7.5.7 Respiratory disease

Why is this issue important?

Respiratory diseases are the third main cause of death after circulatory diseases and cancer in the UK.[1]

Respiratory diseases include asthma, Chronic Obstructive Pulmonary Disorder (COPD), bronchitis, emphysema, pneumonia and respiratory tract infections. They cause around a million hospital admissions per year.[2]

An estimated 3 million people are affected by COPD in the UK. About 900,000 have been diagnosed and an estimated 2 million people have COPD that remains undiagnosed.[3] The cost to the NHS of treating COPD is estimated to be over £800 million for direct healthcare costs each year.[4]

The Health Development Agency in 2004 estimated that 85% of COPD-related deaths could be attributed to smoking.[5]

Key outcomes

- ***Under 75 mortality rate from respiratory diseases (Public Health Outcomes Framework/ NHS Outcomes Framework)***
- ***Health-related quality of life for people with long term conditions (NHS Outcomes Framework)***
- ***Unplanned hospitalisation for chronic ambulatory care sensitive conditions (adults) (NHS Outcomes Framework)***
- ***Unplanned hospitalisation for asthma, diabetes and epilepsy in under 19s.(NHS Outcomes Framework)***
- ***Emergency admissions for children with lower respiratory tract infections (NHS Outcomes Framework)***

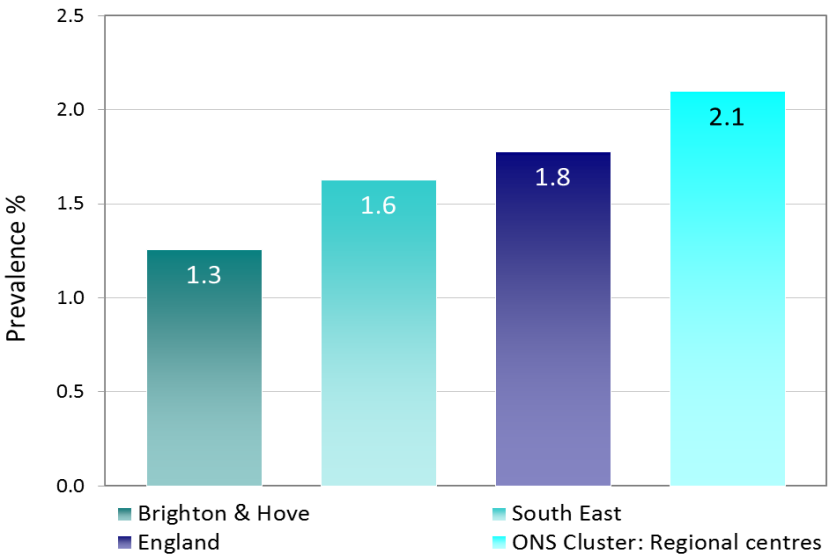
Impact in Brighton & Hove

In Brighton & Hove respiratory diseases are the third main cause of death after circulatory diseases and cancer (274 deaths in 2013, 13% of all deaths).[6]

In 2013, there were 62 deaths in Brighton & Hove in under 75s as a result of respiratory disease (9% of all deaths under 75 years).[6] The local under 75 mortality rate from respiratory disease was 29.3 per 100,000 in 2013. This is higher than the England rate of 28.1 per 100,000.[1]

COPD and pneumonia are the most common causes of respiratory disease deaths. In 2013/14, there were 3,737 people recorded as having COPD on Brighton & Hove GP registers. The recorded prevalence is 1.3%, which is lower than the England figure of 1.8%. The local figure has been increasing from 1.0% in 2006/07 to 1.3% in 2013/14, probably due to an improvement in recording. There is variation in recorded prevalence amongst GP practices in the city, ranging from 0.1% to 3.0%.[7]

Figure 1: Prevalence of COPD (%) 2013/14



Source: QOF data 2013-14, Health & Social Care Information Centre

The level of reported prevalence of COPD is lower than the expected prevalence, likely to be due to under diagnosis and recording. In Brighton & Hove CCG the estimated percentage of detected COPD

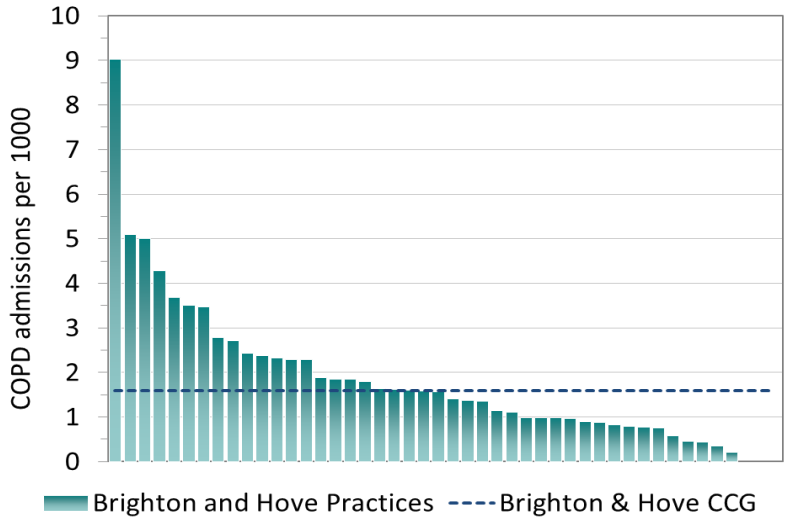
[1] Inhale. Interactive health atlas for lung conditions in England. Available at: http://www.erpho.org.uk/inhale.aspx [Accessed 21.07.15]
[2] APPG on Respiratory Health (2014) Report on inquiry into respiratory deaths.
[3] National Institute for Health and Care Excellence (NICE). Clinical Guideline 101. COPD. January 2012.
[4] Department of Health, Consultation on a strategy for services for Chronic Obstructive Pulmonary Disease (COPD) in England, February 2010
[5] Health Development Agency. *The smoking epidemic in England* 2004. www.nice.org.uk/nicemedia/documents.smoking_epidemic.pdf
[6] Office of National Statistics. Vital Statistics Tables (VS3). 2013.
[7] http://qof.hscic.gov.uk/

was 29.5% in 2011/12.[1] This figure ranged from 8% to 73% across practices in the city in 2010/11.[8]

COPD is the second most common cause of emergency admission to hospital and one of the most costly diseases in terms of acute hospital care in England.[9] The rate of emergency admissions for COPD in Brighton & Hove in 2012/13 was 1.6 per 1,000. This is lower than the ONS cluster group (a group of areas with similar ages to Brighton & Hove), the region (1.7) and England (2.2). [10] However, the emergency admission rate per 100 patients on the disease register for Brighton & Hove in 2010/11, at 14.6, was higher than the same comparator groups (the England figure was 12 per 100 COPD patients.[1]

The three highest total admission rates for GP practices in Brighton & Hove in 2012/13 are from practices in more deprived areas of the city, with an admission rate ranging from 0.0 to 9.0 per 1,000 across all practices in the city.

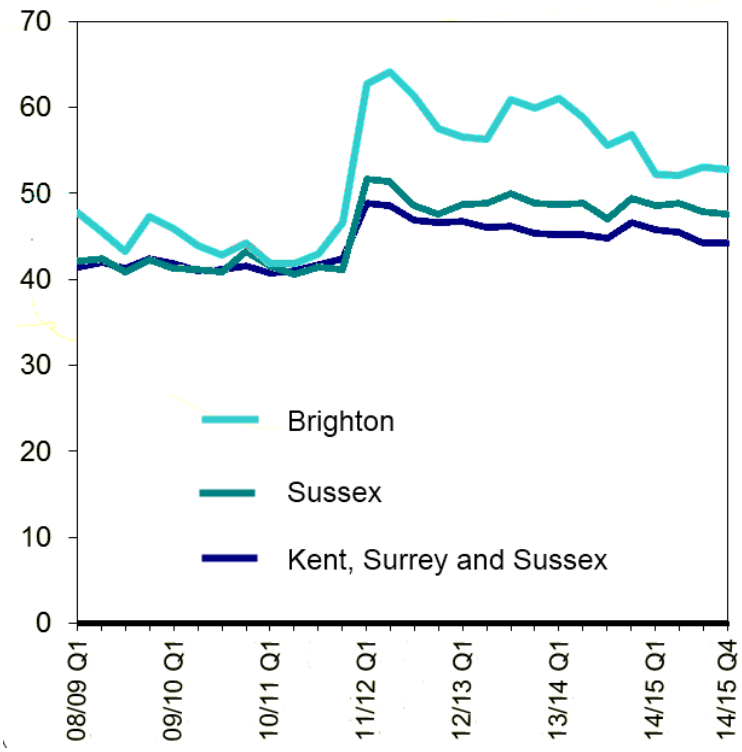
Figure 2: Practice COPD total admission rates per 1,000 population, Brighton & Hove, 2012/13



Source: Public Health England, National General Practice Profiles.

The proportion of admissions of patients with COPD accounted for by multiple attenders rose substantially in 2011 and is falling slowly (Figure 3).

Figure 3: Percentage of last 12 months admissions accounted for by multiple attenders, rolling 12 month data



Source: COPD Dashboard, Sussex CCGs, Quality Observatory

In 2013/14, there were 17,101 people in Brighton & Hove recorded as having asthma on GP registers. Of these people:

- 1,004 were aged 14-19 years and had a record of smoking status in the previous 12 months.[11]
- 81% had a diagnosis with measures of variability or reversibility (measurements useful in establishing a clear diagnosis of asthma[12]), lower than England (84%).
- 69% had received a review in the previous 15 months, lower than England (70%).
- 93% had had their smoking status recorded in the previous 15 months, lower than England (95%).

There were 123 emergency admissions for asthma among children (0-18 year olds) in Brighton & Hove

[8] Public Health England. National GP Practice Profiles
[9] South East Public Health Observatory. Inequalities in primary care: what can analysis of QOF data reveal? Summary report for Brighton and Hove PCT. July 2011
[10] General Practice Profiles. Public Health England. Available at: http://fingertips.phe.org.uk/profile/general-practice/ [Accessed 22/07/2015]

[11] Quality and Outcomes Framework, 2013-14. HSCIC. Available at: http://www.hscic.gov.uk/catalogue/PUB15751 [Accessed 22/7/2015]
[12] https://indicators.ic.nhs.uk/download/NCHOD/Specification/Spec_23D_673PC_14.pdf

in 2012/13, equivalent to 215 per 100,000. This is similar to the rate of 219 per 100,000 for England.

The local rates of emergency bed days (245 per 100,000) and length of stay (1.13 days per admission) for childhood asthma were also similar to yet lower than England figures (277 and 1.25) in 2012/13. These rates have both reduced significantly in Brighton & Hove since 2009/10, during which time there were 394 per 100,000 emergency bed days and 1.86 days per admission for childhood asthma.[1]

In Brighton & Hove the Preventing Premature Mortality Audit found that for every ten patients who die prematurely with COPD, five are on a COPD/Asthma register and not excepted, 3.3 are on a COPD/Asthma register but excepted, 1.5 is on a non-related register and <1 is on no register.[13]

Smoking prevalence in Brighton & Hove was 25.2% in 2013, higher than the prevalence for England (18.4%).[14] This will have an impact on the prevalence of respiratory diseases.

The mortality audit showed that the smoking prevalence of those who died prematurely with COPD was 56%.

In additions for all 18-74 year olds in the city 18% report drinking at increasing or high risk levels (>14 units per week for females and >21 units for males) compared with 31% of those dying prematurely with COPD.

Where we are doing well

Brighton & Hove performs relatively well for adults in terms of admission rates for asthma.[1]

In 2014/15, the CCG enabled BSUH to develop an innovative approach to the management of COPD patients in the acute setting through the use of CQUIN funding. A respiratory specialist nurse was appointed at the Royal Sussex County Hospital to ensure that patients with a primary diagnosis of COPD are managed more effectively and proactively. Better, more targeted discharge planning can support a reduction in readmission rates and further exacerbation of the patient's condition. This post will continue in 2015/16, and an additional specialist respiratory nurse has been appointed to expand this service across the trust sites.

The CCG has worked with partners across the local health economy to develop an Integrated Respiratory Service. This service will launch in November 2015, and will be led by a Respiratory Consultant and delivered by a Multidisciplinary Team, including specialist medical, nursing, psychological and therapeutic support. The service will be fully co-ordinated, improving the delivery of care for people living with respiratory disease across the entire care pathway. It is anticipated this will yield a range of system and patient benefits through the alignment of respiratory services with national standards. The consultant will also act as COPD lead for the health economy.

In 2015 the CCG invested in further Pulmonary Rehabilitation capacity across the city. The increased sessions will be available shortly after the launch of the Integrated Respiratory Service.

A domiciliary smoking cessation service is also being developed, to be provided by community pharmacies linked to GP clusters. Referral pathways are being developed to link into the Integrated Respiratory Service.

The CCG has commissioned an interim Locally Commissioned Service (LCS) for COPD, in tandem with the Integrated Respiratory Service. This will launch in October 2015, and supports practices to identify and screen patients who may be living with COPD but are as yet undiagnosed. The LCS also provides education and training for practices in diagnosing and managing COPD.

In 2015, the CCG formally signed up to the Breathe Easy Charter. Breathe Easy Groups are open to anyone affected by any respiratory illness and the meetings offer a mixture of peer support, instruction from qualified guest speakers on health management and opportunities for advice and support from qualified healthcare professionals. Evidence suggests that the Breathe Easy groups can improve patients' ability to self manage their condition and gain improved understanding of their condition.

The CCG has agreed with local health economy partners that respiratory healthcare professionals from the acute and community sectors will

[13] NHS Brighton & Hove Clinical Commissioning Group (2015) Primary Care Quality Report, February 2015
[14] Public Health Outcomes Framework. Public Health England. Available at: http://www.phoutcomes.info/ [Accessed 22/7/2015]

regularly attend and support the Breathe Easy Group in Brighton. The Breathe Easy Groups will also be used to engage with patients, and it has been agreed that a Breathe Easy representative for Brighton will be invited to become a member of the project team overseeing the development of the new Integrated Response Service.

The South East Coast Strategic Clinical Network has developed two respiratory pathways for children over one year to be used to promote evidence based assessment and management of unwell children and to build consistency across the area and different settings. The pathways are for children presenting: with acute asthma / wheeze; and one for bronchiolitis. There are three elements to each pathway: parental advice, a pathway for use in primary & community care, and one for use in acute settings.

An inhaler recycling scheme was introduced in March 2015. Community pharmacies and practices collect patients' used inhalers and these are analysed to determine how they have been used and recycled safely for re-use. A similar scheme on the Isle of Wight demonstrated more appropriate prescribing, improved adherence to inhaled medicines among patients and reduced spend on inhalers.

In line with NICE clinical guidelines for COPD,[15] cascade training workshops were held for GP practice staff in 2012/13, to ensure every practice had at least one appropriate healthcare professional/assistant trained in inhaler technique. From November 2015, Inhaler Technique Training will be provided across GP practices, prioritising those with lower Respiratory Review QOF scores.

In line with NICE clinical guidelines for COPD,[11] in 2012/13, GP practices were encouraged to assess suitable COPD patients for self-management plans for coping with exacerbations. As well as a written plan there is a standby course of antibiotics and prednisolone with instructions on when to use them; this should reduce the risk of unnecessary hospital admissions.

Local inequalities

Across England, there is some evidence of a relationship between admission rates for asthma and levels of deprivation, with admission rates tending to be higher in areas of deprivation.[16] In Brighton & Hove in 2012/13, 27% of asthma admissions data were among patients living in the most deprived quintile, and 50% of admissions were among patients living in the two most deprived quintiles.

In 2014/15 10.5% of admissions for all respiratory disease in Brighton & Hove were for BME groups. This is considerably lower than the BME population in the city, estimated to be 19.5% of the total population according to the 2011 Census. The rate of admissions for BME groups is 7 per 1,000 compared with 11 per 1,000 people for all residents.

A number of factors affect the uptake of healthcare services among immigrants and asylum seekers, such as healthcare bills for secondary care, different health seeking behaviours or fear of removal from the UK (see Vulnerable Migrants section for more detail). These may contribute to the lower admissions rates among BME groups.

The rate of admissions for all respiratory diseases in Brighton & Hove in 2014/15 was consistently higher for males, and for adults it rose with age (Table 1).

Table 1: Admission rate per 1,000 for all respiratory diseases, Brighton & Hove 2014/15

Age	Male	Female
0-14 years	23.9	17.9
15-44 years	5.3	6.2
45-64 years	15.5	12.6
65-74 years	45.7	35.1
75+	127.1	103.9

Source: Analysis of HES data produced by Public Health Intelligence Team

[15] National Institute for Health and Care Excellence (NICE). CG101. Chronic obstructive pulmonary disease (update): full guideline. October 2010. Available at:

[16] National Institute for Health and Care Excellence (NICE). Clinical Guideline 101. COPD. January 2012

7.5.7 Respiratory disease

Predicted future need

The prevalence of respiratory disease increases with age. In the Health Counts Survey 2012, 67% of those aged 75 years or over had a limiting long tem illness. Both male and female over 55 years populations are likely to have increased by 2030 and this will increase the number of people living with respiratory disease.

What we don't know

We do not have voice evidence for Brighton & Hove respiratory patients.

We do not have data about sexual orientation, trans or religion/faith groups for people with respiratory disease.

Key evidence and policy

NICE issued updated guidance on the management of COPD in 2010[17] and the Department of Health published an Outcomes Strategy for people with COPD and asthma in England in 2011.[18] NICE also published 13 quality standards for COPD in 2011.[19]

Recommended future local priorities

1. Partners and stakeholders to review and reduce the number of patients in whom a COPD admission is their first presentation.
2. Partners and stakeholders to review and reduce hospital admissions for those patients with severe COPD and at the end of life.
3. CCG to improve the diagnosis and management of COPD in primary care by building on the outcomes of the interim LCS and incorporating further elements such as care planning and management for 15/16.

Key links to other sections

- Carers
- Main causes of death
- Air quality
- Smoking
- Children and young people with disabilities and complex health needs
- Care of the elderly
- End of life care
- Primary care

Further information

NICE Guidance CG101. Chronic obstructive pulmonary disease (update): full guideline
http://guidance.nice.org.uk/CG101/Guidance/pdf/English

NICE COPD quality standards
http://www.nice.org.uk/guidance/qs10

An outcomes strategy for COPD and asthma in England. 2011.
http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_128428.pdf

Inhale. Interactive health atlas for lung conditions in England.
http://www.erpho.org.uk/inhale.aspx

Last updated

September 2015

[17] https://www.nice.org.uk/guidance/cg101
[18] https://www.gov.uk/government/publications/an-outcomes-strategy-for-people-with-chronic-obstructive-pulmonary-disease-copd-and-asthma-in-england
[19] https://www.nice.org.uk/guidance/qs10