



# Chronic Obstructive Pulmonary Disease: *Factsheet*

## Tower Hamlets Joint Strategic Needs Assessment 2015

UPDATED 2015 QUARTER 1

### Executive Summary

- Chronic obstructive pulmonary disease (COPD) is a long-term progressive condition that is usually caused by smoking. Early detection, treatment and stopping smoking are key to slowing progression of the disease and improve patient quality of life<sup>7</sup>.
- According to 2011 estimates there are 6412 people in Tower Hamlets who will have COPD. This includes approximately 2400 people who will have not received a diagnosis and therefore are not receiving advice and treatment<sup>1</sup>.
- Rates of diagnosed cases of COPD in Tower Hamlets have been rising in recent years, this reflects the increase in efforts towards improvements in early detection of those at risk within Tower Hamlets. In 2013/14, 1.3% of Tower Hamlets' population or 3607 people have been diagnosed as having COPD; this is slightly lower than the national rate but higher than that of our neighbouring boroughs<sup>2</sup>.
- Treatment for COPD is primarily monitored through primary care in the form of regular assessment and reviews. Quality Outcomes Framework indicators show that Tower Hamlets is conducting more reviews than its national and local comparators with 90% patients receiving regular respiratory function monitoring and 93% receiving a breathlessness assessment in 2013<sup>3</sup>.
- Additionally smoking rates in Tower Hamlets are falling and currently 19.3% of the population smoke<sup>4</sup>.
- A COPD care package and Adult Respiratory Care & Rehabilitation (ARCaRe) service has been introduced in Tower Hamlets in 2011, which aims to provide more effective diagnosis, treatment and care for patients with COPD to ultimately manage its deterioration.
- Despite strong Primary and Secondary Care input, emergency hospital admissions are high. The Tower Hamlets rate of such admissions is consistently higher than its local comparators over recent years and in 2012/13 was at 5.1 per 1000 population, more than twice that of England<sup>5</sup>.
- Tower Hamlets COPD mortality rates are also consistently much higher than London and England rates. 2013 rates show a mortality rate of 83 per 100,000 population (DSR), whereas England and London rates sit much lower at 53 and 51 per 100,000 population respectively<sup>6</sup>.

### Recommendations

- Develop strategies that build on current services, to attempt to reduce the number of emergency admissions for COPD.
- Continue work on smoking cessation particularly in secondary care and using the “making every contact count” model of health promotion to prevent further cases of COPD.
- More research into the need to find cases in younger age groups and to assess the cost effectiveness of doing this.

### 1. What is Chronic Obstructive Pulmonary Disease?

Chronic Obstructive Pulmonary Disease (COPD) is a term used to describe airflow obstruction that is not fully reversible<sup>7</sup>. The airway obstruction results from a combination of damage to both the airways as well as the solid lung matter. It is predominantly caused by smoking but genetic factors and air pollution account for a minor proportion of cases.

Symptoms associated with the condition include increasing breathlessness, a persistent cough with production

of phlegm and frequent chest infections<sup>8</sup>. Although COPD is not curable, effective management of the condition can improve symptoms and reduce the frequency and severity of flare-ups. In most cases, stopping smoking will slow down further progression of the disease.

The World Health Organisation lists it as the 3<sup>rd</sup> largest cause of death responsible for 3.1 million deaths per year globally and deaths are projected to increase by more than 30% in the next 10 years.<sup>9</sup> It is estimated that as many as 3 million people in the UK suffer from the condition though only about 900,000 cases are diagnosed. In the UK, COPD is listed as the 5<sup>th</sup> leading cause of death, resulting in 32,815 deaths per year<sup>10</sup>.

### **Impact on Individual**

COPD is the third leading cause of disability and impairment of quality of life as measured by Disability-Adjusted Life Years (DALYs)<sup>10</sup> in the UK. A diagnosis of COPD can lead to increasing breathlessness resulting in interference or inability to carry out Activities of Daily Living to a point that sufferers become housebound.

COPD can result in inability to continue working and forced early retirement. COPD accounts for more than a quarter of individuals aged 40-67 that are not at work<sup>11</sup>. Individual lifetime earnings lost to COPD are estimated to be at £200,000<sup>11</sup>.

Exacerbations of the condition result in a great deal of time spent on visits to the emergency department, GPs and hospitalisation.

### **Impact on the NHS**

There are around 1.4 million consultations with GPs each year due to COPD. One in eight (130,000) emergency admissions to hospital are for COPD, making it the second largest cause of emergency admission in the UK. COPD accounts for more than one million 'bed days' each year in hospitals in the UK<sup>7</sup>.

The Chief Medical Officer has reported COPD accounts for more than £800 million in direct health care costs. More than half of these costs relate to the provision of care in hospital. COPD is amongst the most costly inpatient conditions treated by the NHS<sup>7</sup>.

## **2. What is the policy context?**

The Department of Health's [Strategy for Services for Chronic Obstructive Pulmonary Disease \(COPD\) in England](#)<sup>12</sup> works towards developing integrated services with the view to delivering care that is planned and delivered around individual needs. Its four objectives are:

1. Support people in making healthier choices, thus reducing chances of developing COPD and supporting early identification
2. Provide accurate, good quality diagnoses that are accompanied with good-quality information on the condition
3. Provide high-quality care and support following a diagnosis
4. Improve access to end-of-life care services

The NHS Outcomes framework has a specific indicator written to tackle early mortality for people with COPD and related diseases: "Reducing premature mortality... under 75 mortality rate from respiratory disease".<sup>13</sup> Additionally, the NHS has produced an [Outcomes Strategy for COPD and Asthma](#) that addresses premature mortality of COPD by outlining how to promote early and accurate diagnosis, prevent progression and prolong survival.<sup>14</sup>

NICE outline [Quality Standards](#) that are expected for assessment, diagnosis and clinical management of COPD in adults that are based on examples clinical best practice.<sup>15</sup> They include targets for cost-effective and high quality

care towards improving effectiveness, safety and experience for people with COPD.

The London Strategic Clinical Networks have produced [Top 10 tips for CCGs wanting high value respiratory care](#) geared towards improving the outcomes and experiences of all Londoners with respiratory disease, including COPD<sup>16</sup>. They include tips on budget spending, smoking cessation, data recording and monitoring and use of Commissioning for Quality and Innovation (CQUIN) payment frameworks.

### 3. What are the effective interventions?

The biggest risk factor for COPD is smoking which accounts for approximately 80% of COPD cases.<sup>1</sup> Therefore the strongest preventative measure to reduce rates of COPD is to reduce smoking rates.

The National Institute of Health and Care Excellence has outlined a care pathway for treatment of patients with COPD (see Appendix A). It provides guidance on diagnosis of COPD, management of stable COPD and management of exacerbations of COPD<sup>7</sup>. Specific recommendations concerning the management of COPD consider diagnosis and treatment of COPD:

#### Diagnosis

- A diagnosis of COPD should be considered in patients over the age of 35 who have a risk factor (generally smoking) and who present with exertional breathlessness, chronic cough, regular sputum production, frequent winter ‘bronchitis’ or wheeze.

#### Treatment

- **Pulmonary rehabilitation:** This should be made available to all appropriate people, including those who consider themselves functionally disabled by COPD or those who have had a recent hospitalisation for an acute exacerbation. Programmes must meet clinical needs in terms of access, location and availability.
- **Non-invasive ventilation (NIV):** This should be used as the treatment of choice for persistent hypercapnic ventilatory failure during exacerbations not responding to medical therapy.
- **Spirometry:** The presence of airflow obstruction should be confirmed by performing post-bronchodilator spirometry. All health professionals involved in the care of people with COPD should have access to spirometry and be competent in the interpretation of the results.
- **Multidisciplinary teams:** COPD care should be delivered by a multidisciplinary team.
- **Smoking cessation:** All COPD patients still smoking, regardless of age should be encouraged to stop, and offered help to do so, at every opportunity.
- **Self-management:** Patients at risk of having an exacerbation of COPD should be given self-management advice

Additional interventions that have been found to reduce emergency hospital admissions in patients with COPD are:

- regular physical activity<sup>17</sup>
- self-management programmes<sup>18</sup>
- Hospital at home programmes<sup>19</sup>

## 4. What is the local picture?

### How many people in Tower Hamlets have COPD?

- There is an estimated 6412 people living with COPD in Tower Hamlets. This is according to an APHO model<sup>20</sup> which uses 2011 population estimates, age, smoking prevalence and levels of deprivation to predict prevalence for each local authority. When compared to 2012/13 figures of diagnosed COPD, estimates from this model show that we are diagnosing all those we would expect to in the over 65 age group in Tower Hamlets (Figure A).

However there is a considerable difference in the 16-44 age group between the number diagnosed and the number predicted using modelled prevalence. The model suggests that there are 2417 people with undiagnosed COPD. This under-diagnosis could be due to weaknesses in the prediction model whereby asthma diagnoses are incorrectly assumed to be COPD cases; or it could be because younger people tend to have milder symptoms and are therefore not being considered for a COPD diagnosis.<sup>21</sup> NICE guidelines recommend that a COPD diagnosis should be considered for those over 35, have a risk factor for COPD and present with one or more of its symptoms<sup>7</sup>.

The model does show, that Tower Hamlets may have better diagnosis rates for people both over 45 years and over 65 years than its neighbouring boroughs (Appendix B and C).

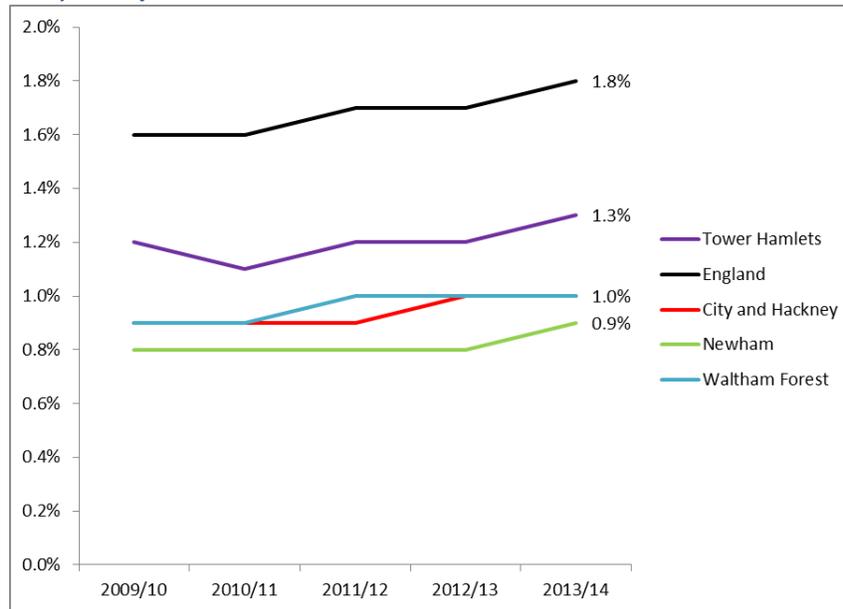
**Figure A: Modelled Prevalence (2011) compared with actual prevalence for Tower Hamlets (2012/13)**

Age group	Modelled Prevalence	Modelled Count	Actual prevalence of GP registered population (CEG data)	Number diagnosed with COPD (CEG data)	Diagnosed minus model
16-44	1.75%	2450	0.02%	33	-2417
45-64	5.74%	1899	2.12%	1252	-647
65-74	11.87%	994	11.15%	994	0
75+	13.53%	1069	14.72%	1184	115
Total		6412		3463	-2949

Source: APHO model based on 2011 population estimates & CEG GP registered population data, 2013

- In 2013/14, 3607 people in Tower Hamlets have a diagnosis of COPD. This represents 1.3% of registered patients in Tower Hamlets and a steady increase since 2010/11 (see Figure B), reflecting improving efforts towards early detection and diagnosis. Tower Hamlets has higher rates than its neighbouring boroughs, however a much lower rate than the national average. It is important to recognise that Tower Hamlets, like most London boroughs, has a relatively young population compared with England and when broken down by age, COPD is much more prevalent in older age groups. For example, one in 10 people in Tower Hamlets aged 65-74 have COPD, and 16% people in aged between 75-84 have COPD (see Appendix D).

**Figure B: Trend of prevalence of registered COPD in Tower Hamlets, London, England and neighbouring counties, 2013/14.**



Source: National General Practice Profiles, 2015.

- The prevalence of registered COPD (2011) in Tower Hamlets highlights a number of inequalities regarding where COPD is most common (Appendix D). For example, numbers are slightly higher in men than women, they markedly increase through higher age groups and the least deprived areas of Tower Hamlets has half the prevalence of the other areas (Appendix E). Prevalence is markedly higher in the White Population of Tower Hamlets than all other ethnic groups, 2.5% of the white population has COPD, this is 4 times the prevalence of COPD within the South Asian and Black population groups. Additionally, nearly 4% of those with a serious mental illness also have COPD and one in five of those who are housebound have been diagnosed with COPD.

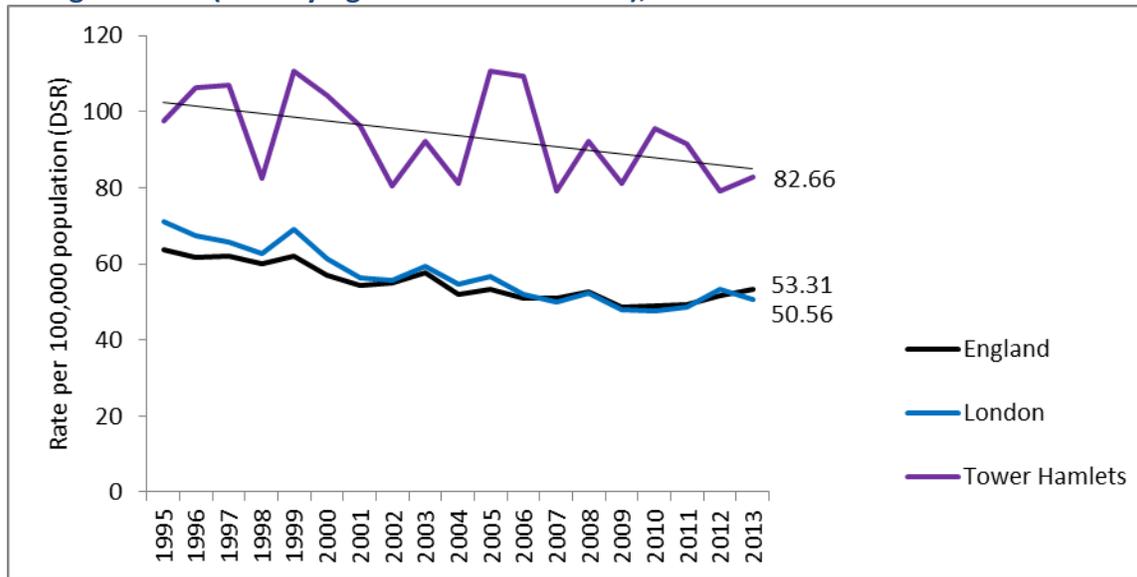
#### Hospital admissions

- Tower Hamlets has consistently high levels of emergency admissions in comparison to neighbouring boroughs and an admission trend, shown in Appendix F shows that admissions peak each year at wintertime. Tower Hamlets has the highest standardised Emergency COPD admission rate in London at 5.1 per 1000 GP population. This equates to 599 patients in 2012/13 (Appendix G) accounting for 95% of all Tower Hamlets admissions for COPD.
- The rate of emergency readmissions for COPD patients in Bart's Health within 30 days in 2013/14 is 23%. Appendix H shows that the monthly rates for 2014/15 are generally lower when compared to 2013/14, indicating an improvement of readmission rates this year, however further data collection is needed before it is understood as to what the underlying trends are.
- In 2013/14, Tower Hamlets CCG paid an average of £2498 per COPD emergency admission in 2013/2014 with a total cost of £1.3 million. This compares to a cost per COPD emergency admission in Waltham Forrest of £2603, City and Hackney of £2455 and in Newham of £2114<sup>22</sup>.

#### Mortality

- Mortality by COPD has been consistently higher in Tower Hamlets than London and England, although a trend line does indicate that rates are reducing over the years (see Figure C). In 2013 the rate was 82.7 per 100,000, markedly higher than London and England.

**Figure C: Mortality rates for persons from COPD for Tower Hamlets, England, London and neighbouring counties (directly-age standardised rates), 1995-2013**



Source: Health and Social Care Information Centre, 2015

- Mortality rates in Tower Hamlets for respiratory diseases (encompassing COPD and influenza) are also of concern. The rate for premature mortality considered preventable for Tower Hamlets is 33.0 (DSR) per 100,000 in 2011-13, this is twice the average London rate of 17.1 (Appendix I). The premature mortality rate from respiratory problems is 48.5 (DSR) per 100,000 population, this compares with the London rate of 31.9.

Expenditure versus mortality outcomes

- The most recent figures for budget spend on respiratory problems (2011/12), using a Spend Verses Outcomes Tool <sup>23</sup>, shows that Tower Hamlets spend is relatively high compared with the rest of England. This number also represents an increase from the previous year. Despite this, mortality rates from bronchitis, emphysema and COPD combined remain among the highest in the country (Appendix J) indicating that higher spending did not immediately impact on mortality rates.

**5. What is being done locally to address this issue?**

**Primary Care**

Large efforts have been made in Tower Hamlets healthcare towards better detection of COPD in patients, and to improve disease management and outcomes for those who have been diagnosed in line with NICE guidance. A COPD ‘care package’ has been developed with local clinicians, service leads and public health to address Tower Hamlet’s COPD needs. Its aims are to provide effective interventions to all COPD patients across the borough, decrease hospital admissions and readmissions and extend healthy life expectancy. It also aims to increase the prevalence of COPD by case-finding, thereby proactively identifying people and treating their disease to ameliorate the deterioration.

This care package was rolled out in 2011. It is delivered by general practice which is responsible for case-finding, diagnosing and stratifying patients according to whether their COPD is mild, moderate or severe. Patients receive different levels of care according to this stratification.

In 2014, an additional part of the care package was introduced whereby GP services are required to offer COPD patients who are smokers, the option of receiving a phone call from the specialist smoking cessation service. If they consent to this call, the GP will make the referral. The specialist team will then call the patient for a more in-depth conversation, providing information on the benefits of quitting and the services available to the patient

in support of smoking cessation.

A CQUIN payment framework has established a COPD 'discharge bundle', implemented in Tower Hamlets since 2013. It has previously been trialed in other acute trusts resulting in a reduction of patient readmissions and it ensures that key evidence based interventions to improve the management of patients with COPD are being considered during a patient's admission. This discharge bundle is applied to every patient admitted to hospital with a primary diagnosis of acute COPD exacerbation and will be personalized to the individual. There are 5 components to the discharge bundle:

1. Referral to specialist smoking cessation service if a current smoker
2. Assessment of suitability and/or enrolment into a pulmonary rehabilitation programme
3. Provision of appropriate education, written information, self-management plans and rescue packs for future exacerbations
4. Ensuring patient understanding of their medications and have demonstrated good inhaler technique whilst on the wards
5. Appropriate follow up on discharged from hospital.

If a patient has had two or more admissions in the previous 12 months then this is flagged on the electronic discharge summary. This will alert GPs of more vulnerable patients requiring further arrangements in the management of their condition.

#### **Adult Respiratory Care & Rehabilitation (ARCaRe)**

ARCaRe is a multidisciplinary service for patients who are ill or at risk of deterioration as a result of a chronic lung condition. It provides an extensive cardiorespiratory rehabilitation programme that includes self-efficacy building for patients so that they can manage their life with their condition more effectively. As part of its package, ARCaRe provides:

1. An admission avoidance service within both and A&E and community settings
2. Supported discharge
3. Enhanced care (with case management)
4. Inpatient respiratory multidisciplinary reviews in Royal London Hospital and London Chest Hospital sites
5. Oxygen and Non-Invasive Ventilation (NIV) Reviews at home for patients receiving oxygen and NIV
6. Cardiorespiratory rehabilitation in the community
7. Diagnostic and review Spirometry
8. Specialist resource for other community health teams for advice and if indicated joint visits undertaken
9. Pulmonary rehabilitation pathway to include a home programme for housebound patients.

Additionally, lung cancer awareness is included in all COPD checks. This entails:

- Training nurses in cancer risk assessment and increasing cancer awareness
- Addition of symptom checker information to COPD management plans, and
- Ensuring a chest X-ray is carried out within 3 months for newly diagnosed COPD patients if not done in previous 12 months

#### **Clinical staff training**

To ensure high quality of care in the community a Clinical Effectiveness Group course and Protected Learning Time is dedicated for local GPs and nurses for COPD training on an annual basis. GP practices are also trained on performing quality assured spirometry by ARCare and every network of GP practices facilitate multidisciplinary team meetings to discuss complex cases on a biannual basis.

## 6. What evidence is there that we are making a difference?

### Community COPD services

As yet, our community services have not yet been formally reviewed, however we do have activity data that shows that the services are being utilised.

Activity data for the Adult Respiratory Care and Rehabilitation (ARCaRe) in 2013/2014 shows the following:

- 124 patients were referred for admission avoidance.
- 780 emergency admissions were triaged to ARCaRe
- 137 patients were managed on supported discharge. Half of the patients were discharged from hospital in less than 48 hours, 83% in less than 5 days.
- 514 patients were assessed in the weekly spirometry clinic at the Royal London Hospital.
- 787 patients were assessed in the "Teach and Treat" clinics in primary care. These are clinics designed not only to treat patients but to also teach spirometry competencies to general practice staff.
- 690 patients were referred for pulmonary rehabilitation of whom 174 declined appointments and of the remaining, 58% completed the programme.

### Impact on indicators

There are some indicators that highlight improvements made as a result of the efforts made in Tower Hamlets to improve COPD outcomes, these include smoking reduction and quality outcomes framework indicators.

#### Smoking reduction

- Smoking rates are reducing substantially in Tower Hamlets. The last recorded figures show that 19.3% of Tower Hamlets residents (18+) smoked in 2012, a 2.5% drop since 2010. However, Tower Hamlets rates are still a little higher than the rates for London overall (Appendix K).
- With a referral rate of 95.7%, Tower Hamlets outperforms all its comparators in the provision of smoking cessation or referral to specialist services for smokers with chronic lung conditions (Appendix L).

#### Quality Outcomes Framework

The Quality and Outcomes Framework (QOF) is a voluntary incentive programme for all GP surgeries in England. It allows for a comparison by practice on performance on certain areas of good practice. There are 4 relevant QOF areas for which local data is available:

- COPD08: the percentage of patients with COPD who have had influenza immunisation in the preceding 1<sup>st</sup> Sept to 31<sup>st</sup> of March (Appendices M & N).
- COPD10: the percentage of patients with COPD with a record of FEV<sub>1</sub> in the preceding 15 months (Appendices O & P).
- COPD13: the percentage of patients with COPD who have had a review undertaken by a healthcare professional, including an assessment of breathlessness using MRC dyspnoea score in the preceding 15 months (Appendices Q & R).
- COPD15: the percentage of all patients with COPD diagnosed after 1<sup>st</sup> April 2011 in whom the diagnosis has been confirmed by a post bronchodilator spirometry (Appendix S).

For each of these indicators Tower Hamlets is performing better than England averages and the averages of Tower Hamlet's neighbouring boroughs (see Figure D and Appendices M, O & Q). However, there are some marked differences in QOF performance between GP practices within Tower Hamlets for COPD 10 and 15 (see Appendices P & S). All GP practices in Tower Hamlets performed better than the England average for COPD13 (Appendix R).

**Figure D: COPD QOF achievement percentage rates for Tower Hamlets and England, 2012/13**

<i>QOF Indicator</i>	<b>Tower Hamlets</b>	<b>England</b>
<i>COPD08</i>	86.52%	83.06%
<i>COPD10</i>	83.27%	79.21%
<i>COPD13</i>	86.71%	81.63%
<i>COPD15</i>	85.20%	79.70%

Source: PHE, 2014

## 7. What is the perspective of the public?

COPD patients in Tower Hamlets who have been under the care of the Adult Respiratory Care and Rehabilitation Service (ARCaRe) are followed up and asked to provide confidential interviews by the Patient Experience Team. During these interviews they are asked for their experiences of the care and support that they receive. All patients who are on any of the pathways of care (Admission Avoidance, Inpatient, Supported Discharge, Rehabilitation, Enhanced Care, Spirometry) are considered. Feedback has also been sought from patients who decline to access the Service after being referred. Patients who complete a course of rehabilitation are also asked to complete an anonymised feedback form that looks more specifically on the course venue, how the classes were run and attainment of goals. Information from the interviews and from the written feedback forms is fed back to service managers to enable continuous improvements to relevant services.

These are some examples of changes that have been made as a result of patient feedback:

- ARCaRe is provided as a 7-day service rather than a Monday-Friday service. This enables patients who need support during the weekends to avoid unnecessary A&E attendance, while also enabling hospital patients to have a safe supported discharge back into the community.
- ARCaRe is trailing a weekend, abridged rehabilitation course for patients who are not able to attend twice weekly rehabilitation courses during the week due to other commitments.
- Feedback was sought on preferred venues for patients prior to setting up the current service; as a result services are currently delivered within 4 community settings across Tower Hamlets and 2 hospital settings.
- Printed information provided to patients has been changed following patient feedback so that it is more relevant and up to date.

## 8. What more do we need to know?

- Why does Tower Hamlets have such a high level of emergency admissions for COPD?
- What is the true incidence of COPD in Tower Hamlets and is under diagnosis an issue?
- What more can we do to prevent emergency admissions?

## 9. What are the priorities for improvement?

Key areas for improvement over the next 5 years include:

- Development of strategies that build on current services, to attempt to reduce the number of emergency admissions for COPD.
- Continue work on smoking cessation particularly in secondary care and using the “making every contact count” model of health promotion to prevent further cases of COPD.
- More research into the need to find cases in younger age groups and to assess the cost effectiveness of doing this.

## 10. Contacts / Stakeholder Involvement

### Contacts

	NAME	CONTACT DETAILS
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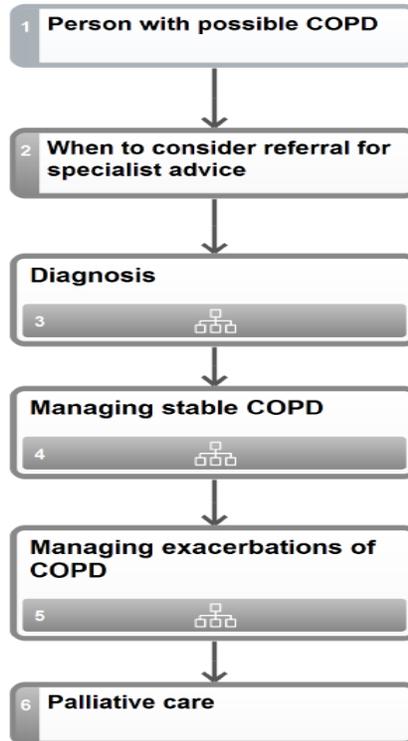
### Stakeholders

- Judith Shankleman, London Borough of Tower Hamlets, Public Health
- Abigail Knight, London Borough of Tower Hamlets, Public Health
- Geoff Mole, London Borough of Tower Hamlets, Public Health
- Peter Allen, North East London Clinical Support Unit
- Simon Lloyd Owen, Barts Health
- Zakia Khatun, Tower Hamlets Clinical Commissioning Group
- Jane Simpson, Barts Health
- Nabeela Bari, Tower Hamlets Clinical Commissioning Group
- Savitha Pushparajah, Tower Hamlets Clinical Commissioning Group



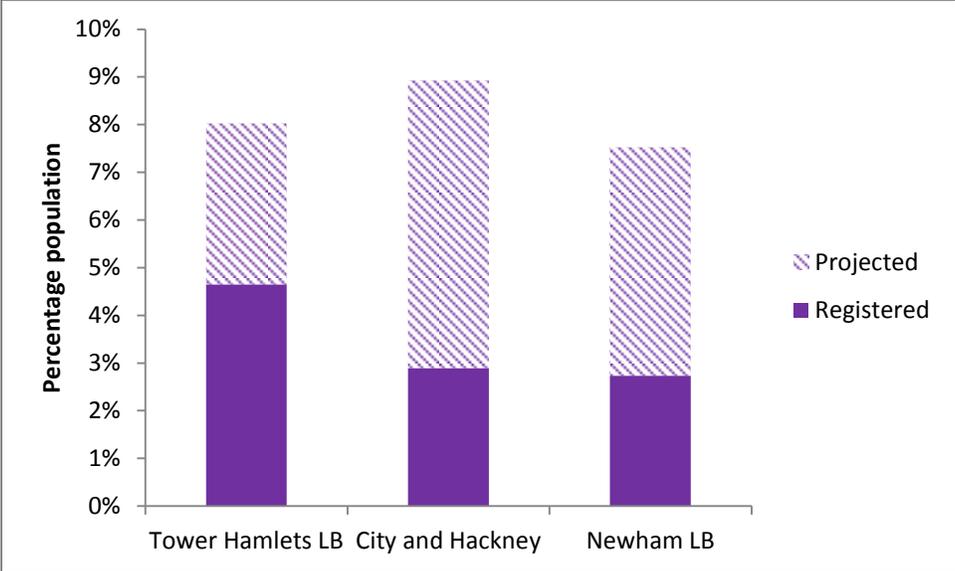
## Appendices

### Appendices A: COPD care pathway overview



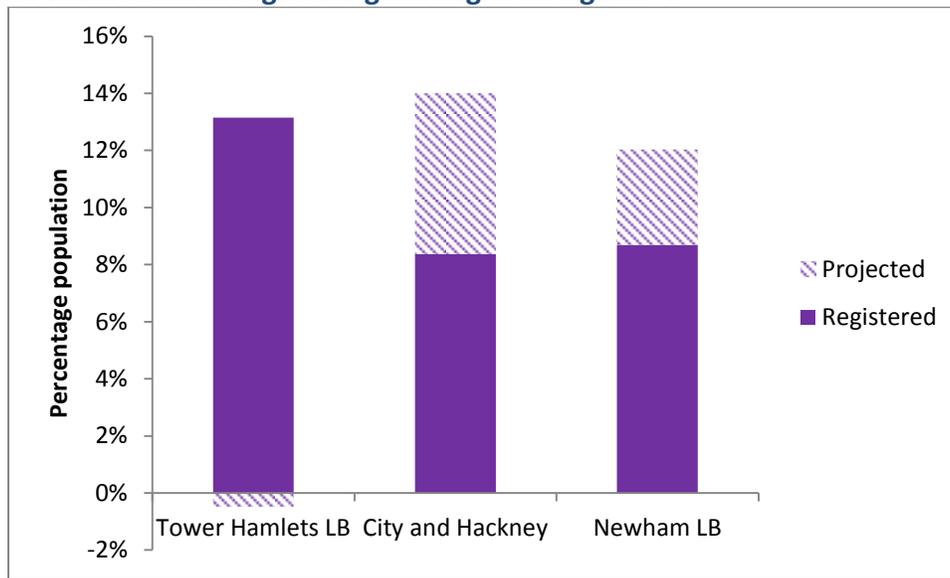
Source: Chronic obstructive pulmonary disease. NICE clinical guideline 101 (2010).

**Appendix B: Modelled Prevalence (2011) compared with actual GP registered population prevalence (2013) for Tower Hamlets and neighbouring boroughs for age 45+.**



Source: APHO model based on 2011 population estimates & CEG GP registered population data, 2013

**Appendix C: Modelled Prevalence (2011) compared with actual GP registered population prevalence (2013) for Tower Hamlets and neighbouring boroughs for age 65+.**



Source: APHO model based on 2011 population estimates & CEG GP registered population data, 2013

**Appendix D: Prevalence of COPD patients registered with Tower Hamlets primary care by gender, age band, deprivation quintile, ethnicity and comorbidities, 2011.**

	Gender	
	Male	Female
Number of people with COPD	2,007	1,543
Percentage of Tower Hamlets practice population with COPD	<b>1.40%</b>	<b>1.11%</b>

	Patient age by band						
	19 - 24	25 - 39	40 - 49	50 - 64	65 - 74	75 - 84	85+
Number of people with COPD	1	32	180	1,146	975	938	274
Percentage of Tower Hamlets practice population with COPD	<b>0.00%</b>	<b>0.03%</b>	<b>0.55%</b>	<b>4.29%</b>	<b>10.96%</b>	<b>15.56%</b>	<b>13.65%</b>

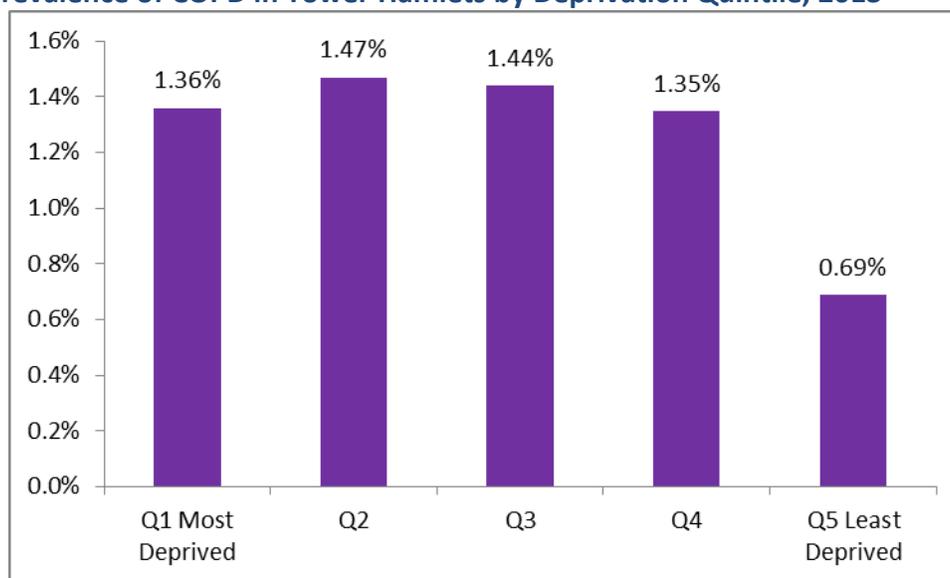
	IMD Deprivation					
	Q1 Most Deprived	Q2	Q3	Q4	Q5 Least Deprived	Other*
Number of people with COPD	824	755	817	733	382	39
Percentage of Tower Hamlets practice population with COPD	<b>1.36%</b>	<b>1.47%</b>	<b>1.44%</b>	<b>1.35%</b>	<b>0.69%</b>	<b>1.04%</b>

	Ethnicity recording					
	<i>White</i>	<i>South Asian</i>	<i>Black</i>	<i>Other</i>	<i>Not Stated</i>	<i>Unrecorded</i>
Number of people with COPD	2,670	651	132	58	9	30
Percentage of Tower Hamlets practice population with COPD	<b>2.48%</b>	<b>0.62%</b>	<b>0.63%</b>	<b>0.37%</b>	<b>0.21%</b>	<b>0.10%</b>

	Patients with other conditions		
	<i>Learning Disabilities</i>	<i>Serious mental illness</i>	<i>Housebound</i>
Number of people with COPD	4	145	208
Percentage of Tower Hamlets practice population with COPD	<b>0.48%</b>	<b>3.77%</b>	<b>19.62%</b>

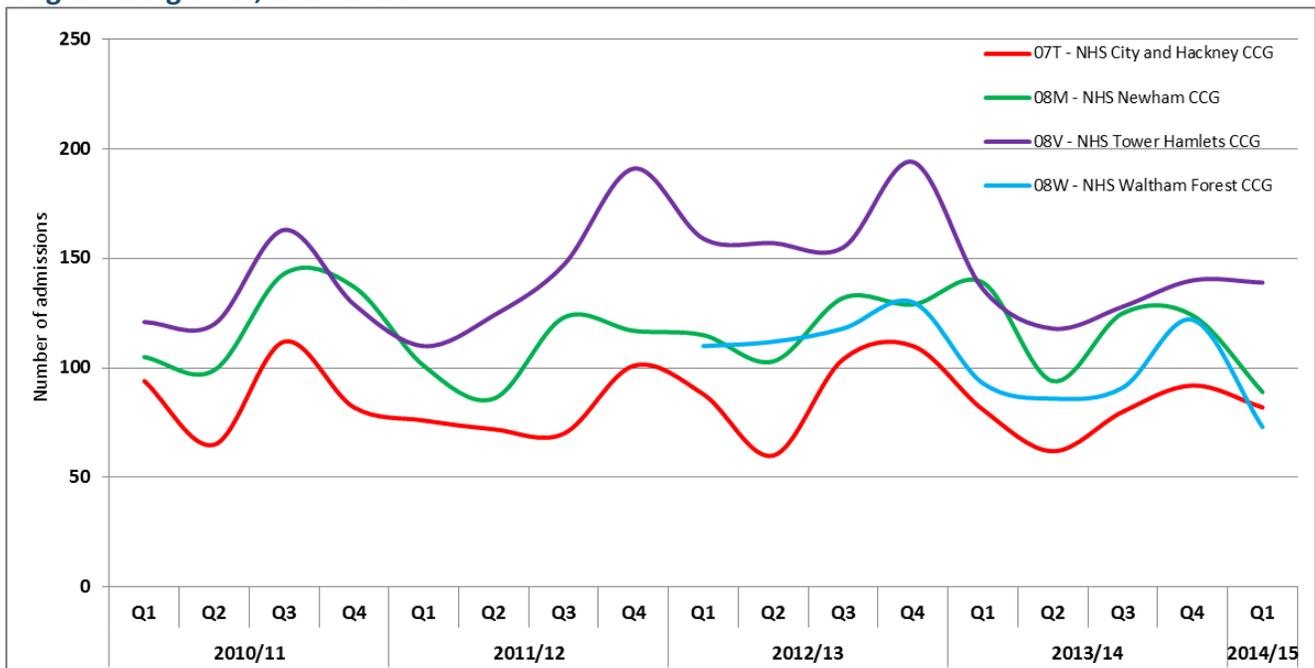
Source: CEG, 2014

#### Appendix E: Prevalence of COPD in Tower Hamlets by Deprivation Quintile, 2013



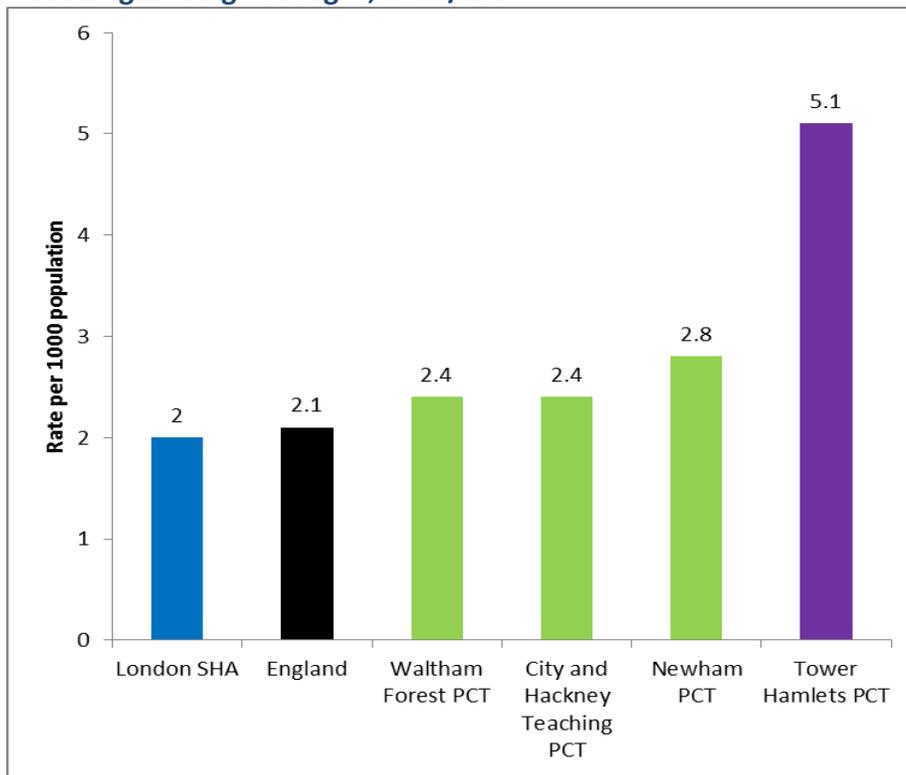
Source: CEG data, 2013

**Appendix F: Time trend of number of COPD emergency admissions for Tower Hamlets CCG and neighbouring CCGs, 2010-2014**



Source: SUS, 2014

**Appendix G: Emergency COPD admissions by population (standardised rate) for Tower Hamlets, London, England and neighboring boroughs, 2012/13.**



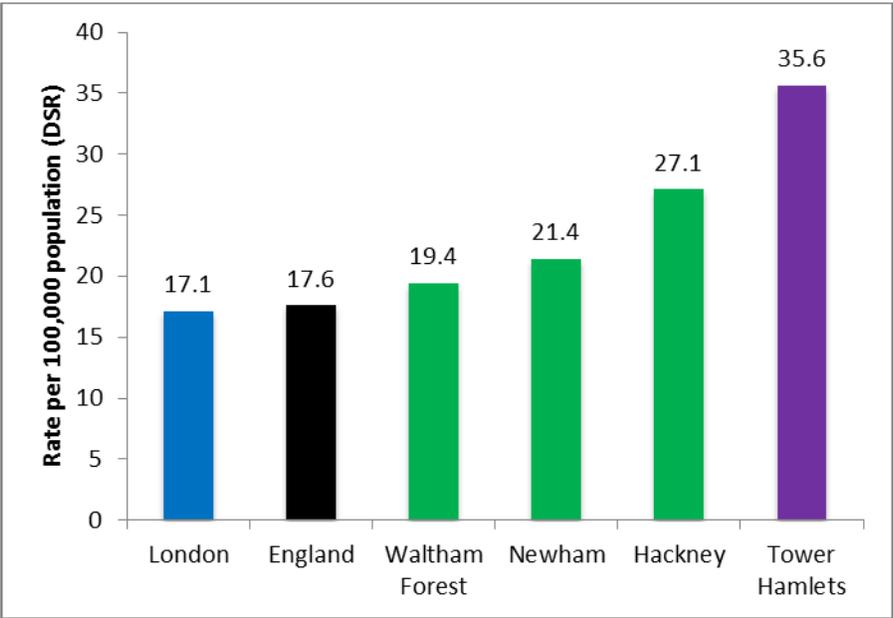
Source: NHS comparators, 2014

**Appendix H: 30 Day Emergency Readmission rates for COPD at Barts Health, 2013/14 and 2014/15.**

<b>Fiscal year</b>	<b>Month</b>	<b>30 Day readmissions</b>	<b>Emergency Admissions</b>	<b>%</b>
<b>2013/14</b>	April	9	40	23%
	May	8	55	15%
	June	7	40	18%
	July	13	45	29%
	August	9	44	20%
	September	11	29	38%
	October	11	39	28%
	November	4	33	12%
	December	15	56	27%
	January	5	37	14%
	February	8	42	19%
	March	18	61	30%
	<b>Sub Total 2013/14</b>	<b>118</b>	<b>521</b>	<b>23%</b>
<b>2014/15</b>	April	6	45	13%
	May	12	59	20%
	June	5	35	14%
	July	6	35	17%
	August	9	27	33%
	September	6	35	17%
	<b>Sub Total 2014/15 YTD</b>	<b>44</b>	<b>236</b>	<b>19%</b>
	<b>Grand Total</b>	<b>162</b>	<b>757</b>	<b>21%</b>

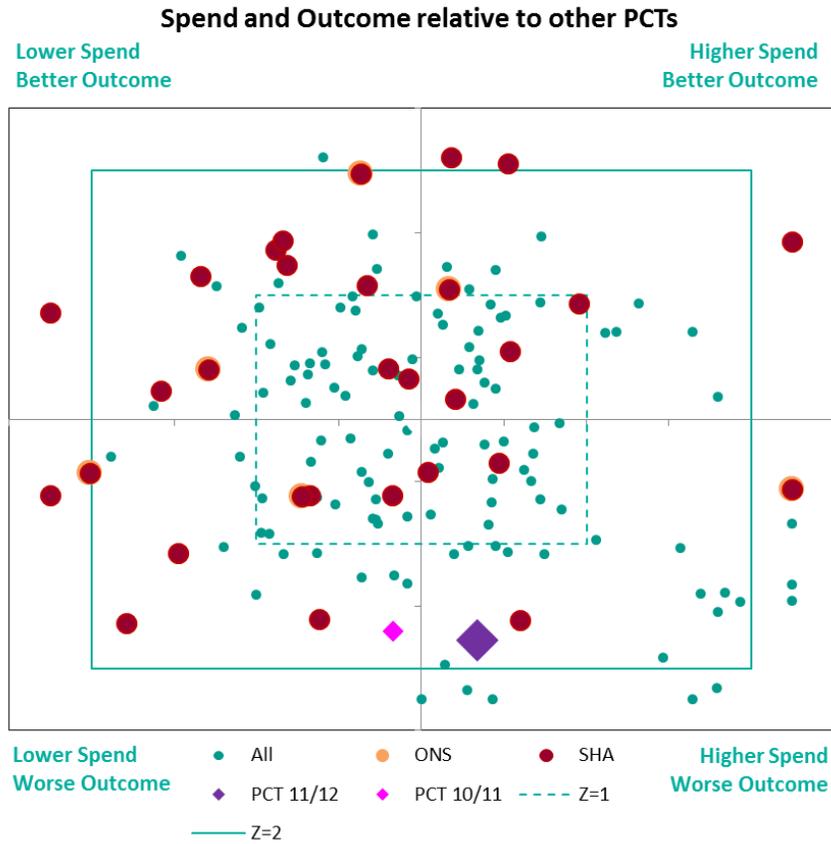
Source: SUS National readmissions extract and SUS Acute inpatient dataset, 2014

**Appendix I: Mortality rates for persons under 75 from respiratory problems for Tower Hamlets, England, London and neighbouring counties, 2010-12**

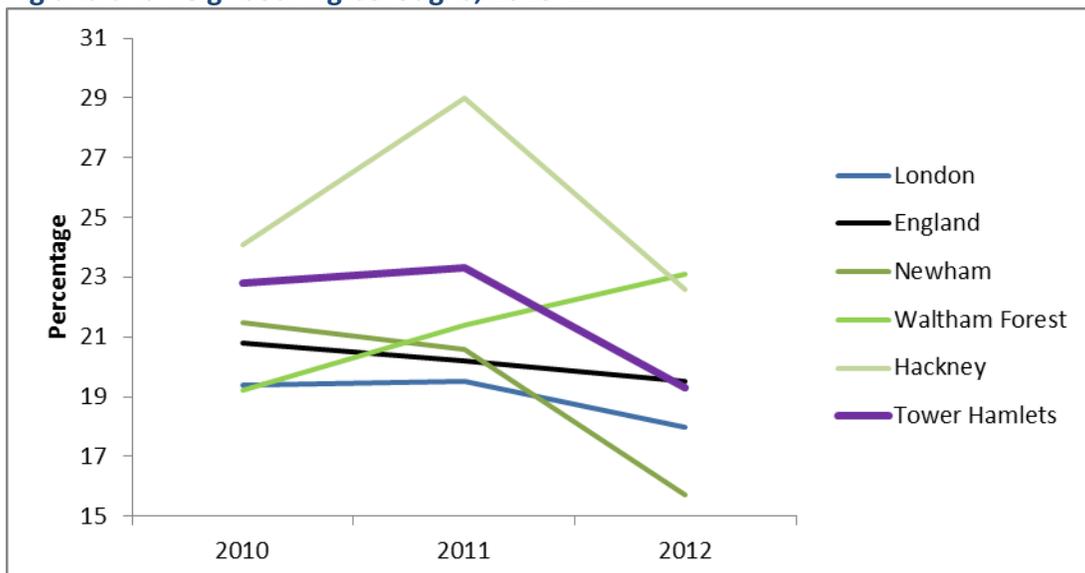


Source: PHE, Public Health Outcomes Framework, 2014

**Appendix J: Spend versus outcomes for Tower Hamlets PCT compared to other PCTs for Mortality from bronchitis, emphysema and COPD, 2011/12.**

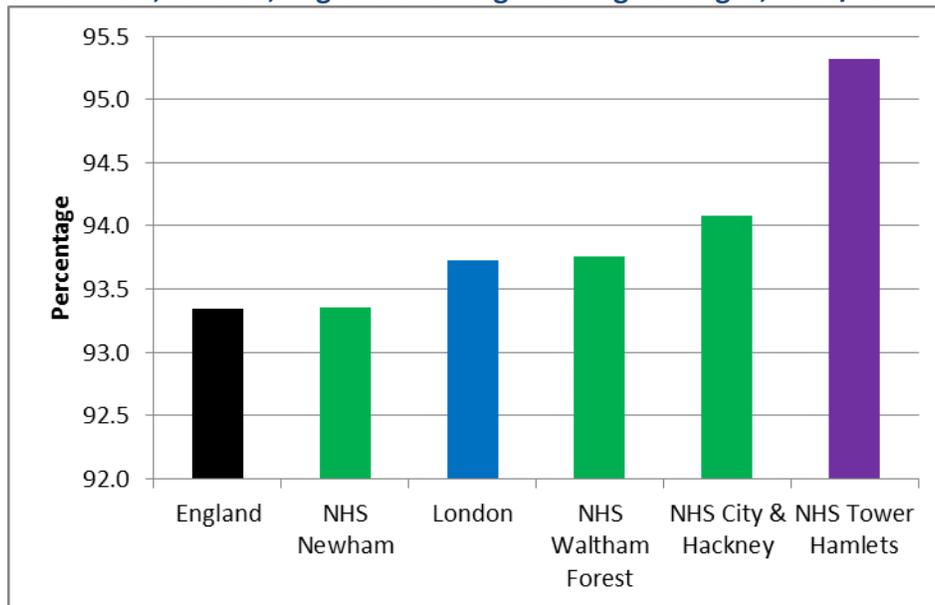


**Appendix K: Time trend of percentages of adult (18+) residents who smoke in Tower Hamlets, London, England and neighbouring boroughs, 2010-12.**



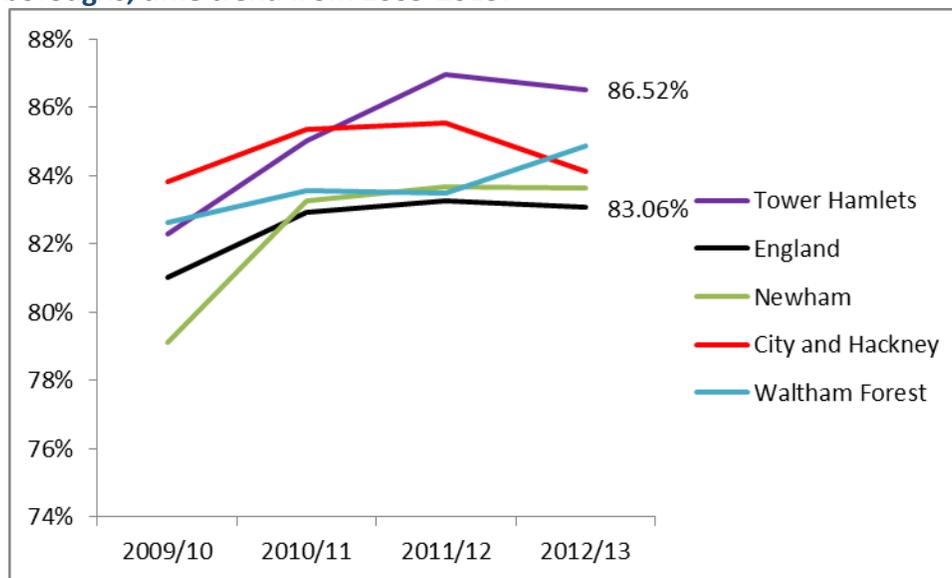
Source: PHE, Public Health Outcomes Framework, 2014

**Appendix L: Percentage of patients who smoke and have any combination of certain conditions including COPD who have been provided with smoking cessation advice or referrals to specialist services in Tower Hamlets, London, England and neighbouring boroughs, 2012/13.**



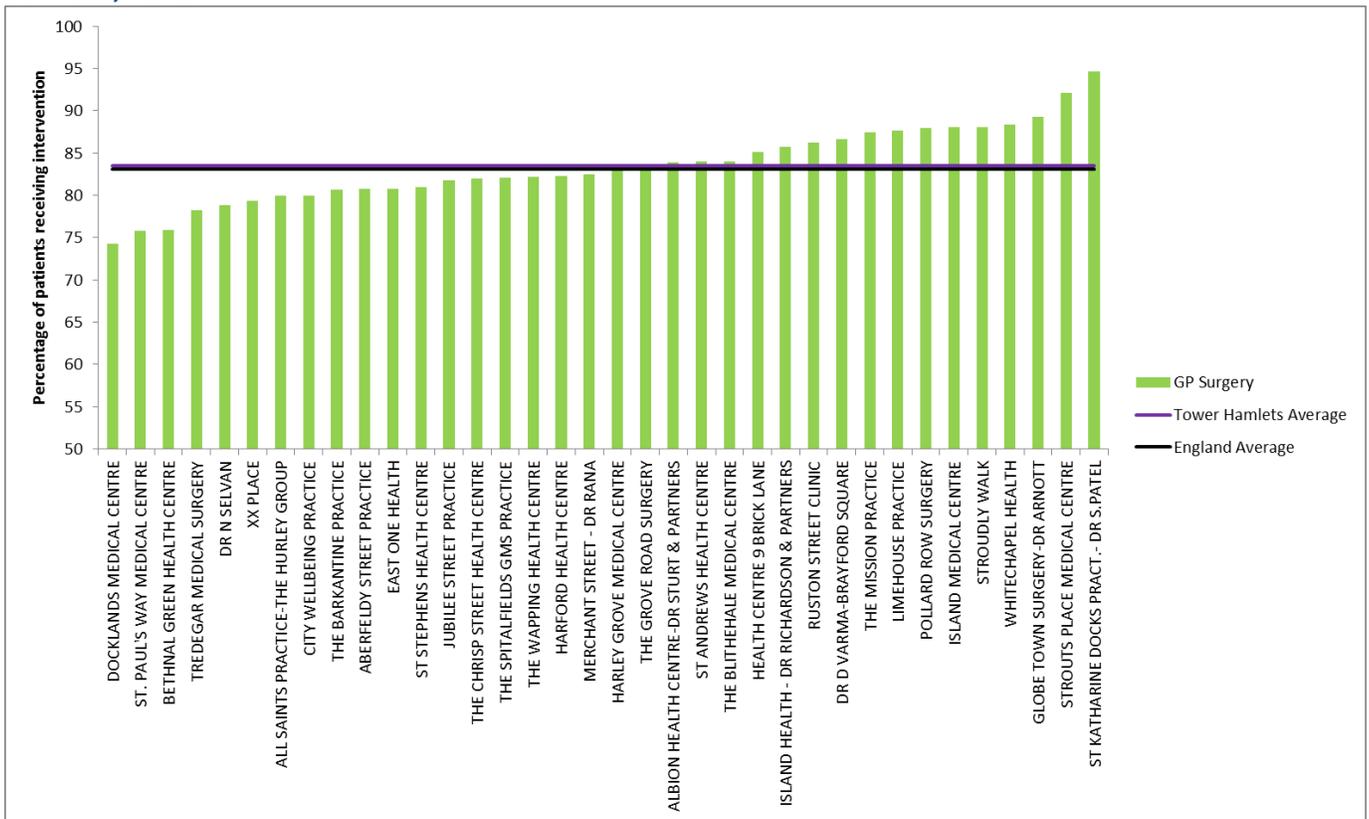
Source: HSCIC, 2014

**Appendix M: QOF COPD08 - Percentage of patients with COPD who have had influenza immunisation in the preceding 1st Sept to 31st of March (including exceptions) for Tower Hamlets, England and neighbouring boroughs, time trend from 2009-2013.**



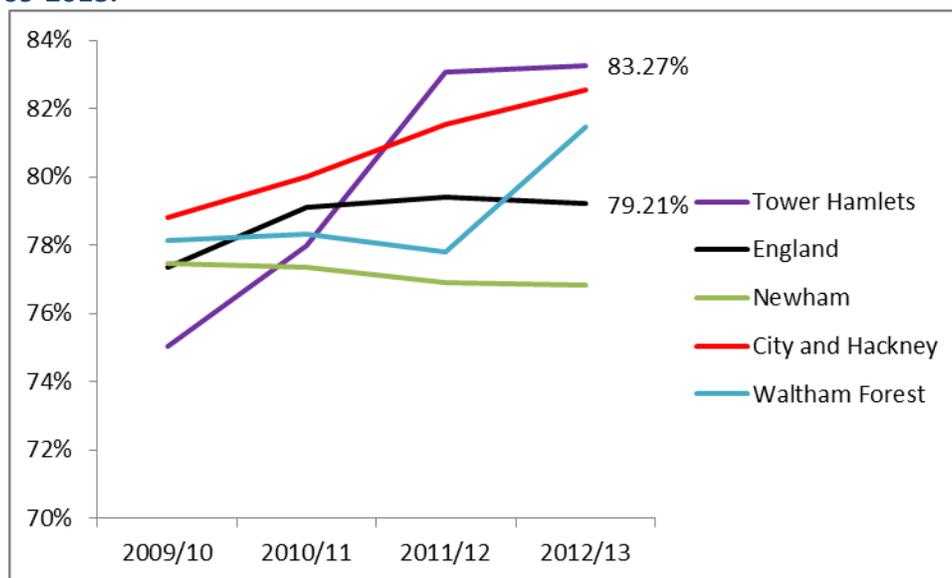
Source: PHE, 2014

**Appendix N: QOF COPD08 - Percentage of patients with COPD who have had influenza immunisation in the preceding 1st Sept to 31st of March (including exceptions) for GP surgeries within Tower Hamlets, 2013.**



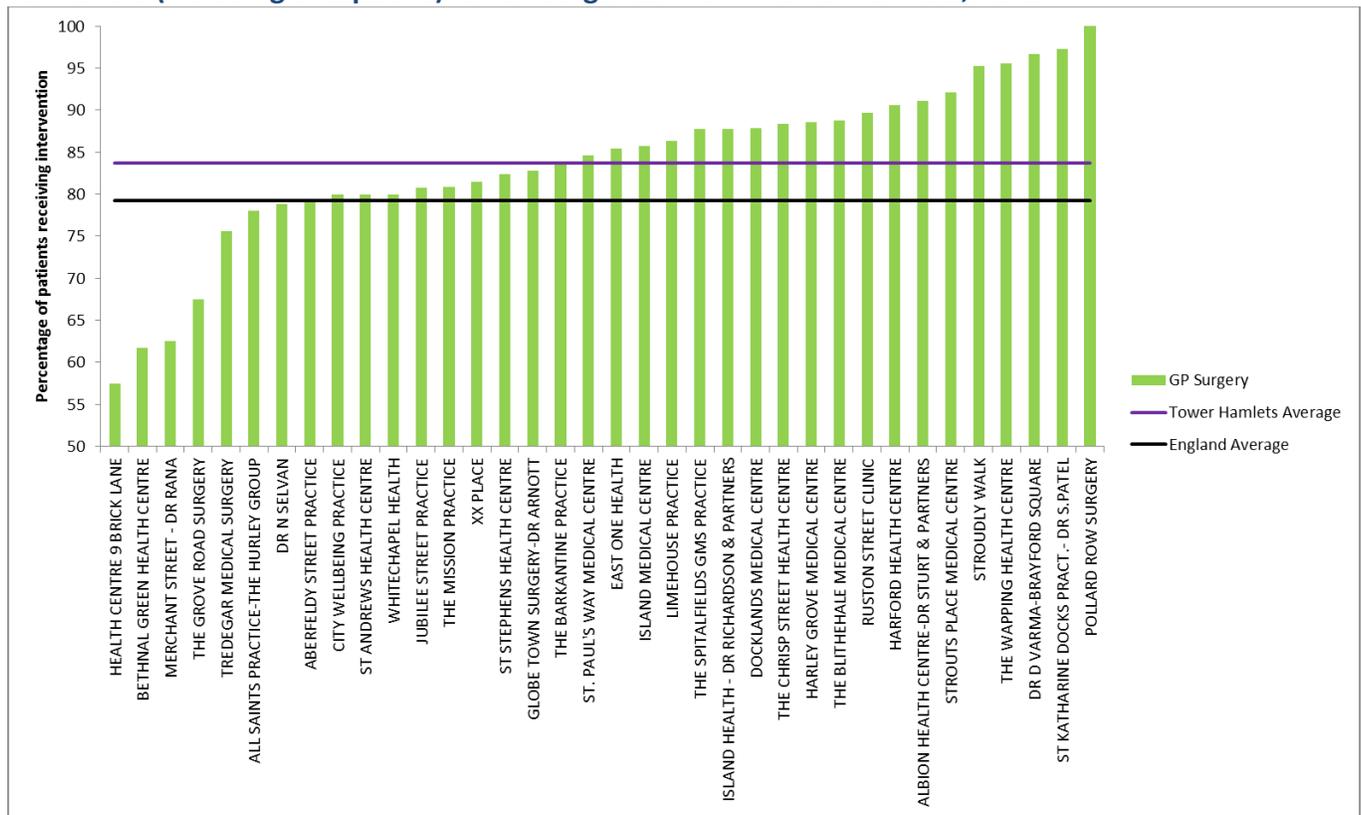
Source: PHE, 2014

**Appendix O: QOF COPD10 - Percentage of patients with COPD with a record of FEV<sub>1</sub> in the preceding 15 months (including exceptions) for Tower Hamlets, England and neighbouring boroughs, time trend from 2009-2013.**



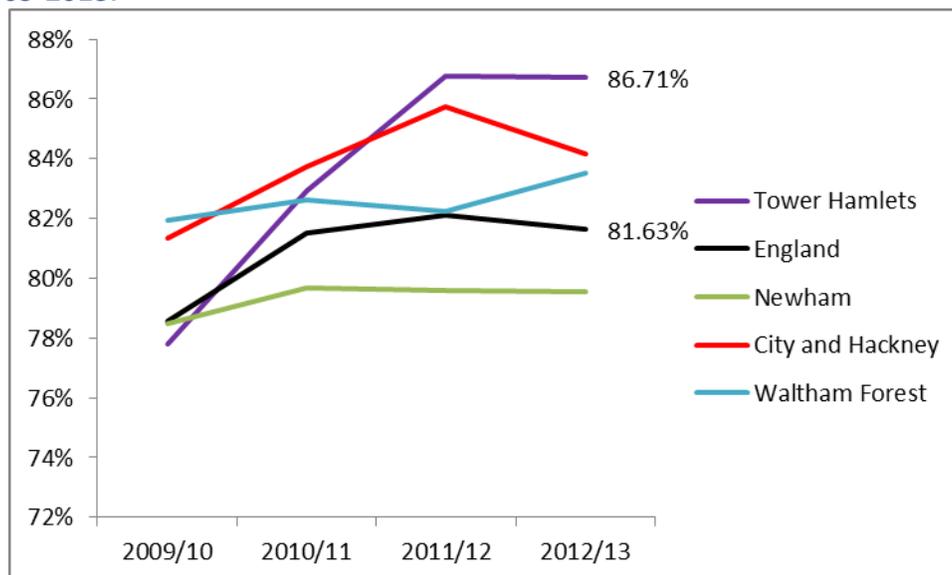
Source: PHE, 2014

**Appendix P: QOF COPD10 - Percentage of patients with COPD with a record of FEV<sub>1</sub> in the preceding 15 months (including exceptions) for GP surgeries within Tower Hamlets, 2013.**



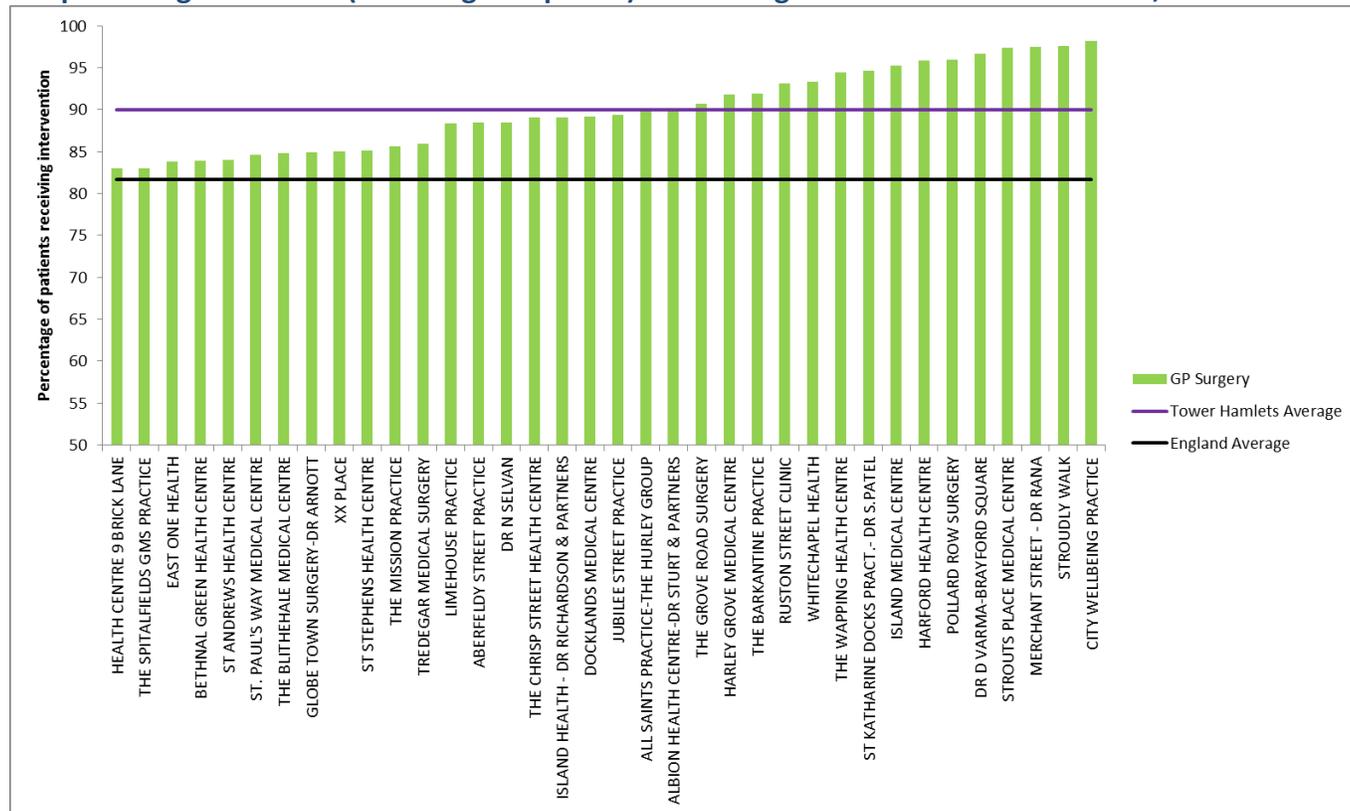
Source: PHE, 2014

**Appendix Q: QOF COPD13 - Patients with COPD who have had a review undertaken by a healthcare professional, including an assessment of breathlessness using MRC dyspnoea score in the preceding 15 months (including exceptions) for Tower Hamlets, England and neighbouring boroughs, time trend from 2009-2013.**



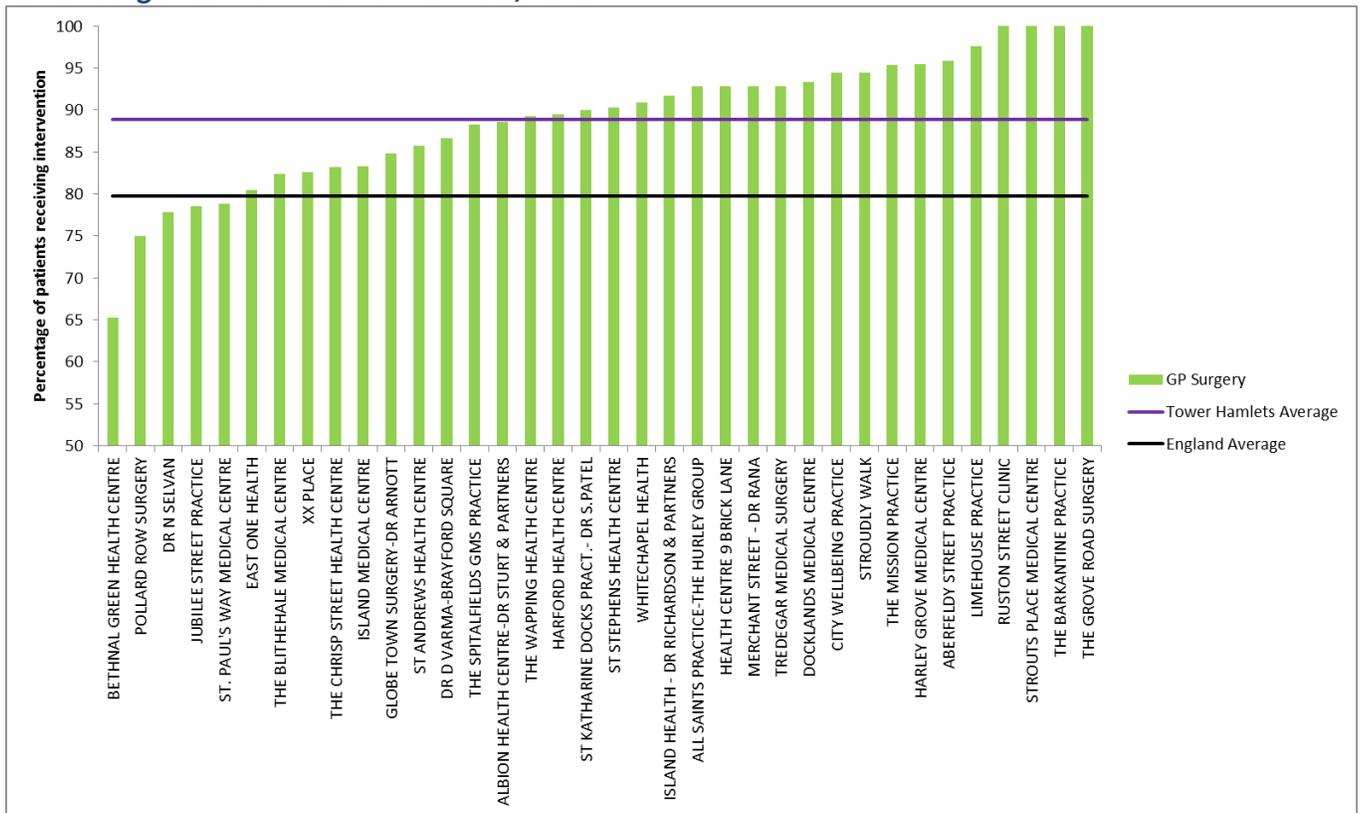
Source: PHE, 2014

**Appendix R: QOF COPD13 - Percentage of patients with COPD who have had a review undertaken by a healthcare professional, including an assessment of breathlessness using MRC dyspnoea score in the preceding 15 months (including exceptions) for GP surgeries within Tower Hamlets, 2013.**



Source: PHE, 2014

**Appendix S: QOF COPD15 - Percentage of all patients with COPD diagnosed after 1st April 2011 in whom the diagnosis has been confirmed by a post bronchodilator spirometry (including exceptions) for GP surgeries within Tower Hamlets, 2013.**



Source: PHE, 2014

## References:

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- <sup>2</sup> Source: National General Practice Profiles, 2015.
- <sup>3</sup> Source: Public Health England, Quality Outcomes Framework data, 2015.
- <sup>4</sup> Source: PHE, Public Health Outcomes Framework, 2014
- <sup>5</sup> Source: NHS comparators, 2014
- <sup>6</sup> Source: Health and Social Care Information Centre, 2015
- <sup>7</sup> <http://www.nice.org.uk/guidance/CG101>
- <sup>8</sup> <http://www.nhs.uk/conditions/chronic-obstructive-pulmonary-disease/Pages/Introduction.aspx>
- <sup>9</sup> <http://who.int/mediacentre/factsheets/fs310/en/>
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- <sup>13</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/256456/NHS\\_outcomes.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/256456/NHS_outcomes.pdf)
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- <sup>15</sup> <http://www.nice.org.uk/guidance/QS10/>
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- <sup>20</sup> Association of Public Health Observatories (2011) COPD Prevalence Estimates Dec 2011, <http://www.apho.org.uk/resource/item.aspx?RID=111122>
- <sup>21</sup> [www.apho.org.uk/resource/view.aspx?RID=111122](http://www.apho.org.uk/resource/view.aspx?RID=111122) and CEG 2013 data
- <sup>22</sup> North East London Clinical Support Unit data, SUS inpatient extracts, 2013/14
- <sup>23</sup> <http://www.yhpho.org.uk/resource/view.aspx?RID=203757>