City of Bradford MDC
www.bradford.gov.uk

Report of the Strategic Director of Health and Wellbeing to the meeting of the Health and Social Care Overview & Scrutiny Committee to be held on 6 April 2017

AK

Subject:

Respiratory Health in Bradford and Airedale

Summary statement:

Respiratory disease is an important cause of poor health and early death in Bradford District. The District performs relatively poorly compared to other areas in England. Recognising this, partners across the District, including the local authority and NHS, have prioritised respiratory health with the aim of improving health outcomes, including improving the health status of people with respiratory disease and reducing deaths from respiratory disease.

This paper provides an overview of respiratory health in Bradford District and outlines what partners across the NHS and local authority are doing to improve outcomes for people in the District. There is a specific focus on asthma and chronic obstructive pulmonary disease (COPD) as these conditions account for a significant amount of the poor health and subsequent costs associated with respiratory disease in the District.

Bev Maybury
Strategic Director of Health and Wellbeing
Report Contact: Toni Williams
Phone: (01274) 437401
E-mail: toni.williams@bradford.gov.uk

Portfolio:

Health & Wellbeing

1. Summary

Respiratory disease is an important cause of poor health and early death in Bradford District. The District performs relatively poorly compared to other areas in England. Recognising this, partners across the District, including the local authority and NHS have prioritised respiratory health, with the aim of improving health outcomes, including improving the health status of people with respiratory disease and reducing deaths from respiratory disease. In Bradford this work is being driven by the Bradford Breathing Better Programme, and in Airedale, Wharfedale and Craven (AWC) through the AWC Respiratory Action Plan Group.

2. Background

Respiratory diseases are diseases that affect the air passages, including the nasal passages, the bronchi and the lungs. They include acute conditions such as pneumonia, and long term conditions such as asthma and COPD. They are influenced by lifestyle factors such as smoking, as well as environmental factors such as air quality.

Some of the greatest health burden locally is associated with asthma and COPD. COPD is also an important cause of early death. It is for these reasons why asthma and COPD are local priorities, particularly for the NHS, in terms of respiratory health.

COPD is a disease of the lungs that causes obstructed airflow from the lungs. Symptoms include breathing difficulty, cough, sputum production and wheezing. It is caused by long term exposure to irritating gases or particulate matter, most often cigarette smoke. Although not curable, COPD is treatable. With proper management, most people with COPD can achieve good symptom control and quality of life, as well as reduced risk of other associated conditions.

Asthma is a condition characterised by the narrowing of the airways which makes breathing difficult. This can trigger coughing, wheezing and shortness of breath. For some people asthma is a manageable condition, however, for others it can be a major problem that interferes with daily activities and may lead to a life threatening asthma attack. Whilst asthma can’t be cured, its symptoms can be controlled.

3. Report issues

3.1 National Priorities and the Government Strategy for COPD and Asthma

In 2011 the then Coalition Government published their strategy for COPD and asthma, with the aim of improving the respiratory health and wellbeing of all communities, and reducing health inequalities. The strategy sets out the outcomes that need to be achieved in COPD and asthma to improve health outcomes and reduce health inequalities. There are six overarching objectives:

- To improve respiratory health and wellbeing of all communities and minimise inequalities between communities;
- To reduce the number of people who develop COPD by ensuring that they are aware of the importance of good lung health and wellbeing, with risk factors understood, avoided, or minimised, and proactively address health inequalities;
- To reduce the number of people with COPD who die prematurely through a proactive approach to early identification, diagnosis and intervention, and proactive

care and management at all stages of the disease, with a particular focus on areas with high prevalence;
- To enhance quality of life for people with COPD across all social groups with a positive, enabling experience of care and support right through to end of life;
- To ensure that people with COPD, across all social groups, receive safe and effective care, which minimises progression, enhances recovery and promotes independence;
- To ensure that people with asthma, across all social groups, are free of symptoms because of prompt and accurate diagnosis, shared decision making regarding treatment, and ongoing support as they manage their own condition, and to reduce the need for unscheduled health care and risk of death

3.1 What is the scale of the problem in Bradford District?

3.1.1 Overview of respiratory health

Respiratory disease is a leading cause of dying early in Bradford District. Rates of early death from respiratory disease in Bradford are amongst the highest in England and the second highest in Yorkshire and Humber. Each year more than 500 people die from respiratory disease in the District; an estimated 25% of these deaths are preventable. The main causes of death from respiratory disease include COPD and pneumonia.

It is not only early death that is an issue, but the associated health problems. Respiratory diseases such as COPD and asthma have a significant impact on the quality of life of those who are affected. Exacerbations can result in attendance at A&E or admission to hospital. On average, 30% of people with COPD attend A&E on at least one occasion each year, whilst one in five people are admitted to hospital each year. In 2015/16 in Bradford District there were 1,343 admissions where the main reason for admission was COPD, and 866 for asthma.

3.1.2 COPD

Number of people with COPD

13,009 people across the three CCGs in Bradford District have been diagnosed with COPD. Disease rates are lowest in City CCG, however, this is, in part, a reflection of the younger age structure of the City population. As the number of older people increases, the number of people with COPD is expected to increase across the District.

One of the main challenges in managing COPD is that many people are unaware that they have the condition. Late diagnosis has a substantial impact on symptom control, quality of life, patient outcomes, and cost. Often people aren't diagnosed until the disease is at an advanced stage; this is because people sometimes do not recognise the symptoms of COPD because they develop gradually; many people think that the symptoms they are experiencing are normal or associated with age; and when people present to their GP the symptoms may be treated rather than the cause of the symptoms investigated.

Whilst 13,009 people in the District have been diagnosed with COPD, it is estimated that the actual number of people with COPD is closer to 19,000; an estimated 6,099 people remain undiagnosed (equivalent to 32% of those thought to have COPD). The proportion of people with COPD who remain undiagnosed varies between CCGs and also between GP practices. Whilst some degree of variation is expected, the variation

described suggests that some GP practices are better than others at detecting COPD, and that there is capacity for improvement.

Figure 1: Number of people diagnosed and undiagnosed with COPD, City, Districts and AWC CCGs, 2015/16

	AWC CCG		City CCG		Districts CCG	
	n	%	n	%	n	%
Estimated number of people with COPD	4,539	2.87%	2,814	2.28%	11,754	3.5%
Number of people recorded on GP register with COPD	3,299	2.1%	1,533	1.2%	8,177	2.4%
Estimated number of people who remain undiagnosed	*1,240*	*27%**	*1,281*	*46%**	*3,578*	*30%**

Source: Quality and Outcomes Framework and Public Health England

* In the first two rows the percentages refer to the number of people with COPD as a percentage of the whole population. In the third row the percentages describe the number of people who remain undiagnosed as a percentage of all those with COPD – diagnosed and undiagnosed.

Management of COPD

Most of the care for people with COPD is provided in primary care. Effective management can lead to improvements in symptom control and quality of life, and also a reduction in exacerbations and associated hospital admissions and death. NICE guidance and the GP Quality and Outcomes Framework (QOF) sets out a number of standards for the way in which people with COPD should be managed. For example, people with COPD should have an assessment of breathlessness (one of the main symptoms of COPD) on a regular basis. There is variation between CCGs (and also between GP practices) which suggests that there is scope to improve the management of COPD.

Figure 2: Variation in the management of COPD in primary care, City, Districts and AWC CCGs, 2015/16

	% of patients with COPD who have had a review, incl. an assessment of breathlessness using the MRC dyspnoea score[1] in the preceding 12 months	% of patients with COPD with a record of FEV_1[2] in the previous 15 months
AWC	77.4%	70.1%
City	76.8%	72%
Districts	81.5%	71.3%
GP practice range	31.7% - 100%	41.2% - 100%

Source: Quality and Outcomes Framework

A significant challenge in effectively managing COPD is multimorbidity. Multimorbidity is the presence of more than one long term condition; in the District multimorbidity for people with COPD appears to be the norm. More than three quarters of people with

[1] MRC dyspnoea score is a scale for scoring the degree of a person's breathlessness.

[2] The FEV_1 refers to a person's forced expiratory volume which is a measure of lung capacity.

COPD have at least one other long term condition, such as high blood pressure or diabetes. This is a challenge because of the way in which health care services are traditionally delivered. The use of many services to manage individual conditions can be inefficient and frustrating for patients. Individuals with more than one long term condition are much more likely to experience problems with the coordination and integration of their care, and are more likely to have an unplanned hospital admission.

3.1.3 Asthma

Number of people with Asthma

40,762 people across the three CCGs in Bradford District have been diagnosed with asthma. Disease rates are similar across all three CCGs, but higher than the England average. This number is likely to be an underestimate of the actual number as, as is the case for COPD, some people with asthma will not have been formally diagnosed. Getting a diagnosis and starting appropriate treatment early can lead to better long term outcomes, improved quality of life, symptom control, and fewer exacerbations. Modelled estimates of the number of people with asthma do exist, however, they are now out of date and, therefore, there are some concerns over their accuracy. Whilst it is not possible to estimate the number of people who have asthma but who have not been diagnosed, it is important to recognise the importance of having an accurate and timely diagnosis.

Management of asthma

Most of the care for people with asthma is provided in primary care. Effective management can lead to improvements in symptom control and quality of life, and also a reduction in exacerbations and associated hospital admissions and deaths. NICE guidance and the GP Quality and Outcomes Framework (QOF) sets out a number of standards for the way in which people with asthma should be managed. For example, people with asthma should be reviewed on a regular basis, and young people with asthma should have a record of their smoking status because smoking can exacerbate the condition. There is variation between CCGs (and also between GP practices) which suggests that there is scope to improve the management of asthma.

Figure 3: Variation in the management of asthma in primary care, City, Districts and AWC CCGs, 2015/16

	% of patients who have had an asthma review in the last 12 months	% of patients with asthma between the ages of 14 and 19 years in whom there is a record of smoking status in the preceding 12 months.
AWC	70.4%	83.8%
City	76.6%	92%
Districts	71.0%	86.5%
GP practice range	47.9% - 95.6%	64.1% - 100%

Source: Quality and Outcomes Framework

3.1.4 Smoking

Smoking has long been recognised as one of the main causes of preventable illness and early death. It is particularly important in the context of asthma and COPD because it is one of the main causes of COPD, and is also an exacerbating factor for asthma. According to annual population surveys, one in five adults in Bradford is a regular smoker – this compares to one in six in England. Smoking is more common in people in routine and manual jobs, where in Bradford the smoking prevalence is 30.1%. – this compares to 26.5% in England. Smoking in pregnancy rates in Bradford remain higher than the national average – 15% compared to 10.6% in England as a whole.

A further more detailed analysis of smoking numbers and the impact of smoking on health outcomes is available on request as part of the tobacco control needs assessment.

3.1.5 Air quality

Air pollution is a major environment related risk factor for respiratory disease. The effect of poor air quality on health depends on two things: the individual level of exposure, or how much; and secondly for how long. Air pollution builds up at a regional scale so that background emissions arising from industrial sources are combined with urban sources of air pollution from local industry, traffic, and heating sources. Transport emissions in particular contribute to poor air quality in urban locations. Although there are local 'hotspots' within the District that exceed air quality standards set by the World Health Organisation, it is important to recognise the transboundary nature of air pollution, and the need for policies at multiple levels.

There are two pollutants that are of significant concern from a public health perspective: oxides of nitrogen which are produced from fuel combustion; and fine particles (PM) arising from a range of sources, including transport and industry. There is a growing body of evidence describing the association between fine particles, poor respiratory health, and deaths from respiratory related disease. Fine particles can be inhaled deeply and lodge in lung tissue before entering the bloodstream. Recent reviews have also demonstrated an association between transport related air pollution and the onset of childhood asthma.

3.2 Improving respiratory health in Bradford District

Improving respiratory health and reducing health inequalities remains a priority for the Department of Health and Wellbeing, wider local authority and NHS partners. Action to improve outcomes focuses on two main areas:

- Primary prevention involves addressing the risk factors for respiratory conditions to reduce the number of people developing them in the first instance. The main preventable risk factor for COPD is smoking.
- Secondary prevention involves action to improve the management and care of people with respiratory conditions such as COPD to slow down progression of the disease, and for COPD and asthma to control the conditions to reduce the frequency of exacerbations and complications.

3.2.1 Tobacco control

Since the transfer of Public Health to the local authority in 2013, the Department of Health and Wellbeing, has been responsible for improving the health of people in Bradford District. This includes commissioning services to support people to stop

smoking, and also activities to prevent people, particularly children and young people, from taking up smoking in the first instance.

Stop smoking support in the District is provided by a team of specialists within a central service, and also via a network of providers in primary care and pharmacy. The specialist stop smoking team within the Department of Health and Wellbeing provides stop smoking support at a range of venues including GP practices, libraries, supermarkets, and children's centres, to ensure that support is accessible to those that want to access it. As smoking is more common in routine and manual working groups, support to quit in the workplace is provided by the specialist team and is targeted at organisations with a high proportion of routine and manual workers. Within the secondary care setting, for people referred to the service on admission to hospital, support to quit smoking is provided by a specialist team on the ward.

Smoking in pregnancy has been a priority for a number of years. Recognising the importance of stopping smoking during pregnancy, the Department of Health and Wellbeing has funded a specialist midwife to, over a three year period, train staff, and establish policies and procedures to ensure that a systematic and evidence based approach to tackle maternal smoking is embedded throughout the antenatal care pathway.

In addition, The Department of Health and Wellbeing, CCGs and Public Health England have funded the implementation of BabyClear across the district; a programme through which all antenatal midwives receive training to ensure consistency of advice and interventions for pregnant women. This is complemented by a number of other interventions including the identification of smoking cessation/smoke free home champions in health visiting and children's centres. Bradford Districts CCG has been given additional funding by NHS England to address concerns around the high numbers of women smoking at the time of delivery. Projects are currently in development to train hospital based midwives and midwifery support workers in the BabyClear philosophy to work with women on the antenatal day ward; the introduction of carbon monoxide screening at 36 weeks to improve the accuracy of reporting; and engagement with women from our local communities to improve the uptake of smoking cessation services.

A multipronged approach to reduce the number of young people taking up smoking is needed. Local priorities include:

- Continuing to de-normalise smoking and discourage young people from being influenced by adult smoking.
- Promoting the implementation of smoke free areas for organisations involved in the care or education of young people and children.
- Making ever contact count – ensuring that all opportunities in health and social care (including primary and secondary care) are maximised to support people to stop smoking. This includes identifying smokers, and signposting and referring to services where appropriate.
- Ensuring that all national and regional campaigns are well publicised, and resources made available to primary and secondary health care and social care professionals. Local services are marketed based on local intelligence and research.

3.2.2 Bradford City and Districts: Bradford Breathing Better

Bradford City and Districts CCGs are working collaboratively to deliver a programme of work (known as Bradford Breathing Better) to improve respiratory health outcomes for children, young people and adults in Bradford with COPD or asthma. The primary aim of Bradford Breathing Better is to promote early and appropriate diagnosis, and through effective and proactive care, support people to manage their conditions, reducing exacerbations and unplanned hospital admissions. Specifically, Bradford Breathing Better will:

- Improve care and management of people who are diagnosed with a respiratory condition through care planning and patient education.
- Provide patients with the skills and tools to self care and self manage their condition and exacerbations appropriately.
- Ensure that pathways, prescribing and technology are consistent across primary and secondary care.
- Reduce non-elective admissions as a result of improved care and management.

All work will be overseen by a programme board which will be established, with clinical leadership coming from the two CCGs. Once in place, workstream leads will be agreed and timescales set.

To launch Bradford Breathing Better, a stakeholder workshop was held in January 2017, with representation from patients, GPs, nurses, the British Lung Foundation, Asthma UK, community teams, and non-clinical support teams, with the aim of shaping the direction of the programme. Although still in the planning stage, some quick wins have been identified across four workstreams: self care, prescribing and formulary, clinical templates, and pathways.

Self care

One of the priorities locally is to support individuals to manage their condition, be it COPD or asthma, and to understand any triggers for exacerbations, so that exacerbations can be managed in a timely, safe and supportive way. Patients have told us that they feel vulnerable when they have a flare up of their condition, and often they have no alternative available, particularly out of hours, but to call emergency services. This often leads to an A&E attendance or an unplanned hospital admission. The aim of this workstream is to provide each patient with a detailed, personalised care plan which outlines how to manage their condition, what to do if they start to feel unwell, and to prescribe rescue packs to those who are suitable for this option.

Prescribing and formulary

A significant amount of CCG spend on COPD and asthma is on prescribing, therefore, it is important to look at the outcomes that we are achieving for this spend. In order to ensure that people receive the right medication at the right time, a prescribing formulary that covers primary and secondary care will be developed, with any changes considered at an individual's annual review. Furthermore, there is a growing body of evidence to show that prescribed medication is not always used effectively; an estimated 15% of people use their inhalers incorrectly, meaning that their respiratory condition might not be as well controlled as it could be. Accordingly, approaches to improve inhaler technique will also be considered.

Clinical template

Primary care teams currently have a number of templates open for them to follow to support the management of people with COPD and asthma in primary care settings.

This can be cumbersome and confusing. Therefore, as part of Bradford Breathing Better we will look to simplify the process by creating one overarching template. This will support appropriate prescribing, proactive care planning, and facilitate referral to other services such as smoking cessation services, and pulmonary rehabilitation.

Pathways
People with COPD and asthma are primarily managed in primary care settings, however, some will require care in hospital settings. It is important that a consistent approach to managing COPD and asthma is taken across primary and secondary care, and, therefore care pathways will be reviewed. Pathways will be evidence based and compliant with best practice contained within the NICE Quality Standards for both COPD and asthma. Training and education will also be delivered to staff to ensure that pathways are implemented and embedded across primary and secondary care.

In addition to the four outlined workstreams, a primary care practice nurse list will be established. Each GP practice will have a dedicated nurse lead that will support the development and implementation of the Bradford Breathing Better Programme, and will be the main point of contact. Lessons learnt from other CCG programmes will be transferred to Bradford Breathing Better – this includes the development of clinical searches, data reporting to practices, and education and support for primary care.

3.2.3 Airedale, Wharfedale and Craven (AWC) Respiratory Action Plan
AWC have adopted the principles of the NHS Right Care Programme to improve respiratory health outcomes in Airedale, Wharfedale and Craven. The Right Care Programme is based on the principle of unwarranted variation. Some variation between clinical commissioning groups (CCGs) in terms of health outcomes, hospital activity, prescribing, and what CCGs spend on health care is expected; this is because CCG populations are different. However, some variation is unwarranted, and by using data and evidence to identify such variation, areas and programmes which offer the best chances of improving outcomes for people in the District, as well as making the best use of resources, can be identified.

Much of the respiratory work programme in AWC focuses on improving outcomes for people with asthma and COPD. The focus is primarily on primary care because this is where most people with these conditions are routinely managed, but also includes some pathway development work between primary and secondary care, to ensure that when people do require management in hospital settings, that their care is as joined up as possible.

The respiratory work programme is delivered by the Respiratory Action Plan Group. Actions to date include:

- The establishment of an AWC Respiratory Network, with practice nurse leads in every GP practice.
- Raising awareness of the importance of self-management of care plans.
- Community pharmacy education and training event.
- Review of ambulatory care pathways.
- Exploring the feasibility of providing Incheck Dials (a hand held device that measures peak inspiratory flow and enables healthcare professionals to help people to use their inhalers properly) to GP practices.
- Dedicated training and education events with primary care staff, including practice managers, practice nurses and GPs.

- Equipment review to enable community pharmacies to review inhaler techniques.
- Development of a primary-secondary care asthma pathway to ensure seamless care between primary and secondary care after being discharged from hospital.

3.2.4 Air quality

The Council is signed up to the West Yorkshire Low Emissions Strategy, which was published in December 2016. The strategy has three aims:

- To accelerate improvements in air quality, above that which would occur without intervention, to achieve air quality limit values, set out in law in all parts of West Yorkshire by 2020 at the latest;
- Working within the wider economic, social, and environmental context for West Yorkshire, to create a Low Emissions Future that will maximise opportunities to improve air quality, minimise risks of worsening air quality, and create healthier places to live, work, and visit.
- Immediate focus on tackling transport emissions, targeting interventions that will deliver the most significant air quality improvements in the areas of greatest concern.

With its focus on tackling transport emissions, tighter controls over higher pollution emitting vehicles are being developed under a Clean Air Zone policy. Through the implementation of this strategy clear health benefits are expected. For example, if we reduce Leeds/Bradford car journeys by 10% by 2021, then 10 cardio-respiratory deaths could be prevented each year.

3.3 Key challenges

Respiratory disease is similar to diabetes in that the population often do not think that there is anything they can do to a) prevent it, b) to control it, and c) recognise the huge impact that it has on their quality of life. A key challenge locally is how we raise the profile of respiratory health in our population, and support people to take responsibility for their own health and wellbeing. Further challenges include:

- Smoking rates in pregnancy remain high;
- There are high relapse rates after quitting smoking at six months;
- Opportunities remain with social care, primary care and secondary care to refer and support people to stop smoking services as a routine part of care pathways.
- Raising awareness amongst children and young people on the importance of lung health.

4. Options

Not applicable

5. Contribution to corporate priorities

The ongoing work by partners in the local authority and NHS on respiratory health supports the Council's priorities with regards to improving health and wellbeing, and reducing health inequalities, as outlined in the Health Inequalities Action Plan and the Joint Health and Wellbeing Strategy.

6. **Recommendations**

That Members of the Health and Social Care Overview and Scrutiny Committee note the information provided in the paper and support ongoing work seeking to address the main challenges going forward.

7. **Background documents**

- Department of Health (2011). An Outcomes Strategy for Chronic Obstructive Pulmonary Disease and Asthma.
- NHS Right Care (2012). Atlas of Variation in Healthcare for People with Respiratory Disease.
- Bradford metropolitan District Council (2015). Tobacco Control Needs Assessment.
- West Yorkshire Combined Authority (2016). West Yorkshire Low Emissions Strategy 2016-2021.

8. **Not for publication documents**

None

9. **Appendices**

None