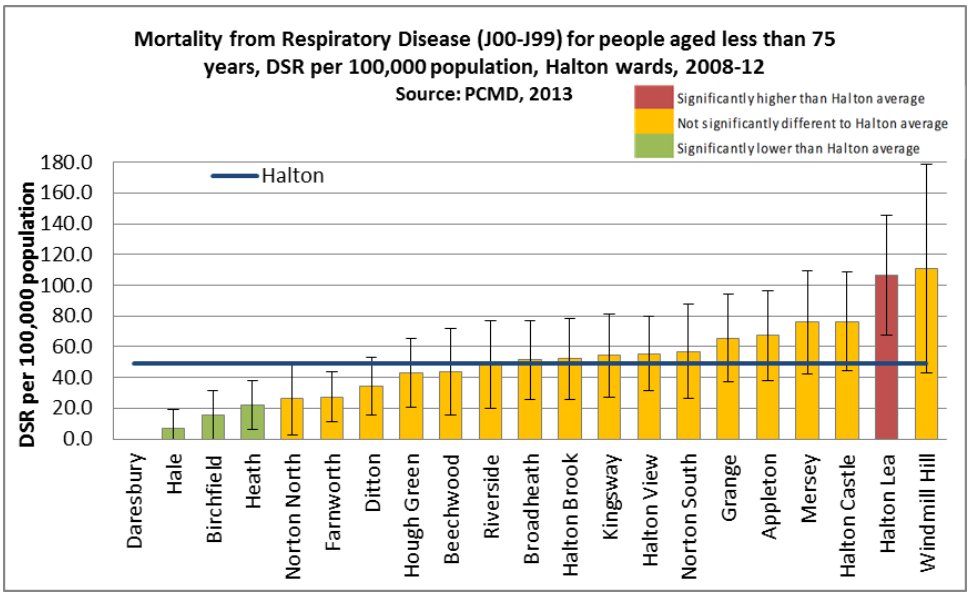



The data shows that there were 5 wards which had a mortality rate that was statistically significantly higher than the borough rate. However, there were 6 wards that had a rate which was significantly lower.

# Deaths due to Respiratory Disease in people aged less than 75 years

Deaths rates due to respiratory disease are only released nationally for people who are under 75 years of age. Between 2005-07 and 2010-12, the Halton rate has remained steady at around 49 per 100,000 population. The latest data shows that the Halton rate is still higher than the North West and continues to be significantly higher than England.

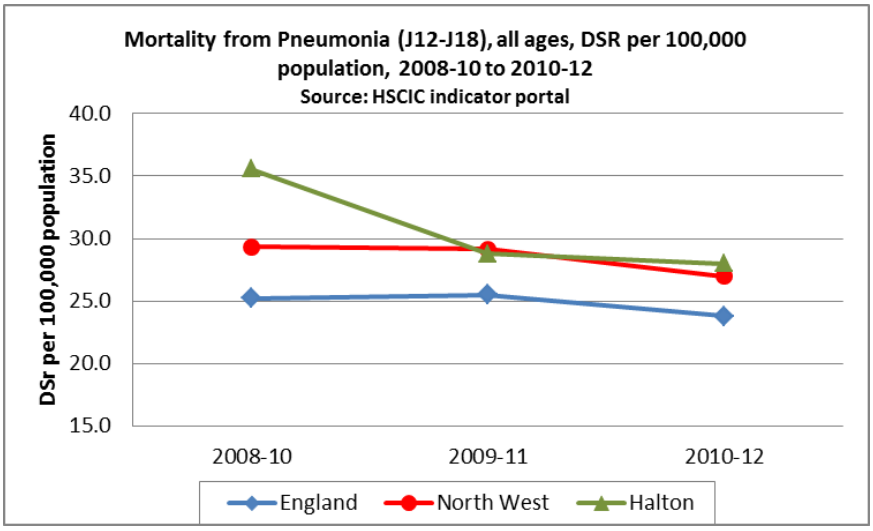


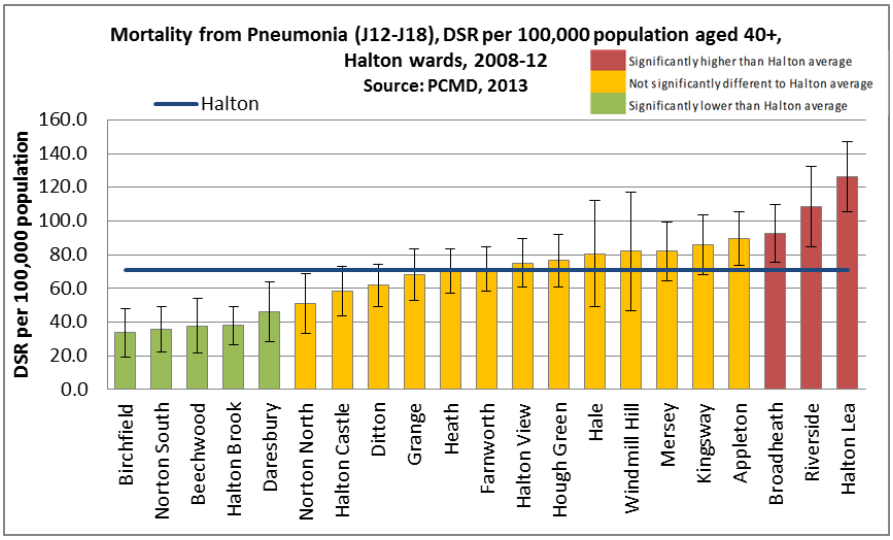

Local data shows that Halton Lea ward was the only ward having a statistically significantly higher death rate than the Halton averageduring 2008-12. However, there were 4 wards that had a death rate that was significantly lower than the borough rate.

# Deaths due to Pneumonia

Deaths rates due to pneumonia have decreased in Halton since 2008-10; due to this the rate is now very similar to the North West. The England value remains lower than Halton, however, due to the decrease in the local rate, the gap has narrowed.




Mortality rates due to pneumonia were calculated at a ward level using local data. As there were no deaths to people aged under 40 years of age during 2008-12, the rate has been calculated for ages 40+.

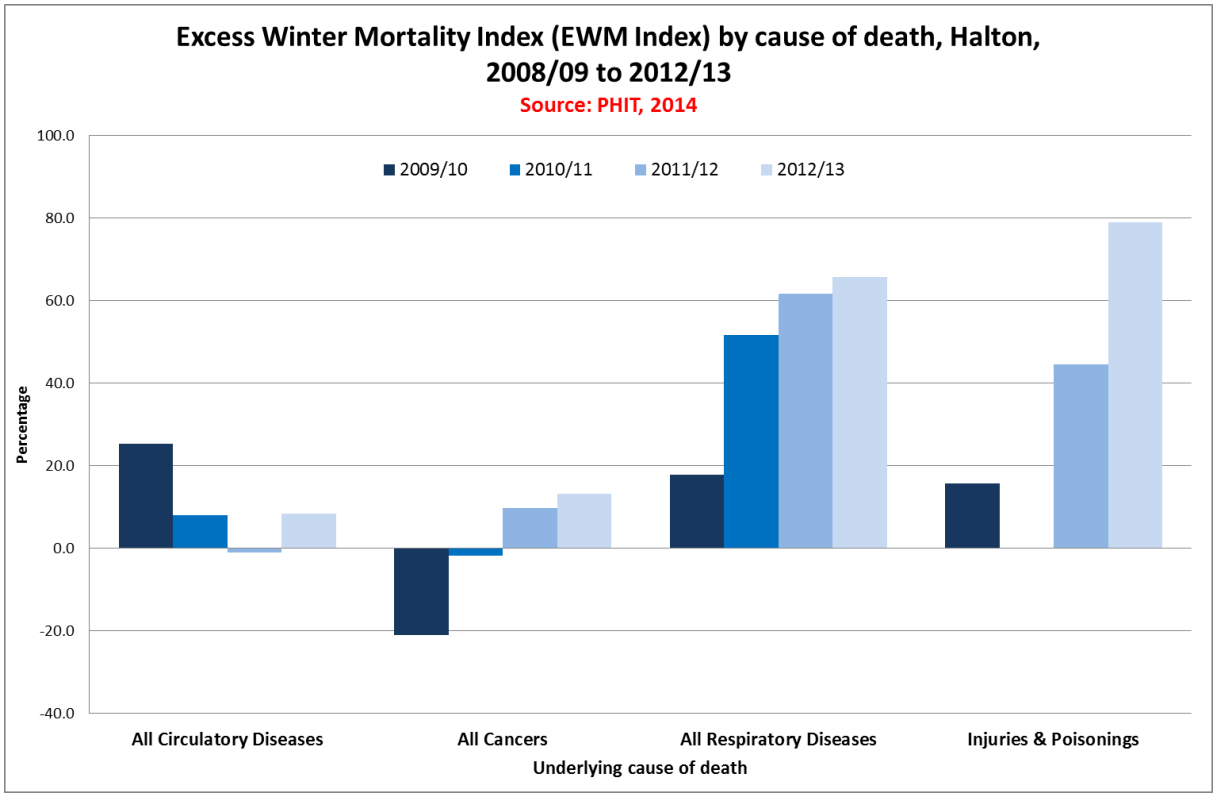



The local data shows that three wards had a statistically significantly higher death rate due to pneumonia than the borough during 2008-12. However, 5 wards had a rate which was significantly lower than Halton.

## Excess Winter Deaths

The Office for National Statistics (ONS) define excess winter deaths as deaths that occur between December and March minus the average number of deaths occurring in the preceding August to November and the following April to July. This methodology produces an Excess Winter Mortality (EWM) figure. For comparisons to be made the EWM Index is calculated by dividing the EWM by the average non-winter deaths multiplied by 100.

The main causes of excess winter mortality are circulatory disease, cancers, respiratory disease and injuries (predominantly in the form of falls). Overall respiratory diseases rise the most during the winter months, giving a greater percentage difference i.e. a greater excess winter death rate.



# Data Sources used in developing this profile

Association of Public Health Observatories: estimated prevalence figures

Primary Care Mortality Database (PCMD): detail on the cause of deaths of residents

SUS data: hospital admissions data via Cheshire & Merseyside Commissioning Support Unit

Office of National Statistics (ONS): resident population estimates

Health & Social Care Information Centre (HSCIC): QOF data

HSCIC indicator portal: death rates and GP populations

NICE: national guidance and quality standards http://www.nice.org.uk/

Met Office: mean monthly temperatures http://www.metoffice.gov.uk/climate/uk/datasets/

Smoking Cessation Service: QuitWithUs database

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