

**BHH**

Brent  
Harrow  
Hillingdon  
Clinical Commissioning Groups



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# BUSINESS CASE

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HILLINGDON  
INTEGRATED  
RESPIRATORY  
PATHWAY

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**1.0 Background information**

**1.1 Project team**

<b>Project Sponsor (SRO)</b>
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**1.2 Version control**

Date	Author	Summary of changes
20/01/2015	Christine Falzon	V1.1 – First draft on required template
08/03/2015	Mark Eaton	V2 – Updated prior to F&Q Committee
19/5/2015	Helen Delaitre	V3 – Updated prior to Governing Body following F&Q

**1.1 For PMO use**

<b>Approved By</b>
<b>Location of File</b>
<b>Budget Allocated</b>
<b>Budget Holder</b>

<b>Date of Approval</b>
<b>Finance Lead</b>
<b>Budget Code</b>
<b>Delivery Plan Due</b>

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## 3.0 Introduction

This business case outlines the outputs of the pathway re-design project for Hillingdon Adult Respiratory Services and the resultant options for developing an Integrated Respiratory Service.

Hillingdon CCG has already implemented some high quality respiratory services locally in collaboration with local providers including;

- Pulmonary Rehabilitation
- Quality Assured Spirometry Service (pilot)
- COPD Health Champions Initiative

Other services are also provided locally but are not directly commissioned by the CCG. These services are charged within secondary care inpatient and outpatient activity like the Hillingdon Hospital (THH) Outreach Service and inpatient Clinical Nurse Specialist Clinics.

Our work to date reviewing respiratory pathways has however identified a number of gaps in local service provision for adult respiratory patients. Existing services for this patient group are reactive and mostly based in secondary care. Hillingdon CCG is committed to moving the majority of Respiratory care into the community where appropriate prevention and education can drastically improve outcomes and reduce healthcare utilisation and mortality. Evidence based provision of supported self-management interventions to prevent and manage exacerbations within the community need to be provided to avoid the healthcare burden of COPD and Asthma to patients in terms of quality of life and to the health economy in terms of healthcare utilisation.

### Decision Required

The Finance & QIPP Committee and Governing Body are invited to;

1. Support the proposed **Option 3** below to enable the revised service to be implemented in 2015/16
2. Approve the approximate investment of **£147,650** required to implement option 3 for 2015/16 generating a gross savings of **£207,978**. This invest to save initiative would therefore result in **NET QIPP SAVINGS of £60,328** over 6 months in the first year.

## 4.0 Purpose

This Integrated Respiratory Service will deliver a joined up Adult Respiratory Pathway for Hillingdon, improving the quality of respiratory services locally and moving clinical activity from secondary care into primary care to prevent avoidable admissions and A&E attendances.

## 5.0 Objectives

The Integrated Respiratory Service will target 2 main patient groups: Adult Asthmatics and COPD patients and will aim:

- To ensure timely and accurate diagnosis of COPD and Asthma patients. This means that patient are on the correct treatment and therefore receiving better medical management.
- To reduce unnecessary Respiratory related attendances at A&E.

- To reduce the number of unplanned admissions for Respiratory disease, particularly short-stay admissions.
- To improve the ability of patients to self-manage and support them to do so when they exacerbate, ensuring they access the most appropriate services in a timely and safe manner.
- To ensure patients are managed holistically, linking into local services for their other healthcare needs E.g. Falls, Swallowing and Continence problems.
- To ensure that GP’s and practice nurses have the right training and specialist support to manage all COPD and Asthma patients in line with national guidance without undue referrals to secondary care.
- To reduce variances in the care available to respiratory patients in Hillingdon.

Although the pathway will target mainly Asthma and COPD, patients with any long term Respiratory condition will be included in this pathway where clinically appropriate. Conditions like restrictive conditions, although best diagnosed and treated in secondary/tertiary care may still benefit from the rehabilitation, oxygen and self-management education services provided within this pathway.

## 6.0 Options

<b>6.1</b>	<b>Option 1: Do Nothing</b>
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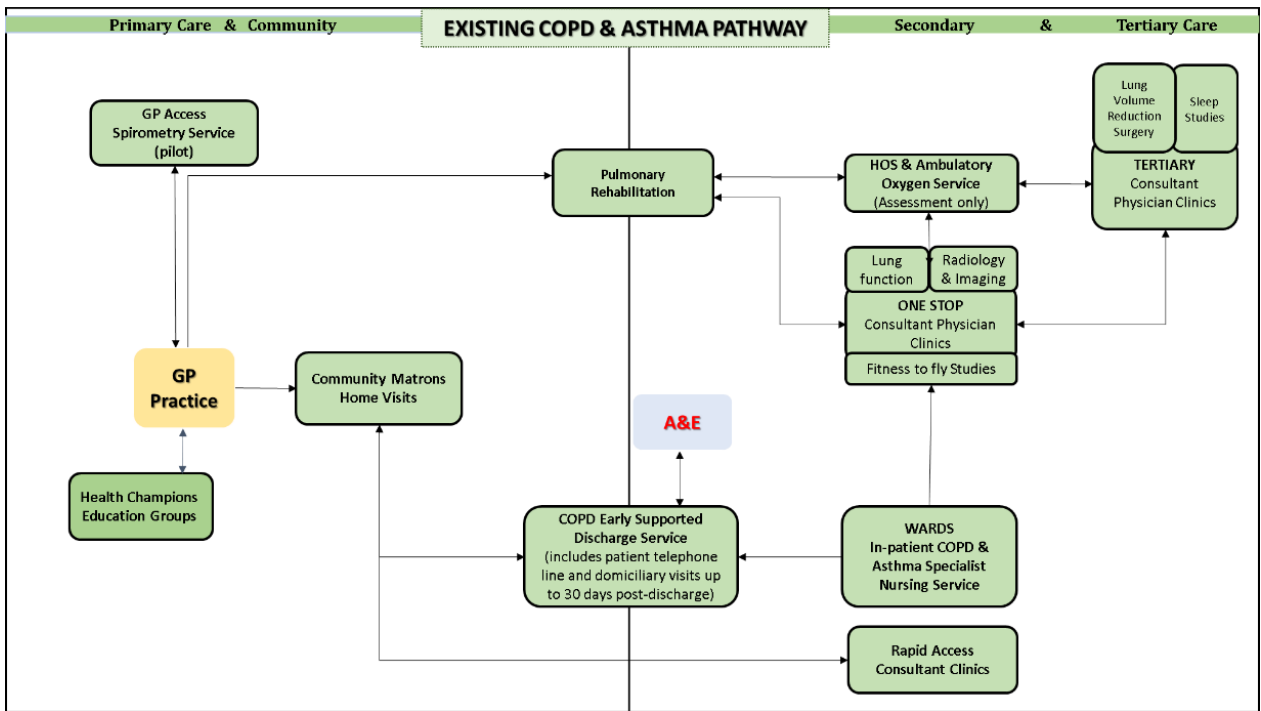
Maintaining the status quo will mean that patients will have access to the existing services:

- Pulmonary Rehabilitation [RBH]
- Direct access diagnostics [THH/RBH]
- Community based spirometry service provided by GP hubs & RBH
- Email advice line with Respiratory Consultant [THH]
- Secondary care based Oxygen Assessment Service [RBH]
- Health Champions [RBH]

However, at present these services are not joined up and the existing pathway allows patients to fall through the net. There is little capacity within primary care to deliver self-management education to patients and to support them when they are unwell. Patients do receive specialist support from consultants and specialist nurses and physiotherapists in secondary care, however the only option for patients to access care when unwell is to go to A&E or visit a fast-track clinic. This is done at high cost to the healthcare economy and inconvenience to the patient. This option will not reduce healthcare utilisation costs in this patient group which is increasing year on year.

COSTS OF OPTION 1	
Health Champions	£60,000
Pulmonary Rehabilitation	£211,983
Spirometry	£37,000

Oxygen service costs	Not known – charged as outpatient appointments
<b>TOTAL</b>	<b>£212,080</b>



**6.2 Option 2: Redesign of Existing Community Services**

For this option, the pathway would be redesigned to deliver more joined up care for Respiratory LTCs using existing community services and providing COPD and Asthma training to:

- Community Matrons
- Rapid Response Teams
- Community Rehabilitation Teams

The above services would be in addition to the existing Respiratory services:

- Pulmonary Rehabilitation [RBH]
- Community based spirometry service provided by GP hubs & RBH
- Email advice line with Respiratory Consultant [THH]
- Secondary care based Oxygen Assessment Service [RBH]

This model will not increase access to specialist healthcare professionals for Respiratory patients. Benefits to patients will be constrained by limited capacity and variation in clinical respiratory skills of generalist services. The reductions in utilisation of secondary care specialist services will be limited as this will still be the only source of specialist care. There will be no capacity to train primary care clinicians on the job, limiting benefits. The only access to specialist support for patients when they are unwell will be to remain within secondary care.

The risks associated with Option 2 are as follows:



- Admissions to hospital and A&E attendances will not be reduced due to lack of confidence that generalist staff have when managing breathless patients. This could be mitigated by training all community staff but maintenance of skills and costs in terms of course fees and lost contact time would not give the required return on investment (ROI) particularly with the high staff turnover rates often present in nursing services.
- Patients may not have confidence in generalists’ knowledge and will then not follow advice on how to self-manage.
- Consultants will not discharge patients from their clinics due to lack of confidence in the skill (and capacity) of community and primary care staff.
- There is no resource for training and support for GPs and practice nurses.
- There is no capacity to take on additional workload.

<b>COSTS OF OPTION 2 (existing costs)</b>	
Health Champions	£60,000
Pulmonary Rehabilitation	£211,983
Spirometry	£37,000
Oxygen service costs	Not known – charged as outpatient appointments
<b>TOTAL</b>	<b>£312,080</b>

<b>6.3</b>	<b>Option 3: Develop an Integrated Respiratory Pathway</b>
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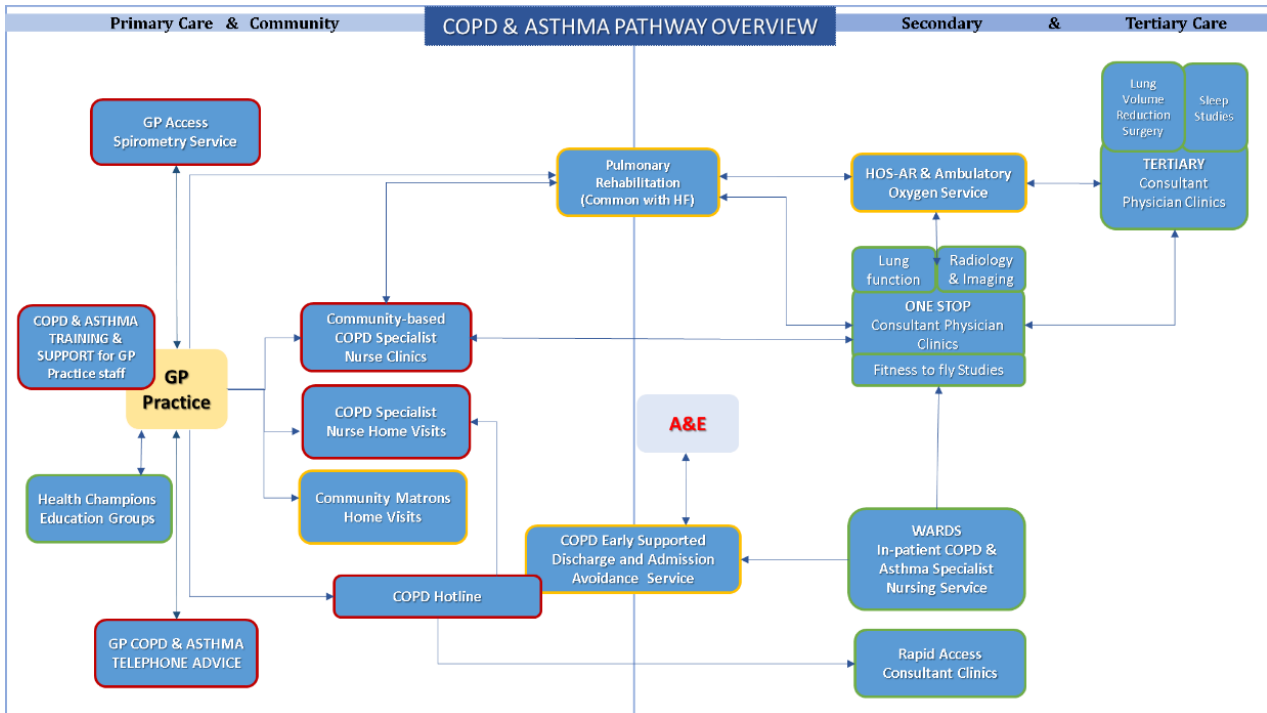
This option is recommended based on clinical guidelines and is supported by a wide range of clinical evidence. Although some aspects of holistic care will always need to be managed by generalists, a consultant-led specialist integrated service spanning primary and secondary care is the most successful model used to improve care for COPD patients.

A number of similar services exist across London showing the model improves quality of care and reduces healthcare utilisation. The service will include extending existing services and moving most aspects of care into the community where the patients can be supported to access self-management education and get help with self-management of exacerbations to avoid unnecessary admissions

This model will allow:

- Capacity to support case-finding and clinical training for practices for both COPD and Asthma.
- Patient focused joined up care across the whole pathway to ensure patients are treated in the right care setting for the best outcomes.
- Increased access to specialist care for those patient who are more severely disabled by their breathlessness and/or housebound [home visits].
- Local COPD Respiratory consultant and asthma specialist nurses and physiotherapists to deliver a holistic Respiratory disease management service to include:
  - Self-Management
  - Rehabilitation
  - Oxygen
  - Supported self-management of exacerbations

- Signposting to other generalist and specialist services
- A reduction in duplication and a more efficient communication pathway between secondary and primary care.
- A complete oxygen pathway in line with NICE guidelines and HOS-AR commissioning guides.
- An integrated service will allow development and maintenance of highly specialist skills within the community.
- Access to clinical psychology where the predominant clinical issue is anxiety and depression related to breathlessness and resulting disability.



Although compared to Option 2 this model requires a higher initial investment, the impact of having the whole pathway in place will deliver larger financial benefits in the long-run. Benefits will include:

- Shifting of activity out of secondary care in the short term.
- A reduction in short LOS admissions in the medium term.
- A simplified healthcare system with a prime provider delivering the majority of care.
- Reduction in all COPD admissions and other healthcare utilisation measure in the longer term.
- Slowing or stopping the growth rates in healthcare utilization.
- An increase in diagnosed prevalence for COPD
- An increase in the accuracy of diagnosis for COPD and Asthma
- An increase in the level of patient empowerment and their ability to self-manage
- An increase in quality of life for COPD and asthma patients
- Improved adherence to NICE guidance for COPD and Asthma
- Decreased morbidity and mortality for respiratory patients in Hillingdon

The specialist pathway will interface efficiently with other community services like community matrons and rapid response teams to ensure best use of specialist resources. The Pathway will also create capacity to create joined up cardio-respiratory services for improved and more streamlined diagnosis of management of the Breathless patient.

<b>6.4</b>	<b>Preferred Option: Option 3</b>
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The preferred Option is Option 3.

<b>6.5</b>	<b>Implementing the Preferred Option</b>
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The preferred option is to negotiate the additional services required with existing providers, extending the services they provide to fill gaps in Respiratory care. For asthma services, incentives to improve care in Primary care are preferred to ensure an increase in quality that is sustainable (these will be included in a separate business case).

## 7.0 Finance

The following table describes the costs and projected savings based on service activity:

<b>Appointments</b>	Patient contacts per nurse/physio in 1 year	1210
	Number of additional community nurses/physios	2.5
	<b>Total nurse/physio patient contacts (75% of contacts)</b>	<b>2268</b>
	Patient contacts per clinical psychologist	0
	Number of psychologists	0.2
	<b>Total psychologist patient contacts - excluded as mostly training/support for nurses</b>	<b>0.0</b>
	Patient contacts per Clinical Lead	1210
	Clinical workload for Clinical Lead	0.5
	<b>Total clinical lead patient contacts</b>	<b>605</b>
	<b>TOTAL PATIENT CONTACTS</b>	<b>2873</b>
	Patient contacts per episode of care	3
	Total Nurse/physio episodes of care	958
	Consultant patient appointments per PA	16
	No. of PAs for clinics (excludes GP practice visits and email/tel support of 1.5 PA per week)	2.0
Total number of outpatient appointments saved per year	1280	
Total cost of outpatient appointments saved per year	<b>£157,120</b>	
<b>Admissions</b>	Saved admissions - % of unique patients	8.5%
	Saved admissions - no. of unique patients	65
	<b>Savings on admissions</b>	<b>£142,545</b>
<b>Outpatient follow-ups</b>	Saved Outpatient FU appointments - % of unique patients	100%
	<b>Savings on Outpatients Follow-ups</b>	<b>£92,696</b>
<b>A&amp;E attendances</b>	Saved A&E attendances - % of unique patients	20%
	<b>Savings on A&amp;E attendances</b>	<b>£23,595</b>
<b>TOTAL COPD SAVINGS</b>		<b>£415,956</b>

<b>INVESTMENT</b>	Nurse/Physio B6 X 1.5	£70,500
	Nurse/Physio B7 X 1	£55,000
	Premises - North Hillingdon Locality (2 clinics per week) - Uxbridge (1 clinic per week)	£14,800
	Note: Clinics in Hayes/Harlington will be cost neutral (Hesa) and Wellcare are providing their own	
	Consultant time (3.5PAs)	£63,000
	1wte Clinical Lead Nurse (8a)	£65,000
	0.2wte Clinical psychologist (8a)	£13,000
	0.5wte Administrator (4)	£14,000
<b>TOTAL INVESTMENT OVER 1 YEAR</b>		<b>£295,300</b>
<b>NET SAVINGS OVER 1 YEAR</b>		<b>£120,656</b>
<b>TOTAL INVESTMENT OVER 6 MONTHS</b>		<b>£147,650</b>
<b>NET SAVINGS OVER 6 MOTNHS</b>		<b>£60,328</b>

The above costings represent the investment and savings projected for the service over 1 year, across all Hillingdon except one network (Wellcare) where a Respiratory Service has already been implemented within the network and will therefore be excluded from this service until the end of 2015/16 when both services will be evaluated.

**PROJECTED SAVINGS ON A POPULATION LEVEL**

	<b>COPD (1st Dx)*</b>	<b>Respiratory</b>
<i>Admissions per year</i>	478	960
<i>Avoided number</i>	94	94
<i>Avoided percentage</i>	<b>20%</b>	<b>10%</b>

*\*Literature indicates up to 30% avoided for COPD*

**PROPORTION OF RESPIRATORY OUTPATIENTS FIGURES**

<i>First Outpatient appointments in 13/14</i>	3015
<i>FU Outpatient appointments in 13/14</i>	11737
<i>% saved COPD FUs - Nurse/Physio Clinics</i>	9.45%
<i>% saved COPD FUs - Consultant</i>	10.85%
<i>Total % saved</i>	<b>20.29%</b>

According to recent evidence (see Appendix B) additional savings of £66,000 could be expected by ensuring that only adequate patients are on inhaled corticosteroids. This is only an estimate for potential savings across all of Hillingdon and may be partially offset by the increases in COPD prevalence.

Some of the pathway benefits will be offset by increases in activity in oxygen services. An increase in activity is also expected in pulmonary rehabilitation, however, the present tariff is much higher than recommended so above assumptions are based on a proposed renegotiated tariff. This will enable a 100% increase in activity without much increase in costs. Although there are no financial benefits for the Asthma element, this is a quality initiative which will ensure that Asthma NICE and BTS guidance is implemented adequately in Hillingdon practices.

## 8.0 Benefits

The following benefits are expected to be delivered by the pathway. The corresponding savings for the Wellcare Network are also provided.

Area	Description of Measure/s	Baseline	FY Target	6 month target	FY Target for Pathway (excl Wellcare)	FY Target for Wellcare	Deadline
Finance	Reduction in admissions for COPD	487	393	47	39	8	Apr-16
	Reduction in A&E attendances for Respiratory	TBC	192	96	78	18	Apr-16
	Reduction in outpatient 1 <sup>st</sup> appointments/follow-ups for Respiratory (aged 19+)	14,752 (11,737 F/U)	£11,389.00	£5,694.50	£4,669	£2,050.02	Apr-16
	Patients with FEV <sub>1</sub> predicted above 50% taken off ICS where appropriate (reduction in corticosteroid prescribing cost)	£66,000	£52,500	£26,250	£21,525	£4,725	Apr-16
Quality	Increased prevalence of diagnosed COPD	1.12%	TBC	TBC	TBC	TBC	Apr-16
	% of COPD patients seen with a self-management plan	Not known	TBC	TBC	TBC	TBC	Apr-16
	Referrals to Pulmonary rehabilitation	TBC	TBC	TBC	TBC	TBC	Apr-16
	Patients with FEV <sub>1</sub> predicted above 50% taken off ICS where appropriate	315+ patients	250 patients taken off	125	103	23	Apr-16
	Provision of Oxygen cards for appropriate patients	Not known	100% of appropriate patients	100% of appropriate patients	100% of appropriate patients	100% of appropriate patients	Apr-16

	Provision of Steroid cards for appropriate patients	<b>Not known</b>	100% of appropriate patients	100% of appropriate patients	<b>100% of appropriate patients</b>	<b>100% of appropriate patients</b>	<b>Apr-16</b>
<b>Safety</b>	Community-based Activity	<b>TBC</b>	TBC	TBC	<b>TBC</b>	<b>TBC</b>	<b>Apr-16</b>
	Waiting times	<b>TBC</b>	TBC	TBC	<b>TBC</b>	<b>TBC</b>	<b>Apr-16</b>

Please note that where baselines and targets are either “not known” or “TBC”, these will be confirmed before service commencement, once the host provider has been identified.

## 9.0 Dis-Benefits

Area	Description of Dis-benefit	Mitigation Plan	Deadline
<b>Finance</b>	Increased Oxygen service costs	This increase in cost cannot be mitigated as it is required to improve care. However it will be partially offset by a decrease in PR tariff (which will be renegotiated) in the first year. After the first year costs should stabilize at a lower level	<b>TBD</b>

## 10.0 Timescales

	Milestone	Owner	Timeline
<b>1</b>	Procurement or Negotiation	CF	May-July 15
<b>2</b>	Contract	CF/Providers	July 15
<b>3</b>	Recruitment	Providers	July – Oct 15
<b>4</b>	Community service expansion commences	THH	Nov 15
<b>5</b>	Contract performance review	CF	Mar 16

## 11.0 Risks, Issues & Dependencies

11.1	RISKS			
Risk	Likelihood	Impact	Total	
Providers may not agree to work together in an integrated manner	<b>Low</b>	<b>High</b>	<b>Amber</b>	
Delays in procurement process may delay implementation	<b>Moderate</b>	<b>High</b>	<b>Amber</b>	
Difficulty recruiting to specialist staff	<b>Likely</b>	<b>High</b>	<b>Red</b>	

Lack of co-operation from other community nursing services	<b>Low</b>	<b>High</b>	<b>Amber</b>
Lack of integration with social care	<b>Low</b>	<b>High</b>	<b>Amber</b>

<b>11.2 ISSUES</b>		
<b>Issue</b>	<b>Mitigation</b>	<b>Owner</b>
PR tariff is very high and will greatly increase costs as more patients are appropriately referred in, in line with pathways. The local tariff is more than double the SuS PR tariff for PR.	Re-negotiation of tariff will be required to avoid an increase in costs	<b>Christine Falzon / Contracting team</b>

<b>11.3 DEPENDENCIES</b>		
<b>Dependency</b>	<b>Impact on project</b>	<b>Owner</b>
Rapid response team	Rapid response team and respiratory services will need to work together to deliver admission avoidance. A clear pathway will need to be agreed by the provider.	Lead Provider
Community matron services	Community matron will be part of the pathway and the flow of patients and pathway responsibilities will need to be agreed between providers	Lead Provider

## 12.0 Governance & Evaluation

The governance structure for the project is as follows:-

The Long Term Conditions Transformation Group has overall responsibility for the programme; its functions are to approve and sign off recommendations made by the Respiratory Clinical Working Group, monitor the project’s progress against plan and ensure risks are managed.

The Clinical Working Group consists of:

- HCCG Respiratory GP Lead
- HCCG Senior Commissioning Manager for Long Term Conditions
- HCCG Pharmaceutical Advisor from Medicines Management Team
- RBH Respiratory Consultant
- RBH Service Co-ordinator
- THH Respiratory Consultants
- THH Specialist Nurses
- THH Head of Clinical Health Psychology
- Community Respiratory Lead from CNWL
- Public Health

- HealthWatch

The Project Management team consists of Hillingdon's Respiratory GP Lead, Senior Commissioning Manager for Long Term Conditions and project management support. They will have the overall responsibility for the delivery of the project and its day to day management.

## Appendices

### APPENDIX A – Summary of Evidence

#### Chronic Obstructive Pulmonary Disease

Chronic Obstructive Pulmonary Disease (COPD) is the 5th biggest killer disease in the UK, killing approximately 25,000 people a year in England. Premature mortality from COPD in the UK was almost twice as high as the European (EU-15) average in 2008 and premature mortality for asthma was over 1.5 times higher. Although, deaths from asthma have plateaued at between 1000 and 1200 deaths a year since 2000, it is estimated that 90% of deaths are associated with preventable factors and could therefore be avoided. Almost 40% of these deaths are in the under 75-age group. Asthma is also responsible for large numbers of hospital admissions, the majority of which are emergency admissions.

**There is strong evidence to show that the following interventions can reduce mortality in COPD patients:**

#### Prevention

Improving smoking cessation could have a significant impact on reducing prevalence of respiratory disease.

#### Earlier and accurate diagnosis of COPD

Studies suggest that between 10 percent and 34 percent of the 115,000 annual emergency admissions for acute exacerbation of COPD in the UK are in people whose COPD is undiagnosed. These patients are likely to have had significant disabling symptoms for some time, and the acute admission with its 14 percent risk of death within 90 days could have been prevented by earlier diagnosis and proactive treatment<sup>1</sup>.

#### Non-invasive ventilation (NIV)

A Cochrane systematic review found that NIV reduces mortality in people with COPD who develop type 2 respiratory failure with a 1 in 8 lives saved. The COPD Strategy Consultation Impact Assessment found that NIV is also a cost-saving intervention.

#### Home oxygen and controlled oxygen dosing to minimise oxygen toxicity

Supplemental long term oxygen therapy was shown to improve survival in appropriate patients. NICE guidance recommends that people with COPD who have low oxygen saturations (92% or below) should have a comprehensive assessment of the need for supplemental home oxygen. The COPD Strategy Consultation Impact Assessment found the provision of specialist home oxygen assessment and review services to be cost saving. High dose oxygen is contraindicated in people with COPD exacerbations because it can trigger life threatening respiratory failure. There is substantial audit evidence that oxygen overdosing and toxicity is

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<sup>1</sup> NHS England (2014). Respiratory Disease, High Quality Care for all [Online] Available from: <http://www.england.nhs.uk/ourwork/forward-view/sop/red-prem-mort/rd/>



common in people with acute exacerbations of COPD and that significantly higher mortality rates are seen in patients who receive higher oxygen doses.

### **Pulmonary rehabilitation**

A Cochrane systematic review found that pulmonary rehabilitation reduces mortality. It also reduces re-admission rates when delivered after admission for acute exacerbation of COPD.

The quality standard for chronic obstructive pulmonary disease (COPD) requires that services should be “commissioned from and **coordinated across all relevant agencies** encompassing the whole COPD care pathway. **An integrated approach** to provision of services is fundamental to the delivery of high-quality care to people with COPD”.

### **ASTHMA**

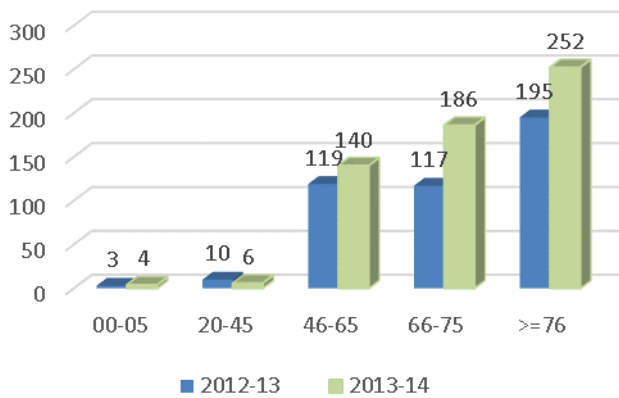
The British Thoracic Society (BTS) Adult asthma audit report 2011, states that rates of re-admission to hospital are high, with 15.1% of people being readmitted between 3 and 12 months after the original discharge. Despite the strong evidence base for asthma action plans, it is estimated that only a quarter of adults with asthma in the UK have a self-management plan. **People with asthma without an action plan are 4 times more likely to have an asthma attack needing emergency care in hospital.** In 2009 there were approximately 1100 deaths from asthma in the UK, 40% of which were in people under 75. It has been estimated that as many as **90% of deaths from asthma are preventable.**

The Quality Standard for Asthma makes 11 clear quality statements including:

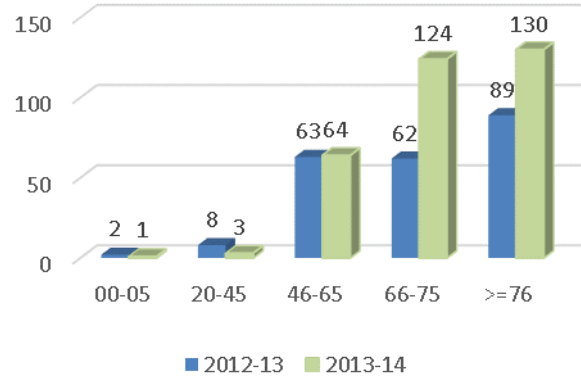
- A **personalised action plan** should be tailored to the person with asthma, enabling people with asthma to recognise when symptoms are worse and setting out actions to be taken when asthma control deteriorates.
- People admitted with an acute asthma exacerbation should be **followed up in primary care within 2 days** of discharge; people not admitted but **treated for an acute exacerbation should be followed up within 2 days of treatment**
- **Self-management education** is known to be effective in both Asthma and COPD however poor capacity and expertise often limits the availability of such services.

**APPENDIX B - Additional Supporting Evidence – Asthma and COPD in Hillingdon**

Admissions for COPD in Hillingdon have shown an increase of 12.7% with the 66-75 age range showing the largest increase (16%) amongst the age ranges.



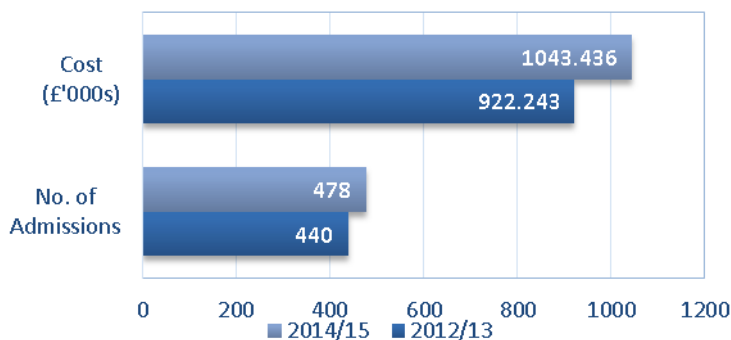
**Figure 1: COPD Admissions by age for local Hospitals**



**Figure 2: 0-1 LOS COPD admissions by age for HCCG**

Zero to one day LOS admissions for COPD have increased by 76% between 2012/13 and 2013/14 (Figure 2 below). Although it may represent a shift in coding it may also indicate a positive shift towards decreasing LOS. In any case, most of these patients could be safely managed in the community. These admissions could therefore be reduced by providing self-management training for patients, specialist COPD exacerbation care within the community setting and a rapid access (ambulatory) clinic. This would provide alternatives to A&E for exacerbating patients.

The evidence shows that if COPD patients were given access to a comprehensive evidence based (NICE) pathway, up to 30% of admissions could be avoided through a combination of better access to pharmaceutical management, pulmonary rehabilitation, better self-management, access to support when exacerbating and access to specialist support. Since some services are already in place locally, a reduction of 20% was deemed more realistic when estimating savings.



**Fig 3: Cost of COPD Admissions by HRG for 2012/13 to 14/15**

Asthma admissions in Hillingdon are relatively stable with an increase of 1% between 2012/13 and 2013/2014. However an increase was observed in the 6-19 and 76+ age ranges with other age ranges showing a drop.

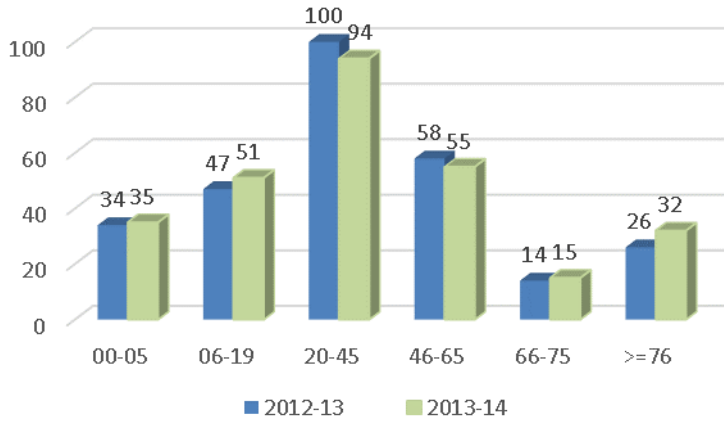


Fig 4: Number of Asthma admissions (HRg) 2012/13 to 14/15

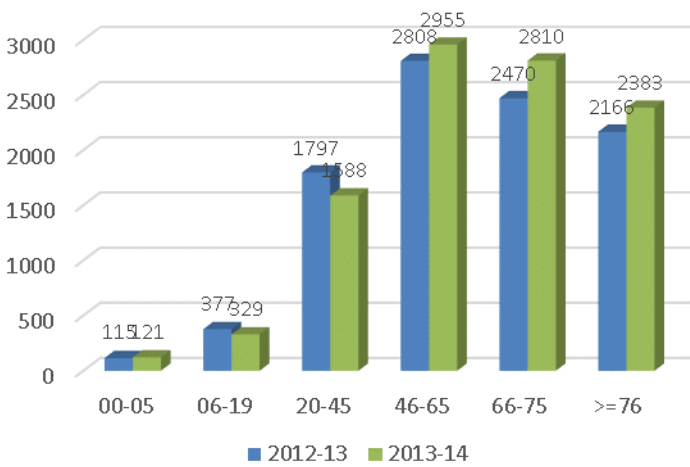


Fig 5: Number of Respiratory Outpatient Appointments 2012/13 to 14/15

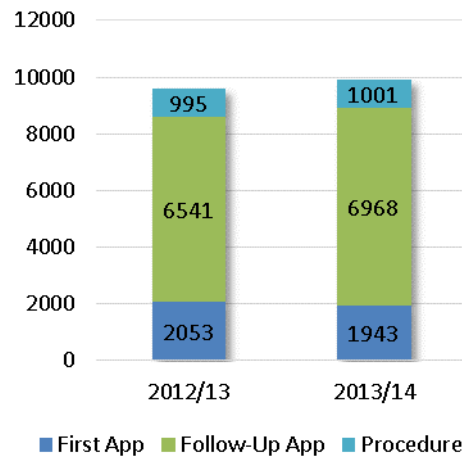


Fig 6: First, follow up and procedure proportions for and 14/15 Outpatient attendances

**BENCHMARKING DATA - COPD**

Benchmarking data shows that overall emergency admissions for Respiratory conditions have been higher for Hillingdon than surrounding boroughs.

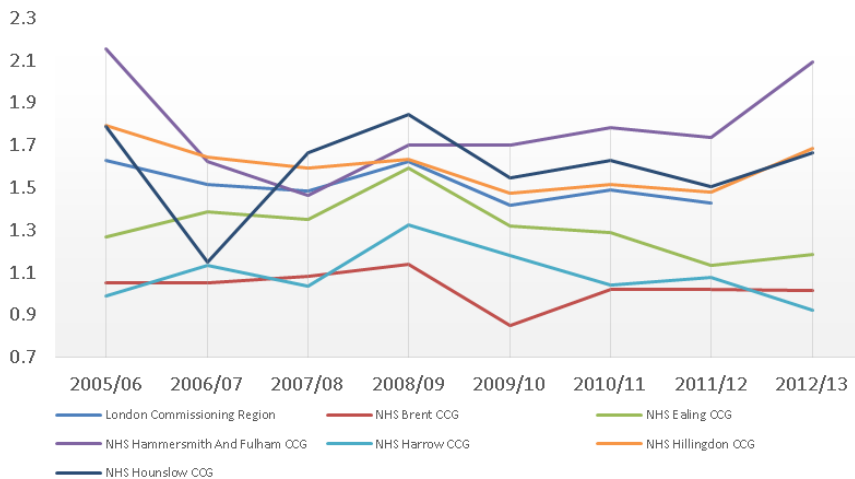
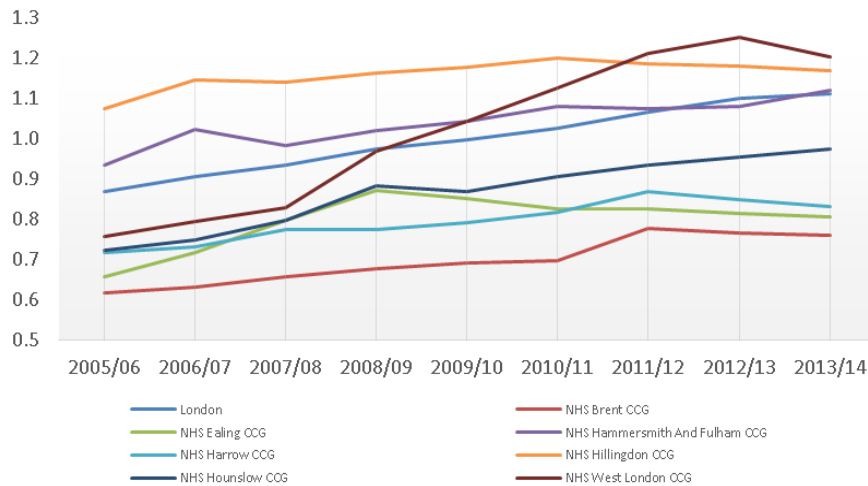


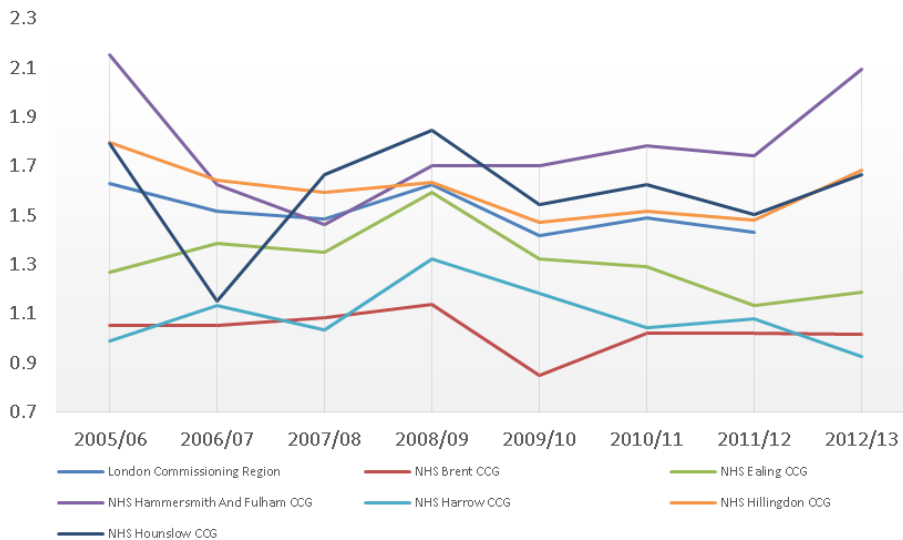
Fig 7: Total COPD admissions for Hillingdon and surrounding boroughs 05/06 to 12/13

COPD Prevalence has been gradually increasing over the last years in most London boroughs through variable introduction of COPD services. Hillingdon has one of the highest prevalences but has seen barely any increase over the years. A clear outlier is West London CCG where a COPD LES was introduced in 2009/10 resulting in a rapid increase in COPD prevalence<sup>2</sup>.



**Fig 8: COPD prevalence**

COPD admissions per 1000 population for Hillingdon are among the highest in NWL and marginally higher than London average.



**Fig 9 : COPD admissions per 1000 population**

Mean LOS shows a downward trend across NWL with Hillingdon having the lowest stays across the sector. This is probably due to the high quality inpatient care for COPD patient that Hillingdon Hospital provides to COPD patients including a specialist COPD Outreach service.

<sup>2</sup> Falzon C., Elkin S., Kelly J.L., Lynch F., Blake I.D., Hopkinson N.S. (2010). Can financial incentives for improvements in healthcare quality enhance identification of COPD in primary care? *Thorax*, Vol 66, No. 7.

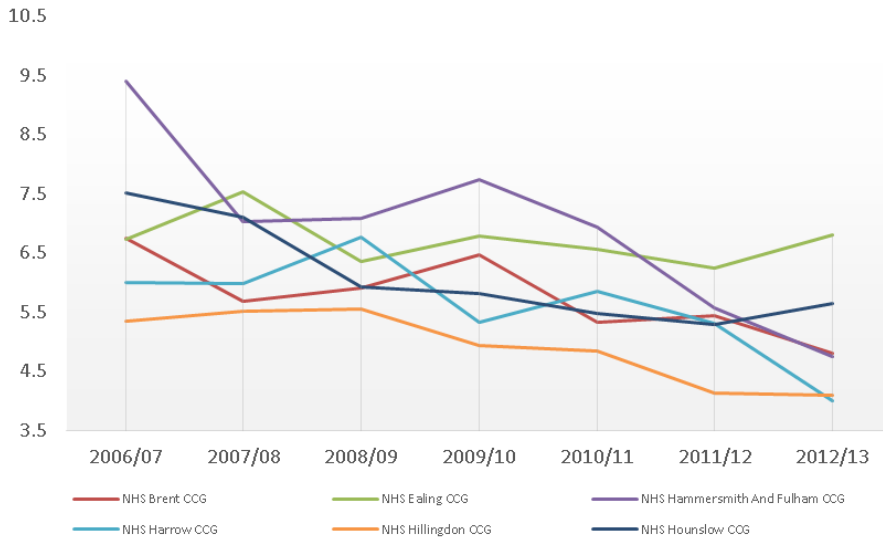


Fig 10: COPD LOS

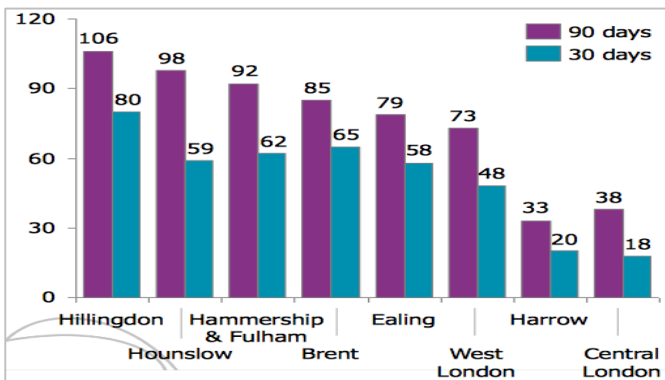


Fig 11: COPD Readmissions 2012/13

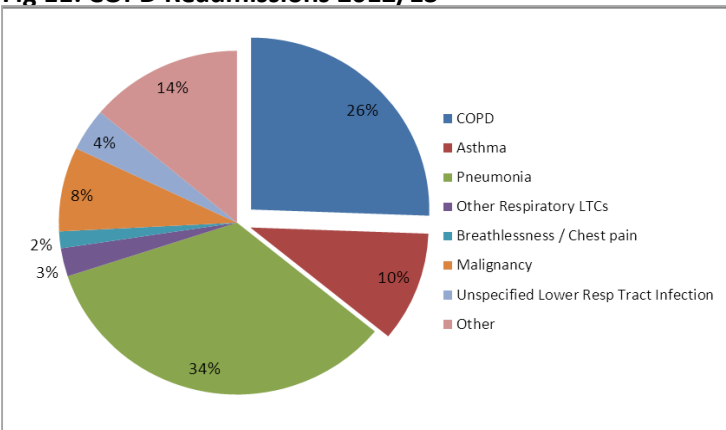
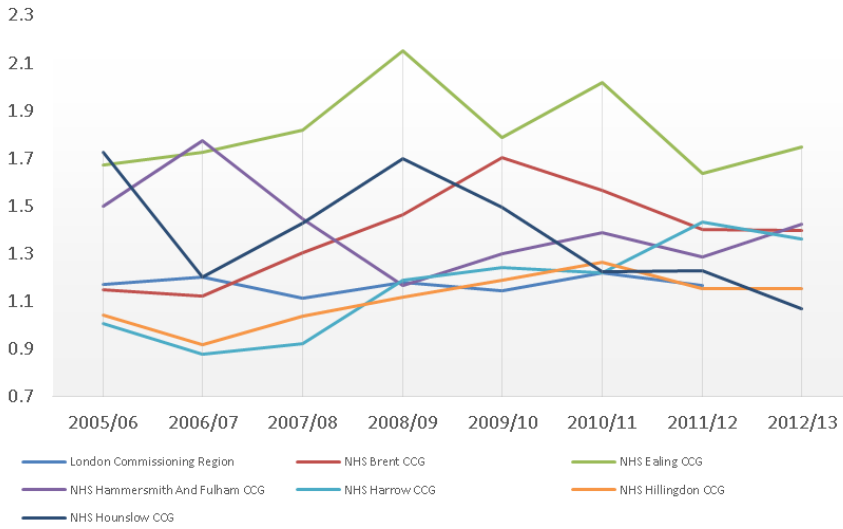
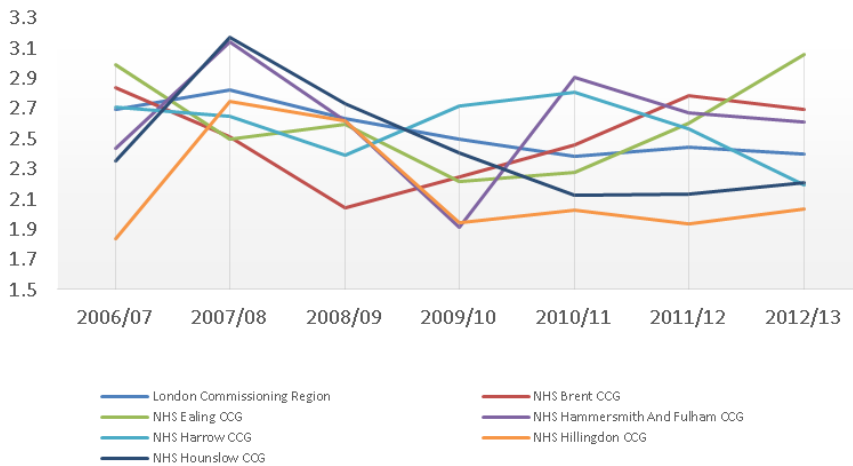


Fig 12: NEL Respiratory Admissions by Diagnosis

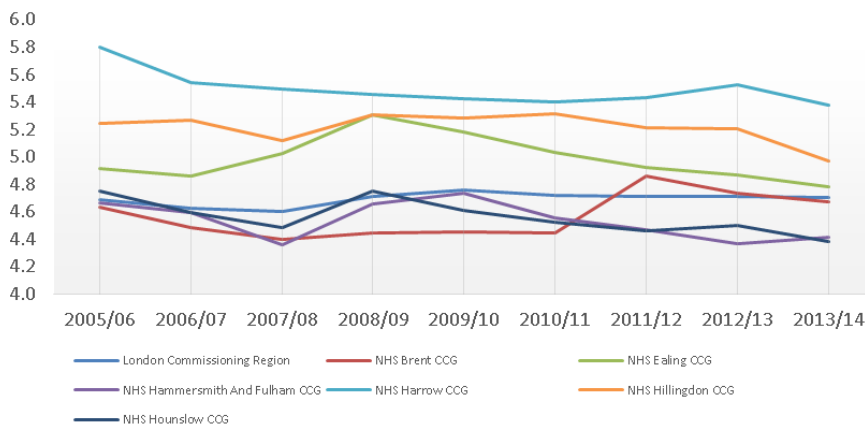
**BENCHMARKING DATA – ASTHMA**



**Fig 13: Asthma admissions per 1000 population**



**Fig 14: Asthma Mean Emergency LOS for Asthma**



**Fig 15: Asthma QOF prevalence**

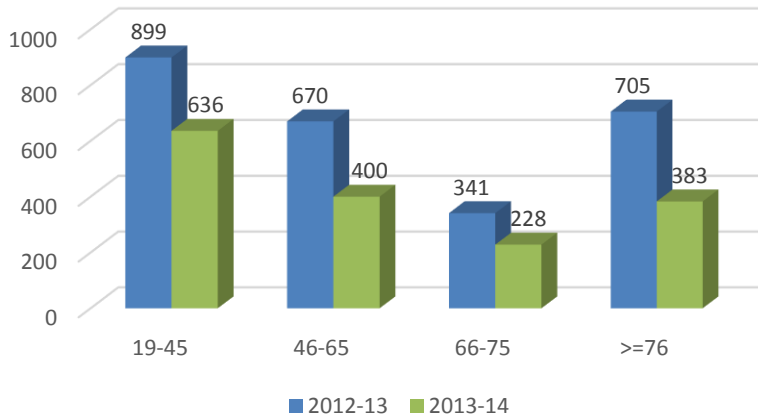
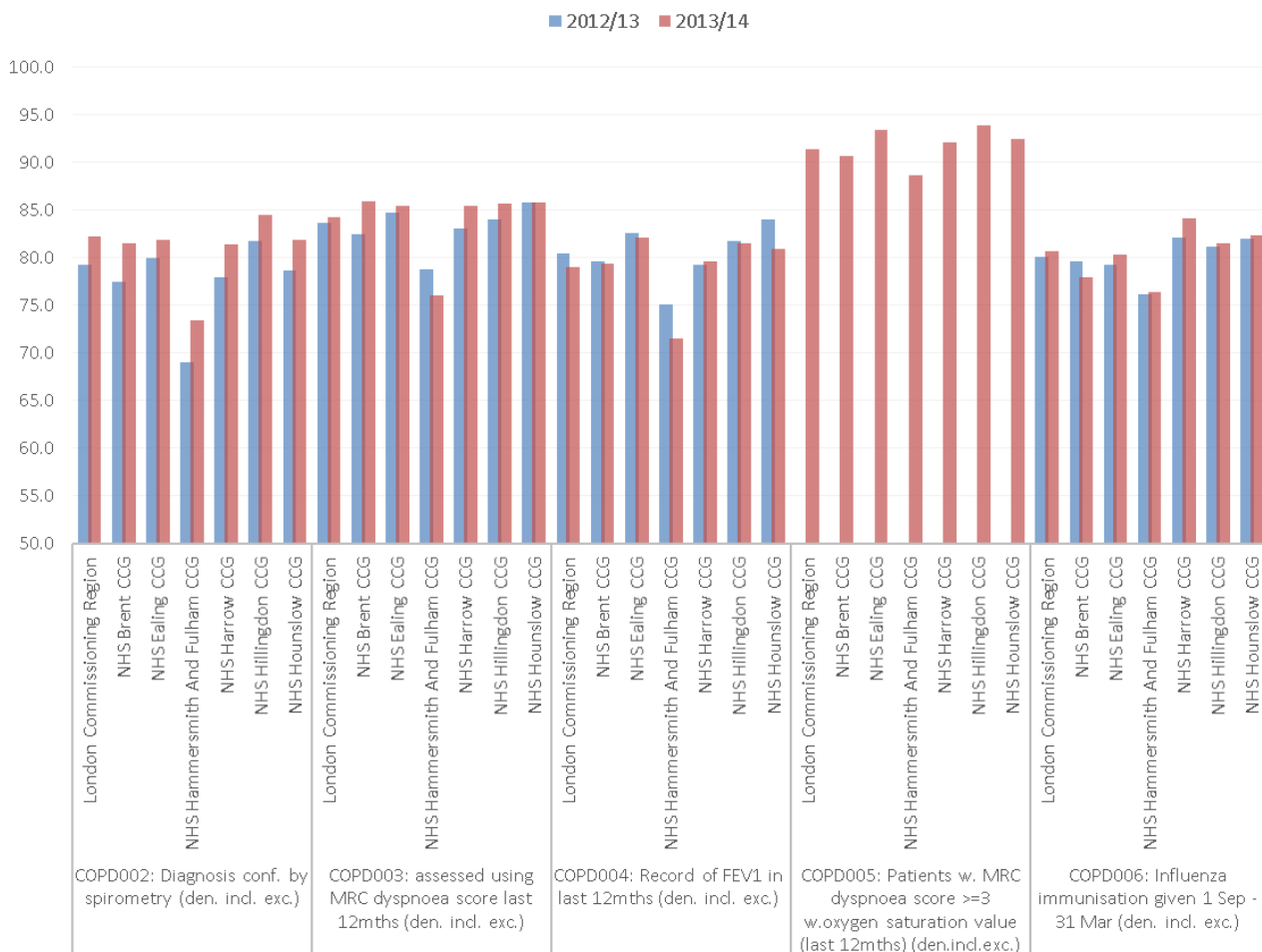


Fig 16: UCC and A&E attendances for Respiratory age 19+

**QUALITY OF CARE**

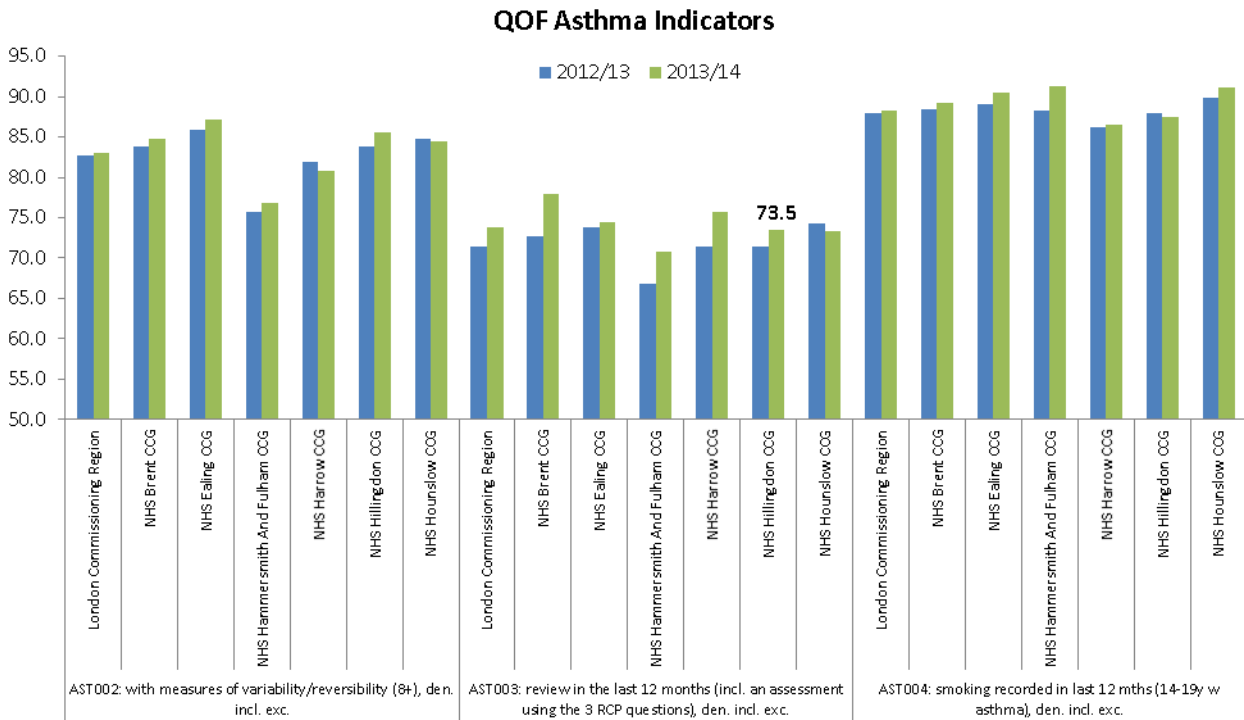
• **QUALITY AND OUTCOMES FRAMEWORK (QOF)**

The QOF outcomes for COPD and asthma for Hillingdon CCG are shown below. Hillingdon practices perform very well on their QOF outcomes, however QOF indicators for both COPD and Asthma do not fulfil evidence-based practice for these conditions in line with NICE COPD and BTS/SIGN Asthma guidelines and further analysis was required.



**Fig 1: COPD QOF indicators**

For Asthma QOF indicators also show good achievement, however the lowest achievement was on the number of patients who have been reviewed within the previous 12 months. Although this is similar in other areas it means a significant number of patients are not receiving evidence-based care.



**Fig 2: Asthma QOF indicators**

**ADHERENCE TO EVIDENCE-BASED MEDICINE**

**COPD**

A Survey of primary care data carried out by Imperial College Health Partners gives an indication of how well local practice adheres to NICE guidelines. The survey included a sample of 22 (out of 48) and can be found embedded in the additional documents section. It is understood that some of the findings relate to poor data entry, however this is still a useful baseline that indicates specific areas of COPD care that need to be addressed.

The main findings from the report dated 17<sup>th</sup> July 2014 were:

- Only 80% of COPD patients with MRC scores of 3 or above were not offered referral to Pulmonary Rehabilitation.
- 61.5% of COPD patients have no record of FEV<sub>1</sub>% predicted and an additional 12.7% have an old record.
- Only 1 patient is reported as being on Long term Oxygen. We know that this figure is actually over 150. This indicates a local data entry/sharing issue
- Only 37% of COPD patients on the register have been provided with a management plan
- 312 patients on inhaled corticosteroids have FEV<sub>1</sub>% of below 50% and thus do not meet the criteria.
- 40% of patients have no record (or old records) for oxygen saturations

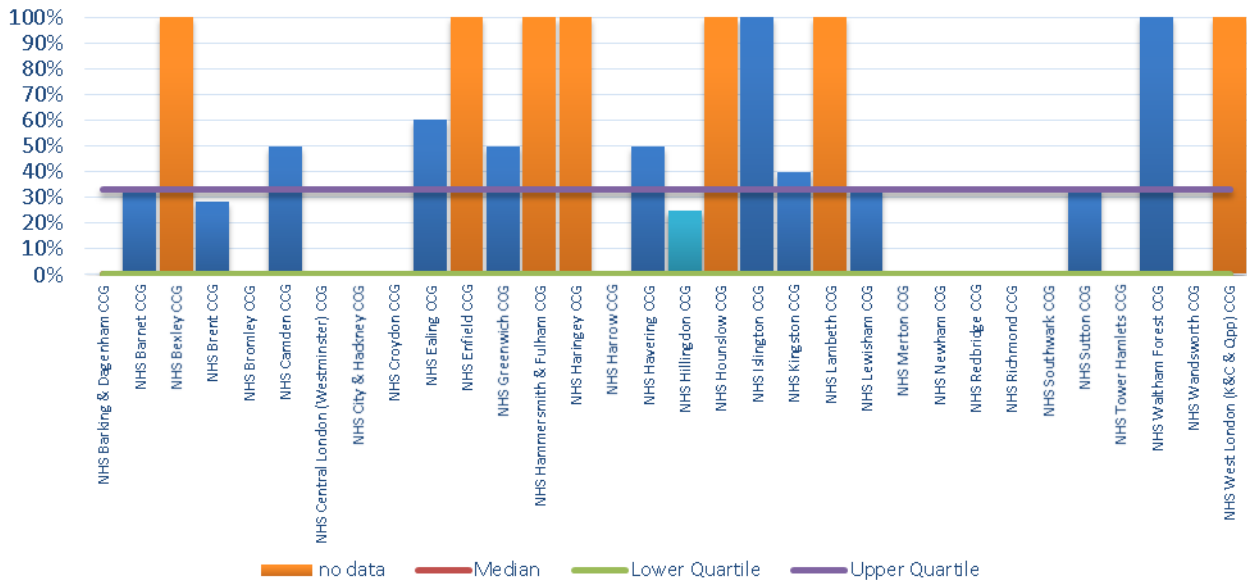


**ASTHMA**

The Compare Your Care Survey collated the experiences of 6,017 people with asthma from around the UK in July 2013 to find out how well their care was meeting expected standards. Although the Hillingdon sample was very small (22), it gives an insight into the asthma care that people in Hillingdon have had, and highlights aspects of care to focus on to improve services. The questions related to the following 3 basic components of asthma:

- Inhaler technique
- Annual Review
- Action Plan

Interestingly the figures for both annual reviews and inhaler technique were very high at 72% and close to the QOF achievement for these components of care. However, Hillingdon had the lowest percentage of patients with an asthma action plan of all the CCGs included in the survey.



**Fig 3: % of patients who said they had all 3 basic components of care**

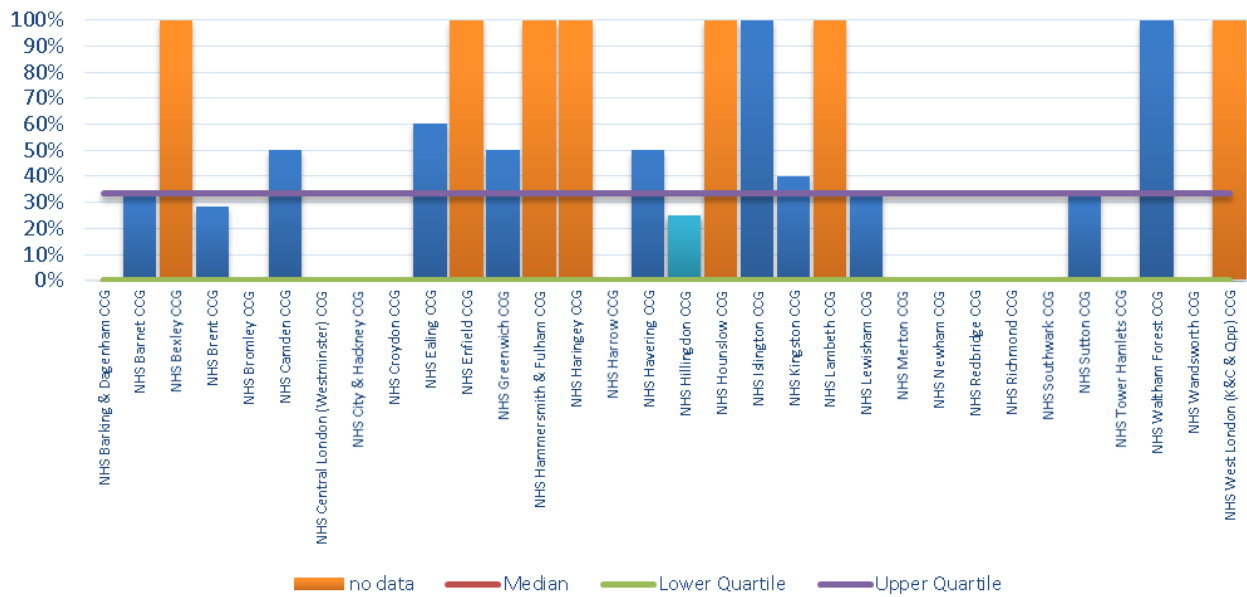


Fig 4: % of patients who said they had an action plan

**HEALTHCARE COSTS ASSOCIATED WITH ASTHMA AND COPD IN HILLINGDON**

The following tables show that the total Respiratory costs for adults in Hillingdon exceed £4 million.

Respiratory Outpatient Activity and Spend for NHS Hillingdon All Providers (2013/2014)		
	Activity	Cost
Outpatient First Attendances (19+)	3,015	£501,896
Outpatient Follow-ups (19+)	11,737	£1,012,754
Procedure (19+)	1,070	£170,631
<b>Total (19+)</b>	<b>15,822</b>	<b>£1,685,281</b>

Adult Respiratory NEL Activity (A&E) and Spend for NHS Hillingdon All Providers (2013/2014)		
	Activity	Cost
A&E attendances (all ages)	2811	£349,653
A&E + UCC attendances (all ages)	3365	£390,393
A&E Attendances (19+)	1466	£217,425
<b>A&amp;E + UCC Attendances (19+)</b>	<b>1647</b>	<b>£231,215</b>
Admissions (all ages)	816	£2,393,899
Admissions (COPD only)	478	£1,043,436
Admissions (Asthma only 19+)	128	£167,114
<b>Admissions (age 19+)</b>	<b>806</b>	<b>£2,372,987</b>
Admissions (age 66+)	469	£1,490,848
<b>Total (19+)</b>	<b>2,453</b>	<b>2,604,202</b>

Although total NEL spend is decreasing, analysis by COPD HRg shows increasing COPD-specific activity and costs.

**APPENDIX C**

**Additional Supporting Evidence - Other clinical models in London**

Service Name & Provider	Clinical conditions included	Clinics / Services included in Pathway	Organisational Model	Strengths	Weaknesses
<b>Hammermit h &amp; Fulham</b> Delivered by community trust	COPD  Asthma (on diagnostic /spirometry clinics only)	Pulmonary Rehabilitation  COPD & Asthma diagnostic clinics including spirometry and Ax by nurse specialist  Home visits  Nurse-led disease management clinics  Exacerbation management in the home and clinics  Tel Hotline –Takes self referrals (if known to service) and GP referrals for exacerbating COPD patients. Home visits done when required. 1 staff member specifically covers this service daily.  Support provided to GPs by consultant – Practice visits and training  Training and case-finding support to practices delivered by nurses  Oxygen service (community staff in hospital site)  Nebuliser service run by nurses	Consultant-led model where consultant runs consultant clinics for all patients in H&F. Community trust subcontracts from local Hospital Trust. Consultant leads weekly MDT with team.  Team line management provided by nurse consultant  Team located in secondary care and shares office with inpatient COPD nurses  Not organised around GP networks – Team resides in one main location and travel to satellite clinics/GPs and patient homes  Consultant support for GPs is available via email and telephone	Good links between secondary and primary care COPD nurses	Consultant post not very attractive as employed by community trust, however supervised by Hospital Trust  Although consultant is employed by community trust the clinics are in a hospital and although they do not attract a tariff, the cost is the same. Diagnostics and other tests are still charged through the hospital
<b>King's Health Partnership</b>	COPD only service	Pulmonary Rehabilitation  Open access – Spirometry and full lung function testing  COPD Nurse-led disease management clinics  Home visits  Exacerbation management in the home and clinics  Tel Hotline – No self referrals - GP referrals for exacerbating COPD patients. Home visits done by RR teams. 1 staff member holds phone but no specific human resource for service.  Support provided by GPs by consultant – Consultant visits practices to go through COPD list with GP and advise on medical management. Template pulls required data before meeting.  Oxygen service (1 nurse per site – King's & GUST)  Hospital at home, supported discharge and admission avoidance provided by generalist rapid response teams	Consultant-led model where 5 RAs are bought out by commissioners and staff commissioned separately (2 who) added to existing secondary care team.  Consultant leads weekly MDTs with team at both sites.  Previous consultant and GP model failed to deliver benefits  GPs involved in triaging all referrals from primary care to Chest clinic, advising GPs on correct info and adequate referrals  GPs clinical lead manages team at each site (King's and GUST)  Nurse/physio staff to rotate into community  3 year project with dose monitoring of impact on RPs and regular review of service model  Consultant support for GPs is available via email and telephone	Good model ensuring high quality care and staff competences  GP visits by consultant have saved £25k per 100,000 population through reduced prescribing of inhaled corticosteroids.  Consultant post attractive role  GPs support for GPs works well  Shared patient record between primary and secondary care  Brings 2 hospital teams together and integrated with the community	3 year project  GP model had no impact on RPs and had to be discontinued

**APPENDIX D****COPD AND ASTHMA QUALITY STANDARDS****ASTHMA QUALITY STANDARD STATEMENTS**

- 1 •People with newly diagnosed asthma are diagnosed in accordance with BTS/SIGN guidance.
- 2 •Adults with new onset asthma are assessed for occupational causes
- 3 •People with asthma receive a written personalised action plan
- 4 •People with asthma are given specific training and assessment in inhaler technique before starting any new inhaler treatment
- 5 •People with asthma receive a structured review at least annually
- 6 •People with asthma who present with respiratory symptoms receive an assessment of their asthma control
- 7 •People with asthma who present with an exacerbation of their symptoms receive an objective measurement of severity at the time of presentation
- 8 •People aged 5 years or older presenting to a healthcare professional with a severe or life-threatening acute exacerbation of asthma receive oral or intravenous steroids within 1 hour of presentation
- 9 •People admitted to hospital with an acute exacerbation of asthma have a structured review by a member of a specialist respiratory team before discharge
- 10 •People who received treatment in hospital or through out-of-hours services for an acute exacerbation of asthma are followed up by their own GP practice within 2 working days of treatment.
- 11 •People with difficult asthma are offered an assessment by a multidisciplinary difficult asthma service

**COPD QUALITY STANDARD STATEMENTS**

- 1 •People with COPD have one or more indicative symptoms recorded, and have the diagnosis confirmed by post-bronchodilator spirometry carried out on calibrated equipment by healthcare professionals competent in its performance and interpretation.
- 2 •People with COPD have a current individualised comprehensive management plan, which includes high-quality information and educational material about the condition and its management, relevant to the stage of disease.
- 3 •People with COPD are offered inhaled and oral therapies, in accordance with NICE guidance, as part of an individualised comprehensive management plan.
- 4 •People with COPD have a comprehensive clinical and psychosocial assessment, at least once a year or more frequently if indicated, which includes degree of breathlessness, frequency of exacerbations, validated measures of health status and prognosis, presence of hypoxaemia and comorbidities
- 5 •People with COPD who smoke are regularly encouraged to stop and are offered the full range of evidence-based smoking cessation support.
- 6 •People with COPD meeting appropriate criteria are offered an effective, timely and accessible multidisciplinary pulmonary rehabilitation programme.
- 7 •People who have had an exacerbation of COPD are provided with individualised written advice on early recognition of future exacerbations, management strategies (including appropriate provision of antibiotics and corticosteroids for self-treatment at home) and a named contact.
- 8 •People with COPD potentially requiring long-term oxygen therapy are assessed in accordance with NICE guidance by a specialist oxygen service.
- 9 •People with COPD receiving long-term oxygen therapy are reviewed in accordance with NICE guidance, at least annually, by a specialist oxygen service as part of the integrated clinical management of their COPD.
- 10 •People admitted to hospital with an exacerbation of COPD are cared for by a respiratory team, and have access to a specialist early supported-discharge scheme with appropriate community support.
- 11 •People admitted to hospital with an exacerbation of COPD and with persistent acidotic ventilatory failure are promptly assessed for, and receive, non-invasive ventilation delivered by appropriately trained staff in a dedicated setting.
- 12 •People admitted to hospital with an exacerbation of COPD are reviewed within 2 weeks of discharge.
- 13 •People with advanced COPD, and their carers, are identified and offered palliative care that addresses physical, social and emotional needs.

**APPENDIX E**

**SERVICE SPECIFICATION – attached as a separate document**

**APPENDIX F**

**EQUALITY IMPACT ASSESSMENT – attached as separate document**