

Health Profile 2019

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.

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



2.8%

of patients registered at Halton GP practices have COPD (e.g. bronchitis or emphysema) (2017/18)



6.8%

of patients registered at Halton GP practices have asthma (2017/18)



emergency admission

rate for COPD has decreased and is now similar to the England average (2017/18)



Under 19

emergency admission rate for asthma is significantly higher than the England average (2017/18)



respiratory disease

has a greater excess winter death rate than other conditions (e.g. cancer or circulatory disease) (2017/18)

Contents	
Diagnosis and management in primary care	3 - 6
Vaccinations	7
Hospital admissions	8 - 14
Smoking	15
Deaths	16 - 19
Future estimates	19
Data sources	20

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.

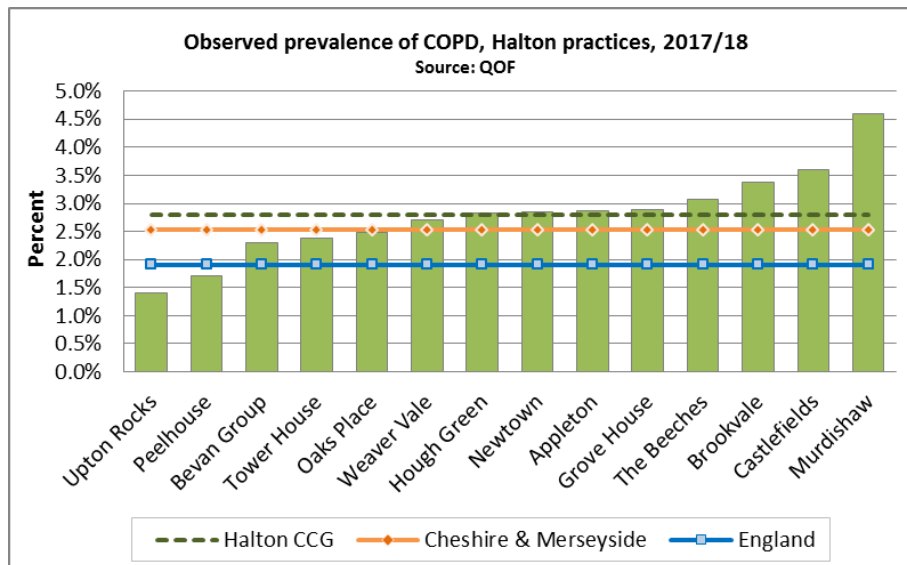
For the breakdown of all diseases included the GP contract (QOF data), as well as previous years data for Halton, please visit: <https://qof.digital.nhs.uk/index.asp>

COPD

COPD is the umbrella term for serious lung conditions that include chronic bronchitis and emphysema. As many as 3 million people suffer from COPD in the UK, of which only around a third of cases have been diagnosed. COPD is a serious lung disease for which smoking is the biggest preventable risk factor.

People with COPD have difficulties breathing, primarily due to the narrowing of their airways and destruction of lung tissue. Typical symptoms include breathlessness when active, a persistent cough and frequent chest infections.

	Prevalence of COPD
Halton CCG	2.8%
Cheshire & Merseyside	2.5%
North of England	2.5%
England	1.9%



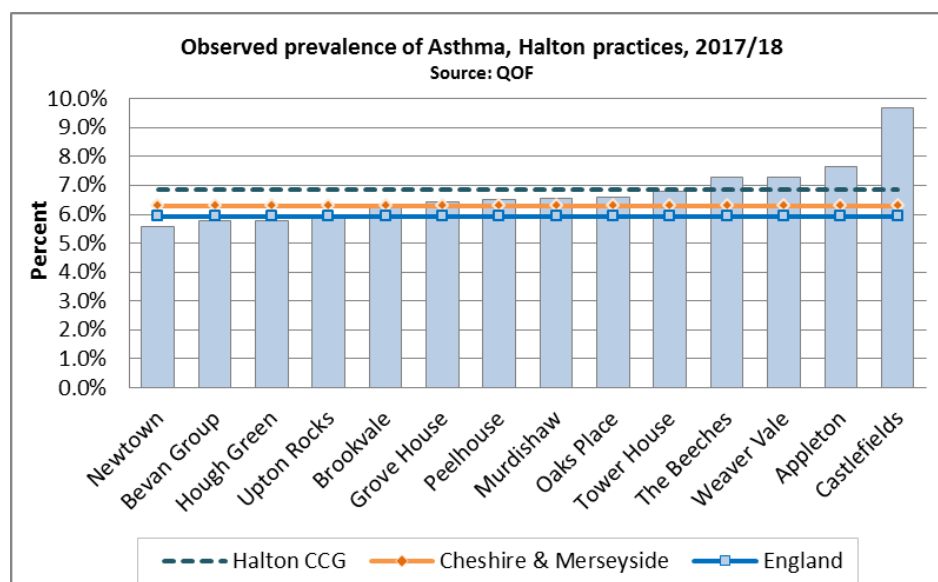
QOF data for 2017/18 indicates that 3,658 patients who are registered at GP practices in Halton have COPD, which is 2.8% of the registered population. Six out of the 14 practices in Halton have an observed prevalence

above the CCG average and all but 2 are above the England average.

Asthma

For 2017/18, the QOF data indicates that 8,977 people are registered as having asthma within the 14 GP practices in Halton. This means that 6.8% of the registered population have been diagnosed as having asthma.

Asthma Prevalence	
Halton CCG	6.8%
Cheshire & Merseyside	6.3%
North of England	6.4%
England	5.9%



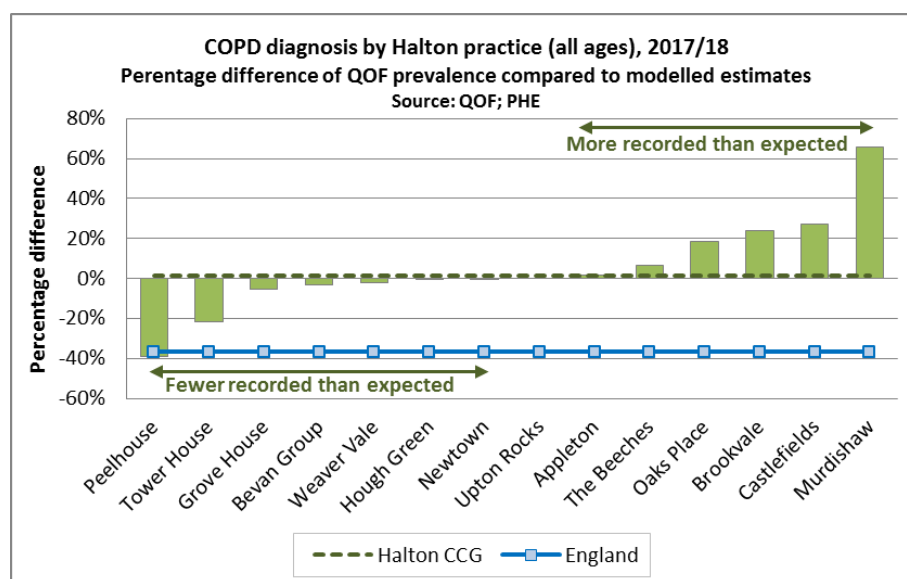
Four of the 14 practices have an observed prevalence above the CCG average and 10 above the England average.

Observed Against Expected Prevalence for COPD

It has been estimated that there are many more patients nationally with COPD who have not been diagnosed. To try to determine the total prevalence of disease a model has been developed by the Imperial College London, which has used data from the Clinical Practice Research Datalink for England.

Please see here for more information on how the estimates were calculated:

<https://fingertips.phe.org.uk/profile/prevalence>



The majority of practices in the borough have more people registered as having COPD than the model estimates.

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.

GP Management of people with COPD and Asthma

The tables below show the underlying achievement percentage and do not include exceptions.

“The QOF includes the concept of exception reporting. This has been introduced to allow practices to pursue the quality improvement agenda and not be penalised, where, for example, patients do not attend for review, or where a medication cannot be prescribed due to a contraindication or side-effect.”

COPD

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, oxygen saturation and an assessment of the level of breathlessness a patient is experiencing.

Achievement against COPD clinical indicators, 2017/18

Practice Code	Practice Name	COPD002	COPD003	COPD004	COPD005	COPD007
N81011	Bevan Group	94.5%	92.0%	87.4%	99.3%	98.1%
N81019	Castlefields	88.8%	93.5%	89.2%	99.3%	99.5%
N81035	Appleton	89.7%	95.4%	95.4%	100.0%	99.6%
N81037	The Beeches	69.4%	83.7%	80.5%	91.7%	81.7%
N81045	Peelhouse	94.2%	92.0%	76.7%	100.0%	97.5%
N81054	Weaver Vale	82.7%	91.8%	90.7%	96.9%	97.8%
N81057	Tower House	93.0%	90.4%	84.9%	95.2%	99.6%
N81064	Newtown	86.5%	87.1%	88.6%	98.2%	86.0%
N81066	Grove House	84.5%	90.2%	91.2%	98.9%	98.7%
N81072	Murdishaw	94.2%	93.8%	76.1%	95.7%	97.1%
N81096	Brookvale	87.8%	91.3%	85.2%	99.3%	100.0%
N81119	Hough Green	77.3%	65.1%	59.6%	97.8%	100.0%
N81619	Oaks Place	84.6%	91.5%	91.3%	97.6%	98.6%
N81651	Upton Rocks	100.0%	95.5%	97.1%	100.0%	100.0%
Halton CCG		88.2%	90.6%	85.8%	97.8%	96.8%
Cheshire & Merseyside		88.3%	90.4%	83.4%	97.0%	97.3%
North of England		89.1%	89.9%	85.8%	96.8%	97.5%
England		88.4%	89.7%	86.0%	96.6%	97.4%

COPD002: The percentage of all patients with COPD diagnosed after 1 April 2011 in whom the diagnosis has been confirmed by post bronchodilator spirometry 3 months before and 12 months after entering on to the register

COPD003: 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

COPD004: The percentage of patients with COPD with a record of FEV1 in the preceding 15 months

COPD005: The percentage of patients with COPD and Medical Research Council dyspnoea grade ≥ 3 at any time in the preceding 12 months, with a record of oxygen saturation value within the preceding 12 months

COPD007: The percentage of patients with COPD who have had influenza immunisation in the preceding 1 August to 31 March

Asthma

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, 2017/18

Practice Code	Practice Name	AST002	AST003	AST004
N81011	Bevan Group	89.8%	77.9%	88.0%
N81019	Castlefields	96.9%	76.9%	87.7%
N81035	Appleton	82.2%	71.8%	84.6%
N81037	The Beeches	78.7%	67.8%	81.0%
N81045	Peelhouse	86.4%	74.4%	88.9%
N81054	Weaver Vale	93.8%	72.0%	82.4%
N81057	Tower House	92.6%	71.8%	92.5%
N81064	Newtown	89.1%	80.8%	81.8%
N81066	Grove House	94.5%	71.2%	81.1%
N81072	Murdishaw	96.6%	80.0%	85.3%
N81096	Brookvale	84.4%	80.4%	100.0%
N81119	Hough Green	91.5%	66.1%	100.0%
N81619	Oaks Place	96.7%	76.4%	100.0%
N81651	Upton Rocks	93.2%	73.3%	92.3%
Halton CCG		90.6%	74.6%	87.9%
Cheshire & Merseyside		89.8%	75.7%	88.9%
North of England		89.1%	89.9%	85.8%
England		88.4%	89.7%	86.0%

AST002: The percentage of patients aged 8 or over with asthma (diagnosed on or after 1 April 2006), on the register, with measures of variability or reversibility recorded between 3 months before or any time after diagnosis

AST003: The percentage of patients with asthma, on the register, who have had an asthma review in the preceding 12 months that includes an assessment of asthma control using the 3 RCP questions

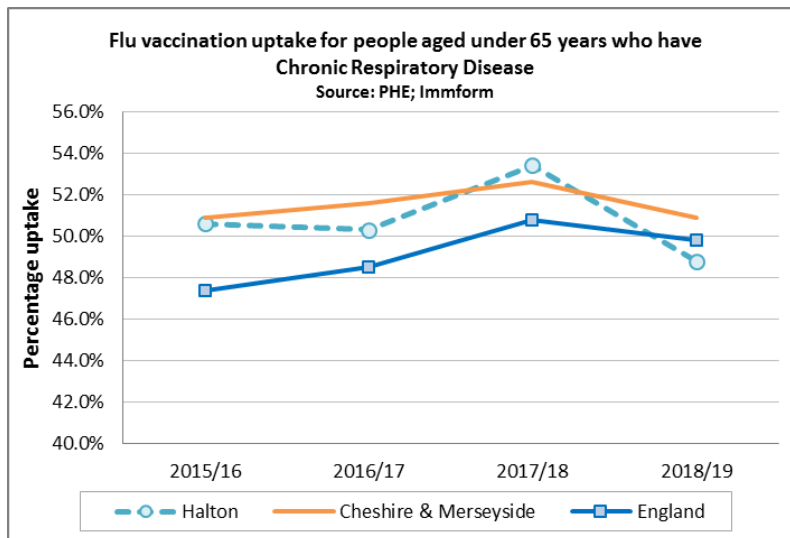
AST004: The percentage of patients with asthma aged 14 or over and who have not attained the age of 20, on the register, in whom there is a record of smoking status in the preceding 12 months

Flu vaccinations for Chronic Respiratory Disease

Each year during the flu season (1st September to 31st January) people aged under 65 who have chronic respiratory disease are offered the flu vaccine.

Chronic respiratory disease includes conditions such as asthma, COPD, cystic fibrosis and children who have been previously admitted to hospital due to lower respiratory tract infections.

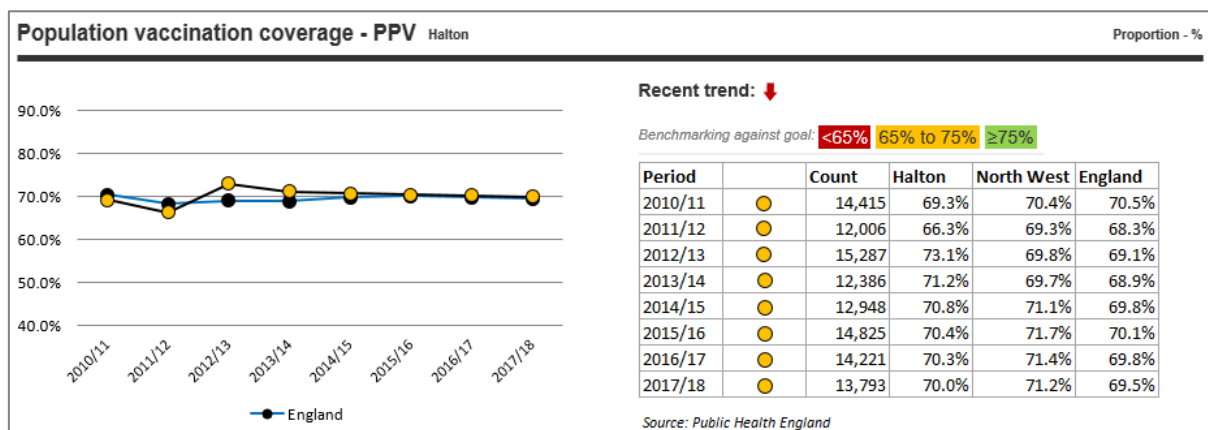
Flu vaccination uptake for people with Chronic Respiratory Disease



The Halton uptake decreased in 2018/19 and was lower than the Cheshire & Merseyside and England averages, despite being higher than both in 2017/18 and continually higher than the national average. However, one Halton practice didn't submit data for 2018/19.

Pneumococcal vaccinations for people aged 65+

Pneumococcal disease is a significant cause of morbidity and mortality. Pneumococcal infections can be non-invasive (such as bronchitis or middle ear infections), or invasive (such as septicaemia, pneumonia, meningitis). Cases of invasive pneumococcal infection usually peak in the winter during December and January.

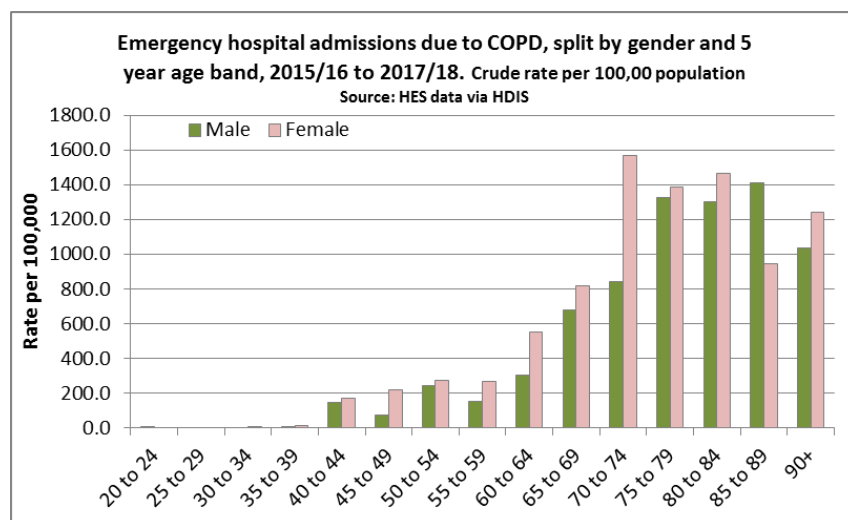


The pneumococcal vaccination coverage trend shows that, over recent years, the Halton percentage has been very similar to the England average. The coverage has also remained at a constant rate, around 70%.

Hospital Admissions due to COPD

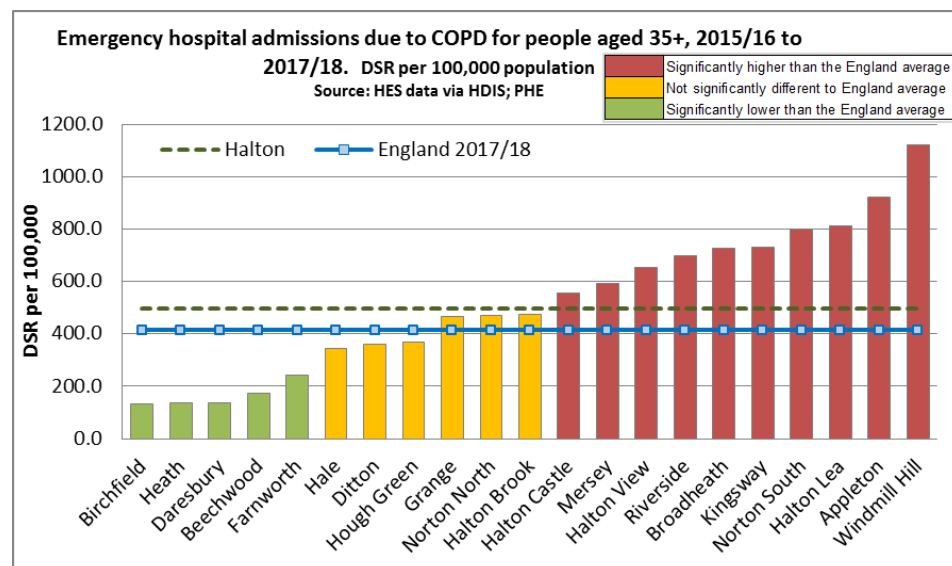
COPD is a rare condition before the age of 35. Most people who develop the condition are managed within primary care. As previous data in this profile has shown the vast majority of patients are managed within evidence-based national standards of practice.

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 2015/16 to 2017/18 shows, admissions rise from age 40 onwards for both males and females with admissions generally being higher for females than males.

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.



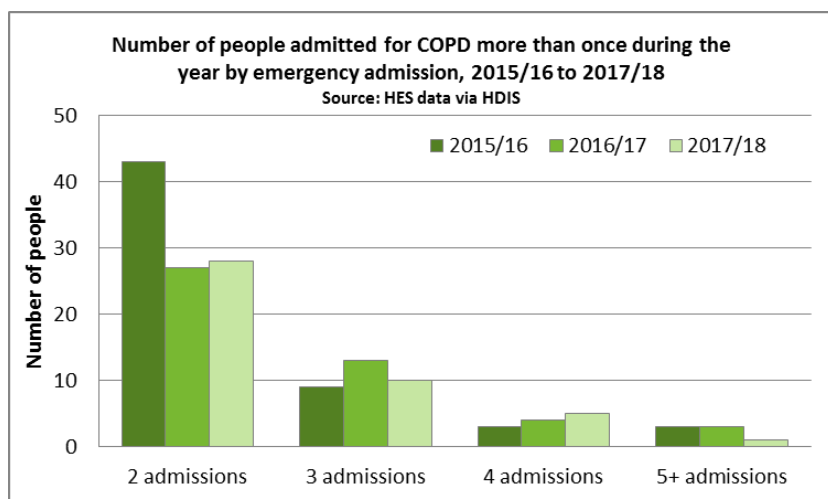
Ten Halton wards had a statistically significantly higher admission rate compared to the national average during 2015/16 to 2017/18.

‘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 (2003/04 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.



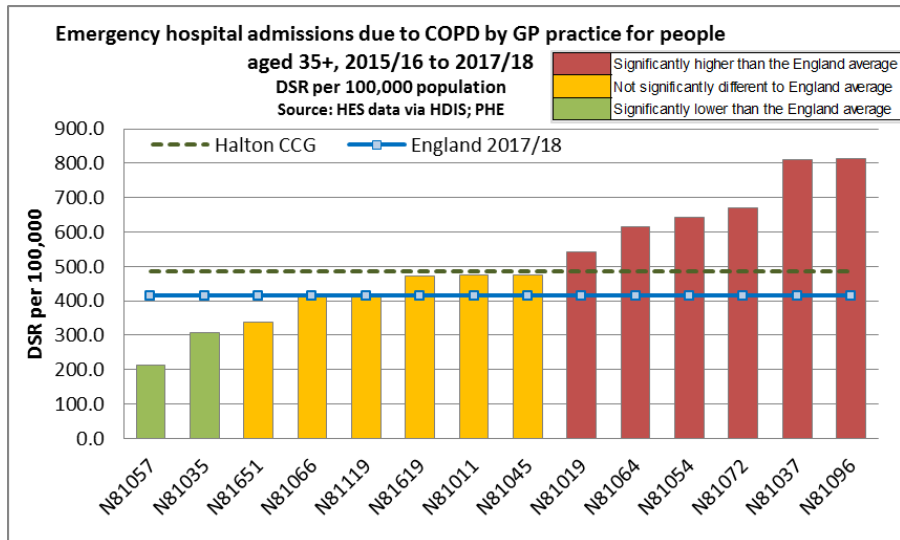
Local analysis shows that most people admitted on more than one occasion are admitted twice or three times during the financial year.

During 2015/16 to 2017/18 there were over 100 readmissions due to COPD, however, the number and percentage of total COPD admissions and readmissions has decreased.

	2015/16	2016/17	2017/18
Total number of admissions	354	360	311
Number of readmissions	141	132	111
Readmission percentage	39.8%	36.7%	35.7%

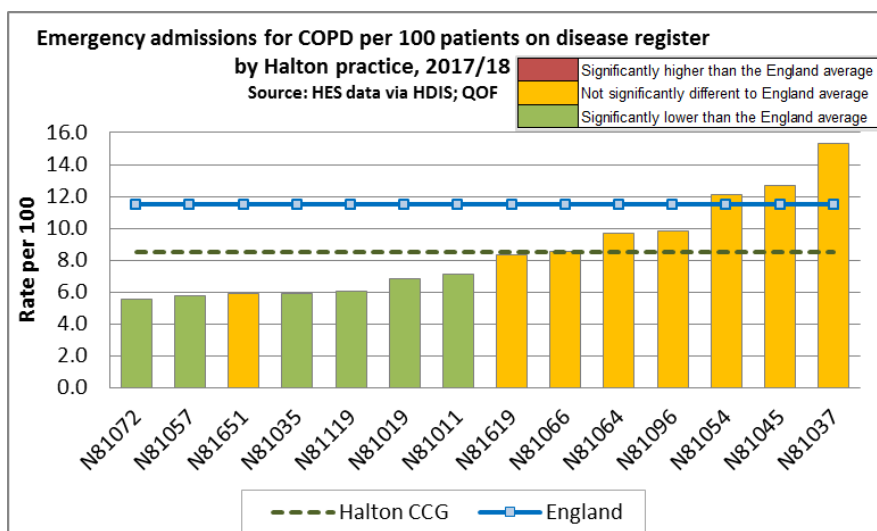
GP Practice Level Hospital Admissions for COPD

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 2015/16 to 2017/18 shows that 6 practices had a rate which was statistically significantly higher than the England rate. However, there were also 2 practices that had a significantly lower rate than the

national average. The Halton rate was also higher than the England rate, however, caution needs to be taken due to practices merging and closing during the past 3 years.



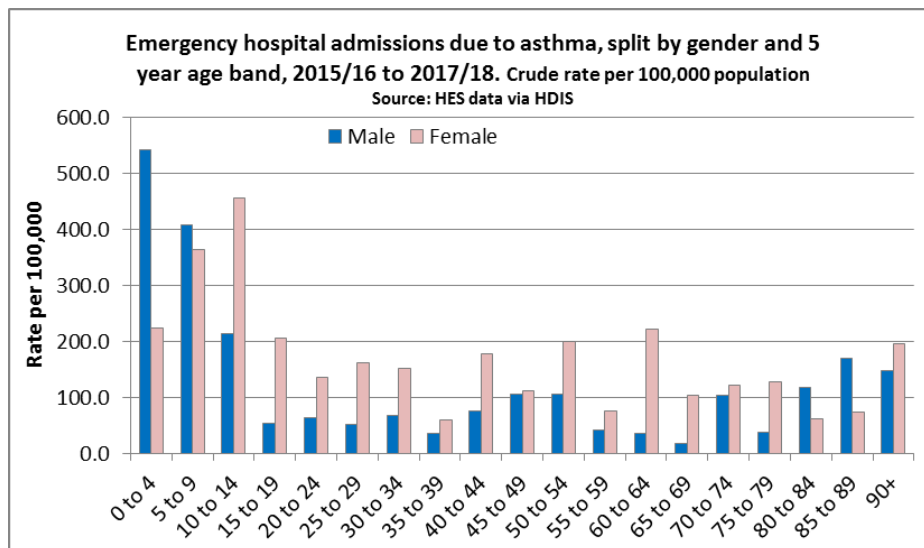
When comparing emergency hospital admissions to the number of people on the COPD register during 2017/18, the data shows that 6 practices had a significantly lower admission rate compared to the England average,

but none were significantly higher. The Halton rate was also significantly lower than the national average.

Hospital admissions due to asthma

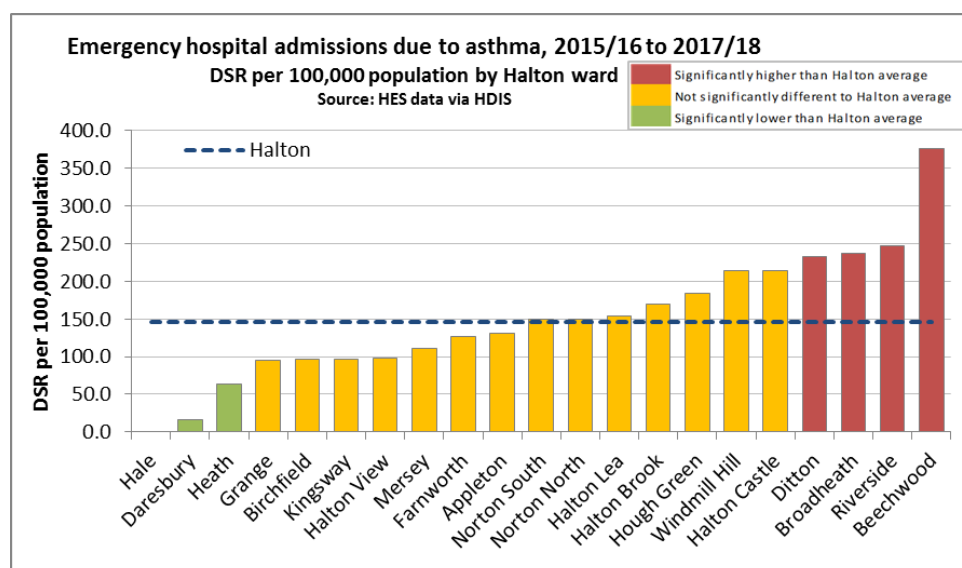
Unlike COPD, asthma is common in every age group. The majority of people who develop the condition are managed within primary care, as previous data in this profile has shown. However, for some, they will develop exacerbations of the condition or they may be undiagnosed. This can result in an emergency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

All ages



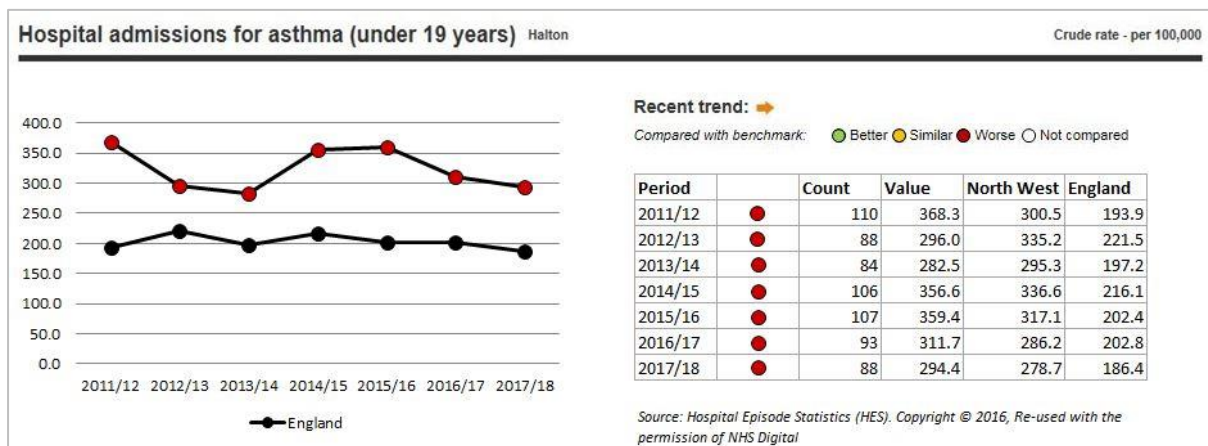
The data for 2010/11 to 2012/13 shows that the age band with the highest rate of admissions are males aged 0-9 years. However, females have a higher rate of admission than males for ages 10 to 19.

Four wards in Halton had a statistically significantly higher rate of emergency admissions compared to the borough; however, there were 2 wards that had a significantly lower rate.



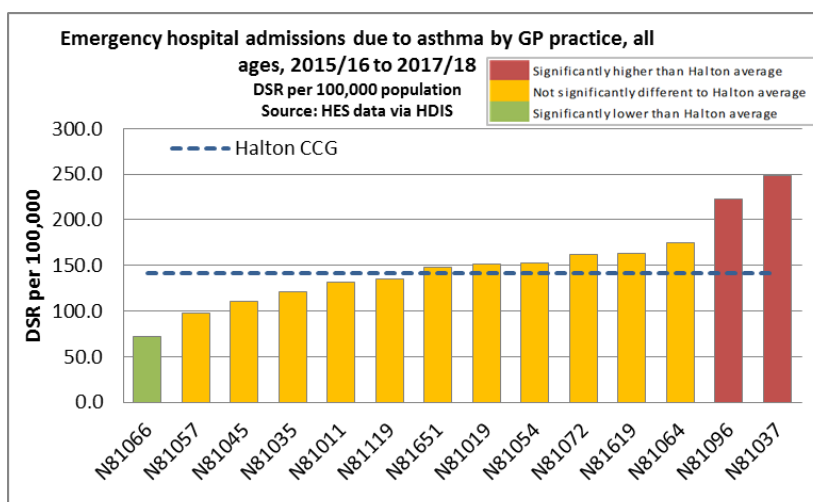
Under 19

Public Health England publishes the emergency admission rate at a national level for 0-18 year olds. The chart below shows that the Halton rate remains significantly worse than the national average, however, it has decreased since 2015/16.



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.



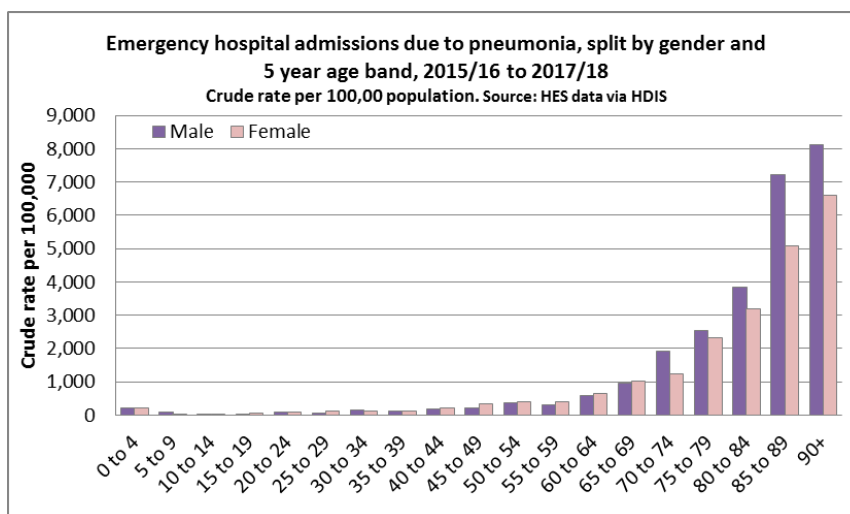
The data for 2015/16 to 2017/18, for all ages, shows that only one practice had an admission rate which was significantly lower than the CCG average. There were 2 practices which had a rate that was significantly higher than the CCG average.

Hospital admissions due to pneumonia

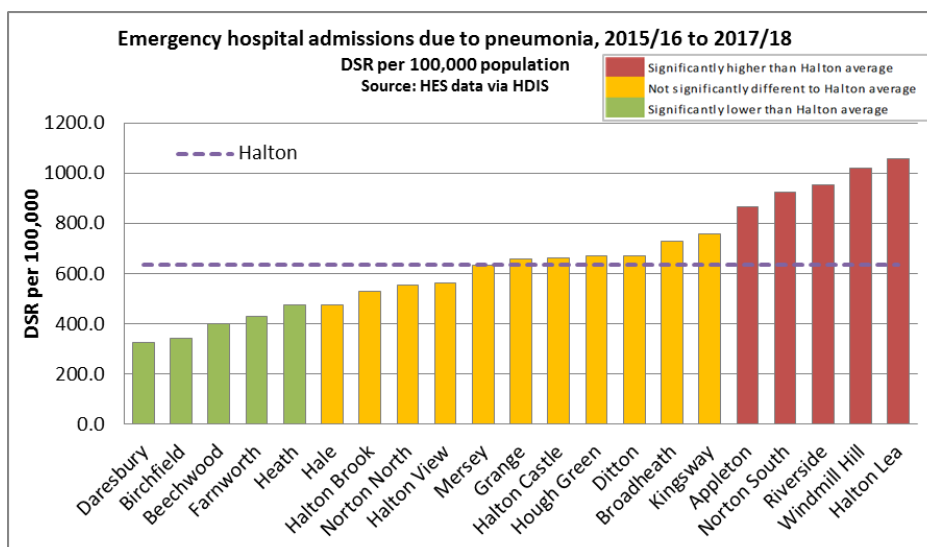
Pneumonia can affect people of any age; however, it is more common and can be more serious for:

- Babies, young children and the elderly
- People who smoke
- People with 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 2015/16 to 2017/18 shows that the rate of emergency admissions increases from 50 year of age onwards for both males and females. However, the admission rate increases sharply from age 70, especially for males.



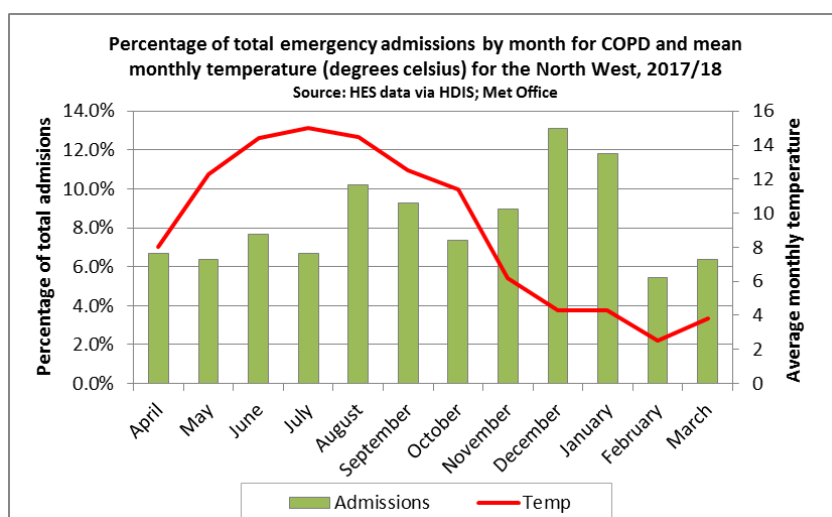
Five wards in Halton had a statistically significantly worse admission rate than the borough during 2015/16 to 2017/18. There were also 5 which had a significantly better admission rate.

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.

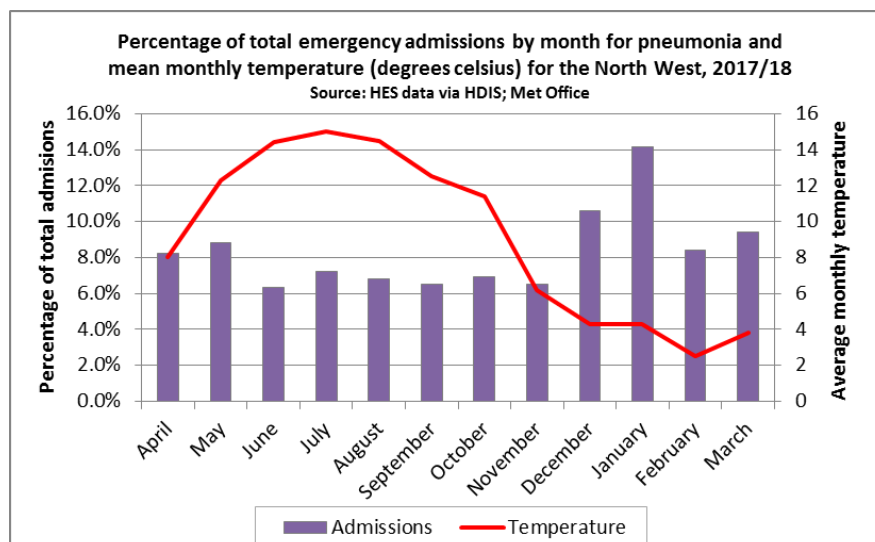
There is good evidence that cold houses increase mortality across all social classes. Indoor temperatures, as well as outdoor temperatures, are related to increased risk of exacerbations and extra respiratory deaths.

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 2017/18, the highest number of admissions were in December and January, which were 2 of the coldest months. However, in February and March, when the temperature was the coldest, there were the least number of admissions.

For pneumonia, the highest numbers of admissions were again seen in December and January, when the temperature averaged around 4 degrees.

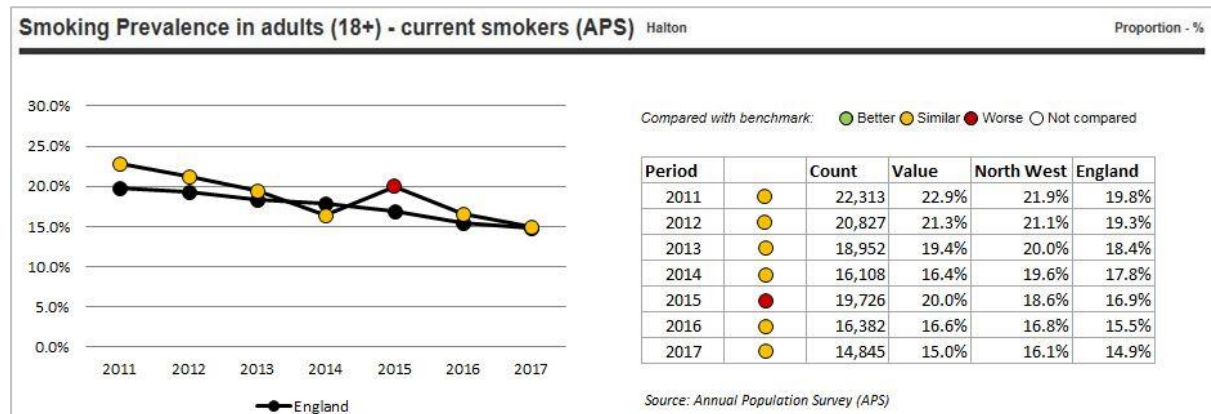


Smoking

Prevalence

The Annual Population Survey estimates that 15% of adults (aged 18+) are current smokers, which is the same as the England percentage (14.9%) and lower than the North West average (16.1%).

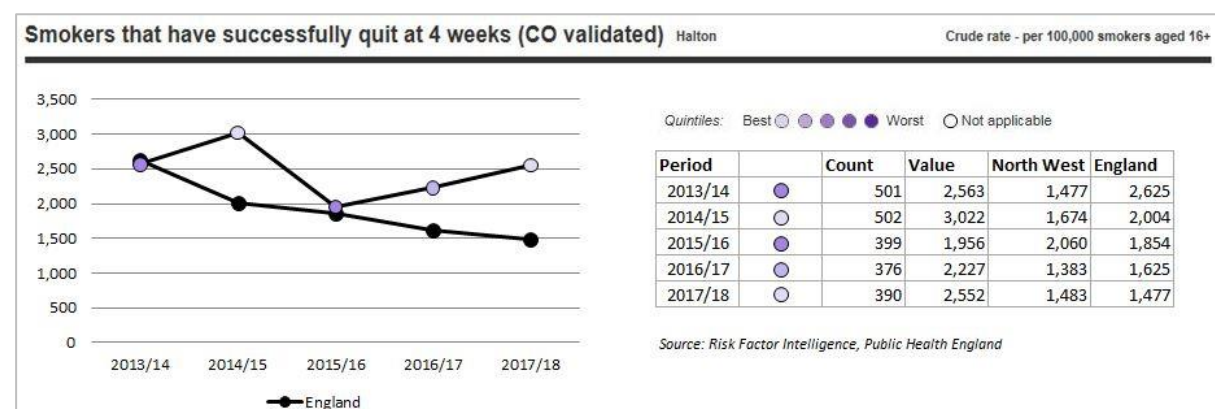
The Halton percentage in 2017/18 was the 8th lowest in the North West (out of 23 local authorities).



Smoking Cessation Services

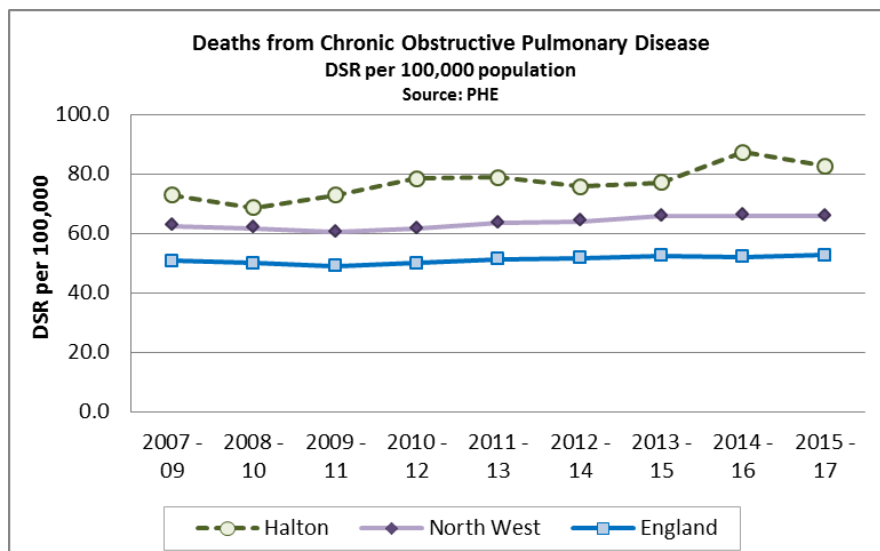
The chart below shows the Carbon Monoxide validated quit rate at 4 weeks per 100,000 smokers aged 16+.

The Halton rate has fluctuated since 2013/14, however in 2017/18 it was higher than the North West and England average. It was also the 6th highest quit rate in the North West during 2017/18.



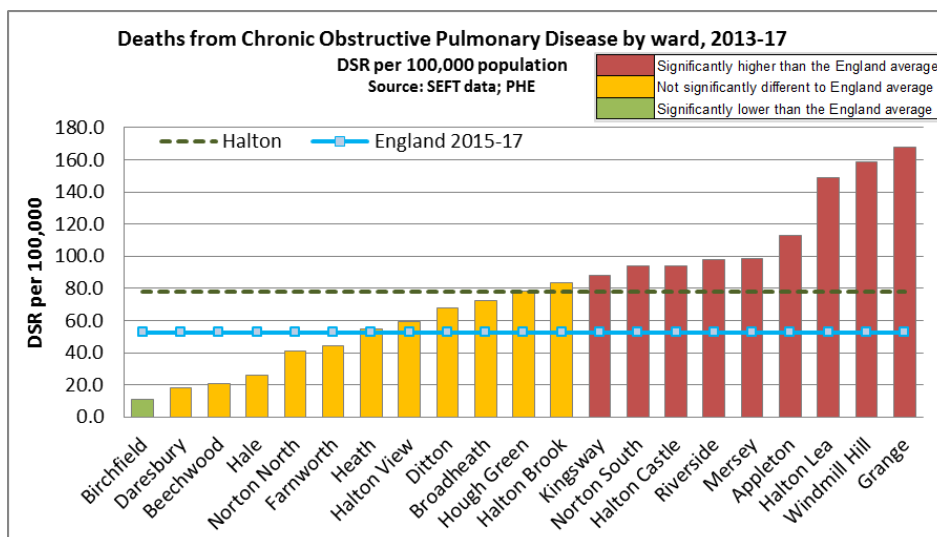
Deaths due to COPD

Death rates due to COPD have, overall, increased in Halton since 2007-09; and they still remain significantly higher than the rates for England and the North West.



Halton rates have fluctuated over recent years but did increase to the highest it had been since 2007-09, however the rate did decrease in 2015-17.

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.

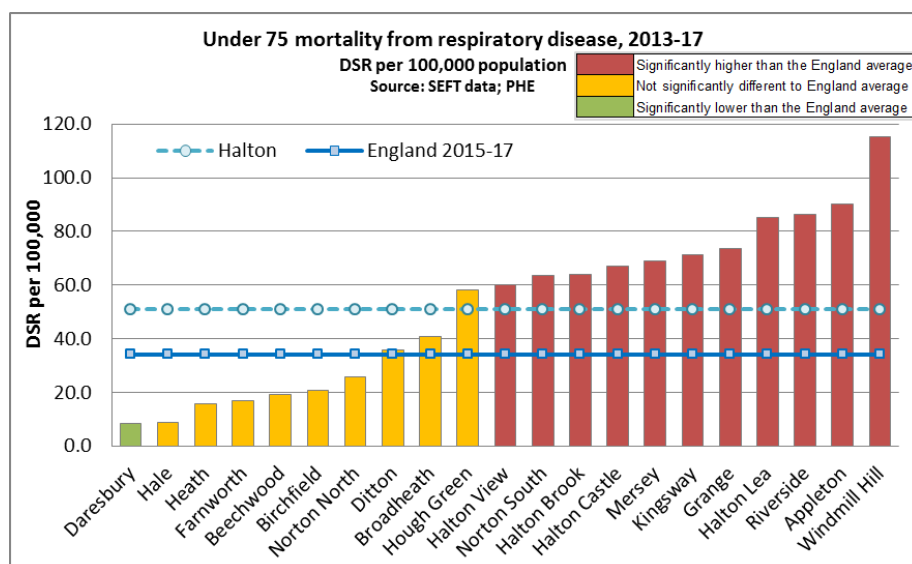
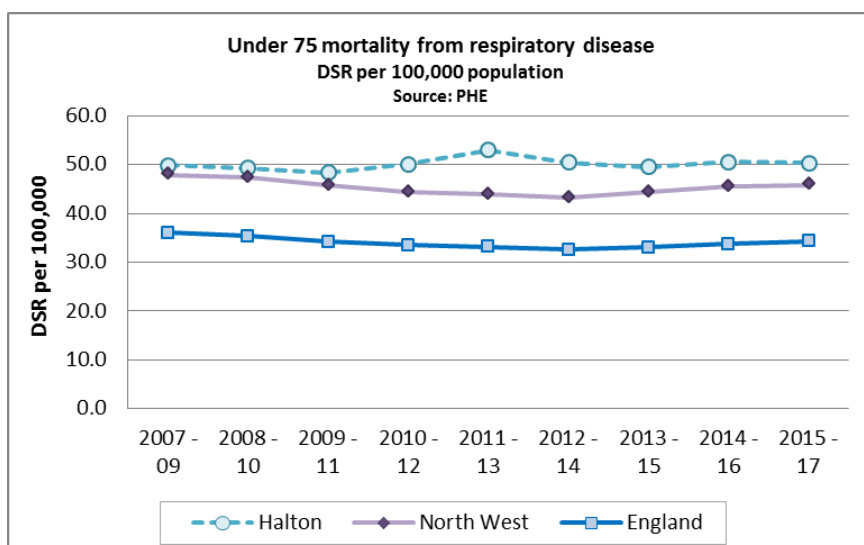


The data shows that there were 5 wards which had a mortality rate that was statistically significantly higher than the borough rate. However, there were 6 wards that had a rate which was significantly lower.

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.

In 2011-13 the Halton rate increased slightly, but since 2012-14 the rate has remained steady at around 50 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.



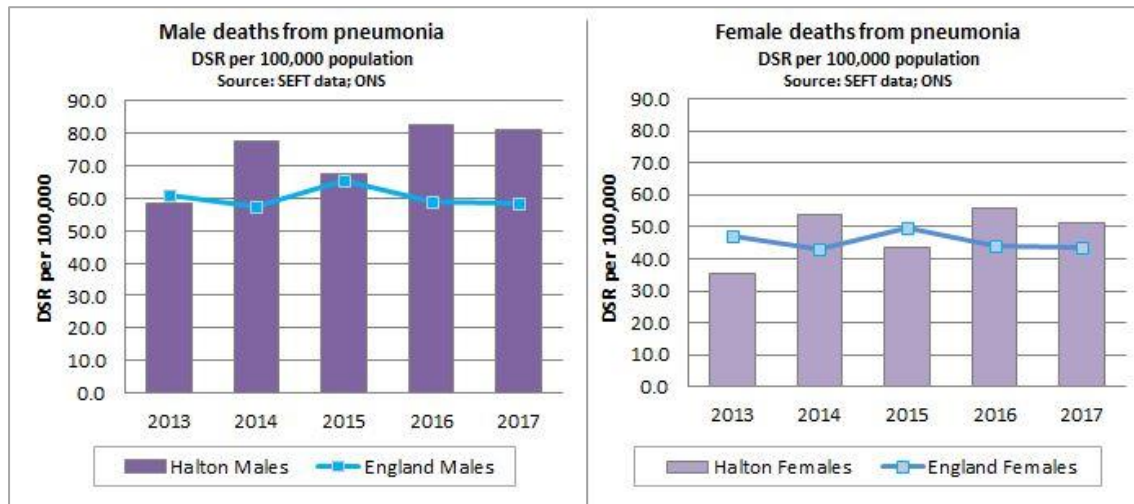
Local data shows that 11 Halton wards had a statistically significantly higher under 75 death rate than the England average during 2013-17. The highest rate was seen in Windmill Hill.

There was only one ward that had a death rate that was significantly lower than the borough rate, this was Daresbury.

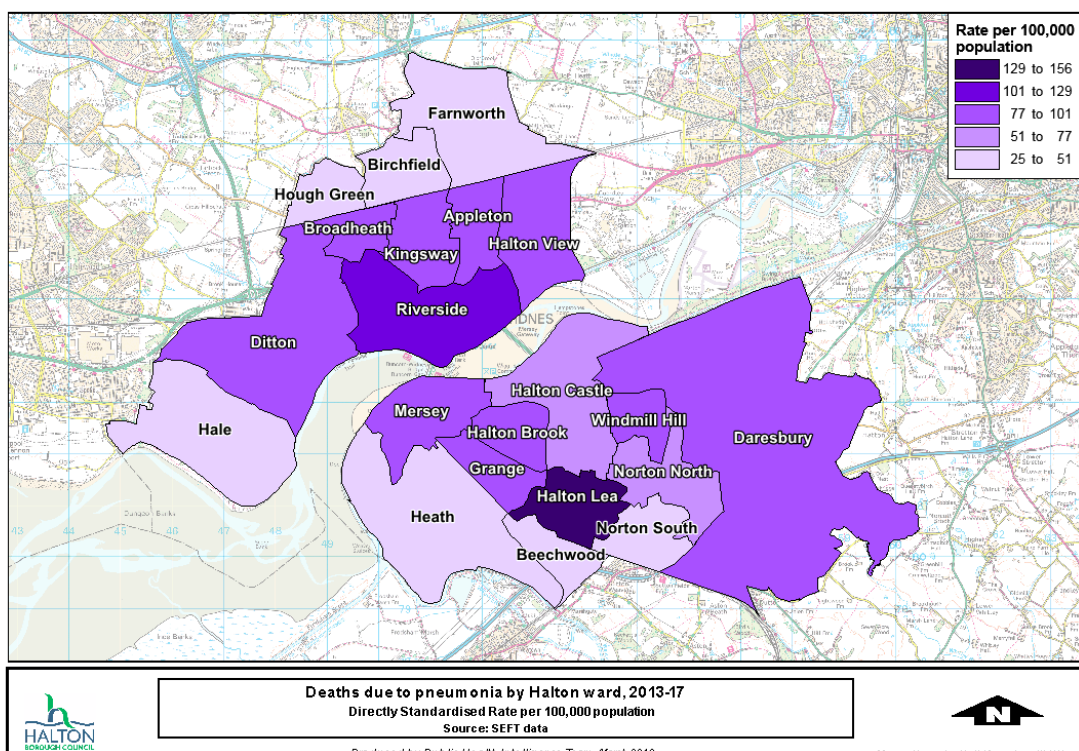
Deaths due to Pneumonia

Deaths rates due to pneumonia have fluctuated since 2013 for both Halton and England, and overall, mortality rates are higher for males compared to females.

The rate for males was similar to England during 2013 and 2015, whereas the female rate was similar to England during those years. However, they were higher in 2014, 2016 and 2017.



The local data shows that one ward had a statistically significantly higher death rate due to pneumonia than the borough during 2013-17 (Halton Lea), and one was significantly lower (Heath).

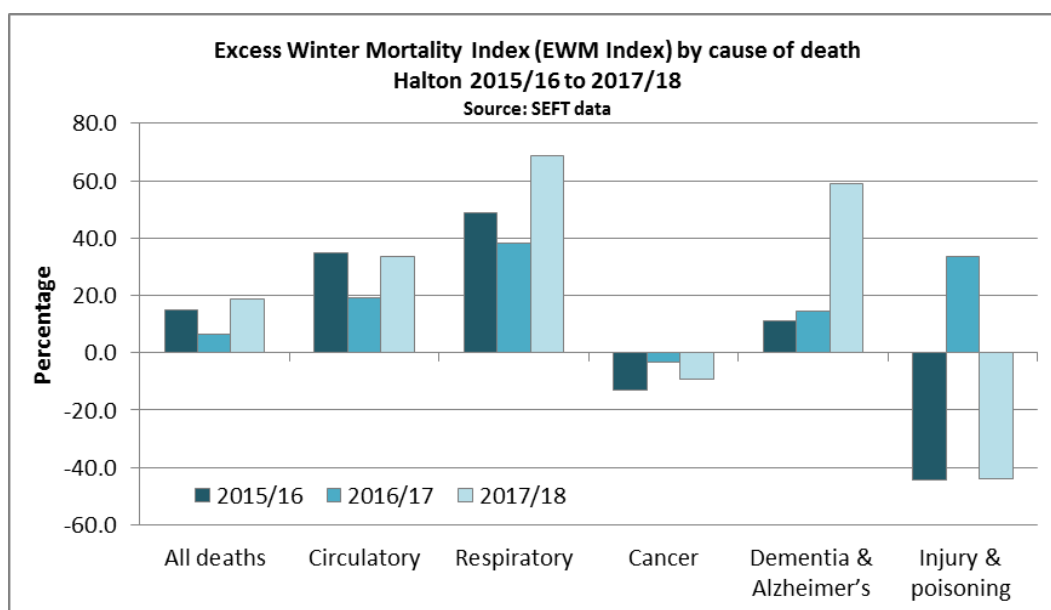


Excess Winter Deaths

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, Dementia & Alzheimer's and injuries (predominantly in the form of falls).

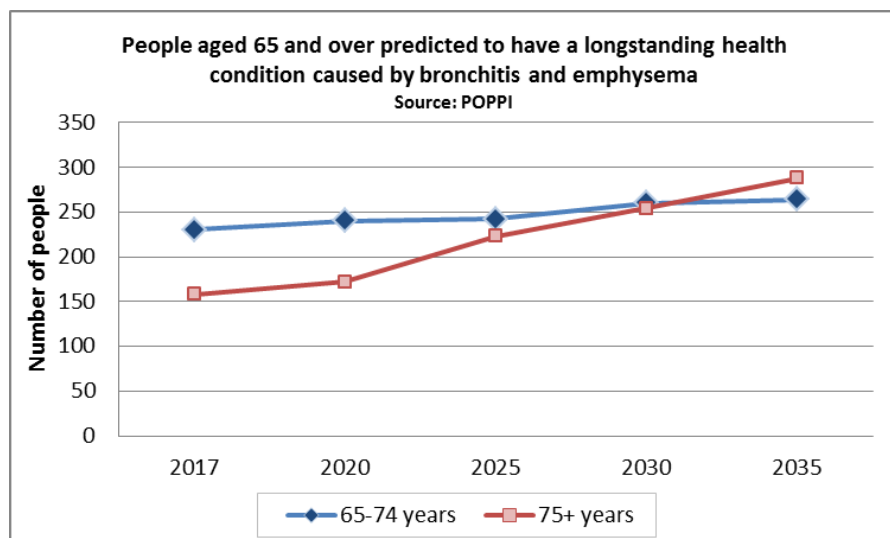
Overall, in Halton, respiratory diseases rise the most during the winter months, giving a greater percentage difference i.e. a greater excess winter death rate.



Future Estimates – bronchitis & emphysema in ages 65+

Estimations have been calculated for the number of people predicted to have a longstanding health condition caused by bronchitis and emphysema. It was estimated that 388 people over the age of 65 were affected by this in 2017, and that the number will rise to 553 by 2035.

By 2030 it is estimated that there will be a similar number of people aged 65-74 and 75+ who are affected, and by 2035 the number of people aged 75+ will exceed the affected number of people aged 65-74 years.



Data Sources used in developing this profile

NHS Digital: QOF data % GP populations

Office of National Statistics (ONS): resident population estimates and mortality rates

PHE fingertips tool: pneumococcal vaccination coverage, disease prevalence, hospital admission and mortality rates

Public Health England: flu vaccination uptake

HES data via HDIS: hospital admissions data

Mortality data via SEFT: detail on the cause of deaths of residents

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

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

Projecting Older People Population Information (POPPI): future estimates

Produced by Public Health Intelligence Team - health.intelligence@halton.gov.uk