Chapter 7: Strengthen the Role & Impact of Ill Health Prevention
Respiratory Diseases

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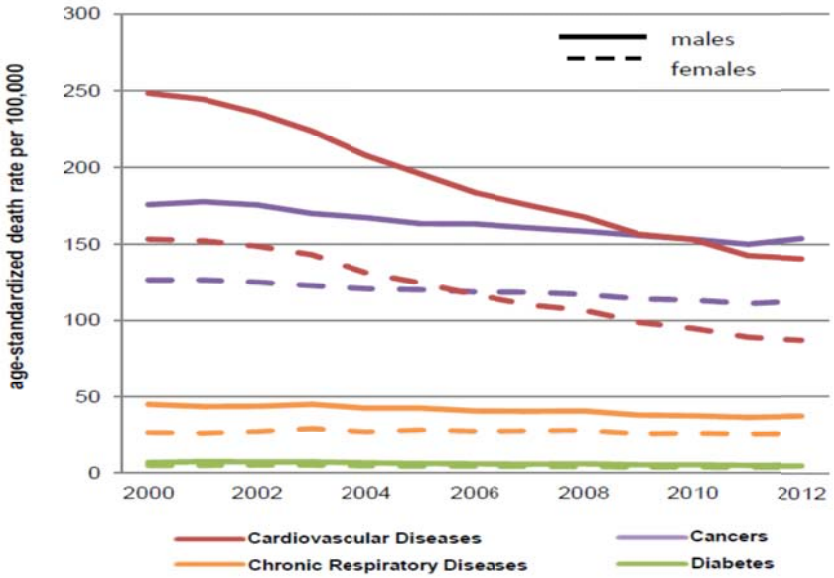
Respiratory disease overview

In the United Kingdom (UK), non-communicable diseases are reported to account for 89% of deaths. Chronic respiratory diseases are the third leading cause of death, after cardiovascular disease and cancer, and accounts for 8% of all deaths (across both sexes and all ages). [1]
COPD and Asthma are both chronic conditions that contribute to the burden of respiratory diseases.

Figure 1. Age standardised deaths in the UK



Source: World Health Organisation

Premature mortality

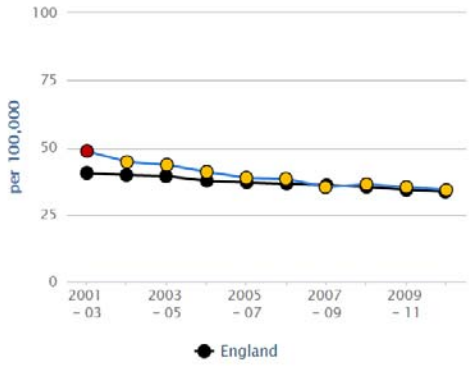
Reducing premature mortality from the major causes of death, including respiratory disease is a major objective for Public Health and the NHS. Subsequently this measure is used as an indicator in both the NHS and Public Health Outcomes Framework[2].

[1] http://www.who.int/nmh/countries/gbr_en.pdf?ua=1

[2] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/256457/At_a_glance_NHS_OF.pdf

The premature respiratory mortality rate (age < 75 years) in Ealing has significantly decreased over the last decade (figure 2). The premature respiratory directly standardised mortality rate (2010-2012) in Ealing was 34.2 per 100,000; this is not significantly different to the England rate.

Figure 2. Under 75 directly age standardised mortality rate from respiratory disease per 100,000 persons, 2001-02 to 2010-12, in Ealing and England



Period	Sig	Count	Value	Lower CI	Upper CI	London	England
2001 - 03		252	48.7	42.7	55.2	-	40.5
2002 - 04		234	44.6	39.0	50.9	-	39.8
2003 - 05		227	43.5	38.0	49.7	-	39.4
2004 - 06		215	41.0	35.6	46.9	-	37.6
2005 - 07		203	38.7	33.5	44.5	-	37.1
2006 - 08		209	38.4	33.3	44.1	-	36.5
2007 - 09		197	35.2	30.4	40.6	-	36.0
2008 - 10		207	36.4	31.5	41.8	-	35.3
2009 - 11		199	35.3	30.5	40.7	-	34.2
2010 - 12		194	34.2	29.5	39.5	-	33.5

Source: Public Health England (based on ONS source data)

Source: Public Health England

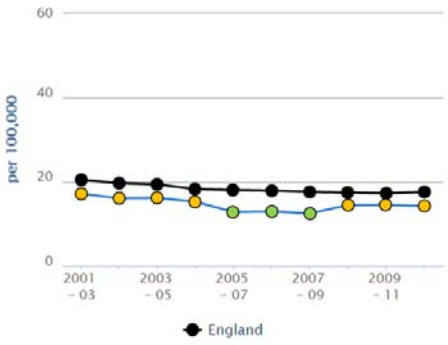
Preventable premature mortality

Smoking contributes as a major risk factor to developing COPD, which in turn contributes to the respiratory burden of disease and mortality rates. Public health interventions, such as stop smoking services, contribute to reducing the smoking prevalence and burden of respiratory disease.

The premature mortality rate for respiratory diseases considered *preventable* (i.e. could be avoided by public health interventions) in Ealing in 2010-12 was 14.2 per 100,000 which is comparable to England (17.6 per 100,000); this measure has showed a downward trend over the last decade (figure 3), but not significantly so.

This trend may reflect improvements in public health eg smoking prevalence reduction, nevertheless there is still a large proportion of premature respiratory deaths which are in fact preventable.

Figure 3. Under 75 directly age standardised mortality rate from preventable respiratory disease per 100,000 person, 2001-03 to 2010-12 in Ealing and England



Period	Sig	Count	Value	Lower CI	Upper CI	London	England
2001 - 03		84	17.1	13.6	21.2	-	20.4
2002 - 04		81	16.1	12.7	20.0	-	19.7
2003 - 05		83	16.1	12.8	20.1	-	19.4
2004 - 06		79	15.2	12.0	19.0	-	18.2
2005 - 07		66	12.8	9.9	16.3	-	18.0
2006 - 08		67	12.9	10.0	16.4	-	17.9
2007 - 09		67	12.4	9.6	15.8	-	17.6
2008 - 10		80	14.4	11.4	18.0	-	17.4
2009 - 11		81	14.5	11.5	18.1	-	17.2
2010 - 12		79	14.2	11.2	17.8	-	17.6

Source: Public Health England (based on ONS source data)

Source: Public Health England

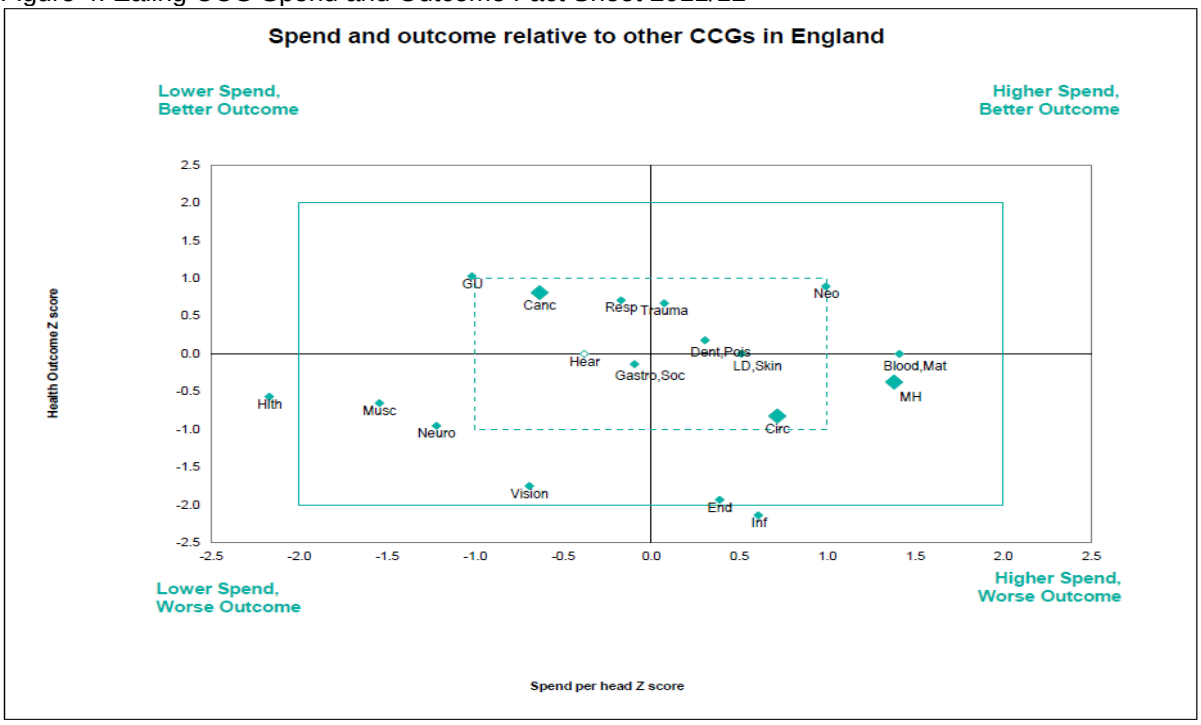
Expenditure on respiratory diseases

The spend and outcome matrix (figure 4) placed Ealing in the 'low spend better outcome quadrant.'

Ealing spent £82 per head of population on respiratory diseases (including COPD) in 2011/12. The average spend was £80 for London and £84 for England.

In 2012/13 Ealing spent £4,693,700 on respiratory disease care. Most of the expenditure was non-elective inpatient care (46%). £799,000 in particular was spent on COPD and £1,048,400 on Asthma related care.[3]

Figure 4: Ealing CCG Spend and Outcome Fact Sheet 2011/12



Source: Public Health England

[3] NHS England: Programme Budgeting Benchmarking Tool

Chronic Obstructive Pulmonary Disease (COPD)

The overarching vision for Ealing is to reduce health inequalities and improve health outcomes for patients with COPD.

Introduction

Chronic obstructive pulmonary disease (COPD) is a disease of the lungs that involves gradual airflow obstruction. COPD is a progressive condition which is treatable but, unlike asthma, not fully reversible. In the early stages of COPD people are largely symptom free but as lung function declines patients may develop breathlessness, cough, sputum and chest tightness. COPD can consequently impair quality of life and can also be life threatening.

COPD is an insidious condition and up to two thirds of people living with COPD are undiagnosed.

Smoking is the main known risk factor for COPD which most commonly affects people over the age of 35 who are, or have been, heavy smokers[4]. Occasionally COPD is linked with air pollution and occupational hazards from dusts, gases and chemicals.

The majority of people with COPD present in their fifties. Health inequalities exist with higher COPD rates in men, black ethnic groups, older age groups and more disadvantaged communities.

COPD is an important condition as it is the fifth biggest killer disease in England, killing approximately 25,000 people each year[5]. The COPD rates of premature death (< age 75) remain significantly higher in the UK than the EU-15 average in 2010.[6]

The total annual direct NHS costs of COPD to the NHS are estimated to be over £800 million, which equates to £1.3 million per 100,000 people, much of this related to the one million annual in patient bed days.

The NICE clinical guideline on diagnosis, treatment and care of adults with COPD from 2010 (CG 101) has not been updated after review in 2014[7]. The guidelines and recommendations focus upon diagnosing COPD, managing stable COPD and management of exacerbations of COPD.

To support this guidance NICE has more recently issued a costing template[8], NICE quality standards[9] (QS10) and commissioning guidance (CMG43)[10].

[4] WHO http://www.who.int/respiratory/copd/causes/en/
[5] http://www.england.nhs.uk/ourwork/sop/red-prem-mort/rd/
[6] The Lancet, Volume 381, Issue 9871, Pages 997 - 1020, 23 March 2013, Murray et al
[7] http://www.nice.org.uk/guidance/CG101
[8] Costing tools issue date: February 2011 available online at www.nice.org.uk/guidance/CG101

Prevalence of COPD in Ealing

Ealing has a lower recorded (observed) prevalence of COPD (0.81%), than London (1.09%) and England (1.74%) (table 1). There are number of factors which may contribute to this finding: (i) Ealing has a relatively younger population and the recorded prevalence is based upon primary care QOF data which is not age standardised (ii) under recording of diagnosis (iii) underdiagnoses of COPD.

It is widely acknowledged that there is an underdiagnoses of COPD nationally. Therefore a modelled (expected) prevalence can be used to provide an estimate of the true proportion of people living with COPD. The recorded vs modelled prevalence ratio provides a measure of unmet need. This ratio is less in Ealing (0.30) than London (0.35) and England (0.56) which suggests Ealing has a greater proportion of undiagnosed people living with COPD (table 1).

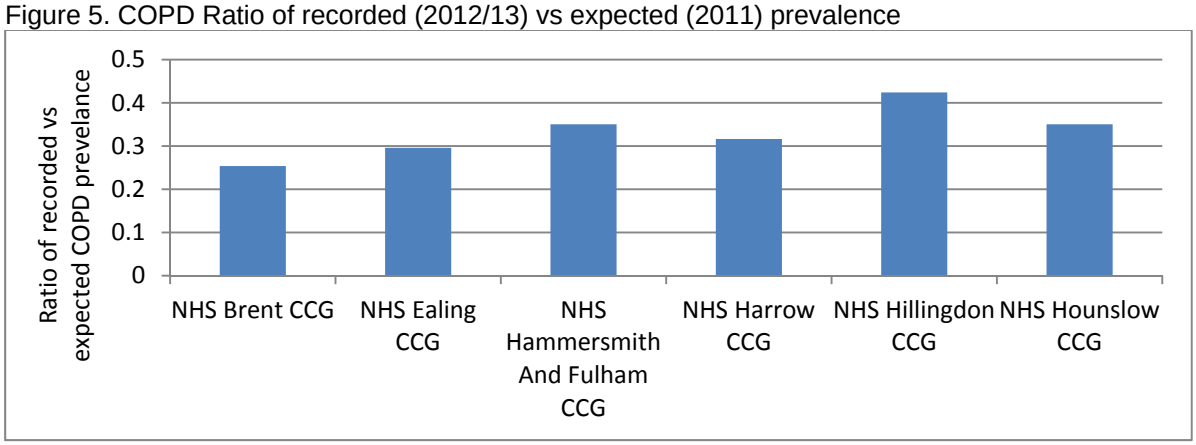
Table 1: COPD GP recorded and modelled prevalence rates, Ealing, London and England, 2012/13 and 2011.

Area	Recorded Prevalence (2012/13)	Modelled Prevalence (2011)	Ratio (recorded vs modelled prevalence) (2011)
Ealing	0.81%	2.75%	0.30
London	1.09%	2.96%	0.35
England	1.74%	2.91%	0.56

Source: NHS Indicators Portal

It can be estimated that 70% of people living with COPD remain undiagnosed in Ealing. Comparing across North West London (figure 5), Ealing has a lower ratio of observed vs modelled COPD prevalence which suggests that there are a higher proportion of people living with undiagnosed COPD in Ealing than in most other NWL boroughs.

Figure 5. COPD Ratio of recorded (2012/13) vs expected (2011) prevalence



Source: National General Practice Profiles, Public Health England.

[9] http://www.nice.org.uk/guidance/QS10/chapter/introduction-and-overview

[10] http://www.nice.org.uk/guidance/CMG43/chapter/1-commissioning-services-for-people-with-chronic-obstructive-pulmonary-disease

High levels of underdiagnosed COPD exist due to a number of reasons including people not recognising the gradual onset of symptoms, thinking it is normal to have a cough and be short of breath or putting the symptoms down to smoking. Doctors may also treat the symptoms but not diagnose the underlying disease. Spirometry is a key investigation to diagnosing COPD accurately.

Under diagnosed COPD, although not confined to just people with mild disease, may lead to late diagnosis and subsequent poorer health outcomes and quality of life outcomes due to a more rapid decline in lung function.

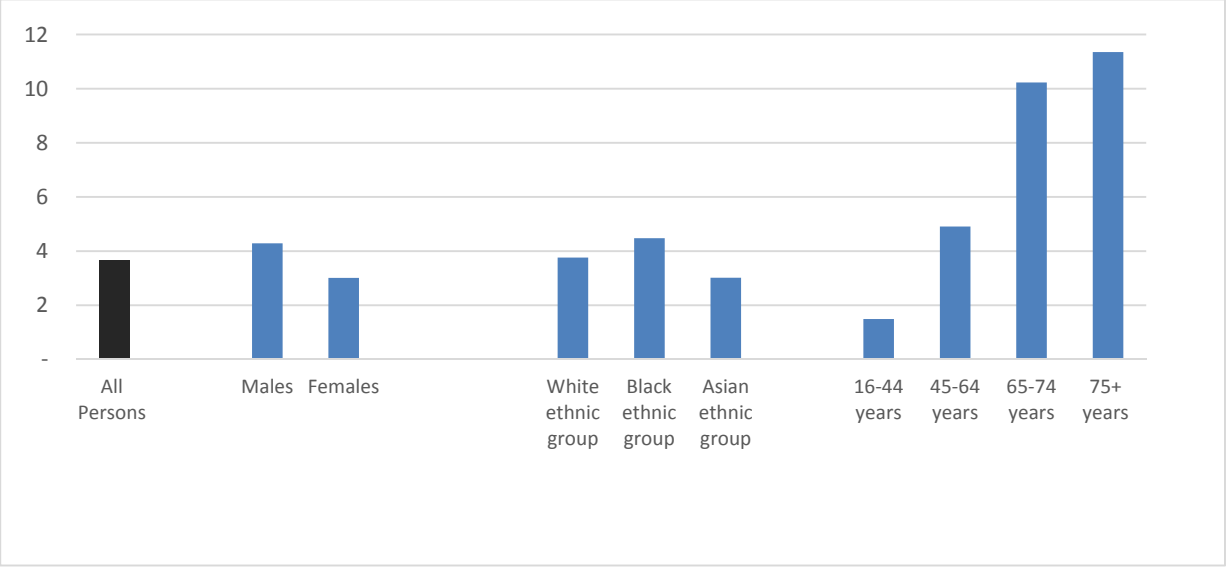
Health inequalities

A number of different and interacting factors shape an individual's health and wellbeing. Smoking is a main risk factor for developing COPD. Other risk factors include atmospheric pollution, and occupational exposures. The exposure to different factors and risks contributes to health inequalities seen at a population level.

The following health inequalities are reported for COPD:

- The modelled prevalence for COPD is higher in males, black ethnic group and older age groups (figure 6).
- Men aged 20-64 employed in unskilled manual occupations are fourteen times more likely to die from COPD than men in professional roles.
- Routine and manual occupational group represent almost half of people living with COPD.
- Overall incidence, levels of COPD underdiagnoses and mortality rates from respiratory disease are higher in disadvantaged groups and areas.

Figure 6. Modelled estimates of COPD prevalence (%) in Ealing by gender, ethnic group and age (2011)



Source: www.apho.org.uk/diseaseprevalencemodels

Morbidity and Mortality

COPD Hospital Admissions

COPD patients may experience flare-ups or acute exacerbations which may consequently lead to hospital admission.

However, a hospital admission for a COPD patient should be regarded as a major adverse outcome. There is a high mortality reported with admission, with 1 in 12 patients dying during admission, and 1 in 6 dying within 3 months[11].

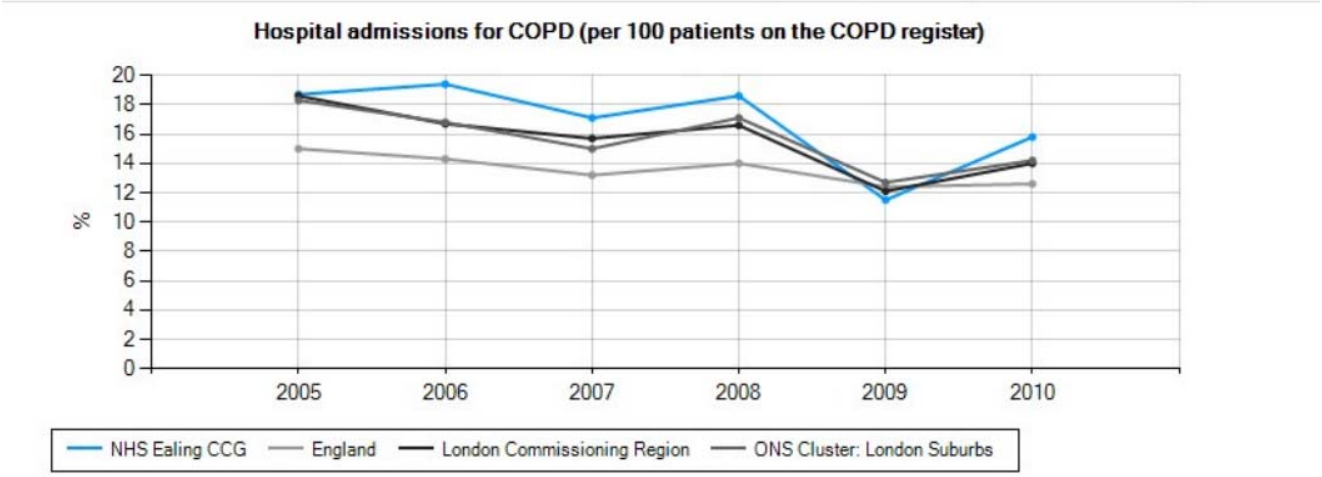
In England it is reported that COPD is the second most common cause of emergency admissions to hospital and 30% of those admitted with COPD for the first time will be readmitted within 3 months.

Variation in COPD prevalence, case mix, population characteristics, access to and quality of health care may contribute to the variation in hospital admission rates across England.

A large proportion of COPD patients have comorbidities such as heart disease (40%), diabetes (10%) and depression and/or anxiety. The cost and complexity of care increases with the number of comorbid conditions.

The overall trend for hospital admission rates for COPD per 100 patients on the COPD disease register, is decreasing. Nevertheless, Ealing has had higher hospital admissions rates for COPD patients than England or London (figure 7).
A number of factors may contribute to variation in admission rates including (i) effectiveness of primary and community care (ii) thresholds for hospital admission (iii) variation in referral patterns.

Figure 7. Hospital admissions for COPD (per 100 patients on the COPD register)

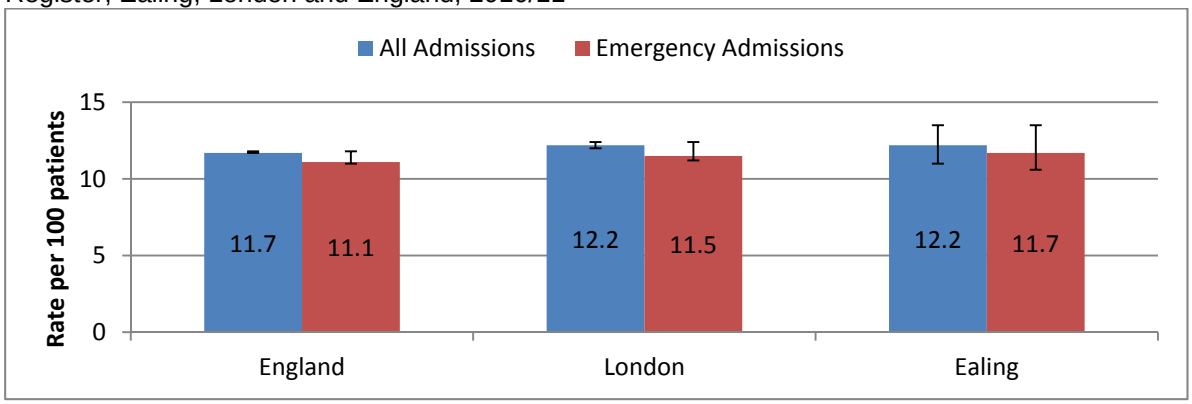


Source: INHALE

[11] file:///C:/Users/RKS/Downloads/rc_RespiratoryDisease-HIGH_160912.pdf

In 2010/11 there were 386 COPD inpatient admissions among Ealing GP registered patients. The vast majority of these COPD admissions were unscheduled emergency admissions (96%). Overall Ealing's admission rates were not significantly different from London and England (Figure 8).

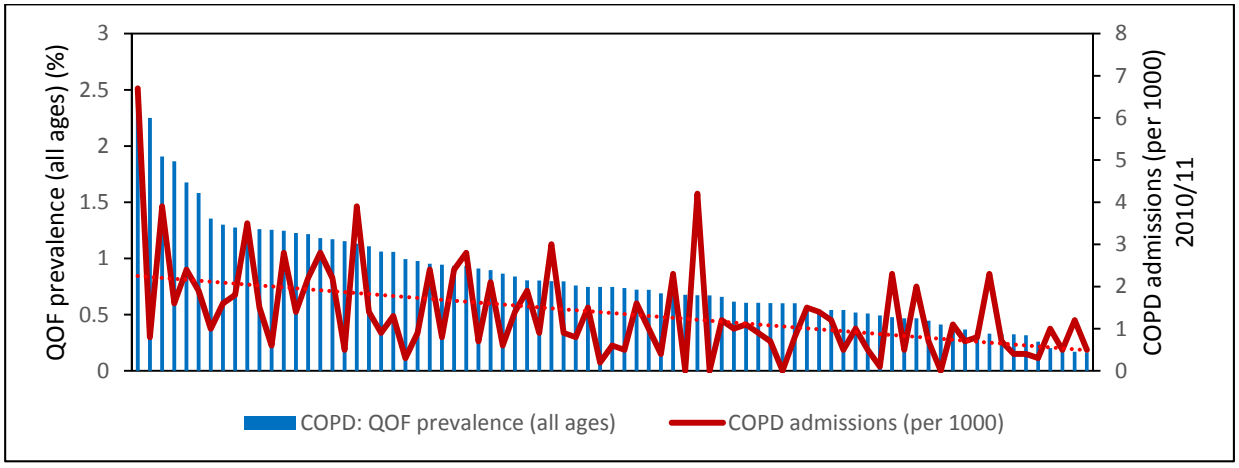
Figure 8: All Admissions and Emergency COPD Admission rates per 100 Patients on Disease Register, Ealing, London and England, 2010/11



Source: NHS Indicators Portal

Figure 9, below, show that there is wide variation of registered COPD prevalence and hospital admissions across Ealing by general practices.

Figure 9: COPD prevalence and admissions by Ealing practices

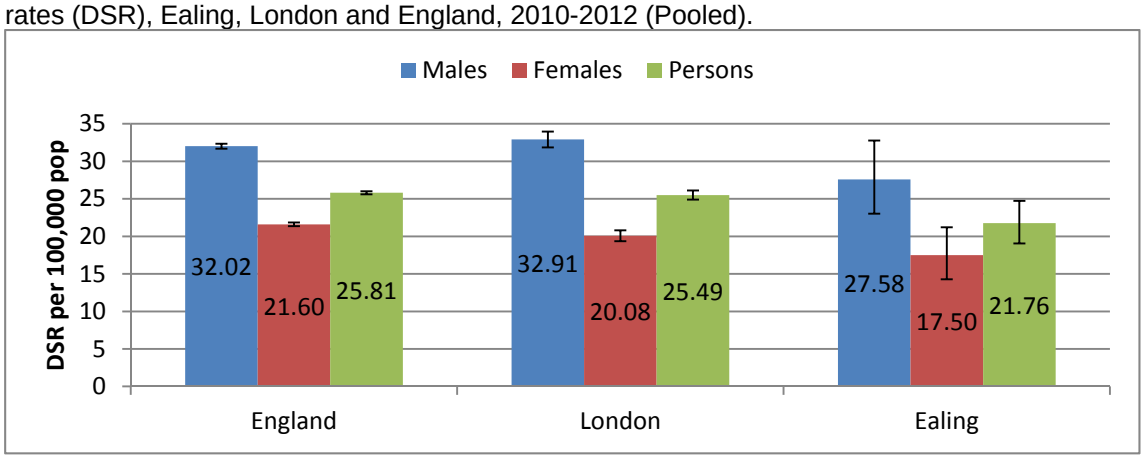


Source: National General Practice Profiles, PHE

COPD Mortality Rates

There were 246 COPD related deaths in Ealing during 2010-2012 which was equivalent to a rate of 21.8/100,000 population. Ealing's all persons and male mortality rates were significantly lower than the England averages (Figure 10). Males have a significantly higher mortality rate from COPD than females.

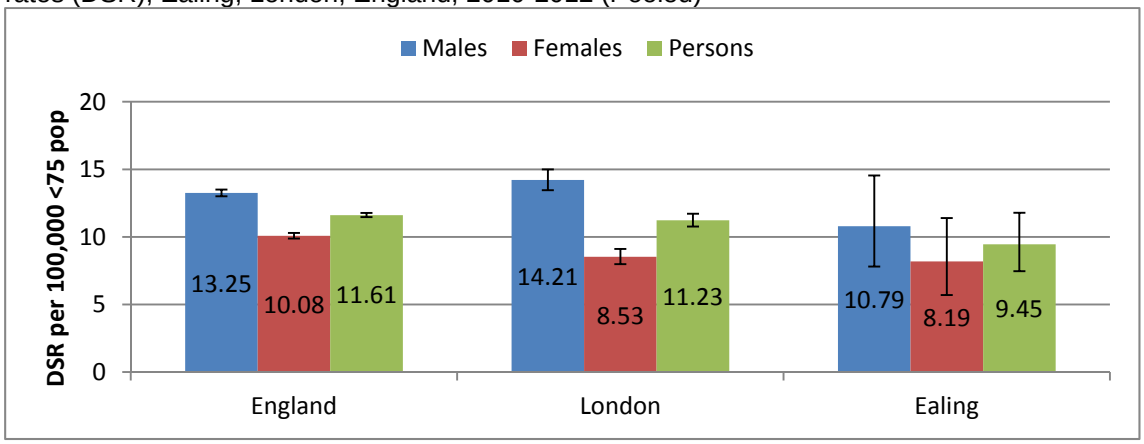
Figure 10: Mortality from bronchitis, emphysema and other COPD All Ages Directly age-standardised rates (DSR), Ealing, London and England, 2010-2012 (Pooled).



Source: Office for National Statistics

A total of 78 deaths were premature (persons aged below 75), equivalent to a rate of 9.5/100,000 population. This was not significantly different from Under 75 COPD mortality rates in London and England. (Figure 11)

Figure 11: Mortality from bronchitis, emphysema and other COPD Under 75 Directly age-standardised rates (DSR), Ealing, London, England, 2010-2012 (Pooled)

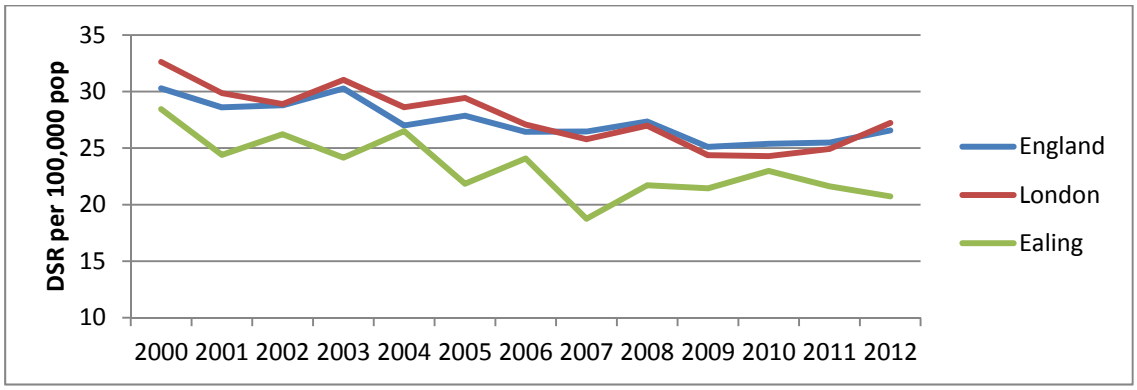


Source: Office for National Statistics

COPD Mortality Trends 2000-2012

The all age all gender COPD mortality rate for Ealing dropped from 28.5/100,000 in 2000 to 20.7/100,000 in 2012 and was consistently lower than the London and England averages over the 12 year period (Figure 12).

Figure 12: Mortality from bronchitis, emphysema and other COPD All Ages Persons Directly age-standardised rates (DSR), Ealing, London, England, 2000-2012



Source: Office for National Statistics

Place of death

The majority of COPD deaths in Ealing occur in the hospital (73%), 2009-2011. End of life care is managed in primary and secondary care settings, however there is no comprehensive end of life pathway or service specifically for COPD patients. [12]

Current service provision

COPD is a progressive disease that impairs quality of life and can be life threatening. The levels of comorbidity are high, with approximately 40% of people living with COPD also have heart disease and significant numbers have depression and or anxiety. Patients living with respiratory conditions should have access to care that address both physical and mental health in a holistic care.

Health and social care for COPD patients, as suggested by the DH Outcomes Strategy for COPD and Asthma and supported by NICE, should strive to deliver services that meet the following objectives:

- Improve the respiratory health and wellbeing of communities and minimises inequalities between communities.
- Reduce the number of people who develop COPD and reduce health inequalities
- Reduce the number of people with COPD who die prematurely
- Enhance quality of life for people living with COPD, providing support to the end of life
- Ensure people with COPD, across all social care groups, receive safe and effective care which minimises progression, enhances recovery and promote independence.

[12] Gupta M. COPD and Asthma Healthcare Needs Assessment. NHS Ealing. 2012. Data source: ONS Public Health Mortality File (2009-2011)

Primary and community care

Variations in health and social care access, provision and demand exist. Exploring and challenging unwarranted variation is a key step to improving outcomes for patients.[13]

For a number of COPD primary care indicators, Ealing CCG average is comparable or better than the England average e.g. influenza immunizations, exception rating for COPD. However of concern across Ealing 8% of COPD patients have not had an assessment in the last 15 months and 8% of patients have not had a diagnosis confirmed by spirometry which is the key diagnostic test for COPD (table 2). It is important to note, these indicators are for those who have been *diagnosed* with COPD, and as afore mentioned, and there is high proportion of people who have undiagnosed COPD and therefore will not be counted in these measures.

Spirometry

- The use of post bronchodilator spirometry is a quality standard recommended by NICE in the assessment and diagnosis of COPD.
- An accessible spirometry service is an important component in (i) accurately diagnosing COPD patients (ii) reducing the underdiagnoses or misdiagnosis of COPD and (ii) management of diagnosed COPD patients.
- The community spirometry service in Ealing is currently based in the Cuckoo Lane Practice but delivered in more than one setting across the borough.

Table 2. Practice profile COPD indicators.

Indictor	Year	Ealing CCG practices		Ealing CCG average	England average	Ealing CCG average in comparison to England
		Lowest range	Highest range			
COPD QOF prevalence (%)	2012/13	0.16%	2.43%	0.8%	1.7%	Lower
Ratio of recorded vs expected COPD prevalence	2010/11	0.05%	0.77%	-	0.56%	Lower
Exception rate for COPD indicators	2012/13	<1%	45.7%	10.4%	11.6%	Lower
COPD admissions (per 1000)	2010/11	<0.1	6.7	1.3	2.1	Lower
COPD Influenza immunisations given 1 Sep – 31 Mar (%)	2012/13	50%	100%	92.5%	92.5%*	Same
COPD Record of FEV1 in last 15 months	2012/13	16.7%	100%	90%	88.4%	Higher
COPD Assessment using MRC dyspnoea score in last 15 months	2012/13	33.3%	100%	92.3%	91.1%	Higher
COPD Diagnosis confirmed by spirometry	2012/13	50%	100%	92.1%	91.3%	Higher

Source: Practice Profiles, Public Health England

[13] www.rightcare.nhs.uk

Pulmonary rehabilitation service

- Pulmonary rehabilitation (PR) is an evidence based cost-effective intervention, recommended by NICE, that reduces symptoms, improve functional performance and quality of life for patients with COPD who are functionally disabled by breathlessness. A Cochrane review of PR has reported that one life can be saved for every 6 people treated with PR and one admission avoided for every 4 people treated with PR.
- The Ealing has a pulmonary rehabilitation service which was set up in 2012. In 2013/14 Ealing PR received 434 referrals of which 63% (n=272) people completed the programme.
- In terms of outcomes, of the COPD patients that attend and complete the Ealing PR programme 70% report an improvement in health status, measured by the COPD Assessment Test (CAT).
- Given the strong evidence of effectiveness behind PR, it can be estimated in 2013/14 PR of 272 COPD patients have contributed to the avoidance of 68 COPD admissions and 45 lives saved.

Identified gaps & challenges

There are a number of specific interventions that have the potential to reduce premature mortality in people with COPD. Each has an evidence base, consensus support from the clinical community and is recommended in NICE guidance and the DH Outcomes Strategy for COPD and Asthma and the NHS Companion Guide which provides direction for the NHS to meet the ambitions set out.[14] The latter sets out the evidence-based interventions across the five NHS outcomes domains and the BLF COPD pathway[15] outlines them across the patient life course.

The five key actions which have been identified by to have the greatest impact for patients with COPD are:

- Pulmonary rehabilitation
- Self-management
- Assessment and provision of home oxygen
- Early discharge from hospital
- Non-invasive ventilation (NIV)

[14] https://www.gov.uk/government/publications/an-outcomes-strategy-for-copd-and-asthma-nhs-companion-document

[15] http://copdpathway.blf.org.uk/

A snapshot of current service provision against the NICE COPD quality standards and five key actions which have the greatest impact for COPD patients highlights the following gaps and challenges to improving outcomes for COPD patients:

- Reviewing diagnostic spirometry services and pulmonary rehabilitation with a view to improving value and quality of services delivered;
- Working with primary care to improve accurate diagnosis and management of COPD patients, concordance with current NICE guidelines
- Promoting self-care for COPD patients in Ealing
- Addressing current gaps in health care provision for COPD patients including the lack of a specialist oxygen therapy service and end of life COPD pathway.

Recommendations for Commissioners

The key recommendations for Public Health are:

1. Improve awareness of lung health across all population groups.

2. Ensure stop smoking services are offered to all patients who smoke.

The key recommendations for Respiratory Service Commissioners are:

3. Explore options to improve accurate COPD diagnosis across all groups:
    a. Consider how the value of community based diagnostic spirometry service can be improved e.g. improved quality assurance and greater accessibility.

4. Work with primary care to identify opportunities to improve management of COPD patients in line with NICE quality standards, in particular with regards to patient education.

5. Improve the value and provision of pulmonary rehabilitation service in Ealing:
    a. Review the current pulmonary rehabilitation service;
    b. Explore opportunities to improve uptake;
    c. Ensure there is equity of service provision.

6. To address health service gaps in COPD pathway of care
    a. Consider feasibility of commissioning an oxygen therapy service and COPD end of life care pathway either individually or as part of an integrated community respiratory service.

7. Assess current COPD self-care management interventions and opportunities to improve effectiveness.

Asthma

The vision for Ealing is to reduce health inequalities and improve Asthma outcomes enabling patients with Asthma to control symptoms and lead healthy active lives.

Introduction

Asthma is a long-term respiratory condition that affects the airways of the lungs in people of all ages. The causes of asthma are not well understood, and people with asthma have different trigger factors. The goal of an asthma patient is to be symptom free and lead a healthy and active life.

The prevalence of Asthma in England is 6.0% which is amongst the highest in the world; there are approximately 3.4 million people diagnosed with asthma in England.

Asthma contributes to a large number of A&E admissions, of which 70% may have been preventable with appropriate interventions.

Improving health outcomes for patients with asthma is important as the vast majority of asthma deaths (90%) are associated with preventable factors and 40% are in the under 75 age group. Premature mortality in England is 1.5 times higher than the European average.

The Department of Health published a COPD and Asthma Outcomes Strategy in 2011 which sets ambition for improving quality and outcomes for people with asthma England[16]. NHS England has issued a Companion Document that identifies how the objectives of the DH Outcomes Strategy can be met[17].

The National Institute for Health and Clinical Excellence (NICE) is in the process of developing an Asthma diagnosis and monitoring guideline which will be published in 2015[18].

[16] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216139/dh_128428.pdf
[17] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216531/dh_134001.pdf
[18] http://www.nice.org.uk/Guidance/Conditions-and-diseases/Respiratory-conditions/Asthma

Prevalence

A total of 19,834 patients were recorded as having Asthma by their GPs in Ealing (2012/13) as measured by the Quality and Outcome Framework (QOF) indicator. This was equivalent to a prevalence rate of 4.9% which is higher than the London average but lower than the England average (table 3). The prevalence of asthma across Ealing practices varies between 2.44% and 8.32%.

Table 3: GP patient recorded Asthma prevalence, Ealing, London and England, 2012/13

Area	Recorded Prevalence (2012/13)
Ealing	4.9%
London	4.7%
England	6.0%

Source: Health and Social Care Information Centre

Important points to note are the limitations of using QOF data to estimate prevalence:

- QOF data is not age standardised, therefore variations in age of population groups have not been taken into account
- QOF may underestimate the true number of people living with asthma due to (i) under diagnosis in primary care (ii) exclusion of patients with asthma who have not been prescribed asthma related drugs e.g. inhalers, in the last 12 months.

Accurate diagnosis in primary care and inclusion on asthma register is an essential step in receiving pro-active structured asthma care

Risk factors

Asthma, unlike COPD, is a condition that affects all ages. There are a number of risk factors for asthma:

- Personal history of atopy
- Family history of asthma or atopy
- Triggers: allergens, dust, exercise, viruses, chemicals, irritants, smoke, emotional factors
- Urban environment
- Obesity
- Prematurity and low birth weight
- Maternal smoking,
- Smoking

Health Inequalities in Asthma

The Department of Health, Assessment of Impact on Equalities for the Outcomes Strategy for COPD and Asthma (2011)[19] highlights:

- Access to services may be impacted by ethnicity; ethnicity is reported to impact upon hospitalisation more than socioeconomic status.

[19] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216140/dh_128427.pdf

- In comparison to white ethnic group, South Asian ethnic group is 3 times more likely to require hospital admission and Black ethnic group twice more likely.
- Overall BME groups have poorer outcomes, poorer access to information and services.

Ensuring equity of service provision for preventative interventions, primary and secondary care respiratory services across all BME, and socioeconomic groups is an important step in reducing health inequalities and improving health outcomes for people living with Asthma.

Morbidity and Mortality

Primary care

Asthma patients receive the majority of their care through self-care and primary care.

An analysis of primary care asthma indicators (table 4) suggest that across all primary care quality indicators for Asthma, Ealing is performing better than the England average. However there is still opportunity for improvement:

- 10% of patients with asthma in Ealing have not been diagnosed as having measures of variability or reversibility.
- Over 25% of all asthma patients in Ealing have not had a review in the last 15 months. This is similar to the England average. Patients who are either excepted from review or not reviewed regularly are less likely to receive pro-active asthma care and may subsequently have poorer outcomes.
- 10% of 14-19 years olds diagnosed with asthma have not had their smoking status recorded. All asthma patients who smoke should be offered stop smoking services.

Table 4. Asthma QOF indictors 2012-13

Indictor	Year	Ealing CCG practices		Ealing CCG average	England average	Ealing CCG average in comparison to England
		Lowest range	Highest range			
The % of patients (aged 8yerars +) diagnosed as having asthma with measures of variability or reversibility.	2012-2013	75%	100%	89.5%	90%	Better
The % of patients who have had am asthma review in the last 15 months that includes an assessment of asthma.	2012-2013	39%	95.1%	76.4%	74.8%	Better
The % of patients in whom smoking status is recorded in last 15 months (14-19year olds with asthma)	2012-2013	65.8%	100%	90%	89.3%	Better
Exception rate for asthma indicators	2012-2013	0%	20.9%	3.3%	6.6%	Better

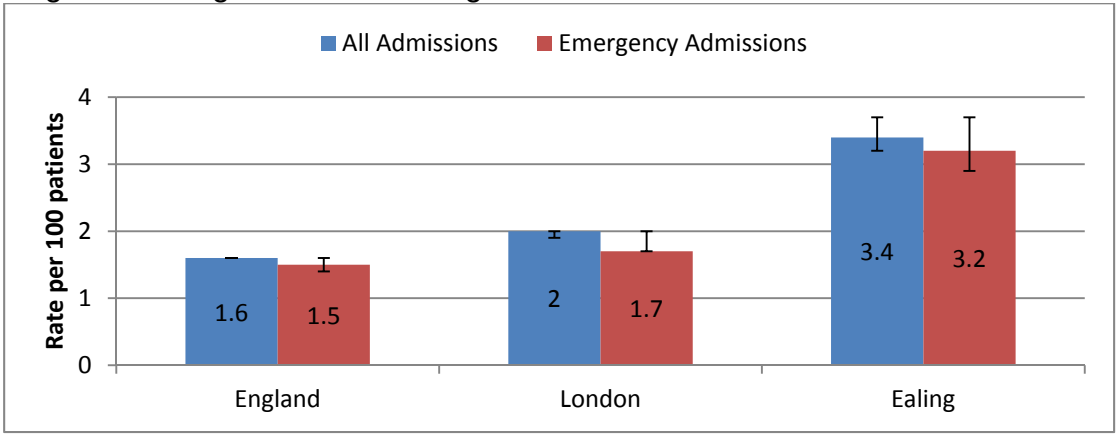
Source: PHE practice profiles

Hospital Admissions

The goal of asthma care is to control symptoms to allow patients to lead a healthy, active life.

Ealing has a significantly higher rate of asthma hospital admission (per 100 patients on the asthma register) than London and England. The risk of hospital admissions rates in Ealing are more than twice as high for males and females than England (figure 13). In 2010/11 there were 667 asthma inpatient admissions among Ealing GP registered patients. The majority of which (92%) were emergency admissions.

Figure 13: All and Emergency Asthma Admissions per 100 Patients on Disease Register, Ealing, London and England, 2010/11



Source: NHS Indicators Portal

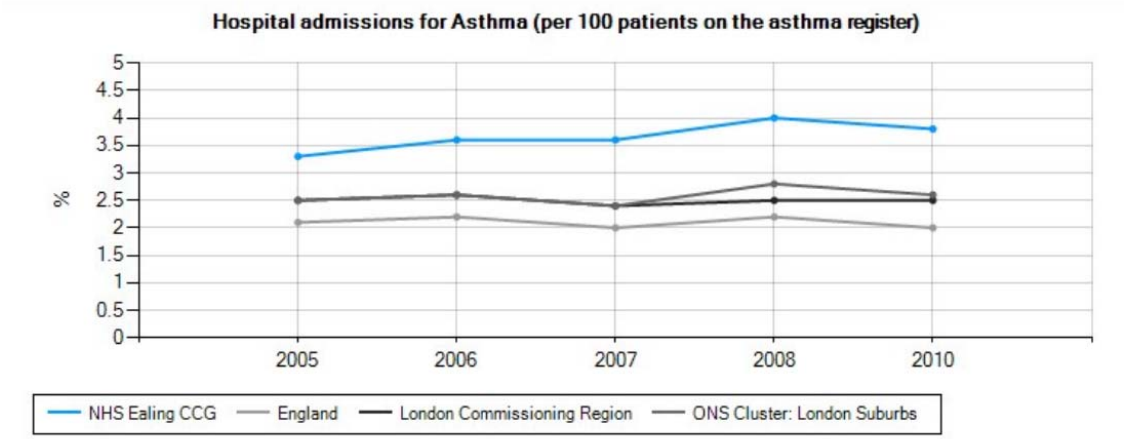
The higher asthma admission rates has been a consistent trend since at least 2005 (figure 14). In 2010 Ealing was to have highest rates in comparison to other similar boroughs (the ONS cluster group), London and was reported to rank 207 out of the 211 CCGs in England for this measure.

There are a number of factors which may contribute to these findings including effectiveness of management in primary and community care, thresholds for admission and referrals. This indictor is also dependent on the effectiveness of case finding in primary care. If a higher proportion of asthma patients who are undiagnosed, then it is likely that there is higher proportion of more severe asthma patients on the register which would contribute to relatively high admission rates.

However, in Ealing, in 2010, the observed/ expected ratio of asthma prevalence was reported to be (0.56) which was not reported to be significantly different from England average[20]. This suggests that there factors, other than effectiveness of case finding in primary care, that contributes to this significantly high rates.

20 http://customer.instantatlas.com/INHALE/profiles/profile/pdf?navbar=false&controls=false&profileId=17&geoTypeId=17&geoIds=07W&ajax=false&ieext=.pdf

Figure 14. Asthma Hospital admissions for Asthma (per 100 patients on the asthma register)



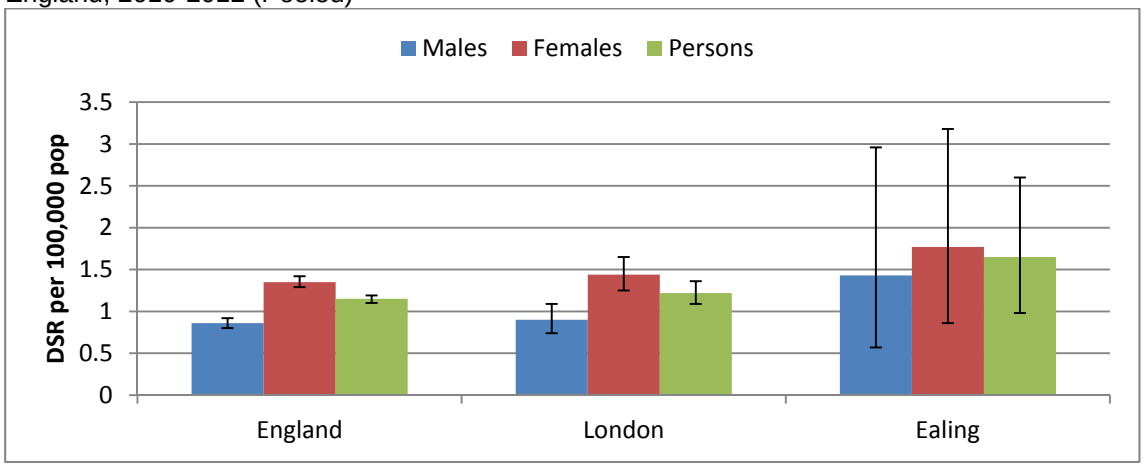
Source: INHALE

High admission rates, pose a significant burden to healthcare resources. The average cost per asthma related hospital admission and emergency admission in Ealing was £947.90 and £941.20 respectively[21].

Mortality

Ealing's Asthma mortality rates for males, females and all persons (2010-2012) were not significantly different from the London and England averages (Figure 8). Although Ealing's Asthma mortality rate significantly reduced from 3/100,000 population in 2000 to 1.4/100,000 population in 2012, it remained higher than the London and England averages as from 2008 (Figure 15).

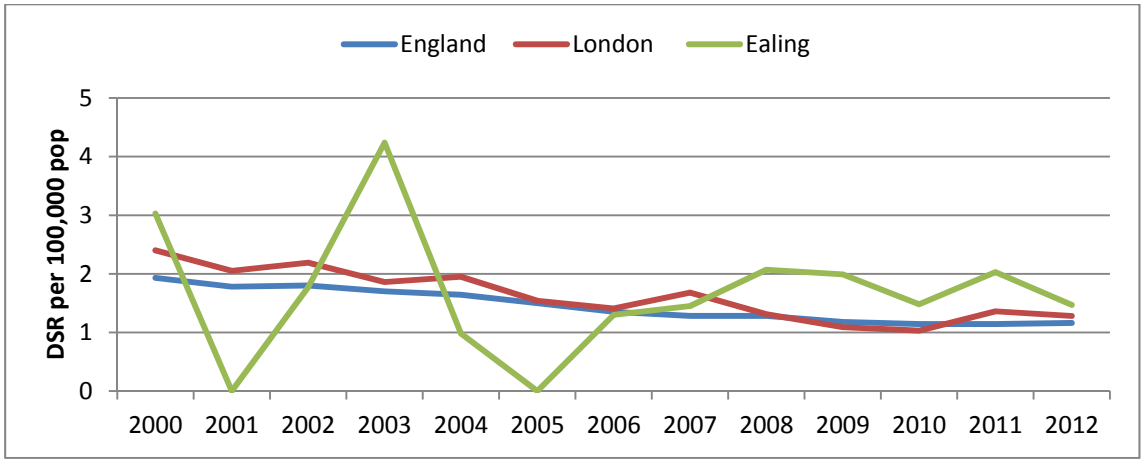
Figure 15: Mortality from Asthma All Ages Directly age-standardised rates (DSR), Ealing, London, England, 2010-2012 (Pooled)



Source: Office for National Statistics

[21]http://customer.instantatlas.com/INHALE/profiles/profile/pdf?navbar=false&controls=false&profileId=17&geoTypeId=17&geoIds=07W&ajax=false&ieext=.pdf

Figure 16: Mortality from Asthma All Ages Persons Directly age-standardised rates (DSR), Ealing, London and England, 2000-2012



Source: Office for National Statistics

A National Review of Asthma Deaths (NRAD) (2014) was conducted by the Royal College of Physicians; this is the first national confidential enquiry into Asthma deaths.[22] The expert panel identified factors that could have avoided death in relation to health professional's implementation of asthma guidelines in just under half of all deaths e.g. Personal asthma action plans were only provided to 23% of people who had died and in 43% there was no evidence that a general practice review had taken place within the last year.

There are a number of recommendations from this detailed report, however the four key messages put forward are:

1. Every hospital and GP should have a designated clinician for asthma services.
2. Better monitoring of asthma control
3. Better education for doctors, nurses, patients and carers to make them aware of risks.
4. All patients should be provided with a personal asthma action plan (PAAP), which can help them identify if their asthma is worsening and tell them how and when to seek help.

Identified challenges

- Ealing has a significantly higher rate of asthma hospital admission than London or England. Hospital admissions rates are more than twice as high for both males and females in Ealing than in England. This represents an adverse outcome for patients and significant burden on healthcare resources.

- Over 90% of hospital admissions are emergency admissions. It is reported that 70% of asthma hospital admissions maybe preventable.

[22] https://www.rcplondon.ac.uk/projects/national-review-asthma-deaths

Recommendations for Commissioners

The key recommendations for respiratory service commissioners & providers and Public Health:

1. Ealing has one of the highest Asthma emergency admission rates in England. This presents as both an opportunity and a challenge to commissioners, healthcare providers, patient groups and third sector to improve pro-active management of asthma, reduce admissions and subsequently improve health outcomes for all patients.

2. Further investigate the admission rates for Asthma, by age, ethnic group and locality to identify which population groups have higher demand for secondary care.

3. Work with primary, community and secondary care providers to explore opportunities that exist to improve the asthma care and support the implementation of current and forthcoming guidelines from NICE and the key recommendations from the NRAD.

Future information

Further information is available from the following websites:

http://fingertips.phe.org.uk/profile/general-practice

http://www.rightcare.nhs.uk/index.php/atlas/respiratorydisease/

http://customer.instantatlas.com/INHALE/

Related JSNA chapters

- Smoking
- Air pollution