Department of Health

Health Inequalities National Support Team

A systematic approach to delivering management of Chronic Obstructive Pulmonary Disease (COPD) to have a population level impact

Includes 10 potential Key Actions to Reduce Mortality (Appendix 1)

Identifying strengths and effective practice and making tailored recommendations on how to address gaps in service delivery

DH INFORMATION READER BOX

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Foreword

National Support Teams (NSTs) were established by the Department of Health from 2006 to support local areas – including Local Authorities, Primary Care Trusts (PCTs) and their partners – to tackle complex public health issues more effectively, using the best available evidence. By undertaking intensive, 'diagnostic' visits to local areas, spending time with key leaders (commissioners and providers) including clinicians and front-line staff, the ten NSTs provided intelligence, support and challenge to local areas to assist in their achieving better public health outcomes. The programme finished in March 2011.

The ten subject specific teams (Sexual Health, Tobacco Control, Health Inequalities, Teenage Pregnancy, Childhood Obesity, Alcohol Harm Reduction, Infant Mortality, Response to Sexual Violence, Vaccination and Immunisation and Children and Young People's Emotional Wellbeing and Mental Health) were commissioned and established with a focus on improving health and reducing health inequalities.

The ten teams undertook more than 450 visits to local partnerships during the course of the programme and their findings and successes have been documented in Knowledge Management and Evaluation reports. Each team also produced reports setting out and consolidating the learning from their work. A further report that captures best practice identified by each team is planned to enable local areas to continue using the expertise and lessons learnt from the NST model.

The NST process involved a desk review of key documentation and data-based intelligence, and interviews with key informants, often in combination with a series of workshops or focus groups. Collation and analysis of findings was immediate, and the findings, including strengths and recommendations, were fed back straight away and on site to the key local players and leadership. Recommendations were accompanied by offers of support, either at the time of reporting, or as part of follow-up activity.

The Department is publishing a number of reports which distil the learning from the programme, and exemplify the methodology employed.

Executive Summary

This workbook is one of a series developed by the Health Inequalities National Support Team (HINST), in its work with the 70 local authorities covering populations in England with the highest levels of deprivation and poorest health. These workbooks are a summary of local views on good practice. The suggested approaches are not mandatory, and reflect learning's from a snapshot in time. Where there is clear established evidence to support interventions, this has been signposted in the footnote. This is offered as useful resource for commissioners: use is NOT mandatory.

The topic of this workbook – A systematic approach to delivering management of Chronic Obstructive Pulmonary Disease (COPD) to have a population level impact - was selected for its potential impact on health and wellbeing, and on mortality and life expectancy in the short, medium or long term. The potential of a more systematic approach to COPD to reduce hospital admissions also makes this a valuable topic to explore at a local level. [1]

Chronic Obstructive Pulmonary Disease (COPD) is an umbrella term to describe a group of conditions including chronic bronchitis and emphysema. Approximately 861,000 people in England (09/10 data) [2] have been diagnosed with COPD and it is estimated that there are over 3 million people who have the disease[3]. The burden of COPD on mortality and on the NHS and social care is growing[4]. 20% of hospital admissions are due to respiratory disease with readmission rates within 28 days as high as 33%.

Prevention, early diagnosis and care of people with COPD will impact on mortality, decrease morbidity and reduce the costs of frontline acute and primary NHS and social care services. COPD is expected to become the third leading cause of death worldwide by 2030[5].

This workbook – which is recommended for use in a facilitated workshop – provides advice on achieving best outcomes at **population level**, and for identifying and recommending changes that could be introduced locally. Recommended workshop invitees are provided.

Central to the HINST approach is a diagnostic framework – *Commissioning for Best Population Level Outcomes* (see p12), which focuses on evidence-based interventions that produce the best possible outcomes at population level. Part of the framework addresses delivery of **service** outcomes in the most effective and cost effective manner. This is balanced by considerations of how the population uses services, and is supported to do so, to aim for **optimal population level** outcomes that are fairly distributed.

The framework points to the following areas of consideration:

A CHALLENGE TO PROVIDERS

1. Known intervention efficacy
2. Local service effectiveness
3. Cost effectiveness
4. Accessibility
5. Engaging the public

11. Adequate service volumes
12. Balanced service portfolio
13. Networks, leadership and coordination

B POPULATION FOCUS

6. Known population health needs
7. Expressed demand
8. Equitable resourcing
9. Responsive services
10. Supported self management

[1] NICE (June 2010) *Clinical Guidance 101 – Management of chronic obstructive pulmonary disease in adults in primary and secondary care*. http://guidance.nice.org.uk/CG101
[2] Quality and Outcomes Framework NHS Information Centre for Health and Social Care 2009/10 http://www.ic.nhs.uk/statistics-and-data-collections/supporting-information/audits-and-performance/the-quality-and-outcomes-framework/qof-2009-10/data-tables/prevalence-data-tables
[3] Invisible Lives, British Lung Foundation http://www.lunguk.org/Resources/British%20Lung%20Foundation/Migrated%20Resources/Documents/I/Invisible%20Lives%20report.pdf
[4] British Thoracic Society (2008) *Burden of Lung Disease* 2nd ed.
[5] WHO (2008) *World Health Organisation Statistics 2008*.

The workbook is made up of sets of detailed questions in the above categories. They provide local groups of commissioners and providers with **a systematic approach to deciding what needs to be done in relation to COPD** to further improve population health and wellbeing, capitalising on evidence-based interventions. How these improvements will best be achieved in a given locality will be for local participants to decide. The workbook signposts good practice and guidance where this may be helpful. Appendix 1 outlines 10 high impact changes for successful interventions this area, which have been identified by HINST to have the biggest impact on morbidity and mortality in the short term and thus impact on costs of hospital admissions and on health inequalities.

Introduction

This is one of a series of diagnostic workbooks developed by the Health Inequalities National Support Team (HINST), while working with the 70 local authorities covering populations in England with the highest levels of deprivation and poorest health. The programme finished work in March 2011, but the Department of Health is publishing its key outputs for local commissioners and providers to use if they so wish. Each workbook topic was selected for the importance of its potential impact on health and wellbeing, and also on mortality and life expectancy in the short, medium or long term.

At the core of each workbook is a diagnostic framework – Commissioning Services to Achieve Best Population Level Outcomes (see p7). The diagnostic focuses on factors that contribute to a process in which a group of evidence-based interventions produce the best possible outcomes at population level. Part of the structure addresses delivery of **service** outcomes in the most effective and cost effective manner. However this is balanced by considerations of how the population uses services, and is supported to do so, to aim for **optimal population level** outcomes that are fairly distributed.

The framework is made up of a set of detailed, topic-based questions. These provide local groups of commissioners and providers with **a systematic approach to deciding what needs to be done** to further improve population health and wellbeing, capitalising on evidence-based interventions. **How** these improvements will best be achieved in a given locality will be for local participants to decide. The workbooks signpost good practice and guidance where this may be helpful.

The resource represented by this workbook can make a significant contribution during a period of transition for the NHS, as responsibility for commissioning of health and health related services transfers to the NHS Commissioning Board, GP Commissioning Consortia and facilitate delivery passing to the Health and Wellbeing Boards. Changes are also in progress within local government, social care and the voluntary sector. Current policy in relation to public services highlights the centrality of engaging people – as individual service uses and patients, and as whole communities, in their own health and wellbeing and that of the wider community.[6] The programme finished work in March 2011, but the Department of Health is publishing its key outputs for local commissioners and providers to use if they so wish. The workbook will support the newly emerging organisations and

[6] See for example NHS Constitution: http://www.nhs.uk/choiceintheNHS/Rightsandpledges/NHSConstitution/Pages/Overview.aspx and Localism Bill: http://services.parliament.uk/bills/2010-11/localism.html
And NHS and Social Care Bill: http://services.parliament.uk/bills/2010-11/healthandsocialcare.html

networks as an aid to understanding commissioning processes to work towards population level outcomes. Key processes that should significantly influence local commissioning priorities such as the development of Joint Strategic Needs Assessment and Health and Wellbeing Strategies, will be highlighted throughout. The skills and knowledge embedded within realigned local Public Health teams will also be critical in the future development and coordination of these key processes.

The workbook is designed and tested to help areas identify which factors are important in the systematic and equitable delivery of health improvement. They should, therefore, provide a good framework for early identification of local solutions driven by the new perspectives being brought to bear.

The NHS also faces a challenging financial environment during the transition. Through the Spending Review, the government protected the NHS, with cash funding growth of £10.6bn (over 10%) by 2014/15. Nevertheless, by historical standards this remains extremely challenging and the NHS has been developing proposals to meet the Quality, Innovation, Productivity and Prevention (QIPP) challenge of efficiency savings of up to £20bn by 2014/15 for re-investment. This means that considerations of the affordability, and evidence on the cost-effectiveness and cost-benefit of the interventions presented should be of central consideration. Where possible priority should be given to interventions which are likely to lead to cash-releasing savings that can be re-invested in other services, based on a sound evidence base. Some of the relevant evidence has been referenced through the workbook.

Local facilitators and participants will be aware of changes that may be outside the scope of this workbook and of any detail in the workbook that may have been superseded. These should be taken into account. To facilitate this, a generic workbook has been produced that could be used to guide the diagnostic questions and discussion during the workshop, with this detailed workbook being used alongside the generic one for reference

How to Use this Workbook – a guide for facilitators

This workbook provides a diagnostic, which can be used in three ways:

1. For taking stock of the set of interventions to check their potential for delivering optimal population level outcomes that are fairly distributed and will have an impact on inequalities in mortality
2. With a group of commissioners and providers to develop a systematic approach to commissioning and delivering the set of evidence based interventions using this stock take approach.
3. In a workshop setting, as described below, to gain a picture of the local strengths and gaps in services in relation to the objective of achieving best outcomes at **population level**, and to identify and recommend changes that could be introduced.

The workbook is best used in a **facilitated** workshop setting for a **minimum of 8 and a maximum of 25 participants**. **Allow 4 hours for the workshop.** The participants in the workshop should include key individuals who are involved in planning, commissioning and delivering services and interventions in relation to the workbook topic through a

partnership approach. The make-up of the group will vary according to local situations but the suggested minimal attendee list for this workbook is set out below:

- Lead respiratory physician
- Respiratory liaison/specialist nursing from acute
- Respiratory liaison/specialist nursing from community
- Respiratory physiologist
- Home/ambulatory oxygen therapy coordinator
- Pulmonary rehabilitation lead/rep
- COPD coordinator/lead
- Public health lead
- GPs with special interest
- Practice nurse with special interest
- Community matron
- Long term conditions commissioning lead
- Local patient and carer reps – try to ensure diversity of representation across these groups

Where there is more than one organisation (for example, hospital trust) providing local services, it is advisable to invite senior representatives from each.

Provide a copy of this workbook to each participant at the workshop. It is suggested that the participants do not see the workbook in advance, but inform them that the workshop will be an opportunity to explore their knowledge of approaches to the issue with others who will bring differing perspectives. This will mitigate against any participants over-preparing, becoming defensive or being resistant to discussing – and finding solutions for – local issues

The facilitator should be familiar with the workbook questions and the model described below, which works to achieve a population level perspective. It is suggested that facilitators introduce the participants to this model and approach. Following the introduction, it is useful to look at section 13 first as this gives an overview of the situation in the area for this topic and ,makes sure all participants have an opportunity to contribute at the beginning. Finish by working through each sections 1-12 of the model).

Group discussions about all of the questions in each section allows strengths, best practice and gaps to be identified, and the group to begin to think about where improvements could be made. A separate publication available on the website includes a facilitator's recording book, which can be used during the workshop to record this discussion. This need not be copied for workshop participants.

Key actions and lead stakeholders to take these actions forward can be identified during the workshop. The greatest impact is likely to result if summaries of these key actions and of the recognised strengths and recommendations from the workshop are produced and circulated to attendees and key accountable stakeholders within the partnership, following the workshop.

Throughout the workbook, some questions have been ***highlighted in bold italics.*** These are questions that investigate areas of work that are likely to have the biggest impact on reducing health inequalities. They will help to work towards services that are delivered in a way that is systematic, reducing variability and resulting in population level change. These potential key actions are summarised in Appendix 1. It is sensible to emphasise these questions during the workshop.

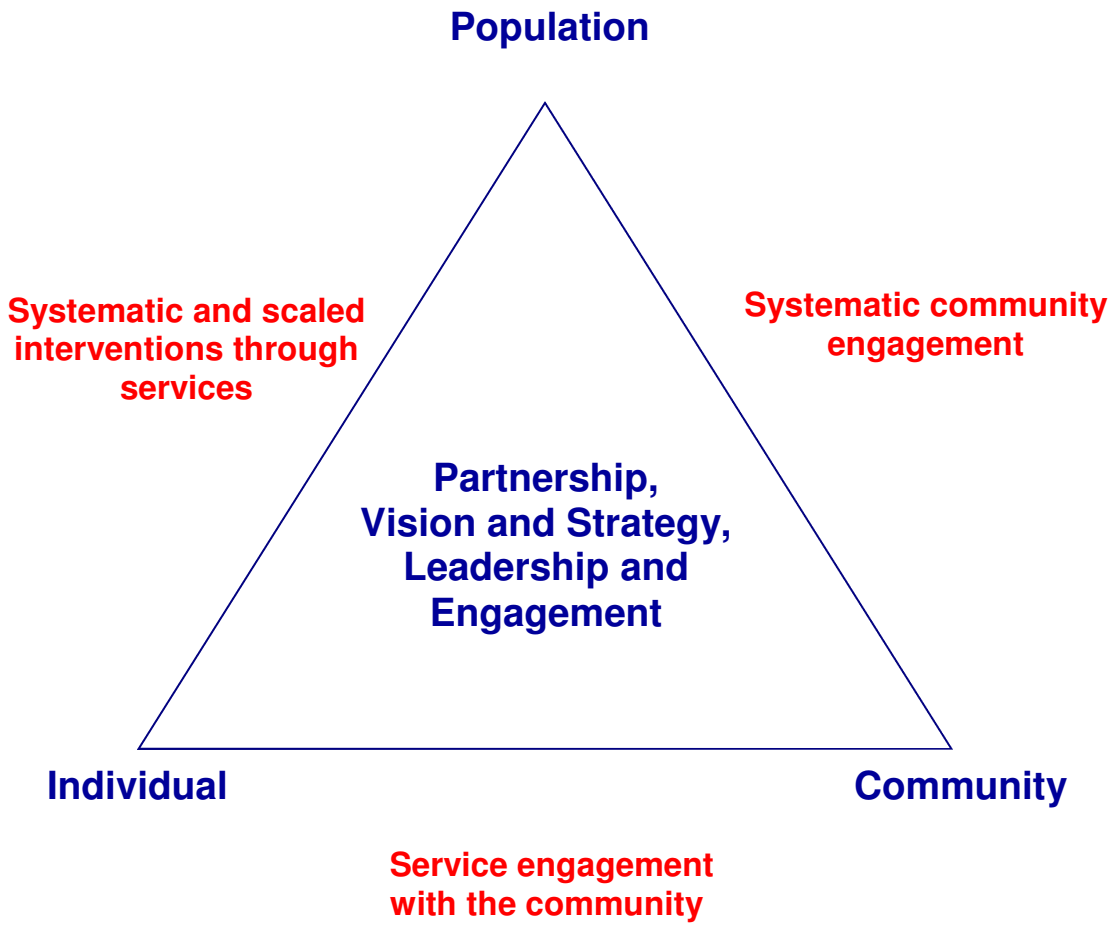
Background to Population Level Interventions

Challenging public health outcomes, such as achieving significant percentage change within a given population by a given date, will require systematic programmes of action to implement interventions that are known to be effective, and reaching as many people as possible who could benefit.

Programme characteristics will include being:

- **Evidence based –** concentrating on interventions where research findings and professional consensus are strongest
- **Outcomes orientated –** with measurements locally relevant and locally owned
- **Systematically applied –** not depending on exceptional circumstances and exceptional champions
- **Scaled up appropriately –** 'industrial scale' processes require different thinking to small scale projects or pilots ('bench experiments')
- **Appropriately resourced –** refocusing on core budgets and services rather than short bursts of project funding
- **Persistent –** continuing for the long haul, capitalising on, but not dependant on fads, fashion and changing policy priorities

Interventions can be delivered through three different approaches to drive change at population level, illustrated by the following diagram:



Producing Percentage Change at Population evel

C. Bentley 2007

Population approaches
Direct population level interventions will include developing healthy public policy, legislation, regulation, taxation and public funding strategies. These elements should support making 'healthy choices easy choices' for individuals and communities.

The impacts of such population level interventions, however, will not automatically 'trickle down' to all, often in particular missing those who are socially excluded for various reasons. Strategies for targeted communication and education, service support and even enforcement will be required to achieve full impact.

Individual approaches through services
Some interventions taken up at individual level, such as support for environment and behaviour change, therapies, treatments and rehabilitation, can change individual risk significantly, in some cases by 30-40%. The challenge is to achieve so many of those individual successes that it adds up to percentage change at population level. This will be achieved only if services take into account issues of system and scale to enable this to happen, and work to address population level outcomes as well as those for individual service users.

Improvements in health and wellbeing will require some reorientation of health and other services to take a more holistic view of individual circumstances, with regard to any personal characteristics/sub-population group status or socio-economic status and to focus on development of personal skills of staff and service users, so promoting healthy choices and actions.

Community approaches
Individuals will only choose to use and benefit from certain behaviours and actions if those behaviours fit with the cultural and belief system of their own community. Communities can be based on place (neighbourhood, school, workplace), culture (ethnicity, faith) and others (disability, sexual orientation). Community development is one way of facilitating communities' awareness of the factors and forces that affect their wellbeing, health and quality of life.

Community engagement is often patchy, favouring those communities that already have leadership, organisation and some resources. Instead, it needs to be systematic in bringing top-down and bottom-up priorities together into plans. This will strengthen community action to create more supportive environments and develop knowledge and skills of community members.

Service links into communities can be superficial, of poor quality, unsystematic, and based on low levels of understanding. Connectivity between services can be disorganised and confusing. Use of the voluntary community and faith sector as a bridge between services and community based structures needs to be more systematic and based on need rather than supply. Commissioning is key to this.

Commissioning Services to Achieve Best Population Level Outcomes

Substantial progress can be achieved in making an impact in the short, medium and long term in relation to inequalities in mortality and life expectancy through a focus on existing services. Because of this, extra attention is given here to extracting maximum benefit from delivery of interventions for which there is strong evidence of effectiveness. In addition there is a deliberate emphasis wherever possible, on improving access to services of a scale that will impact on bringing about a population level improvement in mortality and life expectancy within a two to three year period.

The detail is illustrated in the attached diagram on Page 12 with the title 'Commissioning for Best Population Level Outcomes', otherwise known as the 'Christmas Tree' diagnostic, with an accompanying description of its component principles. The framework balances two sets of factors that determine whether optimal outcome can be achieved at population level from a given set of personal health interventions.

The right hand side of the diagram (1 to 5) - a challenge to providers: links the factors that will influence health *service* outcomes, that is how can we construct the most effective service.

However, optimal outcomes *at population level* will not be obtained without the following:

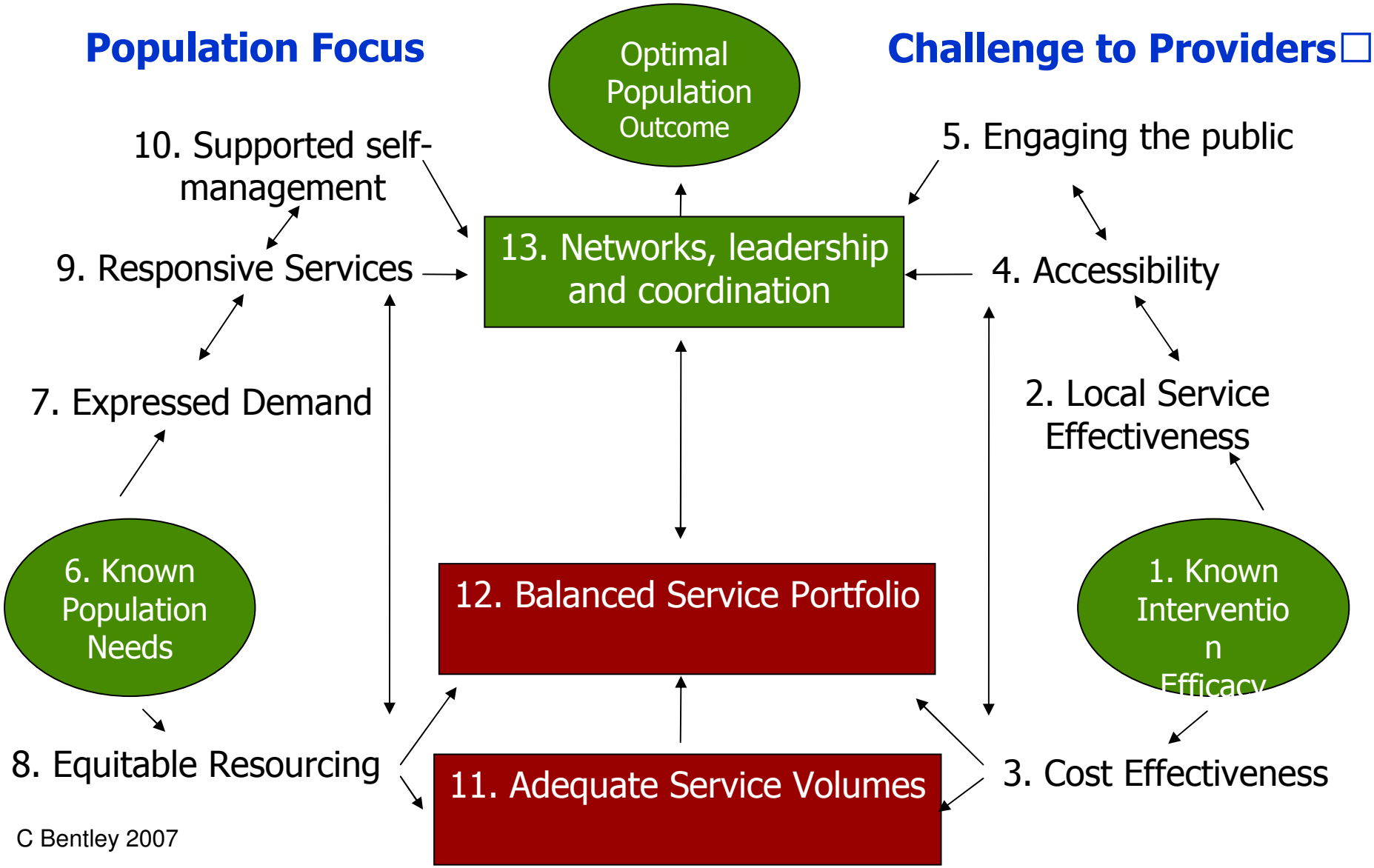
The left hand side of the diagram (6 to 10) - a population focus: identifies those factors that determine whether a community makes best use of the service provided – for example, whether the benefits of personalised improvements to services are having a systematic impact on reducing health inequalities at the population level.

The balance between the two sides of the diagram - the commissioning challenge:

Ensuring equality of outcome, not just equality of access to service provision and support, is a significant and crucial challenge for commissioners. The 'Christmas Tree' diagnostic, is a tool to help achieve this. The right side of the diagram enables commissioners to identify the best services available for their population. The left side allows commissioners to consider whether what is commissioned and delivered best meets the needs of all people in the local population. Attention to both sides of the diagram will help commissioning of services that are effective **and** engaged with and used by all of the diverse communities in the area they serve.

The central elements of the diagram are concerned with ensuring that when the most effective services/interventions are identified that are fully acceptable, accessible and effective in terms of take-up and compliance, there is adequate capacity to meet the need. Effective leadership and networks are needed to keep all these elements are kept under review to aim for continuous improvement and equality of morbidity and mortality outcomes.

Commissioning for Best Population Level Outcomes



C Bentley 2007

Commissioning for Best Population Level Outcomes

A CHALLENGE TO PROVIDERS

1. **Known Intervention Efficacy:** Looks for life saving interventions, for which there is strong evidence, to be implemented equitably and made available to as many people who could benefit as possible.

2. **Local Service Effectiveness:** Aim for service providers maintaining high standards of local effectiveness through education and training, driven by systems of professional and organisational governance and audit

3. **Cost Effectiveness:** Aim for programme elements that are as affordable as possible at population level

4. **Accessibility:** Aim for services are designed with the minimum barriers to access, balancing a drive to bring services closer to the patient with the need for efficiency and effectiveness of that service.

5. **Engaging the Public:** Working with service users and communities to aim for needs and requirements being placed at the centre of service provision and for quality assurance systems in place that makes the services acceptable to service users

B POPULATION FOCUS

6. **Known Population Needs:** Aim for a realistic assessment of the size of the problem locally, and its distribution geographically and demographically and the level and type of service being based upon this assessment.

7. **Expressed Demand:** Aim for as many people as possible suffering from the problem or its precursors, to present to services in a timely and appropriate fashion, through informing, educating and supporting the population.

8. **Equitable Resourcing:** Aim for the distribution of finance and other resources to support equitable outcomes according to need.

9. **Responsive Services:** When people present to services, aim to make sure they are afforded equal access to timely beneficial interventions according to need.

10. **Supported Self Management:** Where appropriate, help service users to be empowered to make choices about their circumstances and service offer on the basis of good information, and to be supported to utilise the service offer to best effect

11. **Adequate Service Volumes:** Commissioning adequate service volumes to aim for acceptable access times.
12. **Balanced Service Portfolio:** Aim for balance of services within pathways to avoid bottlenecks and delays.
13. **Networks, Leadership and Co-ordination:** Designating leadership and co-ordination to aim for services that are commissioned and networked to meet population need and the population is supported to use services and interventions appropriately

Whilst the service design elements are an immediate concern to providers, all sections of the 'Christmas Tree' diagnostic are of direct relevance to commissioners

Equality

Equalities perspectives need to be built into all whole population approaches. The Equality Act 2010 set out the public sector equality duty:

> *(1) A public authority must, in the exercise of its functions, have due regard to the need to:*
>
> > *(a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;*
> >
> > *(b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;*
> >
> > *(c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.*

The Act identifies a number of "protected" population groups/characteristics where specific elements of the legislation apply. These groups/characteristics are:

- *age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex; sexual orientation.*

Although socio economic inequalities are not specifically included in the Equality Act, there are a range of duties in relation to tackling inequalities included at different levels, and for all key structures and partners involved in the commissioning and delivery of health and social care, in new health and social care legislation . The Health and Social Care Bill 2010 proposes new legal duties on health inequalities for the Secretary of State and the NHS. Subject to Parliamentary approval:

- The Secretary of State for Health must have regard to the need to reduce health inequalities relating to the NHS and Public Health.
- The NHS Commissioning Board and GP consortia must have regard to reducing inequalities in access to, and outcomes of, healthcare.

In order to carry out these duties effectively an emphasis on socio economic disadvantage will be essential as it is recognised as a major driver in relation to inequalities of access to, and outcomes of, health and wellbeing services.[7]

Useful Materials[8]

Why this topic has been chosen

Chronic Obstructive Pulmonary Disease (COPD) is an umbrella term to describe a group of conditions including chronic bronchitis and emphysema. The main symptoms are shortness of breath, reduced exercise ability, a cough and production of phlegm. It is lung damage that is gradual in onset, but if not identified and treated early, it becomes fully established and irreversible, leading to disability and eventually death. Approximately 861,000 people in

[7] The Marmot Review (2010) *Fair Society, Healthy Lives - Strategic Review of Health Inequalities in England post 2010* http://www.marmotreview.org/AssetLibrary/pdfs/Reports/FairSocietyHealthyLives.pdf

[8] Department of Health (2008) *Making the difference – The Pacesetters beginner's guide to service improvement for equality and diversity in the NHS* http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_086039

England (09/10 data)[9] have been diagnosed with COPD and it is estimated that there are over 3 million people who have the disease[10]. The burden of COPD on mortality and on the NHS and social care is growing[11]. Twenty per cent of hospital admissions are due to respiratory disease with readmission rates within 28 days as high as 33%.

Prevention, early diagnosis and care of people with COPD will impact on mortality, decrease morbidity and reduce the costs of frontline acute and primary NHS and social care services. COPD is expected to become the third leading cause of death worldwide by 2030[12].

Links have been established between deprivation and behavioural factors that have important relationships with COPD. Smoking is the most important cause of COPD and stopping smoking plays a key part in reducing risk. Department of Health estimates suggest that the routine and manual occupational group represents almost half the people with both diagnosed and undiagnosed COPD. Men between 20 and 64 in unskilled manual occupations are 14 times more likely to die of COPD than men employed in professional roles[13].

The number of people suffering from, becoming disabled by and dying of COPD increases with age. Death rates in the UK are higher than the European average and this is particularly marked for females. Also people with mental health problems are more likely to develop COPD due to higher smoking prevalence in this group[14].

A systematic approach to COPD management could reduce variation, ensuring a population level impact in the short term in reducing inequalities in health, mortality and improving life expectancy. In the medium to long term, preventative interventions and earlier detection will have an impact on reducing in equalities in health.

Many of the approaches explored in the workbook are designed to support the NHS in delivering the QIPP challenge by optimising appropriate management of those with moderate to severe disease. In future years, developing wider programmes of prevention and identification should help in obtaining long-term sustainability of services by stopping people getting COPD, and finding those people who have the milder stage of the disease to stop them progressing in severity

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[9] Quality and Outcomes Framework NHS Information Centre for Health and Social Care 2009/10 http://www.ic.nhs.uk/statistics-and-data-collections/supporting-information/audits-and-performance/the-quality-and-outcomes-framework/qof-2009-10/data-tables/prevalence-data-tables

[10] Invisible Lives, British Lung Foundation http://www.lunguk.org/Resources/British%20Lung%20Foundation/Migrated%20Resources/Documents/I/Invisible%20Lives%20report.pdf

[11] British Thoracic Society (2008) *Burden of Lung Disease* 2nd ed.

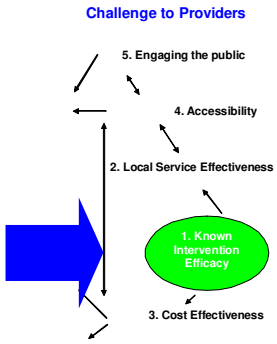
[12] WHO (2008) *World Health Organisation Statistics 2008*.

[13] Office for National Statistics (1977) *Health Inequalities: Decennial supplement 15* (Derver.F, Whitehead M) The Stationery Office.

[14] McNeill, A. (2004) *Smoking and patients with mental health problems*. Health Development Agency

The Workbook

A systematic approach to delivering management of Chronic Obstructive Pulmonary Disease (COPD) to have a population level impact



1. Known intervention efficacy

Looks at life saving interventions, for which there is strong evidence, are implemented equitably and made available to as many people who could benefit as possible.

The evidence base[15] [16] shows that the most effective interventions to improve delivery of COPD management include:

- Screening/active case-finding of patients with established disease, and running of active case registers with every diagnosis of COPD confirmed by post-bronchial spirometry that is quality assured and other investigations appropriate to the individual (e.g. echocardiography, HRCT)

- 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.

- Reviewing COPD registers to aim for no over-diagnosis and a clear definition of stage the disease and include MRC dyspnoea score

- Making use of the COPD Clinical Assessment Tool (CAT) or Patient Reported Outcome Measures (PROMs) to provide a consistent measure of the impact of the disease

- All COPD patients still smoking should be encouraged to stop - regardless of age - and offered help to do so at every opportunity

- Respiratory care should be multidisciplinary, including primary care practitioners, community matrons and other case managers

- Pulmonary rehabilitation services in hospital and in venues across the community

- Regular review of blood gases – with oximeteters available at all GP practices

- All COPD patients with hypoxaemia clinically assessed for long term oxygen therapy and reviewed at regular intervals

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[15] NICE (June 2010) *Clinical Guidance 101 – Management of chronic obstructive pulmonary disease in adults in primary and secondary care.* http://guidance.nice.org.uk/CG101

[16] British Thoracic Society: the website contains treatment guidelines, good practice guides and related audit tools - www.brit-thoracic.org.uk

- A long term oxygen therapy assessment service, and full patient support provision

- Oxygen alert cards issued to patients at risk of hypercapnia

- Specialist assessment to consider initiation of long-term oral steroids and support for patients considered for nebuliser therapy

- Testing for alpha-1 antitrypsin deficiency and for onset of cor pulmonale

- Respiratory Intensive Care arrangements with:
  - Dedicated beds
  - Access to bedside blood gases measurement
  - Non-invasive ventilation

The NHS and Social Care Long Term Conditions Model[17] builds on the wealth of local and international experiences and innovations. It draws on the 'chronic care model' of Wagner[18] and the pyramid of care developed by Kaiser Permanente. This will help make efficient use of resources and improve care for patients and well as giving patients more understanding and ability to control their condition.

- **Level 3: Case management** - requires the identification of the very high intensity users of unplanned secondary care. Care for these patients is to be managed using a community matron or other professional using a case management approach, to anticipate, coordinate and join up health and social care.
- **Level 2: Disease-specific care management** - involves providing people who have a complex single need or multiple conditions with responsive, specialist services using multi-disciplinary teams and disease-specific protocols and pathways
- **Level 1: Supported self care** – collaboratively helping individuals and their carers to develop the knowledge, skills and confidence to care for themselves and their condition effectively.

QIPP – examples of best practice

Many areas have recognised the benefits of implementing the evidence based interventions, described in this workbook, in a systematic way that involves redesign and integration of care pathways. Many of these examples are available on the website shown below and could be used as a model of potential for cost savings in similar areas[19].

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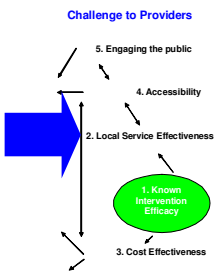
[17] *Department of Health (2007)* An NHS and Social Care Model for improving care for people with long term conditions http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/Browsable/DH_4965951

[18] Wagner EH, Austin BT, Von Korff M (1996) *Organizing Care for Patients with Chronic Illness*. Milbank Q. 74(4)511-44. Available at: http://www.ncbi.nlm.nih.gov/sites/entrez?orig_db=PubMed&db=pubmed&cmd=Search&defaultField=Title%20Word&term=Organizing%20Care%20for%20Patients%20with%20Chronic%20Illness

[19] http://www.institute.nhs.uk/option,com_quality_and_service_improvement_tools/Itemid,5015.html



2. Local Service Effectiveness

Aim for service providers maintaining high standards of local effectiveness through education and training, driven by systems of professional and organisational governance and audit

1. Local clinical guidelines

- Are there local guidelines, agreed between primary and secondary care for:
  - diagnosis and management of acute exacerbation
  - referral for long term oxygen therapy
  - referral for assessment for nebuliser therapy
  - referral for nutritional support
  - referral for assessment of cor pulmonale
  - referral for consideration for long term oral steroids

2. Optimal outcomes in primary care – using the QOF registers

- Is there an analysis of practice performance against QOF process points for utilising the register [20]
  - COPD 1 keeping of COPD register
  - COPD 12 % of patients diagnosed after April 2008 with diagnosis confirmed with post-bronchodilator spirometry
  - COPD 10 % of patients with record of FEV1 in previous 15 months
  - COPD 13 % of patients with COPD who have had a review, undertaken by a healthcare professional, including an assessment of breathlessness using the MRC dyspnoea score in the preceding 15 months
  - COPD 8 % of COPD patients with flu immunisation since 1st September

- Is there a strategy to support practices where maximum QOF points are not being achieved?
- Is there analysis and benchmarking of exception reporting (nationally this varies from zero to 100% in COPD). What has been done to reduce the level of exception reporting?

3. Co-morbidities

- ***What strategies are in place to work towards all patients with COPD being assessed and managed for all co-morbidities (common and often hidden due to lack of activity in these patients)?***

[20] QOF indicators are regularly updated. Refer to www.nhsemployers.org for the most up to date.

- Is an assessment of severity and presence of co-morbid conditions made at the point of initial diagnosis, and at least every three years?

- ***Are they on the appropriate registers and are the following issues risk managed?***
  - ***Smoking (through proactive and intensive stop smoking support)***
  - ***Raised blood pressure***
  - ***Cholesterol***
  - ***Risk/benefit of using low dose aspirin***
  - ***Impaired glucose tolerance***
  - ***Cold damp housing***
  - ***Annual flu vaccination***

  Is there a way of encouraging management of all 7 risk factors to achieve maximum clinical benefit?

4. ***Primary Care Audit and Assessment: Has a baseline assessment of service in each GP practice been carried out? Has this included:***

   - ***QOF data***

   - ***Skills, education and resources available to deliver optimal care, including COPD management, spirometry technique and management of acute exacerbation***

   - Whether particular parts of the client group (e.g. sex, ethnic groups, age groups, mosaic segments) are consistently achieving worse outcomes or not accessing primary care?

   - Admission rates for respiratory emergencies broken down by locality, ethnicity or other (e.g. Mosaic group)? Have these been benchmarked with other communities? [21] *Useful materials – would help with this work*

5. **Strategies to address inconsistencies in primary care**

   - **Are strategies in place to address inconsistencies in primary care, particularly for those groups identified as having consistently poorer outcomes, and to raise the bar on outcomes?** [22]
     Where standards are patchy, best practice engages primary and secondary care together as a compensatory system[23]

   - Is specialist support available to work with local general medical practices on a locality or GP commissioning group basis? Does this include:
     - Specialist nurse?
     - Specialist physiotherapist?

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[21] Department of Health (2010) Health Inequalities National Support Team 'How-to Guide' *How to develop an ongoing programme of GP chronic disease management audits using a z-score-based dashboard* http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_115096.pdf

[22] Readily available variation data includes recorded prevalence, expected prevalence, prevalence gap, admissions, readmissions, prescribing

[23] Described fully in Appendix 3

- Respiratory physician?

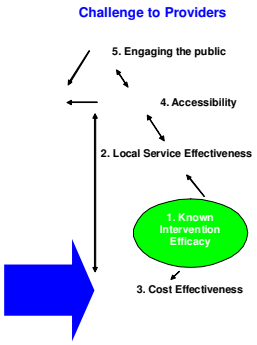
- Are they running joint clinics in primary care?

- Is there potential for sharing specialist primary care nurses between practices?

- ***Has consideration been given to using this joint working to the required training for primary care staff covering:***
    - ***COPD management***
    - ***Spirometry technique***
    - ***Management of acute exacerbation***

- Are programmes monitored to work towards all practices having up-to-date training?

- If a pharmaceutical company is working with local practices, are they providing the appropriate training and mentorship (in addition to audit services)



3. Cost effectiveness[24]

Aim for programme elements that are as affordable as possible at population level

1. Cost effective prescribing

- Is there a formulary or prescribing guidance that promotes cost effective as well as effective prescribing for COPD?
- Are prescribing guidelines for COPD coordinated across primary and secondary care?
- Have the programme budgeting costs for respiratory disease been examined? What do they show?
- ***Has prescribing cost data been analysed alongside outcomes data (e.g. COPD and asthma admission rates), in order to drive cost effective as well as effective practice? Does this include aiming for management of Long Term Oxygen Therapy and ambulatory oxygen that is systematic and timely. Has work been carried out with outliers to change manage improvements*** [25]

2. Reducing hospital admissions and length of stay[26]

- ***What mechanisms have been introduced to reduce hospital admissions and lengths of stay for people with acute exacerbations of COPD? Do these include:***

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[24] The Spend and Outcomes tool - The Spend and Outcomes tool has been developed by the Association of Public Health Observatories (APHO). This interactive tool provides a snapshot of expenditure and patient outcome data for the main Programme budgeting categories enabling comparisons with commissioners nationally or with similar characteristics. **http://www.yhpho.org.uk/resource/view.aspx?RID=49488**

[25] Department of Health (2010) Health Inequalities National Support Team 'How-to Guide' *Achieving population health impact, by systematically addressing the quality and cost effectiveness of prescribing as part of the management of major killer chronic diseases in primary care* http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_115095.pdf

[26] These evidence based interventions to reduce admissions and length of stay are outlined in the NICE Guidance (footnote 2) and at the website link below there are shared learning examples of implementation which include demonstration of cost effectiveness http://www.nice.org.uk/usingguidance/sharedlearningimplementingniceguidance/examplesofimplementation/examples_of_implementation.jsp

- ***the commissioning of a specialist 24 hour advice service so people can understand their worsening symptoms and exacerbations and allow management of these without hospital admission if appropriate?***
- ***a specialist respiratory review when acute episodes have required referral to hospital?***
- ***structured hospital admissions to aim for optimisation of length of stay and subsequent readmission?***
- ***a supported discharge scheme?***
- ***has there been an evaluation of effectiveness and cost effectiveness?***[27]

3. **Managing exacerbations**[28]

- Is there a management pathway for acute exacerbation? Does this work for all patients 24/7?

- If there is a 24 hour service, is it available through the GP out of hours service and well as through bespoke intermediate services?

- Are patients supported to store and use standby medications – antibiotics and steroids?

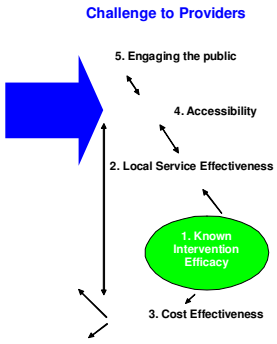
- Are supported discharge arrangements available for all who could benefit?

- Is the area working to improve the quality of the identification and management of exacerbations?

- Are all people with COPD who have an exacerbation reviewed afterwards to aim for their treatment remaining optimal and reducing relapses to a minimum?

[27] NHS Improvement – Lung Improvement Project includes best practice examples of implementation of improved COPD that demonstrate cost effectiveness (http://www.improvement.nhs.uk/lung/)

[28] There are various models of care available for people presenting with exacerbations, including self-management and avoidance of hospital admission, with schemes such as Hospital at Home and early supported discharge once assessed and reviewed in a hospital setting by specialist respiratory healthcare professionals. These Hospital at Home and early supported discharge schemes have been shown to be as effective, preferred by people with COPD and are cheaper than usual care. See - British Thoracic Society Guideline Development Group. Intermediate care – Hospital-at-Home in chronic obstructive pulmonary disease: British Thoracic Society guideline. *Thorax* 2007; 62: 200–210.



4. Accessibility

Aim for services are designed with the minimum barriers to access, balancing a drive to bring services closer to the patient with the need for efficiency and effectiveness of that service.

1. **Accessibility of patient education and pulmonary rehabilitation** (*addressed in section 10)*

2. **Care in the community**

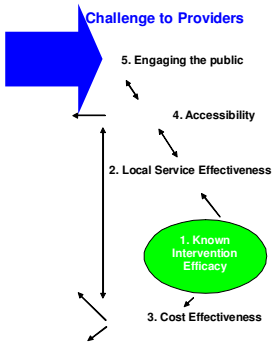
- What arrangements are in place to bring members of the specialist respiratory team into the community and closer to patients' homes?
- Has this been informed by public engagement with all groups of patients including younger and older people, people who have disabilities including learning disabilities and people with mental health disabilities, ethnic minority groups and other equality groups.

3. **Housebound and care homes**

- Is there a programme for specialised respiratory staff, to work in nursing and care homes, or with housebound patients?

4. **Interpreters and other support for patients**

- Are interpreter services available across all parts of patient pathway, such as:
  - registration on practice register
  - review of patients on register
  - diagnostic clinics
  - COPD clinics
  - smoking cessation
- Have service premises all been assessed under disability access regulations?
- Have more innovative ways of improving accessibility been taken into account? For example, Pacesetters and Health Trainers have shown where training a member of the community to deliver health messages, or recruiting a specialist health professional with the relevant language skills can be more effective to deliver services in other languages than using an interpreter who may not be familiar with the medical terminology or the local community.
- Are there mechanisms for patients, whose major links are with learning disabilities or mental health services, but who also have COPD, to have integrated care with primary and specialist respiratory services, so their physical healthcare is not compromised?



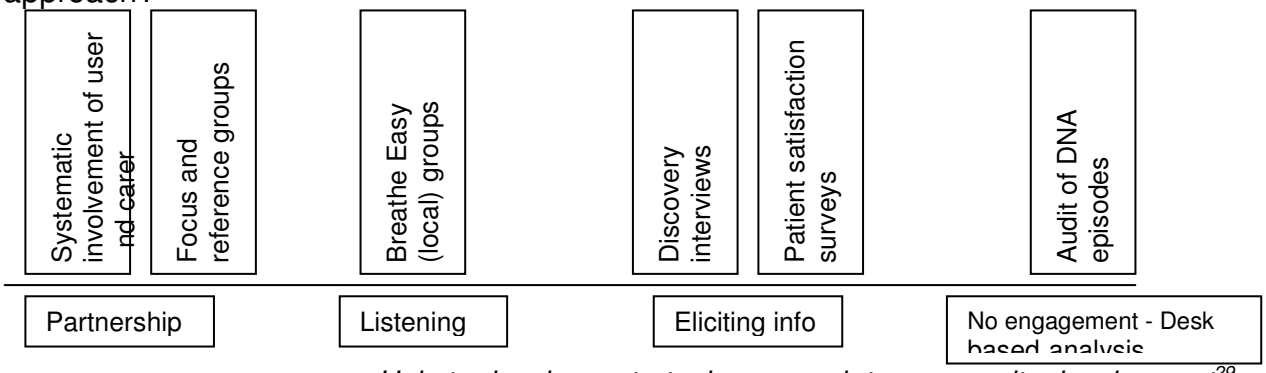
5. Engaging the public

Working with service users and communities to aim for needs and requirements being placed at the centre of service provision and for quality assurance systems in place that makes the services acceptable to service users

1. **Mechanisms to engage the patients and public**
   - Have the following mechanisms have been utilised to involve patients and the public in design, modification and improvement of COPD services. If not, how can they be included:
     - Patient satisfaction surveys primary care? Specialist service?
     - Systematic involvement of user and carer representatives in the network
     - Audit of DNA episodes in outpatients, retinopathy screening or podiatry (by ethnicity, sex, age, practice, etc.) followed by asking these patients their views of service provision, locality, access etc.
     - Discovery interviews
     - Focus and reference groups
     - Exploring pathways from viewpoint and experience of service users
     - Involvement of Breathe Easy Clubs

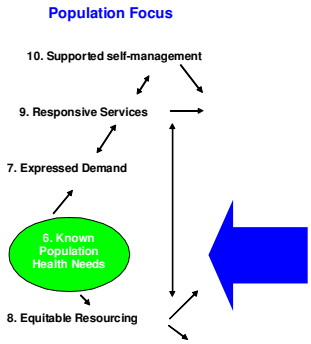
2. **Equity**
   - With regard to COPD management, how are equality issues being addressed in relation to race, faith, age, sex, disability and other equality groups and other vulnerable groups such as Gypsies and Travellers, prisoners, homeless people?
   - How are the views of housebound patients and those with limited mobility drawn in to development and assessment of services?

3. **Community engagement**: Which approach to community engagement is taken locally as shown in the following model? What is being done to move to a more fully engaged approach?



Help to develop a strategic approach to community development[29]

[29] Department of Health (2008*) A Dialogue of Equals – Pacesetters guide to community engagement and development.*
http://www.dh.gov.uk/en/Policyandguidance/Equalityandhumanrights/Pacesettersprogramme/index.htm



6. Known population health needs

Aim for a realistic assessment of the size of the problem locally, and its distribution geographically and demographically and the level and type of service being based upon this assessment.

1. **Data availability and sharing**

- Is there active partnership working to aim towards all available data being used effectively in developing an integrated disease care pathway?

2. **Comprehensive local needs assessment**

- What do COPD mortality trends show? How do they compare with national trends? Have the full range of appropriate mortality codes been included in this analysis?

- Has there been a stratification of the extent of need, including:
  - by practice
  - by neighbourhood
  - for specific ethnic minority groups
  - segmentation groups
  - equality groups

- Have there been any estimates of levels of co-morbidity, such as:
  - angina
  - diabetes
  - stroke
  - depression

- Do neighbourhood profiles include:
  - COPD mortality
  - estimates of morbidity
  - hospital admissions for respiratory disease
  - extrapolated smoking levels

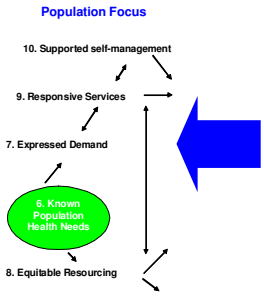
- Have seasonal trends in mortality and hospital admissions been examined, and what do they show?[30]

[30] National COPD Resources and Outcomes Project. The National Chronic Obstructive Pulmonary Disease (COPD) Audit (www.rcplondon.ac.uk/copd)

3. Audits

- Have there been any COPD-related Health Equity Audits carried out? What did they show? What actions have been carried out as a result?

- Have there been any baseline audits of COPD morbidity. Do audits include emergency service use of hospitals by practice, GP Commissioning group, geography and ethnic group?



7. Expressed demand

Aim for as many people as possible suffering from the problem or its precursors, to present to services in a timely and appropriate fashion, through informing, educating and supporting the population.

1. Numbers of patients on the COPD Registers

- ***Are the actual numbers on COPD registers (QOF) validated, taking into account both the possible under and over-diagnosis and modelled against 'expected' prevalence by practice? (Some studies suggest that perhaps 20% of patients on COPD registers do not have COPD).***

- ***In each case where there is a discrepancy, has a judgement been made about what this is predominantly due to:***
  - ***register problems***
  - ***other practice issues***
  - ***community behaviour***

  Is there a programme of action to work with practices that have a discrepancy?

- **Is there good practice guidance for GPs on register construction and maintenance?**

2. Case-finding

- Are there strategies to support practices with case-finding? For example:
  - Opportunistic numbering and registration
  - Clinical systems search tool for registers
  - Patient registration status checked post hospital discharge
  - Other professionals trained and recruited to search (e.g. district nurses, pharmacists, nursing/residential home staff)

- Is there a calculation/estimate of the numbers of smoking quitters by practice and are these registers used to target those at greatest risk for screening for COPD? [31] [32][33]

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[31] The Global Initiative for Chronic Obstructive Lung Disease (GOLD) works with health care professionals and public health officials to raise awareness of COPD and to improve prevention and treatment of this lung disease for patients around the world: http://www.goldcopd.com

[32] Primary Care Respiratory Society: http://www.pcrs-uk.org

[33] Association of Public Health Observatories COPD Expected Prevalence Model, available at: http://www.apho.org.uk/resource/item.aspx?RID=48313

- Is there use of lung age and/or testing for lung disease within smoking cessation programmes

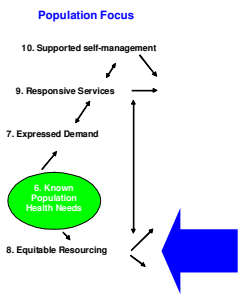
- Has there been a programme to train healthcare professionals understand the risk factors for COPD and to offer advice or an appropriate intervention to those who are at risk? Is this made systematic by monitoring interventions carries out after training?

3. **Segmentation and social marketing**

- Has there been any social marketing research into the provision and use of COPD services? What have been the results?

- Is known client insight from frontline staff, neighbourhood and community engagement work used alongside segmentation analysis and prevalence mapping to inform development of accessible initiatives for identification, diagnosis and referral?

- Have any of these initiatives been developed into a social marketing programme? Do any of these programmes help:
  - people understand the importance of lung health and take appropriate action to maintain good lung health
  - people at risk of developing a respiratory condition understand the consequences of exposure to the main risk factors
  - people with early symptoms of lung disease recognise their symptoms and seek further investigation
  - employers look to minimise the risks of workforce exposure to known risk factors and work with partners from health and social care to support people with COPD to manage their condition and remain in work
  - people at risk of the environmental factors that cause lung disease are made aware of and take action to minimise their risk



8. Equitable resourcing

Aim for the distribution of finance and other resources to support equitable outcomes according to need.

1. **Capacity in primary care**

- Has there been work on behalf of practices to model practice staffing and resources to determine if there is sufficient capacity to establish and maintain the register effectively (registration, management and review)? Has this been modelled on 'expected' numbers?

- Has there been any role redesign to help run registers more cost effectively (e.g. using healthcare assistants or care technicians) for patient reviews?

- Has there been any systematic commissioning of training for healthcare assistants to fulfil register roles, on behalf of practices who might subsequently employ them?

- Does skill mix include community languages, knowledge and experience of working with specific disability groups?

  HINST How-to Guide, *How to model need and develop a workforce plan to manage chronic disease registers as an industrial scale process*[34], would help with this.

2. **Sustainability**

- Are there sustainable financial arrangements to cover specialist staff inputs? Have any other financial barriers been identified that may be holding back improvement in outcomes?

3. **Generic approach to long term conditions**

- Have opportunities to offer joined-up services to support people with long term conditions been considered (see section 10).

4. **Targeting resource according to need, cost effective provision**

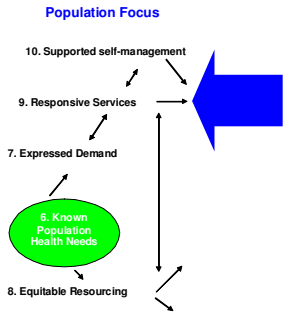
- Has existing specialist respiratory staffing and access to patient education pulmonary rehabilitation and other community services (e.g. oxygen) been monitored to help make sure its use is targeted where treatment outcomes are currently poorest?[35]

[34] Department of Health (2010) Health Inequalities National Support Team 'How-to Guide'.*How to model need and develop a workforce plan to manage chronic disease registers as an industrial scale process* http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_13793.pdf

5. **Local enhanced services**

- Are there any Local Enhanced Services (LES) that aim to improve clinical management of COPD? Are these being taken up where they are most needed, or only in practices where outcomes are already good?

[35] Designing action plans for each practice would facilitate this (see appendix 2) and ensuring services are provided how and where they are needed determined by understanding patient needs through community engagement and segmentation.



9. Responsive services

When people present to services, aim to make sure they are afforded equal access to timely beneficial interventions according to need.

1. ***Exception reporting***

- ***Have guidelines and definitions for exceptions from the QOF been consistently applied?***
- ***Have verification audits been carried out?***
- ***Do excepted patients have a care plan? They are likely to be high risk and should be targeted as such.***
- ***Is there a specific strategy for housebound COPD patients?***

2. **Did Not Attends (DNAs)**

- Is attendance monitored and DNAs followed up for the range of services provided for people with COPD including review appointments, pulmonary rehab and specialist appointments?
- Are there strategies in place to support patients who regularly DNA? Do these strategies take into account the differing needs of (e.g. people with mental health disabilities, learning disabilities, different ethnic groups and people in full time employment)?
- Has an analysis of DNAs by ethnicity, sex, age group, type of disability, GPs practice, etc. Indicated accessibility issues that could be addressed? For example, are invitation letters accessible? Are appointment times convenient? Is the location accessible physically and by local means of transport (parking, bus, etc).

3. **Responding to need to aim for equity of access**

- Has the commissioning body established whether each General Medical Practice has, or has ready access to, the following:
  - Members of staff particularly trained in COPD diagnosis and management
  - Member of staff trained and accredited in the use of spirometry
  - Access to an adequate spirometer, which is regularly recalibrated[36]

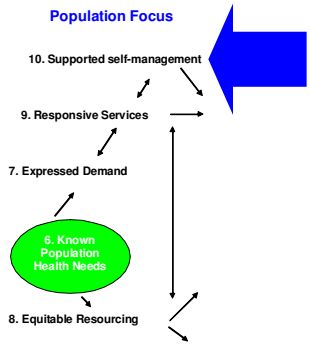
[36] The best practice example in appendix 2 would ensure this equity

- Are a range of forms of smoking cessation support available in all local areas of high need? Have these been matched to a segmented analysis of local population preferences? How are the needs of housebound or limited mobility patients been allowed for in these arrangements?

- Is a nebuliser service available to all parts of the community? Does this provide equitable provision across the area?

4. **Oxygen** Are all people with COPD in respiratory failure issued with oxygen alert cards and ambulance staff are able to recognise and respond appropriately to respiratory failure in COPD?

5. **Hospital Care:** How do hospital on-take arrangements work to achieve high quality management of COPD admissions at first presentation and for acute exacerbation on a 24/7 basis? Does a respiratory consultant manage the patient?



10. Supported self-management

Ensuring that where appropriate, service users are empowered to make choices about their circumstances and service offer on the basis of good information, and are supported to utilise the service offer to best effect

1. ***Training for clinicians***

- ***Is specific training in place for clinicians to facilitate the joint care planning process (e.g. using the Health Foundation Co-creating health model[37])***

- Are all clinicians who work with respiratory patients (including practice nurses, providers of oxygen therapy, GPs and consultant diabetologists) able to support patients for effective self- management including:
  - Support at the time of individual care
    - An initial and ongoing care planning process developed together with the patient
    - Coordination of the other issues (e.g. managing co-morbidities)
  - Provide specific referrals
    - Including emotional and psychological support (as appropriate)

2. **Self Management education and pulmonary rehabilitation**

- ***Is self-management education and a care plan developed with every person with COPD, even if their condition is not yet severe? Does this include:***
  - ***An action plan for worsening symptoms or exacerbations with appropriate rescue medication to take or arrangements to receive this at an individually agreed point?***
  - ***Advice on how to undertake moderate exercise according to their condition***

- An assessment of the individual's ability to self manage this care plan (in conjunction with their carer as appropriate) part of the regular review process?

- Is referral to and provision of quality assured pulmonary rehabilitation available for all patients who have functional impairment

- ***Is pulmonary rehabilitation and self-management support offered as a menu of options for delivery, reflecting severity of condition and capacity to self manage, rather than a one-size-fits-all approach?***

[37] The Health Foundation, Co-creating Health Programme. Information at: http://www.health.org.uk/current_work/programmes/cocreating_health.html

- ***Are the proportion of patients offered pulmonary rehabilitation and self management support:***
  - ***matched with the appropriate option?***
  - ***receiving the appropriate programme within 12 months of diagnosis?***
  - ***Is any drop-out followed up?***

- ***Are there locally produced or 'kite marked' materials available for patients on managing their COPD care programme, provided at diagnosis and delivered in a format that any person can understand, and adapted for:***
  - ***local 'minority' languages and adapted to 'minority' cultures.***
  - ***for people with poor literacy and communications skills.***

- ***Are differing needs for rehabilitation and support for self management being taken into account to design a menu of options? (See appendix 2)***

3. **Generic approach to supporting people with long term conditions[38]**

- Are opportunities being taken to extend training and care planning approaches so that it is applicable to all patients with long term conditions?

- Are partnership approaches being adopted across local authority and frontline health, through multidisciplinary teams? Are these being used to maximise opportunities for support to all patients with long term conditions?

- Have there been any initiatives to recruit non-NHS frontline staff (e.g. homecare assistants) to support patient adherence to therapy and to support self management?

- Are there local Breatheasy or other British Lung Foundation support groups? How extensive is their membership? Are they accessible across the district? Are patients with COPD recruited systematically into Expert Patient Groups? Are they encouraged to engage with others who have long term conditions to promote exchanges of information, support and advice

- Is there a Medicines Management Programme with systematic Medicines Utilisation Review to drive up levels of adherence

- Is telehealth, telecare or 24 our telephone support available to support self management?

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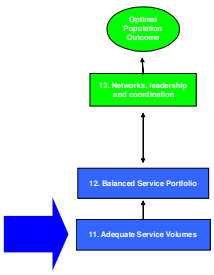
[38] *Department of Health (2007)* An NHS and Social Care Model for improving care for people with long term conditions
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/Browsable/DH_4965951

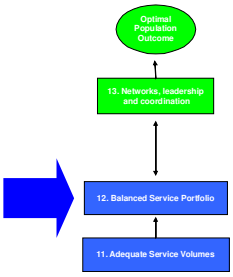


11. Adequate service volumes

Commissioning adequate service volumes to aim for acceptable access times

1. **Process mapping:** Have all partners involved in delivering respiratory care carried out a process mapping exercise to help identify areas where there are inefficiencies, lack of resources or duplication? Have the outcomes been acted upon?

2. **Walking the patient journey:** Have techniques been used to gain a real picture of the issues and problems for patients as they move through the care pathway? (such as patient shadowing, tracing patient journey's through a study of records)



12. Balanced service portfolio

Aim for balance of services within pathways to avoid bottlenecks and delays.

1. **Integrated care pathways**

   - Are local stakeholders working in partnership to develop integrated care pathways? Is this an organised, pro-active, multi-disciplinary approach to the management of COPD including to both chronic and acute care?

2. **Information on commissioning and providing high quality patient-centred services, integrated between primary and secondary care is available on the IMPRESS website**[39]

   - How are the needs of joint commissioning and joint provision partners in the local authority accommodated in these arrangements?

   - Are there currently any bottlenecks or waiting lists in this pathway?

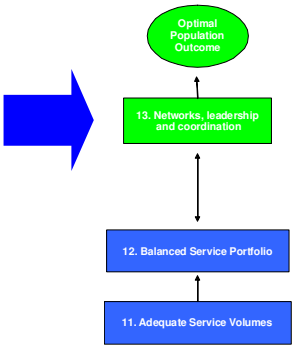
   - Are there strategies to improve communication between all involved in the care of the person with COPD following a review after an exacerbation? For example,

[39] Improving and Integrating Respiratory Services - The site contains all necessary information to commission or provide high quality patient-centred services, integrated between primary and secondary care http://www.impressresp.com

appropriate and prompt communication of discharge summaries and the use of paper-based or IT-based patient held records.

Useful Materials[40]

[40] A comprehensive range of tools to facilitate improvement of pathway design and management are available on the NHS Institute for Innovation and Improvement website - NHS Institute for Innovation and Improvement , Quality and Service Improvement Tools:
http://www.institute.nhs.uk/option,com_quality_and_service_improvement_tools/Itemid,5015.html



13. Networks, leadership and coordination

Designating leadership and cooperation to aim for services that are commissioned and networked to meet population need and the population is supported to use services and interventions

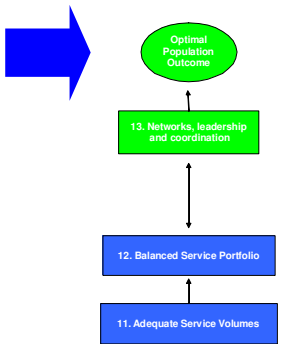
1. ***Respiratory Network – Is there a network in place to co-ordinate activity within the area?***
   - ***What is the level of leadership of the network?***
   - ***Is there a clinical lead with dedicated time?***
   - ***Is there structured support for clinical engagement and leadership?***
   - ***Is there a dedicated co-ordinator with dedicated time?***
   - ***Is there appropriate public health specialist input?***
   - ***Are all GP Commissioning Groups represented?***
   - ***Is there input from all secondary care and intermediate/community care providers?***
   - ***Who are the main other partners, and what is their level of representation and attendance?***
   - ***Is there input from social services/local authority/local voluntary sector?***
   - ***Is there local patient representation***

2. **Strategies and plans**

- Is there a recent network strategy/ action plan?

- Is there is a commissioning plan for COPD services that is:
  - comprehensive
  - needs based
  - geared to population need rather than service outcomes
  - actually addresses differential need/ health inequalities
  - addresses economies of scale by linking into and adapting existing models of chronic disease management

- How are the needs of joint commissioning and joint provision by partners in the local authority accommodated in these arrangements?



Optimal Population Outcome

Ensuring that intermediate and healthcare outcomes are meaningful locally, and drive the programme

1. **Reporting and monitoring outcomes**

- Are COPD process or outcome measures regularly monitored and reported?
- Is the above particularly reported for a defined most deprived 20% of the population?
- Who is responsible for performance against outcome targets?
- Are practices provided with an integrated scorecard of their outcomes and performance related to respiratory disease? Is this shared with intermediate and specialist care and across the Network?
- Are COPD standardised mortality rates:
  - for population as a whole
  - for most deprived 20%
  - reported to the Health and Wellbeing Board?

- Are any COPD outcome or performance measures for targeted neighbourhoods presented to neighbourhood fora?

Appendix 1: Health Inequalities National Support Team - Tackling Inequalities in COPD – Ten Potential Key Actions to reduce Mortality

1. Aim for a network to coordinate activity with:
   - Senior level leadership with ability to promote clinical engagement and leadership
   - A clinical lead with dedicated time
   - A dedicated co-ordinator with dedicated time providing management support
   - Appropriate public health specialist input
   - Membership which includes primary, secondary, intermediate and community care and patient representatives

2. Is recording of COPD on practice registers accurate? (There is good evidence that they are currently far from accurate). To understand their accuracy it is essential that actual post bronchiodilator spirometric readings are recorded, along with whether they meet national and international standards (i.e. quality assurance) and a record of one or more indicative symptoms. Address mis-diagnosis and gaps by:
   - reviewing all patients with diagnosis of mild COPD, aiming for access to high quality spirometry
   - improving patient capture from records – 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
   - improving practice of screening high risk patients (e.g. smokers over 40 with chronic cough).

3. Have strict criteria for exceptions from registers for QOF purposes been applied. Audit records of patients excepted. Work with excepted patients to develop a care plan – they are likely to be high risk, and should be targeted as such. Develop a specific strategy for housebound COPD patients.

4. Work towards all patients with COPD being assessed and managed for all co-morbidities (common and often hidden due to lack of activity in these patients), and getting them on the appropriate registers so that the following issues are risk managed:
   - Smoking (through proactive and intensive stop smoking support)
   - Raised blood pressure
   - Cholesterol
   - Risk/benefit of using low dose aspirin
   - Impaired glucose tolerance
   - Cold damp housing
   - Annual flu vaccination

   The aim should be to risk manage all 7 issues rather than one or two

5. Pulmonary rehabilitation and self-management development should be offered as a menu of options for delivery, reflecting severity of condition and capacity to self manage, rather than a one-size-fits-all approach. Target people with different educational needs and tailor to different relevant groups. Make sure the proportion of patients offered and matched with the appropriate option and receiving the appropriate programme within 12 months of diagnosis is high and any drop out is followed up. (See appendix 2)

6. Carry out a baseline assessment of service for COPD patients in each GP practice. Use this to appraise and accredit practices according to their competency to provide differing levels of care.
   - Use this to develop a joint action plan between the practice and respiratory specialists for each practice and provide incentives for improvement.
   - Intermediate/secondary care services or inter-practice support can then provide the missing elements proactively.
   - Aim to put in place an educational programme which meets any identified gaps in primary care delivery to raise the competency of practice staff. Use experiential learning opportunities offered by joint working with respiratory specialists and make sure this learning is accredited for portfolios

All patients can then receive effective and comprehensive care.

7. Develop a training programme and work towards it being used in all GP practices. It will be important to keep an active register of training taken by all practice staff. This should be used to target gaps, and design update and refresher training so as to make raising of standards more systematic. This should include spirometry standards, calibration and maintenance

8. Develop prescribing guidance that promotes cost effective as well as effective prescribing for COPD and its complications with prescribing guidelines coordinated across primary and secondary care. This should include working towards management of Long Term Oxygen Therapy and ambulatory oxygen that is systematic and timely. Evaluate and benchmark the cost of COPD prescribing in primary care in relation to outcomes being achieved and work with outliers to change manage improvements.

9. Introduce mechanisms to reduce hospital admissions and lengths of stay for people with acute exacerbations of COPD. Include:
   - the commissioning of a specialist 24 hour advice service so people can understand their worsening symptoms and exacerbations and allow management of these without hospital admission if appropriate (include antibiotic and corticosteroid tablets to keep at home)
   - a specialist respiratory review when acute episodes have required referral to hospital
   - structured hospital admissions to minimise length of stay and subsequent readmission
   - a supported discharge scheme
   - evaluation of effectiveness and cost effectiveness

10 Patient engagement and empowerment: Work with clinical staff to enable best practice in care planning with the patients and supporting their self-management. Link across to community structures, using existing resources to engage and empower people both to recognise the symptoms of COPD and to support self-management with every contact.

Appendix 2: Menu of Options for Pulmonary Rehabilitation and Supported Self-Management

One way of providing the level and type of support and rehabilitation most suited to the COPD patient would be to develop nine different options as shown in the diagram below.

Through discussion with the patient and referral to the most appropriate option, optimal attendance and benefit should be possible. This will help to make sure that more patients receive what they need but that costs can be reduced as the level of input required from the services for each option will be less for many options. Make sure the proportion of patients offered and matched with the appropriate option and receiving the appropriate programme within 12 months of diagnosis is high and any drop-out is followed up.

	Mild COPD	Moderate COPD	Severe COPD
Competent self-management	Option 1	Option 2	Option 3
Average self-management	Option 4	Option 5	Option 6
Poor self-management	Option 7	Option 8	Option 9

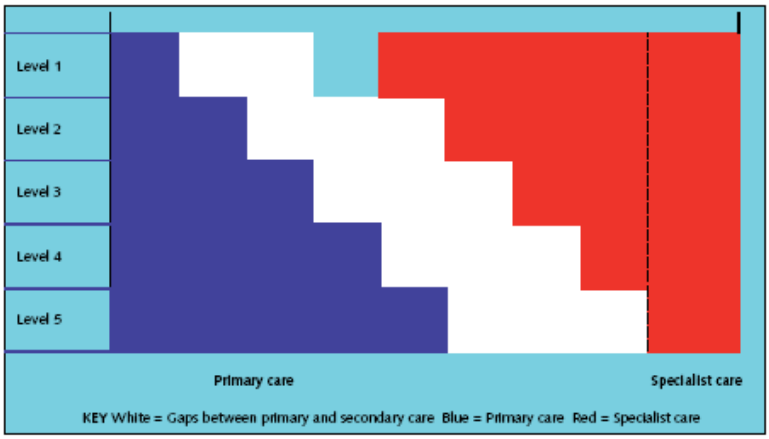
Appendix 3: Best Practice Approach to delivering systematic care for people with COPD

Adapted to apply to COPD management - from HINST Masterclass Guide – A systematic approach to achieving effective and comprehensive care for patients with diabetes[41]

Where standards are patchy, best practice engages primary and secondary care together as a compensatory system:

- **Step 1 – Define the current level of provision by practice**
  The range of provision of COPD care can be classified into levels of complexity, all of which it is possible to deliver in primary care given the appropriate level of knowledge and skills. Each practice can be assessed and assigned to a level, initially based on self assessment, but subsequently validated by the specialist team.

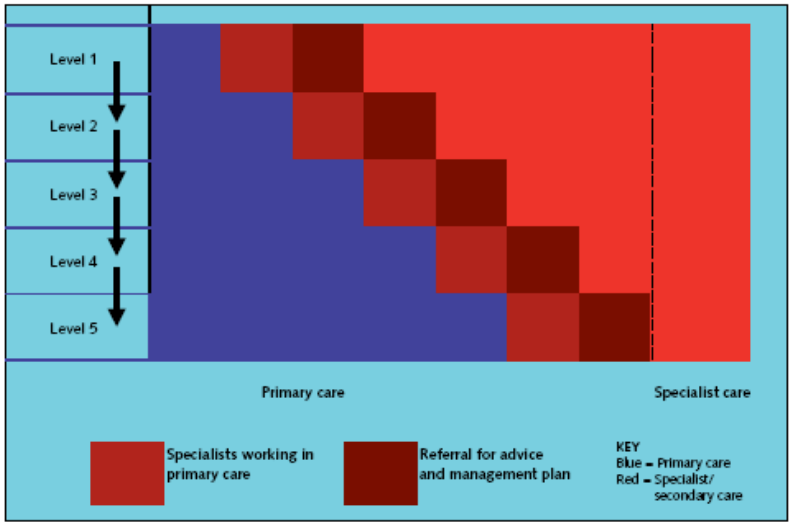
- **Step 2 – Specialist care or other expert provision is deployed to complement primary care knowledge and skills**
  If patients are not to be disadvantaged by the variable level of interest, knowledge and skills of their GPs, these have to be compensated for by the deployment of specialist services. Commissioners should consider how resources to provide the full service are deployed to help meet the need.
  Avoiding referral gaps – situation before a new service is set up
  This compensatory system and integrated delivery avoids the situation where, from the patient perspective, there are gaps and uncertainties around clinical responsibility.



- **Step 3 – The strategy, therefore, was to systematise delivery**
  In order to fill the gaps in capability and capacity, plans were made to provide more specialist care alongside primary care in community settings, and to make referral

[41] 'Health Inequalities National Support Team Masterclass Guide, A systematic approach to achieving effective and comprehensive care for patients with diabetes' , Department of Health, 2010 http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_115472.pdf

into specialist care more straightforward. Improved integration: joint working between primary and specialist/secondary care prevents gaps in care and provides clear referral pathways.



- **Step 4 – Through more integrated working, overall standards are being raised**
  The accreditation and commissioning process provides incentives for practices to improve their standards and levels of delivery. At the same time, joint working with specialist medical and nursing colleagues and increased exposure to other specialist staff, provide the means to train and improve 'on the job'. This is particularly powerful when focused on joint assessment and management of complex patients.

The whole system should share responsibility for population level data and outcomes (e.g. in QOF). This information should be available to all involved.

Appendix 4: Acronyms and abbreviations

CAT	Clinical Assessment Tool
COPD	Chronic Obstructive Pulmonary Disease
HRCT	High-Resolution Computed Tomography
MRC	Medical Research Council
PROM	Patient Reported Outcome Measures
QOF	Quality and Outcomes Framework