Sandwell NHS
Primary Care Trust

Sandwell
Metropolitan Borough Council

Long Term Conditions and Multiple Morbidities in Sandwell

Joint Strategic Needs Assessment

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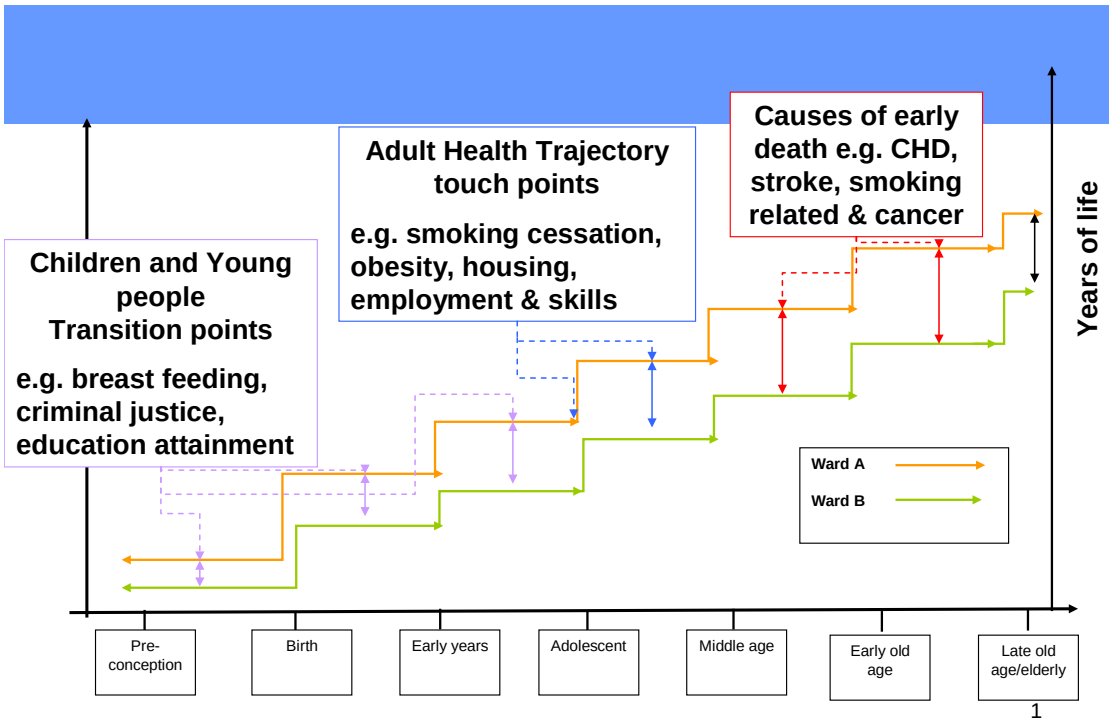
A Strategic Commissioning Framework– Trajectory, Transition and the Life Course

This Joint Strategic Needs Assessment (JSNA) sets out the health and social care needs of young people in Sandwell within the life course framework (fig a).

Figure a: Example Life course framework including transition and trajectory points



1

Outline definition:

Transition points: Those points in life that are fixed and allow or enable interventions to alter the life course. For example, breast feeding is a transition point. In this case, the rate of breast feeding will have an impact on the immediate transition point and also on the Childs long term trajectory.

Trajectory points: Those points in life that are constant but effective change will also alter the life course. For example, opportunities to develop employment skills or promote an active lifestyle will have an immediate and also cumulative impact on the long term trajectory.

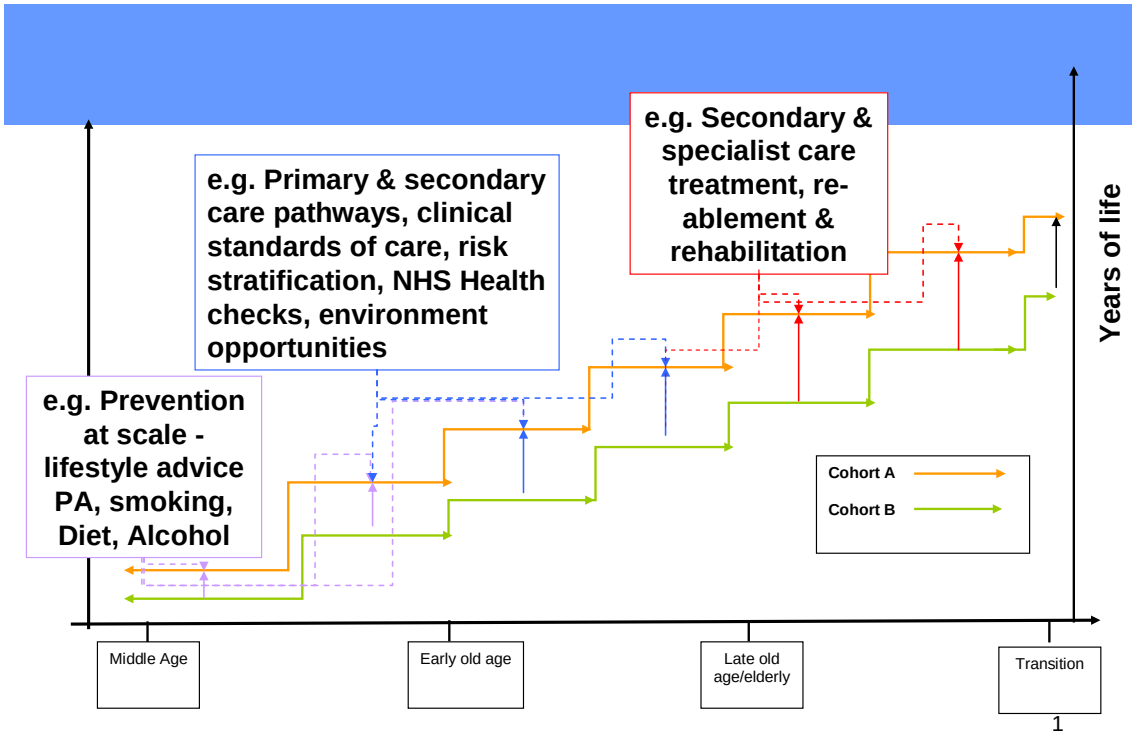
Life Course Outcomes: The aim of the framework is to change the course of life and enable people to reach their potential for living a full and fulfilling life. Essentially, the

approach focuses commissioning and intervention activities to promote and enhance positive life chances and a healthy life: adding years to life as well as life to years.

An example of the life course framework applied to this Long Term Conditions and Multiple Morbidities JSNA is described below in Figure b:

At each point recommendations are described in terms of programmes and commissioned or provided services both at transition points and trajectory points. For example, Trajectory points that impact across all ages include the need for improvements in early prevention activity including breastfeeding, lifestyle services available at the right scale to promote physical activity, weight management, advice on healthy eating, smoking cessation services and alcohol harm reduction services. Transition points include opportunities to improve the prevention, management and treatment of Long Term Conditions through monitoring and improvements in clinical standards and indicators in primary and secondary care. Further transition points include specialised health services and reablment and rehabilitation services. This theme focuses on seamless and integrated pathways out of health services and into care that promotes independence locally within the community.

Figure b: Long Term Conditions and Multiple Morbidities framework including transition and trajectory points



In terms of setting strategic targets and monitoring outcomes from investment in programmes designed to change both Transition and Trajectory points, the following outcomes should be considered:

Outcomes: (TBA)

These are taken from the Public Health Outcomes Framework, the NHS Outcomes Framework and the Adult Social Care Outcomes Framework (see Appendix A).

1. Introduction

1.1 A 'long term condition' is defined by the Department of Health as:

'Any condition that can not be cured but can be managed with medication or therapy'

Long term conditions (LTCs), such as diabetes, heart disease, and chronic obstructive pulmonary disease, are chronic illnesses that have a limiting impact on a person's lifestyle. The Department of Health (DoH) in its guidance document '*Raising the Profile of Long Term Conditions Care*' (*DOH, 2007a*), defined LTCs as conditions that cannot, at present, be cured, but can be controlled by medication and other therapies. The life of a person who gets a LTC will be changed forever – there is no return to 'normal'. There are 15.4 million people living with a LTC in England(1). Numbers are expected to rise due to an ageing population and unhealthy lifestyle choices

1.2 People with long term conditions are the most frequent users of the health service. In England as a whole, they account for 29% of the population, but 50% of GP appointments and 70% of inpatient stays. It is estimated that management of patients with long term conditions consumes 70% of the NHS budget. People in social class V have a 60% higher prevalence of long term conditions compared to those in social class 1 (2). There is no definitive list of 'long term conditions', however, amongst the commonest are:

Table 1.1: Lists common LTCs as suggested by the Long Term Conditions Clinical Pathway Group at NHS West Midlands (NHS West Midlands, 2008).

Group	Conditions
Vascular	Coronary heart disease (CHD), hypertension, diabetes, stroke, peripheral vascular disease, renal disease (CKD)
Respiratory	Chronic obstructive pulmonary disease (COPD), asthma, emphysema
Musculoskeletal and skin	Osteoarthritis, rheumatoid arthritis, psoriasis, eczema
Neurological	Multiple-sclerosis, cerebral palsy, epilepsy, Parkinson's disease
Immune diseases and endocrine	Thyroid disorders, Lupus (SLE)
Gastro-intestinal diseases	Coeliac disease, inflammatory bowel disease, diverticulitis
Cancers	Breast cancer, colonic cancer, prostate cancer
Mental health	Depression, anxiety, learning difficulties
Unknown	Chronic fatigue syndrome

1.3 A person with multiple LTCs is defined as a hospital inpatient who has two or more LTCs (as listed in Table 1.1 above) recorded as the primary and secondary diagnosis of the hospital episode that the patient is admitted for

1.4 Management of any long term condition can be categorised into lifestyle, medical, allied health professional (e.g. psychologist or psychiatrist) and surgical intervention. Lifestyle intervention has been found to be very effective in reducing rate of disease progression and development of complications (3). Lack of physical activity, obesity, smoking and poor diet are well known risk factors for the development of cardiovascular disease. Indeed for the management of cardiovascular disease (both ischaemic heart disease and cerebrovascular disease).

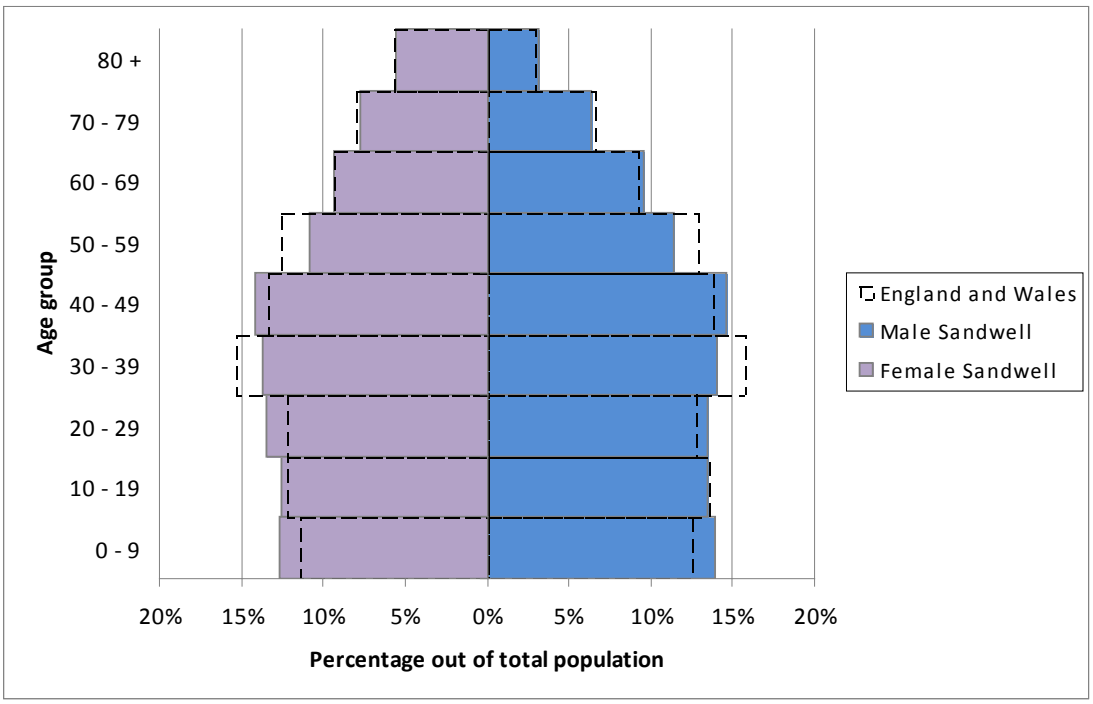
1.5 National Institute for Clinical Excellent and the National Collaborating Centre for Primary care emphasises the clinical importance of ensuring a healthy lifestyle across five separate domains: physical activity, healthy eating, weight reduction, alcohol consumption and smoking cessation (4, 5). One study by Unal et. al suggested that combined reductions in risk factors to both those with cardiovascular disease and those without could lead to almost a 60% reduction of cardiovascular mortality with smoking cessation being the most significant contributor to risk reduction (6). It is easy to extrapolate how change in lifestyle in these domains could benefit many other long term conditions and may also prevent the development of comorbidities in a patient originally suffering from only one long term condition. In addition, it is anticipated to be a cost effective intervention.

1.6 Sandwell is the 14th most deprived local authority in England. Although the health of its population is improving, it is not improving as fast as the rest of the country and the gap between life expectancy and the average life expectancy for England is increasing. In addition, the rate of deaths from Circulatory disorders in under 75 year olds is reducing less rapidly than in the rest of the country (7). The population is also very varied, with quite different life expectancies in neighbouring wards within the PCT. In addition, the PCT has a growing ethnic population which is predicted to account for 30% of the population by 2025. This population has different and varied health and social needs that as yet are not fully understood (7). Recent data indicate that ischaemic heart disease, cerebrovascular disease, and COPD accounted for three of the top five causes of death in Sandwell (alongside lung cancer and pneumonia) (8). It is clearly imperative that people in Sandwell with long term conditions are optimally managed to reduce mortality rates.

Age and gender distribution

1.7 Sandwell has a population of 289,100 of which 49% (141,100) are male and 51% (148,100) are female. The population pyramid below shows the age and gender distribution.

Figure 1.1: Sandwell population pyramid

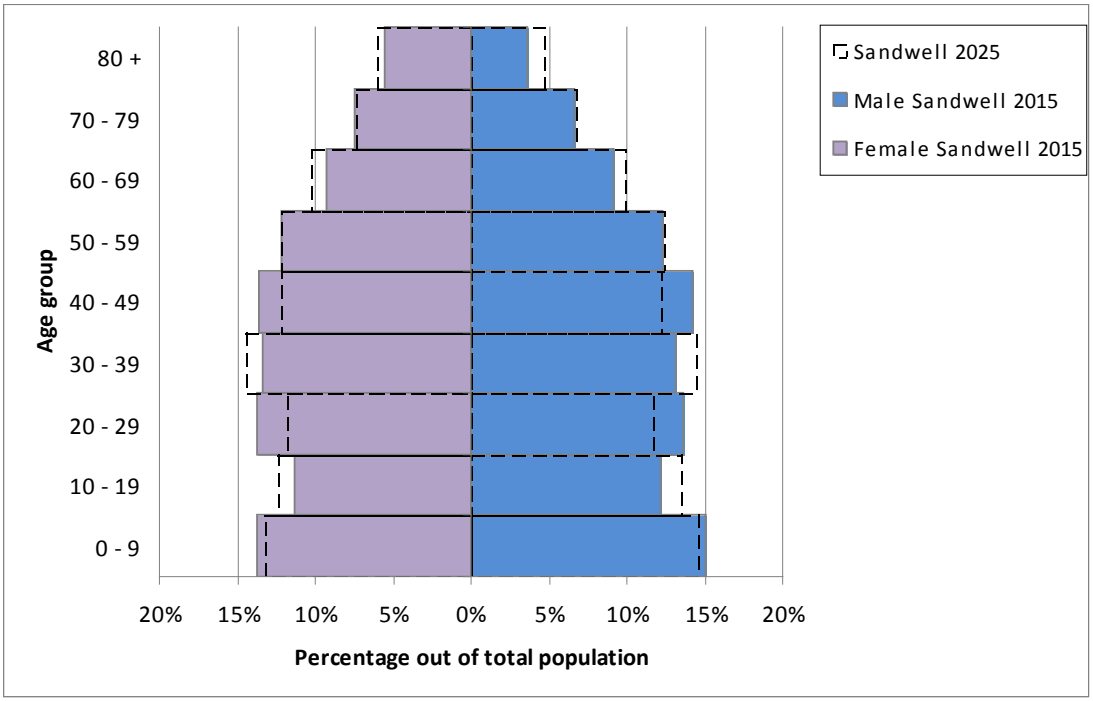


1.8 Sandwell has a slightly larger proportion of children and young people aged up to 29 compared to England.

Projected population structure

1.9 Figure 1.2 below shows the projected population by age group and gender for the year 2015 and 2020 for Sandwell.

Figure 1.2: Sandwell projected population pyramid



2. Number of People with Long Term Conditions

Key Findings

- In England 41% men and 43% women have longstanding illness
- Prevalence of long term illness increases with age
- Older people are more than likely to experience more than one longstanding illness
- Longstanding illness prevalence increases with income and deprivation
- It is estimated that in Sandwell approximately 27% of people (15 years and older) with longstanding illness smoke
- People with long term conditions smoke more heavily when compared to those who don't
- People with long term conditions have a higher prevalence of obesity compared with general findings
- Current estimates suggest that in Sandwell there may be as many as
    - 110,000 adults* with long term conditions
    - 60,000 adults* with limiting long term conditions.
    - 50,000 adults* with multiple long term conditions
- The number of patients diagnosed long term conditions is likely to increase in the future which place increased demand for lifestyle services
- The number of people on hypertension, diabetes, hypothyroidism, cancer and chronic kidney disease has increased
- Women have higher prevalence of dementia, depression, cancer, hyperthyroidism and chronic kidney disease
- Men have higher prevalence of CHD and learning disabilities

Strategic Actions

- Target people with long term conditions with lifestyle interventions
- Ensure that people with long term conditions are referred to stop smoking services

In order to ascertain how best to provide lifestyle services for patients with Long Term Conditions, it is first important to establish the prevalence of patients with one or more long term conditions in Sandwell. This could be estimated using the following:

- Health Survey for England (HSE), 2007 and 2009
- QOF databases
- Office for National Statistics Census data

2.1 For the purposes of this work, the HSE was found to be more useful in estimating the number of people with long term conditions in Sandwell. The census information is now very outdated and there are significant limitations in using the QOF data, which are outlined below.

Predictions

2.2 The HSE comprises a series of annual surveys on behalf of the NHS information centre. Data collection involves an interview followed by a visit from a specially trained nurse. The survey aims to collect data from a sample representative of the general population. The size of this sample varies from year to year. Although the most recently published HSE (2009) was based on data from a relatively small sample (4680 households), it focused on longstanding illness. 'Longstanding illness' was defined as any illness that:

> *'had troubled them over a period of time, or that was likely to affect them over a period of time'*

2.3 The HSE found that in England, 41% of men and 43% of women reported longstanding illness. Interestingly, this is a higher proportion than the proportion reported in 2007, suggesting an increase (14, 15). Prevalence increased steeply with age and in addition, older people were more likely to experience more than one longstanding illness (14). As well as varying with age, the prevalence of longstanding illness varied markedly according to income and deprivation. Only 38% of men and 37% of women in the highest income group reported having a longstanding illness, compared with 49% of men and 52% of women in the lowest income group.

2.4 Prevalence in Spearhead PCTs (defined as a PCT in a local authority area that is in the bottom fifth nationally for three or more indicators relating to life expectancy at birth,

cancer and CVD mortality rates and the index of multiple deprivation) was 45% in men and 47% of women. Sandwell is a Spearhead PCT. Therefore we might predict that there are approximately 110,000 people over 15 years of age with a longstanding illness in Sandwell (15,16). However, the fairly broad definition of longstanding illness used in the survey might lead to an overestimation of prevalence.

2.5 The most commonly reported longstanding illnesses were musculoskeletal conditions (14% of men and 18% of women). This equates to an estimated 37,000 people over the age of 15 years in Sandwell. The second most commonly reported conditions were heart and circulatory disorders (15). The HSE also looked at comorbidity. 21% of men and 22% of women in Spearhead PCTs reported having multiple long term conditions. This suggests ***50,000 people in Sandwell may be suffering from multiple long term conditions*** (15). The HSE highlighted that a high proportion of people with longstanding illness described it as a limiting longstanding illness (15).

2.6 In particular, in Spearhead PCTs, over 24% of men and 28% of women reported limiting longstanding illness (15). We could perhaps predict that there are ***60,000 people with a limiting longstanding illness in Sandwell.*** Limiting long term illness was also recorded as part of the Census data in 2001.

2.7 The Census found 21% of both men and women in Sandwell reporting a limiting longstanding illness, suggesting that prevalence of limiting longstanding illness is increasing alongside increasing prevalence of longstanding illness (17). It is not, however, entirely useful to consider only those with limiting long term conditions, as patients with non-limiting illness are an important group to be targeted with lifestyle intervention in order to prevent their illness limiting them in the future.

Smoking and Obesity Prevalence in Patients with Long Term Conditions

2.8 Data in HSE 2007 suggested that the prevalence of smoking was no higher in those with long term conditions than in those without. However, if patients with long term conditions smoked, they generally smoked more heavily when compared to those without long term conditions. Given that estimates suggest 27% of the Sandwell population smoke (12), we could estimate approximately 27% of people (15 years and older) with longstanding illness in Sandwell smoke.

2.9 HSE 2007 also suggested that there appears to be a higher prevalence of obesity in patients with long term conditions with 6% more people being obese when compared to the general population (14). Again, this highlights the importance of targeting people with long term conditions for lifestyle intervention.

Predictions via Quality and Outcomes Framework (QOF) Registers

2.10 QOF databases provide very useful insight into the prevalence of different chronic conditions at PCT level. Any patient diagnosed with a long term condition for which there is a QOF register can be readily detected via the QOF databases (Table 2.1). It is therefore arguably a more accurate representation of medically diagnosed long term condition. It has the advantage of counting actual members of the Sandwell population, rather than relying on estimates based on national data (such as the HSE) or the (now very out of date) Census data.

2.11 However, not all patients with significant long term conditions present to general practice and also some conditions are under diagnosed by GPs. In addition, not all long term conditions are represented by QOF disease registers: most notably chronic musculoskeletal and most neurological conditions do not have registers. Indeed the HSE suggests that a significant proportion of longstanding illness is due to musculoskeletal conditions (15).

2.12 These factors will all contribute to an underestimate of the prevalence of long term conditions in the PCT. There is also however, the propensity to overestimate the prevalence of people suffering from any long term condition, as many patients suffer from multiple long term conditions and therefore will be counted more than once. Indeed, in 2009/10, the combined total of individual QOF disease registers was 264,000. The total population of Sandwell is circa 310,000 and therefore this suggests that a significant proportion of patients must have multiple long term conditions (16,18).

Table 2.1- QOF Prevalence Data for Sandwell Primary Care Trust 2009/10

Disease Register	Number of patients
Coronary heart disease	12301
Heart failure	3074
Stroke or transient ischaemic attack	5554
Hypertension	51700
Obesity	36660
Chronic obstructive pulmonary disease	5872
Asthma	21233
Mental Health	2566
Depression	23396
Epilepsy	2138
Learning difficulties (>18 yrs old)	1152
Hypothyroidism	11919
Diabetes mellitus (17 yrs old)	17499
Chronic kidney disease	12112
Atrial fibrillation	4547
Cancer	3074
Palliative care	487
Dementia	1521

2.13 In spite of the significant limitations to using QOF data in estimating the number of patients with long term conditions, it is still useful data to explore. As well as providing raw prevalence data for individual conditions, it offers us some useful insight into the potential trends of prevalence of common chronic conditions over time (Graph 1). There is also a useful estimate of the number of patients suffering from one or more of the following conditions (as a result of some data that is collected to determine the QOF smoking indicators):

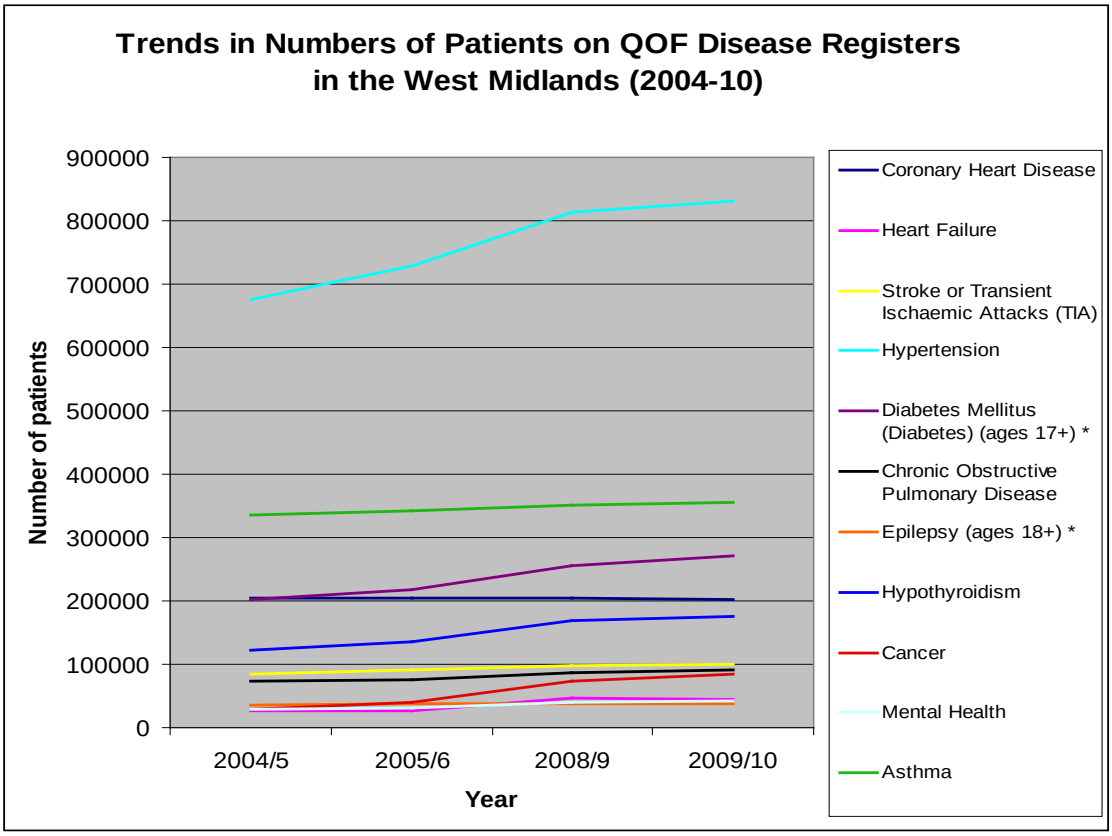
- Coronary Heart Disease
- Stroke/TIA
- Hypertension
- Diabetes mellitus
- Chronic Kidney Disease
- Asthma
- COPD
- Mental Health Registers

2.14 From the QOF data there are 77,759 patients that have been recorded to have at least one of the above conditions where as the total of the individual registers is 129,000. Therefore at least for these conditions, we can account for comorbidity to a reasonable extent (although not completely, due to the way in which the data is automatically collected (19)).

Trends of QoF Prevalence over Time

2.15 Most QOF registers appear to have fairly stable numbers of patients. However, there are a few registers that have increased over time, suggesting possibly increased prevalence but also increased diagnosis and or documentation. This is particularly the case with hypertension, diabetes, hypothyroidism and cancer (Graphs 1), but also in chronic kidney disease, which has only recently been introduced to the QOF registers. It would therefore be reasonable to assume that demands on lifestyle services from patients with long term conditions may increase in the future.

Figure 2.1: Patient on QoF Disease Registers



Numbers of Patients with Long Term Conditions by Gender

2.16 Gender distribution across different long term conditions can be established by looking at previously run MSDi searches (Figure 2.2 – 2.5) (20).

Figure 2.2: Gender Distribution in QoF Respiratory disease registers

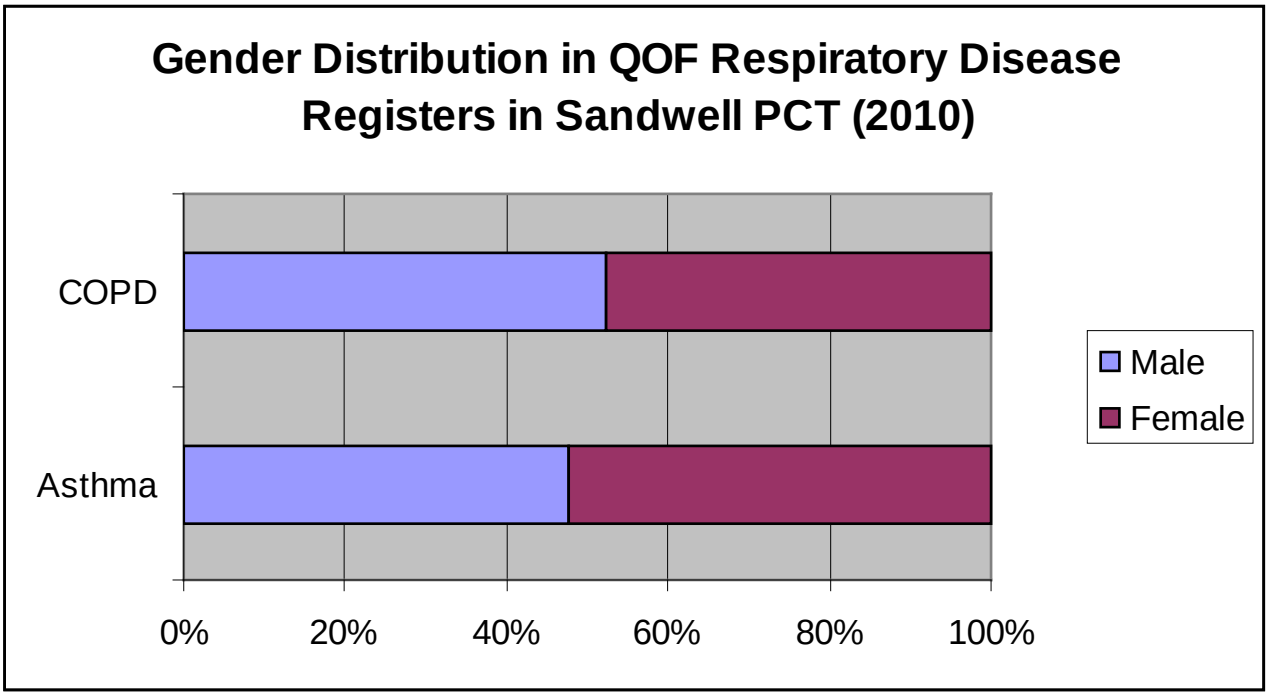


Figure 2.3: Gender Distribution in QoF Vascular and Metabolic disease registers

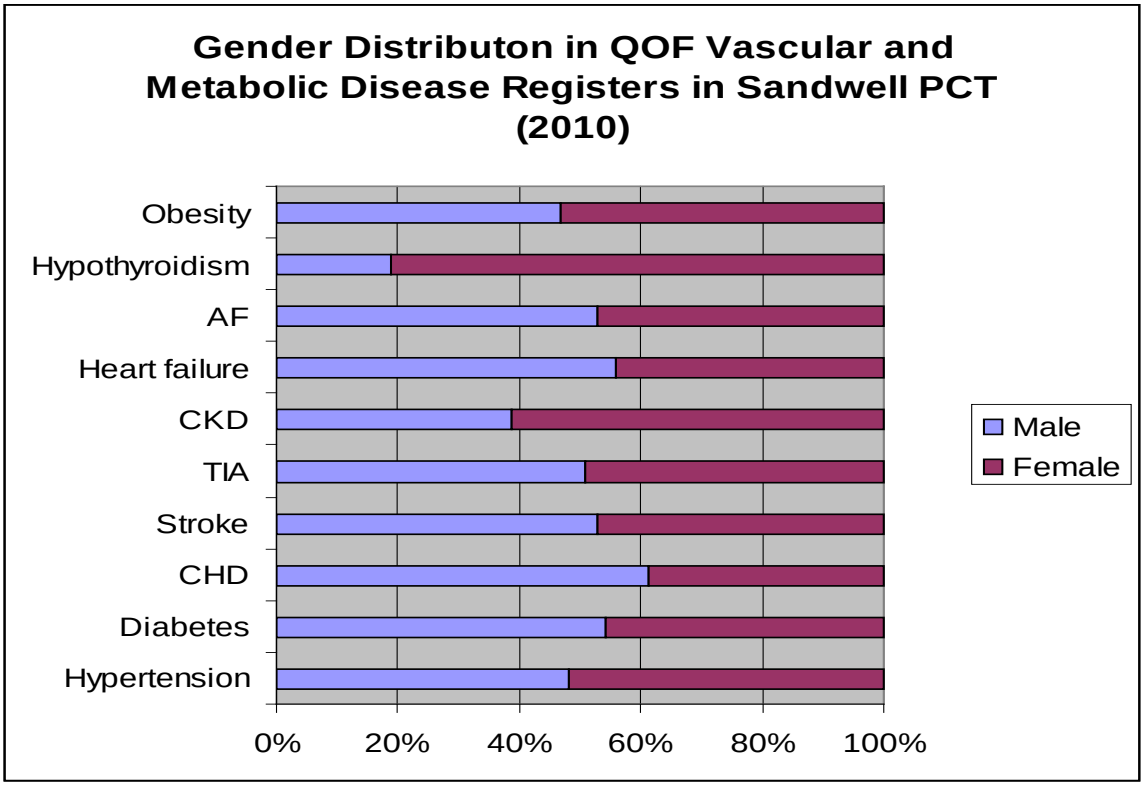


Figure 2.4: Gender Distribution in QoF Cancer and Palliative Care registers

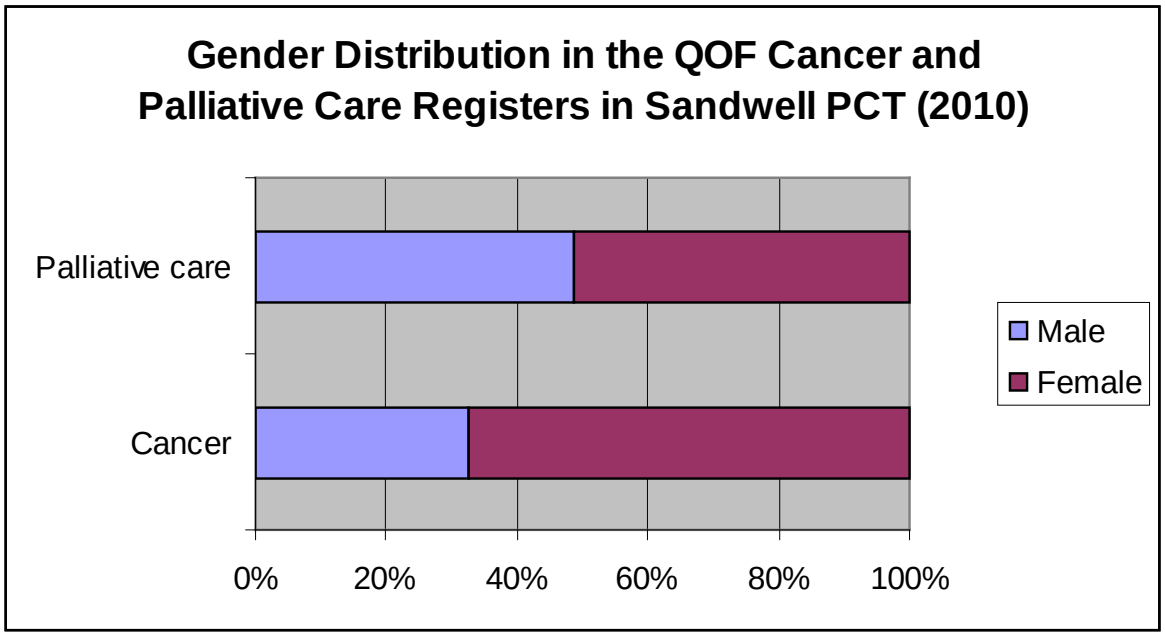
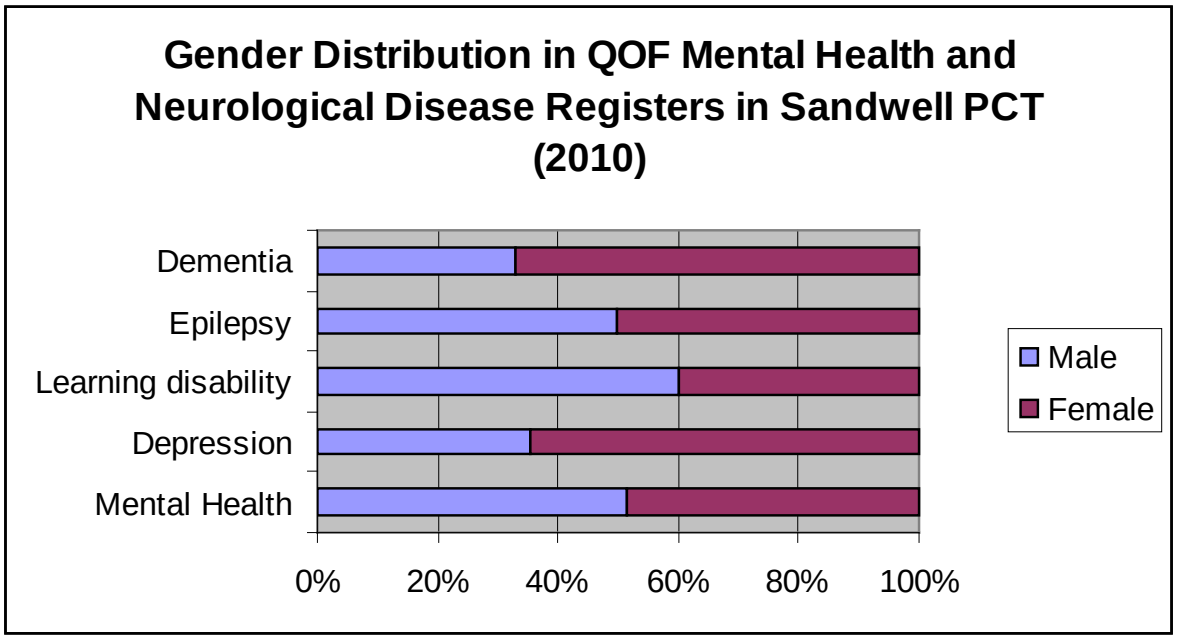


Figure 2.5: Gender Distribution in QoF Mental Health and Neurological disease registers



2.17 Data suggests that there is higher prevalence of dementia, depression, cancer, hypothyroidism and chronic kidney disease in women and a higher prevalence of coronary heart disease and learning disability in men. For most other conditions, prevalence is fairly similar between men and women.

QoF Smoking and Long Term Conditions Data

2.18 According to recent QOF data, 14210/77759 patients on at least one of the following registers smoked: (Coronary Heart Disease, Stroke/TIA, Hypertension, Diabetes mellitus, Chronic Kidney Disease, Asthma, COPD or Mental Health Registers). Of the 96% of patients with at least one of the above conditions for which, smoking status was recorded, 18% of patients with at least one of these conditions smoked. This seems to be a lower than estimated prevalence of smoking for the PCT, which has been estimated at 29% (8). Perhaps this suggests that in other long term conditions (not included in the QOF smoking indicator data) there is a much high prevalence of smoking or that data recorded by the doctor is not always accurate as many smokers relapse and might not inform their practices of this.

3. Prediction of uptake of Lifestyle Services

Key Findings

- 10,000 adults with long term conditions might be ready to access Sandwell smoking cessation services
- 11,000 adults with long term conditions might access physical activity and weight reduction programmes (according to current trends in uptake rates from the cardiovascular screening programme).
- Currently it is likely that lifestyle services engage less than 10% of this estimated number of people.
- Current data suggests that the male population is much less likely to access lifestyle services than the female population.

Strategic Actions

- Explore ways of increasing uptake of lifestyle services by men
- Increase the number of integrated lifestyle services available for families as some research suggests that men are more likely to feel comfortable undertaking lifestyle interventions as a family
- Promote workplace brief interventions signposting to existing services
- Promote workplace lifestyle services where appropriate
- Explore maximising the uptake of lifestyle services by the Sandwell population via secondary and primary care practitioners

3.1 The uptake of lifestyle services in Sandwell (other than smoking cessation services) for those signposted via the cardiovascular screening programme is thought to be around 10% (20). Uptake is slightly higher for smoking cessations services at 33% (12,20). We could perhaps assume that uptake rates would be similar amongst those with long term conditions. Interestingly, the uptake rates are generally much higher in women than men (11). We might predict the numbers of patients with long term conditions in Sandwell likely to take up lifestyle services using the following assumptions (as previously discussed):

- HSE estimates of the number of people with long term conditions are likely to be more accurate.
- 10% of patients with long term conditions might take up physical activity or weight reduction programmes.
- 33% of smokers are ready to give up at any time (according to national data).

3.2 11,000 people (15 years and older) with long term conditions might take up Sandwell lifestyle physical activity or weight reduction programmes. In addition, given than 27% of people with long term conditions are predicted to smoke, we might expect that approximately 10,000 people with long term conditions are ready to take up smoking cessation services.

3.3 Table 3.1 illustrates the hypothetical gap between current provision of lifestyle interventions for people in Sandwell with long term conditions with potential provision required given the likely uptake rates. Current provision is significantly less than potential required provision. However, the PCT is not the only provider of lifestyle interventions. Patients might also attend private or local authority providers. Furthermore, PCT lifestyle services are going out to tender, and therefore there might be scope for expansion of provision by new commissioners.

Table 3.1: Likely uptake of lifestyle services by the general Sandwell population according to risk (15 years old and over).

PROGRAMME DOMAIN	Potential Number (with long term conditions) that might consider engaging with services*
Physical activity	**11,000**[15,16,20]
Healthy eating	**11,000**[15,16, 20]
Smoking cessation	**10,000** [15,16] **Ready to quit**
Alcohol	**18,000+** [15,16,22]
Integrated Multiple Intervention Services	**11,000**[14,15,16]
Confidence and wellbeing	**11,000**[14,15,16]

***Assumptions**

- People with long term conditions are likely to consider themselves at a similar risk to those identified and assessed via the cardiovascular screening programme
- 10% of people take up healthy eating and physical activity programmes after cardiovascular screening therefore 10% of people with long term conditions might consider undertaking physical activity programmes
- 33% of smokers assessed through the cardiovascular screening programme take up smoking cessation services therefore 33% of people with long term conditions might consider engaging with smoking cessation services also.
- The proportion of people currently engaging in lifestyle services that have long term conditions is the same as the proportion of people in the general population with long term conditions. (Information regarding the number of people with long term conditions engaging with lifestyle services could be identified via a search of the SPAM database, however, this is likely to give an incomplete picture (page 4)).

4. Multiple Long Term Conditions and Multiple Morbidities

Key Findings

- 21,983 (7.6%) people in Sandwell have one long term condition
- 8,280 (2.9%) have two or more (multiple) long term conditions
- The number of females (4,287) who have multiple long term conditions is higher compared to males (3,992)
- Prevalence of multiple LTC increases with age in both males and females
- The white (75.5%), Asian (13.5%) and Black (5%) ethnic groups have the highest prevalence of long term conditions
- The prevalence for multiple long term conditions in Sandwell is 2.9%
- Rates of multiple LTCs are associated with deprivation
- Majority of those aged over 65 years have two or more long term conditions
- Those aged 75 and over have three or more long term conditions
- **CHD**
    - 4,842 (58.5%) people have multiple long term conditions with CHD
    - Diabetes was the most prevalent co-morbidity with CHD
    - 1,293 people were identified with both CHD and diabetes
    - The crude rate per 100,000 population of [CHD + diabetes + renal disease] was 99.46 per 100,000 population
- **Diabetes**
    - 5,257 (63.5%) people have multiple long term conditions with diabetes
    - CHD was the most prevalent co-morbidity with diabetes
    - 1,293 people were identified with both CHD and diabetes
    - The crude rate per 100,000 population of [diabetes + renal disease + CHD] was 99.46 per 100,000 population

- **Renal disease**
    - 2,600 (31.4%) people have multiple long term conditions with renal disease
    - Diabetes was the most prevalent co-morbidity with renal disease
    - 720 people were identified with both renal disease and diabetes
    - The crude rate per 100,000 population of [renal disease + diabetes + CHD] was 99.46 per 100,000 population
- **Chronic Obstructive Pulmonary Disease**
    - 2,222 (26.8%) people have multiple long term conditions with COPD
    - CHD was the most prevalent co-morbidity with COPD
    - 605 people were identified with both COPD and CHD
    - The crude rate per 100,000 population of [COPD + CHD + diabetes] was 51.12 per 100,000 population
- **Asthma**
    - 4,640 (56%) people have multiple long term conditions with asthma
    - Diabetes was the most prevalent co-morbidity with asthma
    - 501 people were identified with both asthma and diabetes
    - The crude rate per 100,000 population of [asthma + diabetes + CHD] was 40.34 per 100,000 population
- **Epilepsy**
    - 977 (11.8%) people have multiple long term conditions with epilepsy
    - Asthma was the most prevalent co-morbidity with epilepsy
    - 109 people were identified with both epilepsy and asthma
    - The crude rate per 100,000 population of [epilepsy + CHD + diabetes] was 6.61 per 100,000 population
- **Thyroid disorders**
    - 2,576 (31%) people have multiple long term conditions with thyroid disorders
    - Diabetes was the most prevalent co-morbidity with thyroid disorders

- 474 people were identified with both epilepsy and asthma
- The crude rate per 100,000 population of [thyroid disorders + asthma + diabetes] was 17.74 per 100,000 population

- **Depression**
  - 1,459 (17.6%) people have multiple long term conditions with depression
  - Asthma was the most prevalent co-morbidity with depression
  - 193 people were identified with both depression and asthma
  - The crude rate per 100,000 population of [depression + asthma + diabetes] was 6.61 per 100,000 population
- **Diverticulus**
  - 1,091 (13.2%) people have multiple long term conditions with diverticulus
  - CHD was the most prevalent co-morbidity with diverticulus
  - 167 people were identified with both diverticulus and CHD
  - The crude rate per 100,000 population of [diverticulus + CHD + diabetes] was 11.82 per 100,000 population

Strategic Actions

- The following strategic actions have been identified by previous multi-agency work (NHS, SMBC and PH) and remain current. These include the need to commission for
  - Lifestyle behaviour change programmes aimed at changes risk factors (including weight management, physical activity and environmental options)
  - Education programmes designed to improve self management and self care
  - Early recognition, prompt diagnosis and treatment services in primary and community care
  - Psychological and emotional support programmes to ensure appropriate support
  - Community based access and support services including intermediate care
  - Emergency and acute services to meet the needs of patients based on best practice

- Integration across health and social care in reablement and rehabilitation services and support independence
- Services to support carers
- Appropriate and culturally sensitive end of life services

- Consider recommendations for commissioning high quality care (National Institute of Health Research 2013).

4.1 Sandwell has a population of 289,100 of which 21,983 (7.6%) people have one and 8,280 (2.9%) have two or more (multiple) long term conditions. Table 4.1 below shows the number of people with multiple LTCs by gender and age group. The number of females with multiple LTCs is slightly higher (52%; 4,287) compared to males (48%; 3,992). The gender of one person aged 0-9 was not recorded.

Table 4.1: Prevalence of people with multiple LTCs in Sandwell by age and gender

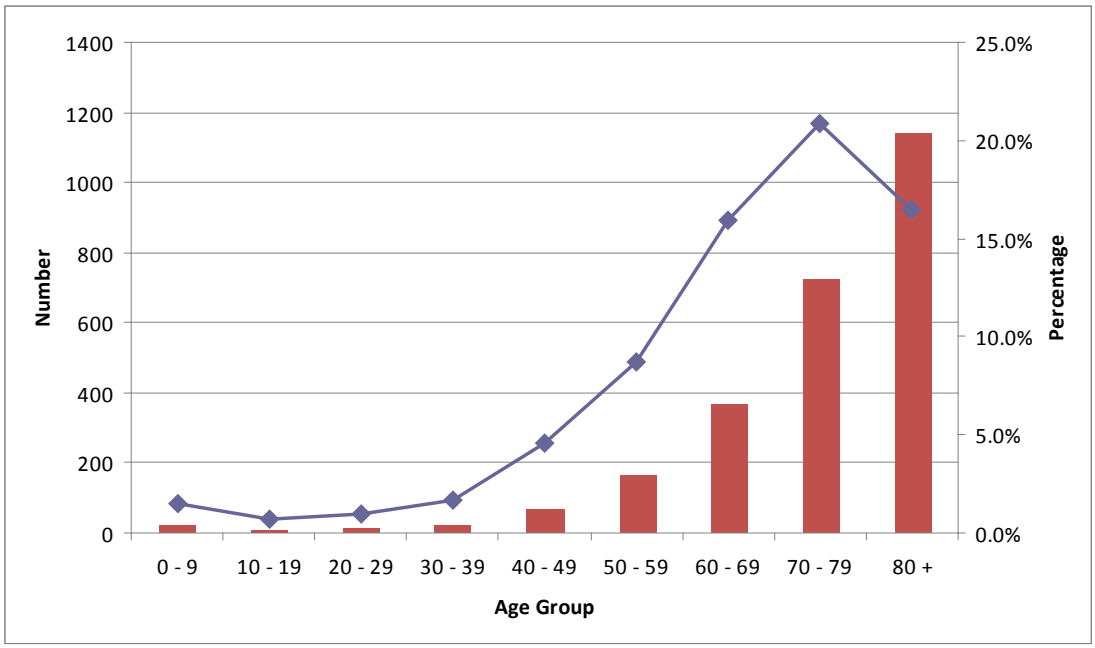
Age Group	Male		Female		Persons	
	N	%	N	%	N	%
0-9	86	**0.4**	156	**0.8**	242	**0.6**
10-19	39	**0.2**	50	**0.3**	89	**0.2**
20-29	52	**0.3**	108	**0.5**	160	**0.4**
30-39	93	**0.5**	178	**0.9**	271	**0.7**
40-49	255	**1.2**	333	**1.6**	588	**1.4**
50-59	488	**3.0**	512	**3.2**	1000	**3.1**
60-69	891	**6.6**	830	**6.0**	1721	**6.3**
70-79	1168	**13.0**	1019	**8.9**	2187	**10.7**
80+	920	**20.4**	1101	**13.4**	2021	**15.9**
Total	3992	**2.8**	4287	**2.9**	8280	**2.9**

Demography

Age and gender

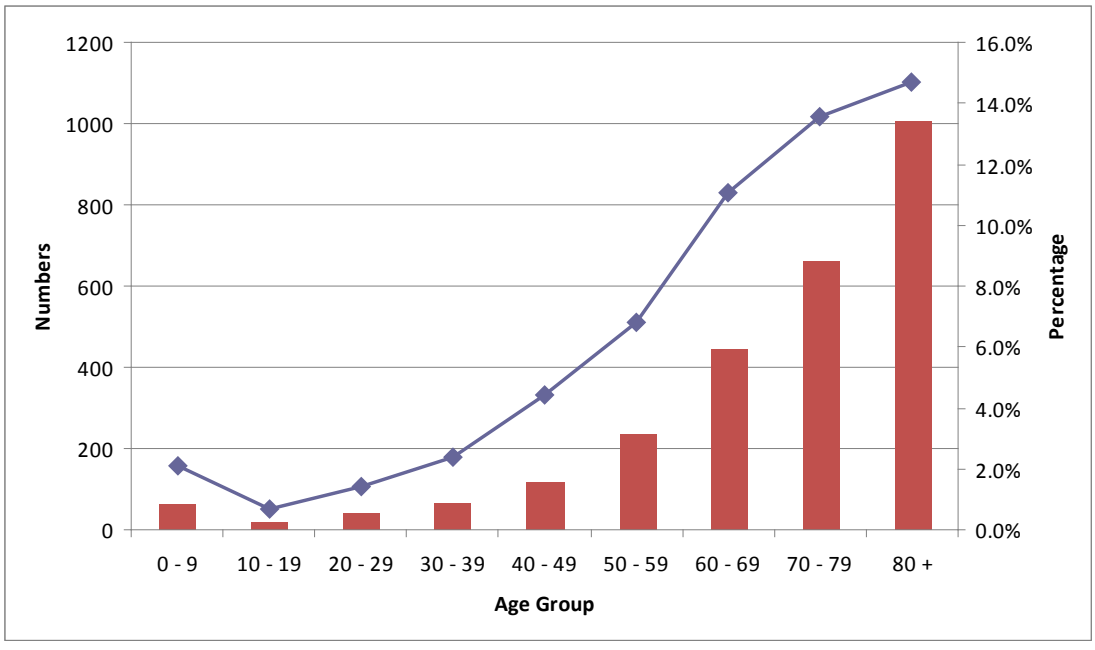
4.2 Figure 4.1 below shows the prevalence (number) and the prevalence rate (percentage) in males with multiple LTCs in the different age groups in 2009/10. The prevalence rate increases with age to 13% in those aged 70-79 years old and 20.4% in those aged 80 plus. The number of males with multiple LTCs increases with age upto age of 79 and then decreases in those aged over 80.

Figure 4.1: Number and percentage of males with multiple LTCs by age group in Sandwell 2009/10



4.3 Figure below 4.2 shows the prevalence (number) and the prevalence rate (percentage) in females with multiple LTCs in the different age groups in 2009/10. The prevalence rate increases to 8.9% in those aged 70-79 years and to 13.4% in those aged 80 plus. The rate in females is lower (8.9%, 13.4%) compared to the males (13%, 20.4%) respectively. The number of females with multiple LTCs continues to increase in all age groups except in those aged 0-9.

Figure 4.2: Number and percentage of people with multiple LTCs by age group and PCT, females, Sandwell 2009/10



Ethnicity

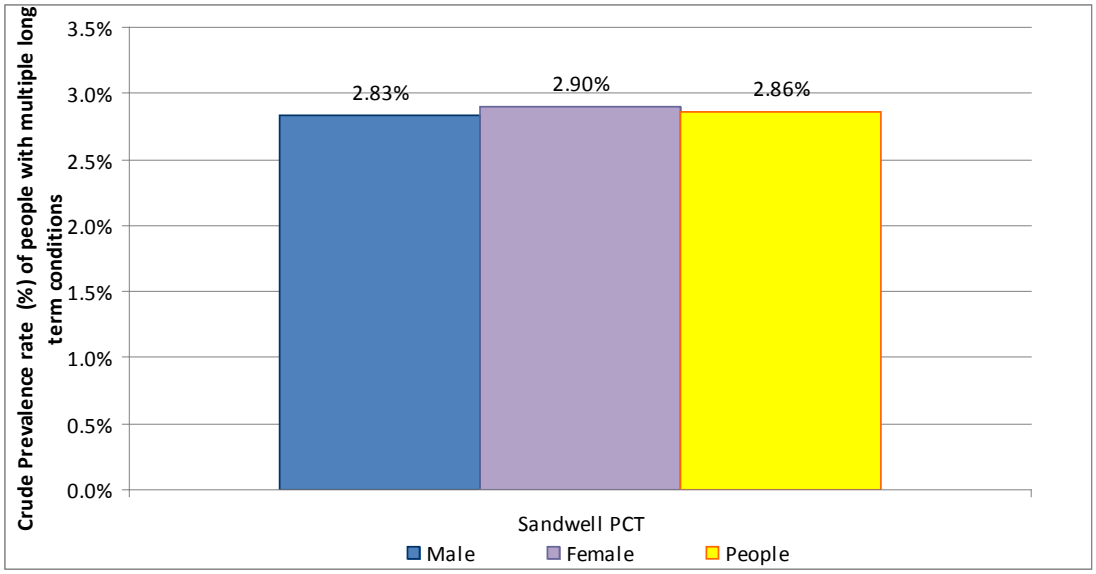
4.4 Table 4.2 below shows the ethnic distribution of people with multiple LTCs in Sandwell by gender. The majority (6,248; 75.5%) of people with multiple LTCs were of white ethnic origin. Those from the Asian and Black ethnic groups accounted for 13.5% and 5% of multiple LTCs. The ethnic origin of 410 (5.1%) people with multiple LTCs was either not known or not recorded.

Table 4.2: Ethnic distribution of people with multiple LTCs in Sandwell

Ethnic Group	Male		Female		Persons	
	Number	%	Number	%	Number	%
White	3033	**76.0**	3215	**75.0**	6248	**75.5**
Asian or Asian British	569	**14.3**	550	**12.8**	1120	**13.5**
Black or Black British	159	**4.0**	255	**5.9**	414	**5.0**
Mixed	18	**0.5**	23	**0.5**	41	**0.5**
Other ethnic group	24	**0.6**	23	**0.5**	47	**0.6**
Not known/NA	189	**4.7**	221	**5.2**	410	**5.1**
Total	3992	**100**	4287	**100**	8280	**100**

4.5 Figure 4.3 shows the crude prevalence rate (%) of multiple LTCs by gender. The rate is slightly higher (2.90%) in females compared to males (2.83%).

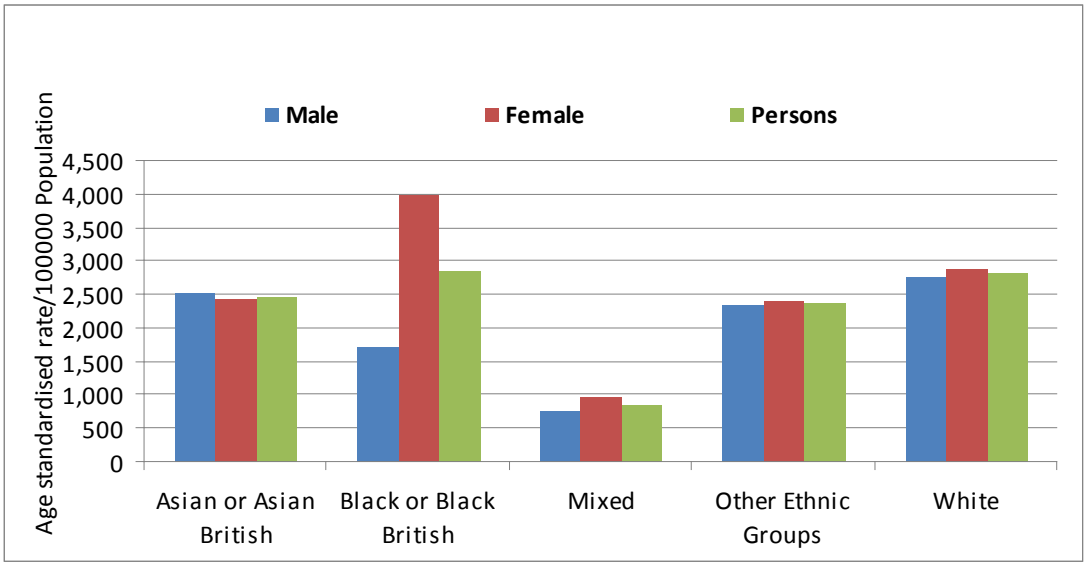
Figure 4.3: Crude prevalence rate (%) of people with multiple LTCs



4.6 Figure 4.4 shows the age standardised rate per 100,000 population of multiple LTCs by ethnic group in Sandwell in 2009/10. The rate in males and females in the different ethnic groups was similar except in the Black or Black British ethnic groups where it was

higher in females. The rate was also higher in the Black ethnic group compared to the other ethnic groups. The rate was lowest in the mixed ethnic group.

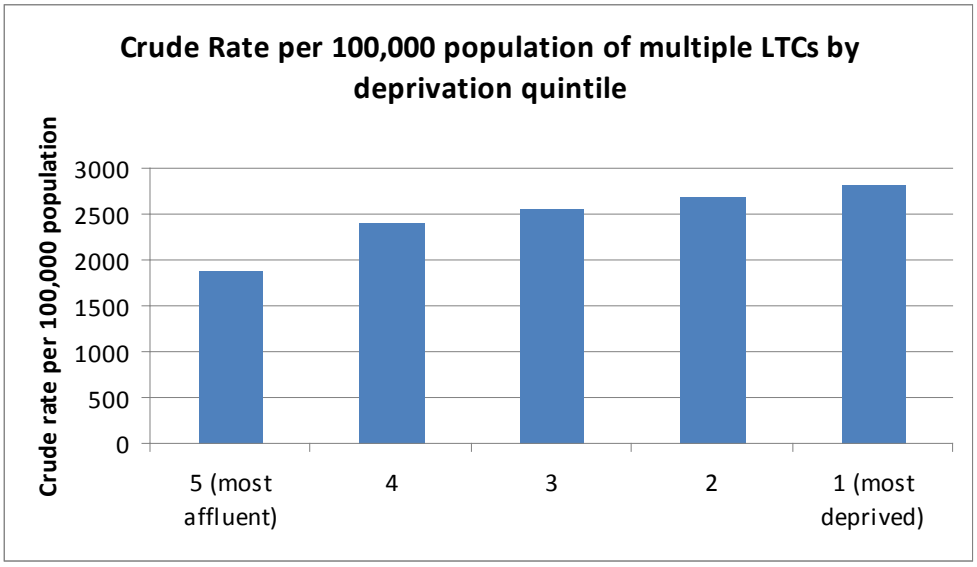
Figure 4.4: Age standardised rate (per 100,000 population) for multiple LTCs by ethnic group 2009/10



Multiple Long Term Conditions and deprivation

4.7 Figure 4.5 below shows the crude rate for LTCs per 100,000 population by deprivation as measured by the index of multiple deprivation (IMD). The rate per 100,000 population is associated with multiple deprivation.

Figure 4.5: Crude rate per 100,000 population of multiple LTCs by index of multiple deprivation



4.8 Figure 4.6 and 4.7 show that the majority of over 65s have two or more conditions and the majority of over 75s have three or more conditions. All patients have two or more conditions

Figure 4.6: Number of chronic conditions by age group

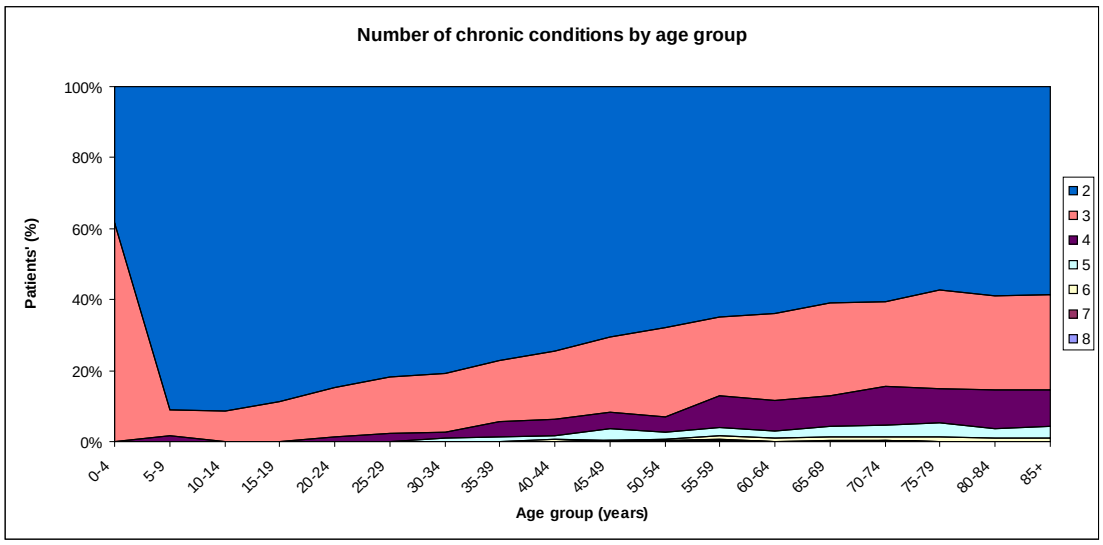
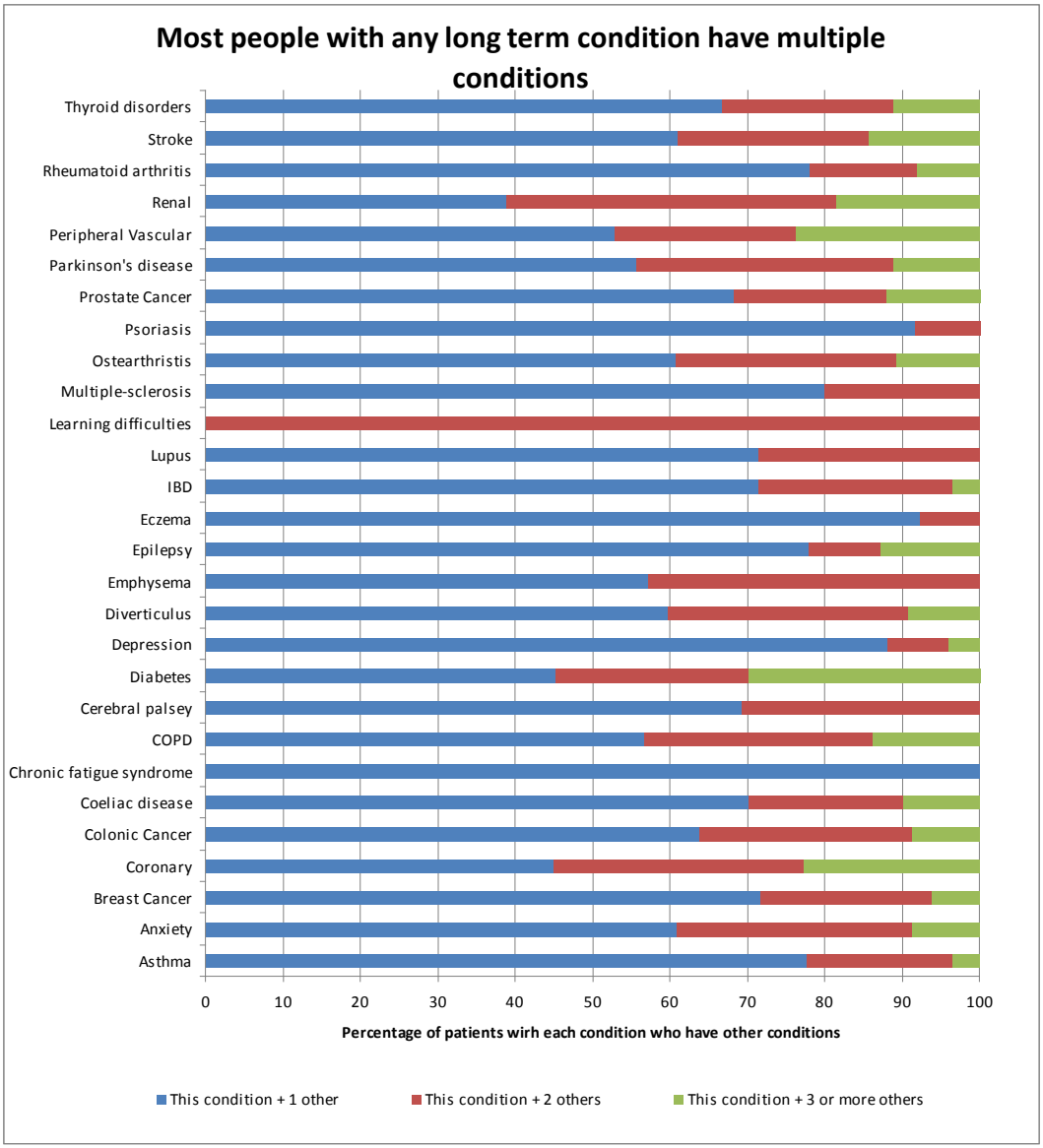
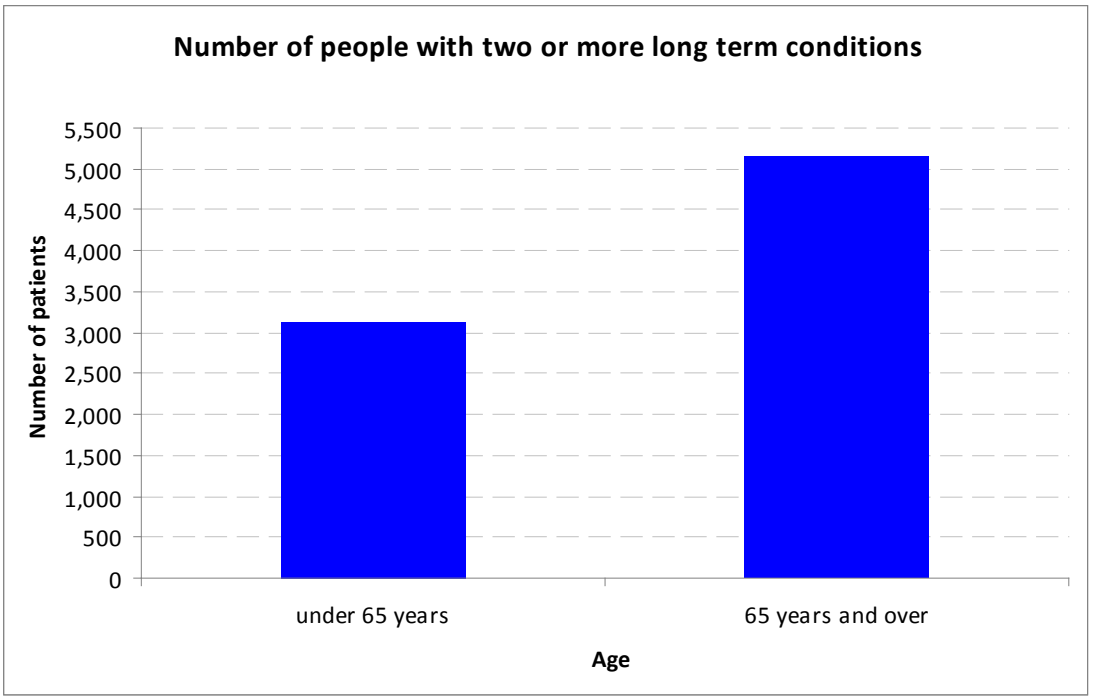


Figure 4.7 People with any long term condition and multiple conditions



4.9 Figure 4.8 shows that there are more people with two or more long term conditions aged 65 years and over compared to those aged under 65.

Figure 4.8 Multiple conditions and Age



Co-morbidity of common long term conditions

Coronary Heart Disease

4.10 In Sandwell 8,280 people have multiple LTCs of which 58.5% (4842) were with CHD. The most common co-morbidities (i.e. top five) were: diabetes, renal disease, COPD, asthma and peripheral vascular disease.

4.11 Table 4.3 shows that, Diabetes is the most prevalent co-morbidity with CHD with 1,293 people identified as having both CHD and diabetes. This accounts for 37.2% of all CHD patients, 10.5% of all GP registered prevalence and a crude prevalence rate of 449.64 per 100,000 population.

4.12 Renal disease was the second most prevalent co-morbidity with CHD with 648 people identified as having both CHD and chronic kidney disease. This accounts for 18.6% of all CHD patients, 5.3% of all GP registered CHD prevalence and a crude prevalence rate of 225.34 per 100,000 population.

Table 4.3: Top five co-morbidities with CHD in Sandwell

	N	% of all CHD patients	% QOF CHD prevalence	Crude prevalence (100,000)
Diabetes	1293	37.2%	10.5%	449.64
Renal	648	18.6%	5.3%	225.34
COPD	605	17.4%	4.9%	210.39
Asthma	414	11.9%	3.4%	143.97
Peripheral vascular	244	7.0%	2.0%	84.85

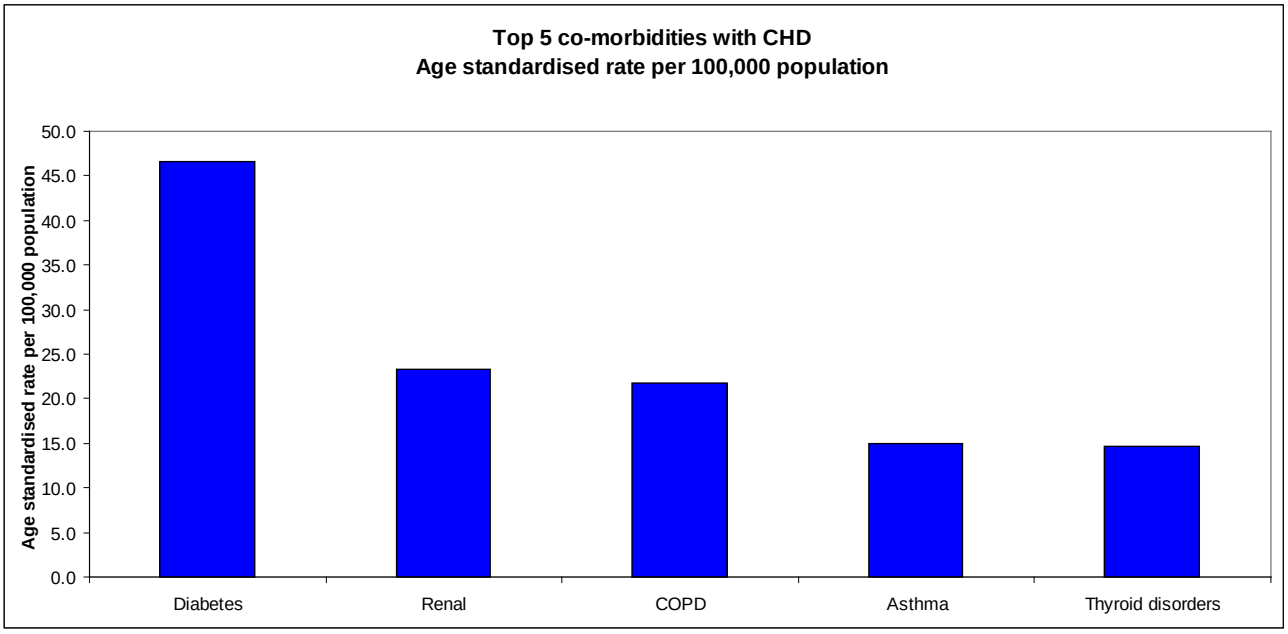
4.13 Table 4.4 shows the prevalence of three way co-morbidities with CHD. The crude rate per 100,000 population of [CHD + diabetes + renal disease] was 99.46 which is 8.2% of all CHD patients and 2.3% of GP registered CHD population.

Table 4.4: Prevalence of three way co-morbidities with CHD

	N	% of all CHD inpatients	% QOF CHD prevalence	Crude prevalence (100,000)
CHD + diabetes + renal	286	8.2%	2.3%	99.46
CHD + diabetes + COPD	147	4.2%	1.2%	51.12
CHD + renal + COPD	105	3.0%	0.9%	36.51

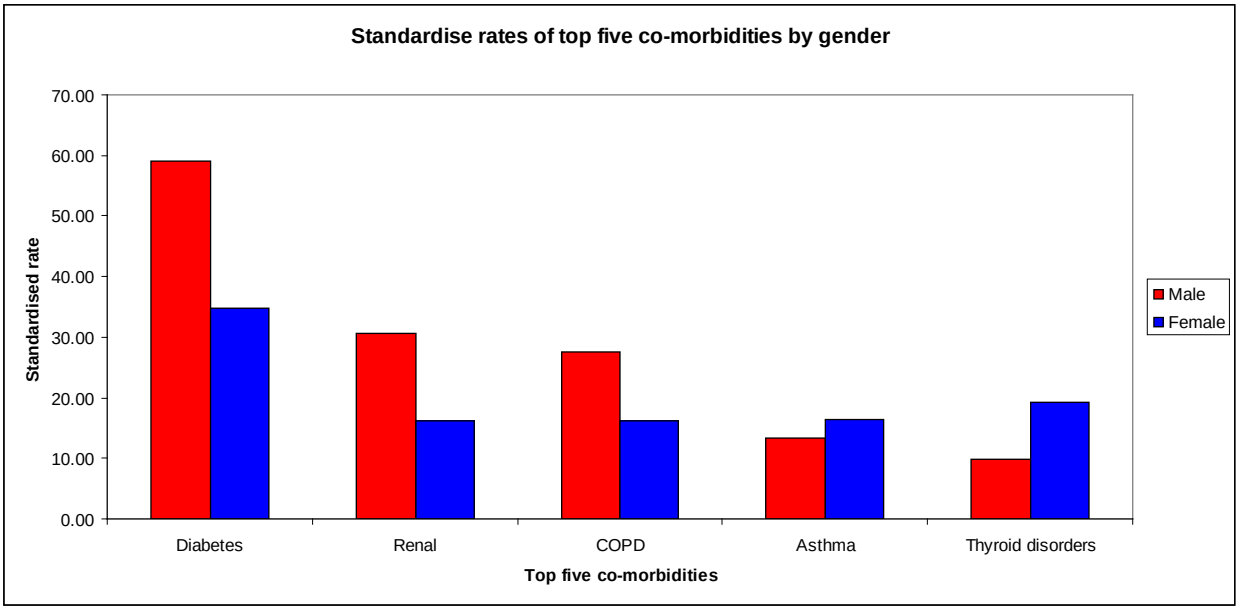
4.14 Figure 4.9 below shows the age standardised rate per 100,000 population. The highest rate is in those people with diabetes, renal disease and COPD.

Figure 4.9: Standardised Mortality Rate by co-morbidities -CHD



4.15 The data in Figure 4.10 below shows standardised rate for the top five co-morbidities by gender. The rate is higher in men with diabetes, renal disease and COPD and in women with asthma and thyroid disorders.

Figure 4.10: Standardised Mortality Rate by co-morbidities and gender



Diabetes

4.16 Of the total number of people identified with multiple LTCs, 63.5% (5,257) were with diabetes. The most common co-morbidities were with CHD, renal disease, asthma, thyroid disorders and COPD (table 4.5).

Table 4.5: Top five co-morbidities with diabetes

	N	% of all diabetes inpatients	% QOF diabetes prevalence	Crude prevalence (100,000)
CHD	1293	42.2%	7.4%	449.64
Renal	720	23.5%	4.1%	250.38
Asthma	501	16.4%	2.9%	174.22
Thyroid disorders	474	15.5%	2.7%	164.83
COPD	393	12.8%	2.3%	136.67

4.17 CHD was the most prevalent co-morbidity with diabetes with 1,293 people identified as having both diabetes and CHD. This accounted for 42.2% of all diabetes inpatients, 7.4% of all GP registered diabetes prevalence and a crude prevalence rate of 449.64 per 100,000 population

4.18 Renal disease was the second most prevalent co morbidity with diabetes, with 720 people identified as having both diabetes and renal disease. This accounted for 23.5% of all diabetes inpatients, 4.1% of all GP registered renal prevalence and a crude prevalence rate of 250.38 per 100,000 population.

4.19 Table 4.6: shows the prevalence of three way co-morbidities with diabetes. The crude prevalence rate per 100,000 population for [diabetes + renal disease + CHD] was 99.46 which was 9.3% of all diabetes inpatients and 1.63% of GP registered diabetes population.

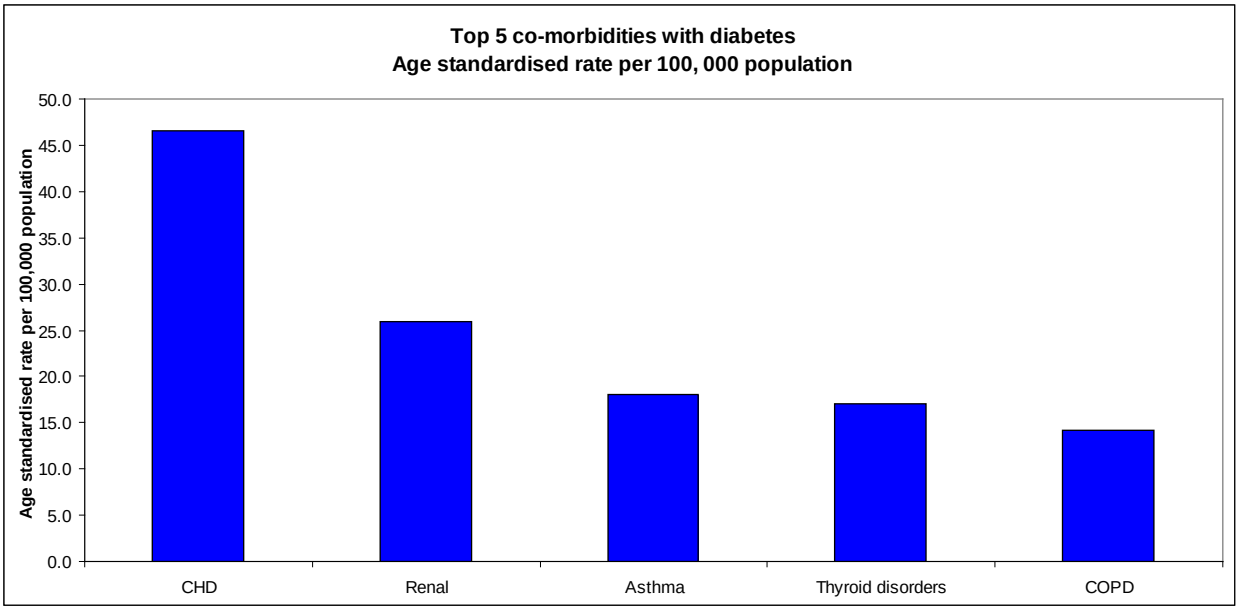
4.20 The crude prevalence rate per 100,000 population for [diabetes + CHD + asthma] was 40.34, which was 3.8% of all diabetes inpatients, 0.66% of GP registered diabetes population in Sandwell.

Table 4.6: Prevalence of three way co-morbidities with diabetes

	N	% of all diabetes inpatients	% QOF diabetes prevalence	Crude prevalence (100,000)
Diabetes + renal + CHD	286	9.3%	1.63%	99.46
Diabetes + CHD + asthma	116	3.8%	0.66%	40.34
Diabetes + renal + asthma	54	1.8%	0.31%	18.78

4.21 Figure 4.11 below shows the age standardised rate per 100,000 population. The highest rates are in those with CHD and renal disease.

Figure 4.11: Standardised Mortality Rate by co-morbidities -Diabetes



Renal Disease

4.22 Out of all the people who were identified with multiple LTCs, 31.4% (2,600) were with renal disease. The most common (i.e. top five) co-morbidities with chronic kidney disease were diabetes, CHD, COPD, thyroid disorders and asthma (Table 4.7). Diabetes was the most prevalent co-morbidity with renal disease with 720 people identified as having both renal disease and diabetes. This accounted for 36.1% of all renal disease inpatients, 5.0% og all GP registered renal disease prevalence and a crude prevalence rate of 250.38 per 100,000 population.

4.23 CHD was the second most prevalent co-morbidity with renal disease, with 648 people identified as having both CHD and renal disease. This accounted for 32.5% of all renal disease inpatients, 5.4% of all GP registered renal disease and a crude prevalence rate of 225.34 per 100,000 population.

Table 4.7: Top five co-morbidities with renal disease

	N	% of all renal disease inpatients	% QOF renal disease prevalence	Crude prevalence (100,000)
Diabetes	720	36.1%	5.9%	250.38
CHD	648	32.5%	5.4%	225.34
COPD	280	14.0%	2.3%	97.37
Thyroid disorders	246	12.3%	2.0%	85.55
Asthma	156	7.8%	1.3%	54.25

4.24 Table 4.8 shows the prevalence of three way co-morbidities with renal disease. The crude prevalence rate per 100,000 population of [renal disease + diabetes + CHD] was 99.46 which was 14.4% of all renal disease inpatients and 2.36% of GP registered renal disease population.

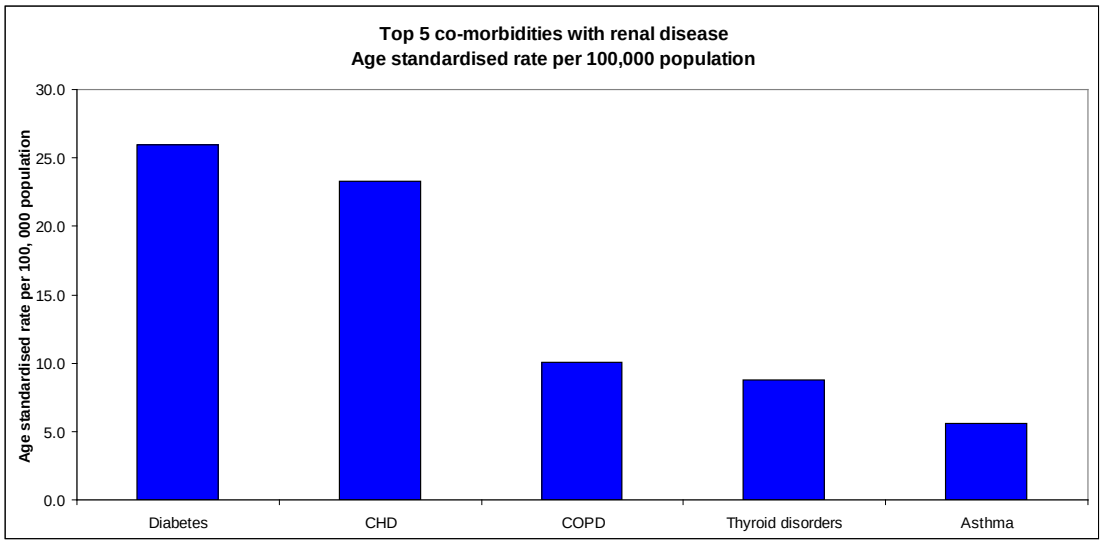
4.25 The crude prevalence rate of [renal disease + CHD + COPD] was 36.51 per 100,000 which was 0.87% of GP registered renal disease population.

Table 4.8: Prevalence of three way co-morbidities with renal disease

	N	% of all renal disease inpatients	% QOF renal disease prevalence	Crude prevalence (100,000)
Renal + diabetes + CHD	286	14.4%	2.36%	99.46
Renal + CHD + COPD	105	5.3%	0.87%	36.51
Renal + diabetes + COPD	82	4.1%	0.68%	28.52

4.26 Figure 4.12 below shows the age standardised rate per 100,000 population. The highest rate is in those with diabetes and CHD.

Figure 4.12: Standardised Mortality Rate by co-morbidities -Renal



Chronic Obstructive Pulmonary Disease

4.27 Out of all the people who were identified with multiple LTCs, 26.8% (2,222) were with COPD. The most common co morbidities were CHD, diabetes, renal, thyroid disorders and peripheral vascular disease. CHD was the most prevalent co morbidity with COPD with 605 as being identified as having both COPD and CHD. This accounted for 42.4% of all COPD inpatients, 2.5% of all GP registered COPD prevalence and a crude prevalence rate of 51.12 per 100,000 population

4.28 Diabetes was the second most prevalent co morbidity with 393 people identified as having diabetes and COPD. This accounted for 27.6% of all COPD inpatients, 6.7% of all GP registered COPD prevalence and a crude prevalence rate of 136.67 per 100,000 population.

Table 4.9: Top 5 co-morbidities with COPD

	N	% of all COPD inpatients	% QOF COPD prevalence	Crude prevalence (100,000)
CHD	605	42.4%	10.3%	210.39
Diabetes	393	27.6%	6.7%	136.67
Renal	280	19.6%	4.8%	97.37
Thyroid disorders	201	14.1%	3.4%	69.90
Peripheral vascular	95	6.7%	1.6%	33.04

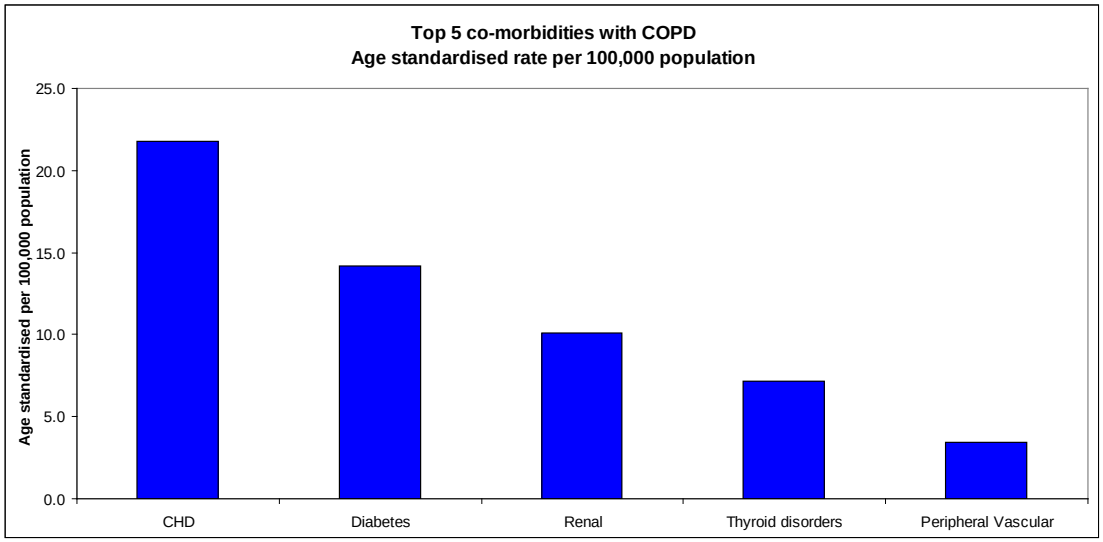
4.29 The crude prevalence rate of [COPD + CHD + diabetes] was 51.12 per 100,000 population which was 10.3% of all COPD inpatients and 2.5% of all GP registered COPD disease population (Table 4.10)

Table 4.10: Three way co-morbidities with COPD

	N	% of all COPD patients	% QOF COPD prevalence	Crude prevalence (100,000)
COPD + CHD + diabetes	147	10.3%	2.5%	51.12
COPD + CHD + renal	105	7.4%	1.8%	36.51
COPD + diabetes + renal	82	5.8%	1.4%	28.52

4.30 The Figure 4.13 below shows the age standardised rate per 100,000 population. The highest rates being in those with CHD, diabetes and renal.

Figure 4.13: Standardised Mortality Rate by co-morbidities - COPD



Asthma

4.31 Out of all the people identified with multiple LTCs, 56% (4,640) were with asthma. The most common co-morbidities were with diabetes, CHD, thyroid disorders, depression and renal disease. Diabetes was the most prevalent co-morbidity with asthma with 501 people identified as having both asthma and diabetes. This accounted for 29.4% of all asthma inpatients, 2.3% of all GP registered asthma prevalence and a crude prevalence rate of 174.22 per 100,000 population.

Table 4.11: Top 5 co-morbidities with asthma

	N	% of all Asthma inpatients	% QOF Asthma prevalence	Crude prevalence (100,000)
Diabetes	501	29.4%	2.3%	174.22
CHD	414	24.3%	1.9%	143.97
Thyroid disorders	279	16.4%	1.3%	97.02
Depression	193	11.3%	0.9%	67.12
Renal	156	9.1%	0.7%	54.25

4.32 CHD was the second most prevalent co-morbidity with asthma, with 414 people identified as having both asthma and CHD. This accounted for 24.3% of all asthma inpatients, 1.9% of all GP registered asthma disease and a crude prevalence rate of 143.97 per 100,000 population.

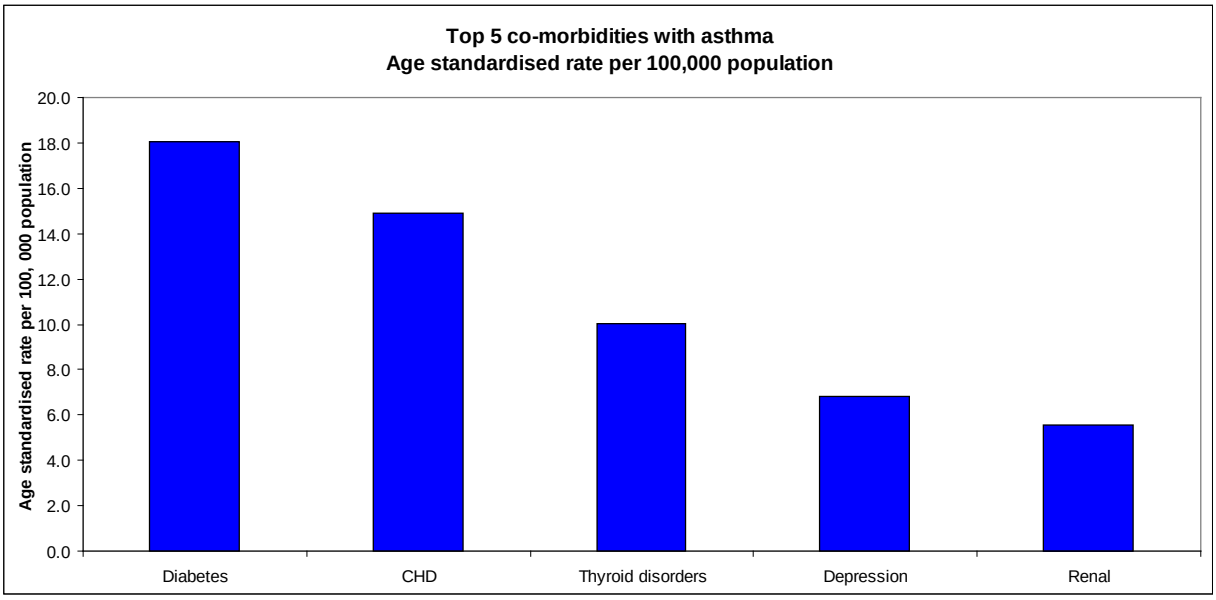
Table 4.12: Three way co-morbidities with asthma

	N	% of all Asthma inpatients	% QOF Asthma prevalence	Crude prevalence (100,000)
Asthma + diabetes + CHD	116	6.8%	0.5%	40.34
Asthma + diabetes + thyroid disorders	51	3.0%	0.2%	17.74
Asthma + CHD + thyroid disorders	46	2.7%	0.2%	16

4.33 The crude prevalence rate per 100,000 population of [asthma + diabetes + CHD] was 40.34. This was 6.8% of all asthma inpatients and 0.5% of GP registered asthma population. The crude prevalence rate of [asthma + diabetes + thyroid] was 17.74 per 100,000 which is 3.0% of all asthma inpatients and 0.2% of GP registered asthma population.

4.34 The Figure 4.14 below shows the age standardised rate per 100,000 population. The highest rate was in those with diabetes, CHD and thyroid disorders.

Figure 4.14: Standardised Mortality Rate by co-morbidities -Asthma



Epilepsy

4.35 Out of all the people identified with multiple LTCs, 11.8% (977) were with epilepsy. The most common co-morbidities were with asthma, CHD, diabetes, thyroid disorders and depression. Asthma was the most prevalent co-morbidity with epilepsy with 109 people identified as having both epilepsy and asthma. This accounted for 21.0% of all epilepsy inpatients, 5.1% of all GP registered epilepsy prevalence and a crude prevalence rate of 174.22 per 100,000 population

4.36 CHD was the second most prevalent co-morbidity with epilepsy, with 92 people identified as having both asthma and CHD. This accounted for 17.7% of all epilepsy inpatients, 4.2% of all GP registered epilepsy disease and a crude prevalence rate of 31.99 per 100,000 population.

Table 4.13: Top 5 co-morbidities with epilepsy

	N	% of all Epilepsy inpatients	% QOF Epilepsy prevalence	Crude prevalence (100,000)
Asthma	109	21.0%	5.1%	37.91
CHD	92	17.7%	4.3%	31.99
Diabetes	90	17.3%	4.2%	31.30
Thyroid disorders	78	15.0%	3.6%	27.12
Depression	69	13.3%	3.2%	23.99

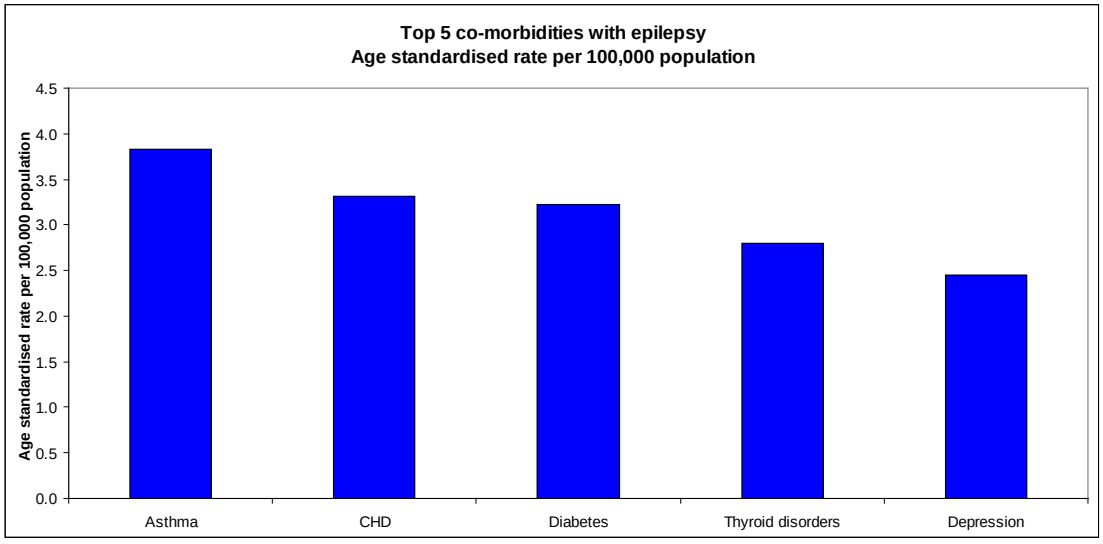
Table 4.14 Three way co-morbidities with epilepsy

	N	% of all epilepsy inpatients	% QOF epilepsy prevalence	Crude prevalence (100,000)
Epilepsy + CHD + diabetes	19	3.7%	0.8%	6.61
Epilepsy + asthma + diabetes	14	2.7%	0.7%	4.87
Epilepsy + asthma + CHD	10	1.9%	0.5%	3.48

4.37 The crude prevalence rate per 100,000 population of [epilepsy + CHD + diabetes] was 6.61 which was 3.7% of all epilepsy inpatients and 0.8% of GP registered epilepsy population. The crude prevalence rate of [epilepsy + asthma + diabetes] was 4.87 per 100,000 which was 2.7% of all epilepsy inpatients and 0.7% of GP registered epilepsy population

4.38 Figure 4.15 below shows the age standardised rate per 100,000 population. The highest rates being in those with asthma, CHD and diabetes.

Figure 4.15: Standardised Mortality Rate by co-morbidities -Epilepsy



Thyroid disorders

4.39 Out of all the people identified with multiple LTCs, 31% (2,576) were with thyroid disorders. The most common co-morbidities were with diabetes, asthma, renal disease, COPD and depression. Diabetes was the most prevalent co-morbidity with thyroid

disorders with 474 people identified as having both thyroid disorders and diabetes. This accounted for 31.0% of all thyroid disorders inpatients, 4.0% of all GP registered thyroid prevalence and a crude prevalence rate of 164.83 per 100,000 population.

Table 4.15: Top 5 co-morbidities with thyroid disorders

	N	% of all thyroid disorders inpatients	% QOF thyroid disorders prevalence	Crude prevalence (100,000)
Diabetes	474	31.3%	4.0%	164.83
Asthma	278	18.3%	2.4%	96.68
Renal	246	16.2%	2.1%	85.55
COPD	201	13.3%	1.7%	69.90
Depression	113	7.4%	1.0%	39.30

4.40 Asthma was the second most prevalent co-morbidity with thyroid disorders, with 278 people identified as having both thyroid disorders and asthma. This accounted for 18.3% of all thyroid disorders inpatients, 2.4% of all GP registered thyroid disorders and a crude prevalence rate of 96.68 per 100,000 population.

Table 4.16: Three way co-morbidities with thyroid disorders

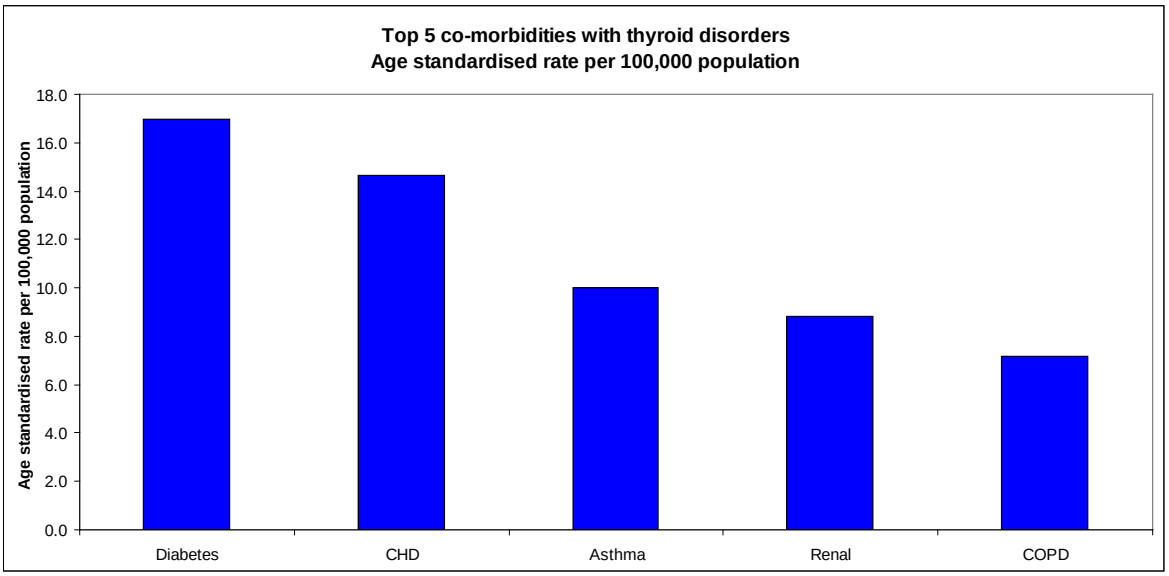
	N	% of all thyroid disorders inpatients	% QOF thyroid disorders prevalence	Crude prevalence (100,000)
Thyroid disorders + asthma + diabetes	51	3.4%	0.4%	17.74
Thyroid disorders + renal + diabetes	82	5.4%	0.7%	28.52
Thyroid disorders + asthma + renal	20	1.3%	0.2%	6.96

4.41 The crude prevalence rate per 100,000 population of [thyroid disorders + asthma + diabetes] was 17.74 which was 3.4% of all thyroid disorders inpatients and 0.4% of GP registered thyroid disorders population.

4.42 The crude prevalence rate of [thyroid disorders + renal disease + diabetes] was 28.52 per 100,000 which was 5.4% of all thyroid disorders inpatients and 0.7% of GP registered thyroid disorders population

4.43 The Figure 4.16: below shows the age standardised rate per 100,000 population. The highest rate was in those with diabetes, CHD and asthma.

Figure 4.16: Standardised Mortality Rate by co-morbidities –Thyroid Disorders



Depression

4.44 Out of all the people identified with multiple LTCs, 17.6% (1,459) were with depression. The most common co-morbidities were with asthma, diabetes, thyroid disorders, depression and COPD. Asthma was the most prevalent co-morbidity with depression with 193 people identified as having both depression and asthma. This accounted for 23.9% of all depression inpatients, 0.6% of all GP registered depression prevalence and a crude prevalence rate of 67.12 per 100,000 population.

Table 4.17: Top 5 co-morbidities with depression

	N	% of all depression inpatients	% QOF depression prevalence	Crude prevalence (100,000)
Asthma	193	23.9%	0.8%	67.12
Diabetes	150	18.6%	0.6%	52.16
Thyroid disorders	113	14.0%	0.5%	39.30
Depression	110	13.6%	0.5%	38.25
COPD	93	11.5%	0.4%	32.34

4.45 Diabetes was the second most prevalent co-morbidity with depression, with 150 people identified as having both depression and diabetes. This accounted for 18.6% of all depression inpatients, 0.6% of all GP registered depression and a crude prevalence rate of 52.16 per 100,000 population. The crude prevalence rate per 100,000 population of [depression + asthma + diabetes] was 6.61 which was 2.4% of all depression inpatients and 0.1% of GP registered depression population.

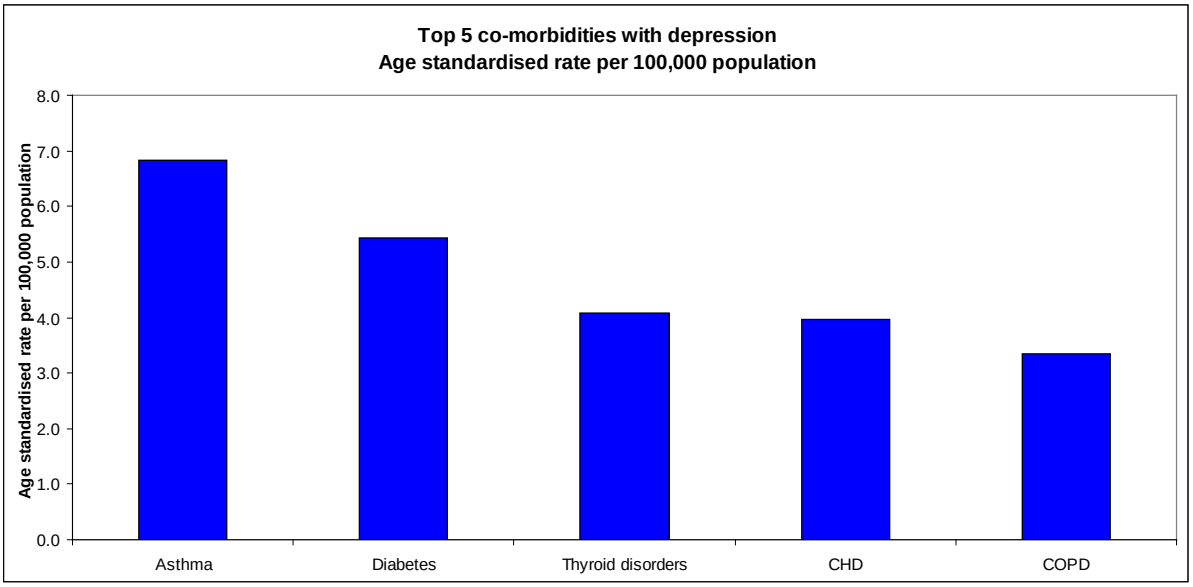
4.46 The crude prevalence rate of [depression + asthma + thyroid disorders] was 5.91 per 100,000 which was 2.1% of all depression inpatients and 0.1% of GP registered depression population.

Table 4.18: Three way co-morbidities with depression

	N	% of all depression inpatients	% QOF depression prevalence	Crude prevalence (100,000)
Depression + asthma + diabetes	19	2.4%	0.1%	6.61
Depression + asthma + thyroid disorders	17	2.1%	0.1%	5.91
Epilepsy + asthma + CHD	22	2.7%	0.1%	7.65

4.47 Figure 4.17 below shows the age standardised rate per 100,000 population. The highest rate was in those with asthma, diabetes and thyroid disorders.

Figure 4.17: Standardised Mortality Rate by co-morbidities –Thyroid Disorders



Diverticulus

4.48 Out of all the people identified with multiple LTCs, 13.2% (1,091) were with diverticulus. The most common co-morbidities were with CHD, diabetes, renal disease, thyroid disorders and asthma.

4.49 CHD was the most prevalent co-morbidity with diverticulus with 167 people identified as having both diverticulus and CHD. This accounted for 29.8% of all diverticulus inpatients and a crude prevalence rate of 58.07 per 100,000 population

Table 4.19: Top 5 co-morbidities with diverticulus

	N	% of all diverticulus inpatients	% QOF diverticulus prevalence	Crude prevalence (100,000)
CHD	167	29.8%	NA	58.07
Diabetes	155	27.6%	NA	53.90
Renal	98	17.5%	NA	34.08
Thyroid disorders	94	16.8%	NA	32.69
Asthma	85	15.2%	NA	29.56

4.50 Diabetes was the second most prevalent co-morbidity with depression, with 155 people identified as having both diverticulus and diabetes. This accounted for 27.6% of all diverticulus inpatients and a crude prevalence rate of 53.90 per 100,000 population.

Table 4.20: Three way co-morbidities with diverticulus

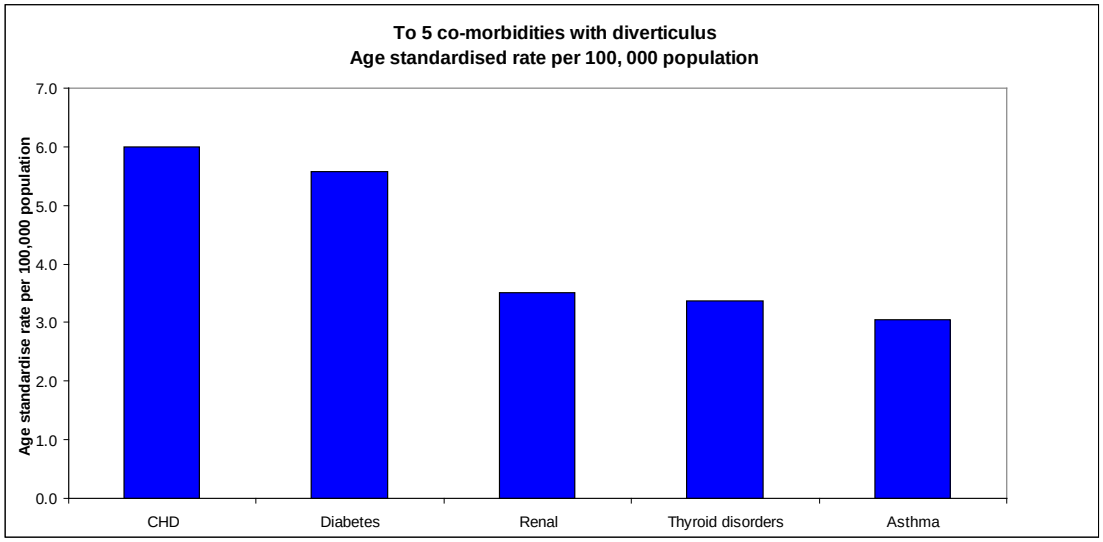
	N	% of all diverticulus inpatients	% QOF diverticulus prevalence	Crude prevalence (100,000)
Diverticulus + CHD + diabetes	34	6.1%	NA	11.82
Diverticulus + asthma + diabetes	25	4.5%	NA	8.69
Diverticulus + asthma + CHD	26	4.6%	NA	9.04

4.51 The crude prevalence rate per 100,000 population of [diverticulus + CHD + diabetes] was 11.82 which was 6.1% of all diverticulus inpatients. The crude prevalence

rate of [diverticulus + asthma + diabetes] was 8.69 per 100,000 which was 4.5% of all diverticulus inpatients.

4.52 Figure 4.18 below shows the age standardised rate per 100,000 population. The highest rate was in those with CHD, diabetes and renal disease.

Figure 4.18: Standardised Mortality Rate by co-morbidities – Diverticulus



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Appendix A

Table a: Public Health Outcomes framework 2013/16

1 Improving the wider determinants of health	2. Health improvement	3. Health protection	4. Healthcare public health and preventing premature mortality
Objective			
Improvements against wider factors which affect health and wellbeing and health inequalities	**People are helped to live healthy lifestyles, make healthy choices and reduce health inequalities**	**The population's health is protected from major incidents and other threats, whilst reducing health inequalities**	**Reduced numbers of people living with preventable ill health and people dying prematurely, whilst reducing the gap between communities**
1.1 Children in poverty	2.1 Low birth weight of term babies	3.1 Fraction of mortality attributable to particulate air pollution	4.1 Infant mortality* (NHSOF 1.6i)
1.2 School readiness (Placeholder)	2.2 Breastfeeding	3.2 Chlamydia diagnoses (15-24 year olds)	4.2 Tooth decay in children aged 5
1.3 Pupil absence	2.3 Smoking status at time of delivery	3.3 Population vaccination coverage	4.3 Mortality rate from causes considered preventable** (NHSOF 1a)
1.4 First time entrants to the youth justice system	2.4 Under 18 conceptions	3.4 People presenting with HIV at a late stage of infection	4.4 Under 75 mortality rate from all cardiovascular diseases (including heart disease and stroke)* (NHSOF 1.1)
1.5 16-18 year olds not in education, employment or training	*2.5 Child development at 2-2 and a half years (Placeholder)*	3.5 Treatment completion for Tuberculosis (TB)	4.5 Under 75 mortality rate from cancer* (NHSOF 1.4i)
1.6 Adults with a learning disability/in contact with secondary mental health	2.6 Excess weight in 4-5 and 10-11 year olds	3.6 Public sector organisations with a board approved sustainable	4.6 Under 75 mortality rate from liver disease* (NHSOF 1.3)

services who live in stable and appropriate accommodation† *(ASCOF 1G, 1H)*		development management plan	
1.7 People in prison who have a mental illness or a significant mental illness (Placeholder)	2.7 Hospital admissions caused by unintentional and deliberate injuries in under 18s	*3.7 Comprehensive, agreed inter-agency plans for responding to public health incidents and emergencies (Placeholder)*	4.7 Under 75 mortality rate from respiratory diseases* (NHSOF 1.2)
1.8 Employment for those with long-term health conditions including adults with a learning disability or who are in contact with secondary mental health services ** (i-NHSOF 2.2) ††(ii-ASCOF 1E) ** (iii-NHSOF 2.5) †† (iii-ASCOF 1F)*	2.8 Emotional well-being of looked after children		4.8 Mortality rate from infectious and parasitic diseases
1.9 Sickness absence rate	*2.9 Smoking prevalence – 15 year olds (Placeholder)*		4.9 Excess under 75 mortality rate in adults with serious mental illness*(NHSOF 1.5)
1.10 Killed and seriously injured casualties on England's roads	*2.10 Self-harm (Placeholder)*		4.10 Suicide rate
1.11 Domestic abuse (Placeholder)	2.11 Diet		4.11 Emergency readmissions within 30 days of discharge from hospital* (NHSOF 3b)
1.12 Violent crime (including sexual violence)	2.12 Excess weight in adults		4.12 Preventable sight loss
1.13 Re-offending levels	2.13 Proportion of physically active and inactive adults		*4.13 Health-related quality of life for older people (Placeholder)*
1.14 The percentage of the population affected by noise	2.14 Smoking prevalence – adults (over 18s)		4.14 Hip fractures in people aged 65 and over

1.15 Statutory homelessness	2.15 Successful completion of drug treatment		4.15 Excess winter deaths
1.16 Utilisation of outdoor space for exercise/health reasons	2.16 People entering prison with substance dependence issues who are previously not known to community treatment		4.16 Estimated diagnosis rate for people with dementia* (NHSOF 2.6i)
1.17 Fuel poverty (Placeholder)	2.17 Recorded diabetes		
1.18 Social isolation (Placeholder) † (ASCOF 1I)	*2.18 Alcohol-related admissions to hospital (Placeholder)*		
1.19 Older people's perception of Community Safety †† (ASCOF 4A)	2.19 Cancer diagnosed at stage 1 and 2		
	2.20 Cancer screening coverage		
	2.21 Access to non-cancer screening programmes		
	2.22 Take up of the NHS Health Check programme – by those eligible		
	2.23 Self-reported well-being		
	2.24 Injuries due to falls in people aged 65 and over		
1 = * Shared Indicator *NHSOF 2.2.* 1 = ** Complementary Indicators *iii-NHSOF 2.5* 2 = † Shared Indicator *ASCOF 1G and 1H) & (ASCOF 1I)* 3 = †† Complementary indicators *ii-ASCOF 1E), (iii-ASCOF 1F) & (ASCOF 4A)*	0 = * Shared Indicator *NHSOF* 0 = ** Complementary Indicators *NHSOF* 0 = † Shared Indicator *ASCOF* 0 = †† Complementary indicators *ASCOF* 4 *= Indicators placeholders, pending development or identification*	0 = * Shared Indicator *NHSOF* 0 = ** Complementary Indicators *NHSOF* 0 = † Shared Indicator *ASCOF* 0 = †† Complementary indicators *ASCOF* 1 *= Indicators placeholders, pending development or identification*	8 = * Shared Indicator *NHSOF 1.1, NHSOF 1.2, NHSOF 1.3, NHSOF 1.4i, NHSOF 1.5, NHSOF 1.6i, NHSOF 2.6i & NHSOF 3b..* 1 = ** Complementary Indicators *NHSOF 1a* 0 = † Shared Indicator *ASCOF* 0 = †† Complementary indicators *ASCOF*

4 *= Indicators placeholders, pending development or identification*			*1 = Indicators placeholders, pending development or identification*

Alignment across the Health and Care System

* Indicator shared with the NHS Outcomes Framework.

** Complementary to indicators in the NHS Outcomes Framework

† Indicator shared with the Adult Social Care Outcomes Framework

†† Complementary to indicators in the Adult Social Care Outcomes Framework

Indicators in italics are placeholders, pending development or identification

Table b: Adult social care Outcomes Framework 2013/14

1 Enhancing quality of life for people with care and support needs	2. Delaying and reducing the need for care and support	3. Ensuring that people have a positive experience of care and support	4. Safeguarding adults whose circumstances make them vulnerable and protecting from avoidable harm
Objective			
		People who use social care and their carers are satisfied with their experience of care and support services	
1A. Social care-related quality of life ** (NHSOF 2)	2A. Permanent admissions to residential and nursing care homes, per 1,000 population	3A. Overall satisfaction of people who use services with their care and support	4A. The proportion of people who use services who feel safe †† (PHOF 1.19)
People manage their own support as much as they wish, so that are in control of what, how and when support is delivered to match their needs	**Everybody has the opportunity to have the best health and wellbeing throughout their life, and can access support and information to help them manage their care needs** **Earlier diagnosis, intervention and reablement means that people and their carer are less dependent on intensive services**		**Everyone enjoys physical safety and feels secure** **People are free from physical and emotional abuse, harassment, neglect and self-harm** **People are protected as far as possible from avoidable harm, disease and injuries** **People are supported to plan ahead and have the freedom to manage risks the way that they wish**
1B. Proportion of people who use	2B. Proportion of older people (65	3B. Overall satisfaction of carers with	4B. The proportion of people who

services who have control over their daily life	and over) who were still at home 91 days after discharge from hospital into reablement/rehabilitation services * (NHSOF 3.6i)	social services	use services who say that those services have made them feel safe and secure
		Carers feel that they are respected as equal partners throughout the care process.	
1C. Proportion of people using social care who receive self-directed support, and those receiving direct payments ***To be revised from 2014/15:***	2C. Delayed transfers of care from hospital, and those which are attributable to adult social care	3C. The proportion of carers who report that they have been included or consulted in discussions about the person they care for	*4C: Proportion of completed safeguarding referrals where people report they feel safe.* ***New placeholder***
Carers can balance their caring roles and maintain their desired quality of life		**People know what choices are available to them locally, what they are entitled to, and who to contact when they need help.**	
1D. Carer-reported quality of life ** (NHSOF 2.4) & †† (PHOF 1.6)	*2D. The outcomes of short-term services: sequel to service.* ***New measure for 2014/15****:*	3D. The proportion of people who use services and carers who find it easy to find information about support	
People are able to find employment when they want, maintain a family and social life and contribute to community life, and avoid loneliness or isolation		**People, including those involved in making decisions on social care, respect the dignity of the individual and ensure support is sensitive to the circumstances of each individual.**	
1E. Proportion of adults with a learning disability in paid employment ** NHSOF 2.2 &†† PHOF 1.8	*2E: Effectiveness of reablement services* ***New placeholder***	*3E: Improving people's experience of integrated care * (NHS OF 4.9)* ***New placeholder***	

	When people develop care needs, the support they receive takes place in the most appropriate setting, and enables them to regain their independence.		
1F. Proportion of adults in contact with secondary mental health services in paid employment ** NHSOF 2.5 & †† PHOF 1.8	*2F: Dementia –a* measure of the effectiveness of post-diagnosis care in sustaining independence and improving quality of life *.* (NHSOF 2.6ii)* ***New placeholder***		
1G. Proportion of adults with a learning disability who live in their own home or with their family † (PHOF 1.6)			
1H. Proportion of adults in contact with secondary mental health services living independently, with of without support † (PHOF 1.6)			
1I. Proportion of people who use services and their carers, who reported that they had as much social contact as they would like. † (PHOF 1.18) New measure for 2013/14			
		This information can be taken from the Adult Social Care Survey and used for analysis at the local level.	
0 = Shared Indicator *NHSOF* 4 = ** Complementary Indicators *NHSOF 2, NHSOF 2.2, NHSOF 2.4 & NHSOF 2.5*	2 = Shared Indicator *NHSOF 3.6i & 2.6ii (New placement)* 0 = ** Complementary Indicators NHSOF	1 = Shared Indicator *NHSOF 4.9 (New placement* 0 = ** Complementary Indicators NHSOF	0 = Shared Indicator *NHSOF* 0 = ** Complementary Indicators 0 = † Shared Indicator *PHOF*

2 = † Shared Indicator *PHOF 1.18 & PHOF 1.6* 2 = †† Complementary indicators *PHOF 1.6 & PHOF 1.8* 2 = *Indicators placeholders, pending development or identification*	0 = † Shared Indicator *PHOF* 0 = †† Complementary indicators PHOF 3 = *Indicators placeholders, pending development or identification*	0 = † Shared Indicator *PHOF* 0 = †† Complementary indicators PHOF 1 = *Indicators placeholders, pending development or identification*	1 = †† Complementary indicators PHOF 1.19 1 = *Indicators placeholders, pending development or identification*

Alignment across the Health and Care System

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** Complementary to indicators in the NHS Outcomes Framework

† Indicator shared with the Public Health Outcomes Framework

†† Complementary to indicators in the Public Health Outcomes Framework

Indicators in italics are new measures or placeholders, pending development or identification

Table c: NHS Outcomes Framework 2013/14

1 Preventing people from dying prematurely	2. Enhancing quality of life for people with long-term conditions	3. Helping people to recover from episodes of ill health or following injury	4. Ensuring that people have a positive experience of care	5. Treating and caring for people in a safe environment and protect them from avoidable harm
Objective				
1a Potential Years of Life Lost (PYLL) from causes considered amenable to healthcare i Adults ii *Children and young people (** PHOF 4.3 additional link CG)*	2 Health-related quality of life for people with long-term conditions†† (ASCOF 1A)	3a Emergency admissions for acute conditions that should not usually require hospital admission	4a Patient experience of primary care i GP services ii GP Out of Hours services iii NHS Dental Services	5a Patient safety incidents reported
1b Life expectancy at 75 i Males ii Females		3b Emergency readmissions within 30 days of discharge from hospital* (PHOF 4.11)	4b Patient experience of hospital care	5b Safety incidents involving severe harm or death
			4c *Friends and family test*	5c *Hospital deaths attributable to problems in care*
Improvement areas				
Reducing premature mortality from the major causes of death	**Ensuring people feel supported to manage their condition**	**Improving outcomes from planned treatments**	**Improving people's experience of outpatient care**	**Reducing the incidence of avoidable harm**
1.1 Under 75 mortality rate from	2.1 Proportion of people feeling	3.1 Total health gain as	4.1 Patient experience of	5.1 Incidence of hospital-

cardiovascular disease* (PHOF 4.4)	supported to manage their condition ††	assessed by patients for elective procedures i Hip replacement ii Knee replacement iii Groin hernia iv Varicose veins v *Psychological therapies*	outpatient services	related venous thromboembolism (VTE)
	Improving functional ability in people with long-term conditions	**Preventing lower respiratory tract infections (LRTI) in children from becoming serious**	**Improving hospitals' responsiveness to personal needs**	
1.2 Under 75 mortality rate from respiratory disease* (PHOF 4.7)	**2.2 Employment of people with long-term conditions** (* PHOF 1.8 & † ASCOF 1E)	3.2 Emergency admissions for children with LRTI	4.2 Responsiveness to in-patients' personal needs	5.2 Incidence of healthcare associated infection (HCAI) i MRSA ii C.difficile
	Reducing time spent in hospital by people with long-term conditions	**Improving recovery from injuries and trauma**	**Improving people's experience of accident and emergency services**	
1.3 Under 75 mortality rate from liver disease* (PHOF 4.6)	2.3 i Unplanned hospitalisation for chronic ambulatory care sensitive conditions (adults) ii Unplanned hospitalisation for asthma, diabetes and epilepsy in under 19s	3.3 Proportion of people who recover from major trauma	4.3 Patient experience of A&E services	5.3 Incidence of newly-acquired category 2, 3 and 4 pressure ulcers
	Enhancing quality of life for carers	**Improving recovery from stroke**	**Improving access to primary care services**	

1.4 Under 75 mortality rate from cancer* (PHOF 4.5) *i One-and* *ii Five-year survival from all cancers* *iii One-and* *iv Five-year survival from breast, lung and colorectal cancer*	2.4 Health-related quality of life for carers †† (ASCOF 1D)	3.4 Proportion of stroke patients reporting an improvement in activity/lifestyle on the Modified Rankin Scale at 6 months	4.4 Access to i GP services and ii NHS dental services	5.4 Incidence of medication errors causing serious harm
Reducing premature death in people with serious mental illness	**Enhancing quality of life for people with mental illness**	**Improving recovery from fragility fractures**	**Improving women and their families' experience of maternity services**	**Improving the safety of maternity services**
1.5 Excess under75 mortality rate in adults with serious mental illness*(PHOF 4.9)	**2.5 Employment of people with mental illness** (** PHOF 1.8 & †† ASCOF 1F)	3.5 Proportion of patients recovering to their previous levels of mobility/walking ability at I 30 and ii 120 days	4.5 Women's experience of maternity services	5.5 Admission of full-term babies to neonatal care
Reducing deaths in babies and young children	**Enhancing quality of life for people with dementia**	**Helping older people to recover their independence after illness or injury**	**Improving the experience of care for people at the end of their lives**	**Delivering safe care to children in acute settings**
1.6 i Infant mortality* (PHOF 4.1) ii Neonatal mortality and stillbirths iii *Five year survival from all cancers in children*	2.6 i Estimated diagnosis rate for people with dementia*(PHOF 4.16) ii *A measure of the effectiveness of post-diagnosis care in sustaining independence and improving quality of life* † (ASCOF 2F)	3.6 i Proportion of older people (65 and over) who were still at home 91 days after discharge from hospital into reablement/ rehabilitation service† (ASCOF 2B) ii Proportion offered rehabilitation following discharge from acute or	4.6 Bereaved carers' views on the quality of care in the last 3 months of life	5.6 Incidence of harm to children due to 'failure to monitor

		community hospital		
Reducing premature death in people with a learning disability			**Improving experience of healthcare for people with mental illness**	
1.7 *Excess under 60 mortality rate in adults with a learning disability*			4.7 Patient experience of community mental health services	
			Improving children and young people's experience of healthcare	
			4.8 *An indicator is under development*	
			Improving people's experience of integrated care	
			4.9 *An indicator is under development* † (ASCOF 3E)	
6 = * Shared Indicator *PHOF 4.1, PHOF 4.4, PHOF 4.5, PHOF 4.6, PHOF 4.7, & PHOF 4.9* 1 = ** Complementary Indicators *PHOF* 0 = † Shared Indicator *ASCOF* 0 = †† Complementary indicators *ii-ASCOF)* 1 *= Indicators placeholders, pending development or identification*	2 = * Shared Indicator *PHOF 1.8 & PHOF 4.6* 1 = ** Complementary Indicators *PHOF* 1.8 2 = † Shared Indicator *ASCOF 1E & ASCOF 1F* 4 = †† Complementary indicators *ASCOF* 1A, *ASCOF* 1E & *ASCOF* 1F 0 = *Indicators placeholders, pending development or identification*	1 = * Shared Indicator *PHOF 4.11* 0 = ** Complementary Indicators *PHOF* 1 = † Shared Indicator *ASCOF 2B* 0 = †† Complementary indicators *ii-ASCOF)* *0 = Indicators placeholders, pending development or identification*	0 = * Shared Indicator PHOF 0 = ** Complementary Indicators *PHOF* 1 = † Shared Indicator *ASCOF 3E* 0 = †† Complementary indicators *ASCOF)* *3 = Indicators placeholders, pending development or identification*	0 = * Shared Indicator *PHOF* 0 = ** Complementary Indicators *PHOF* 0 = † Shared Indicator *ASCOF* 0 = †† Complementary indicators *ii-ASCOF)* 1 *= Indicators placeholders, pending development or*

				identification

Alignment across the Health and Care System

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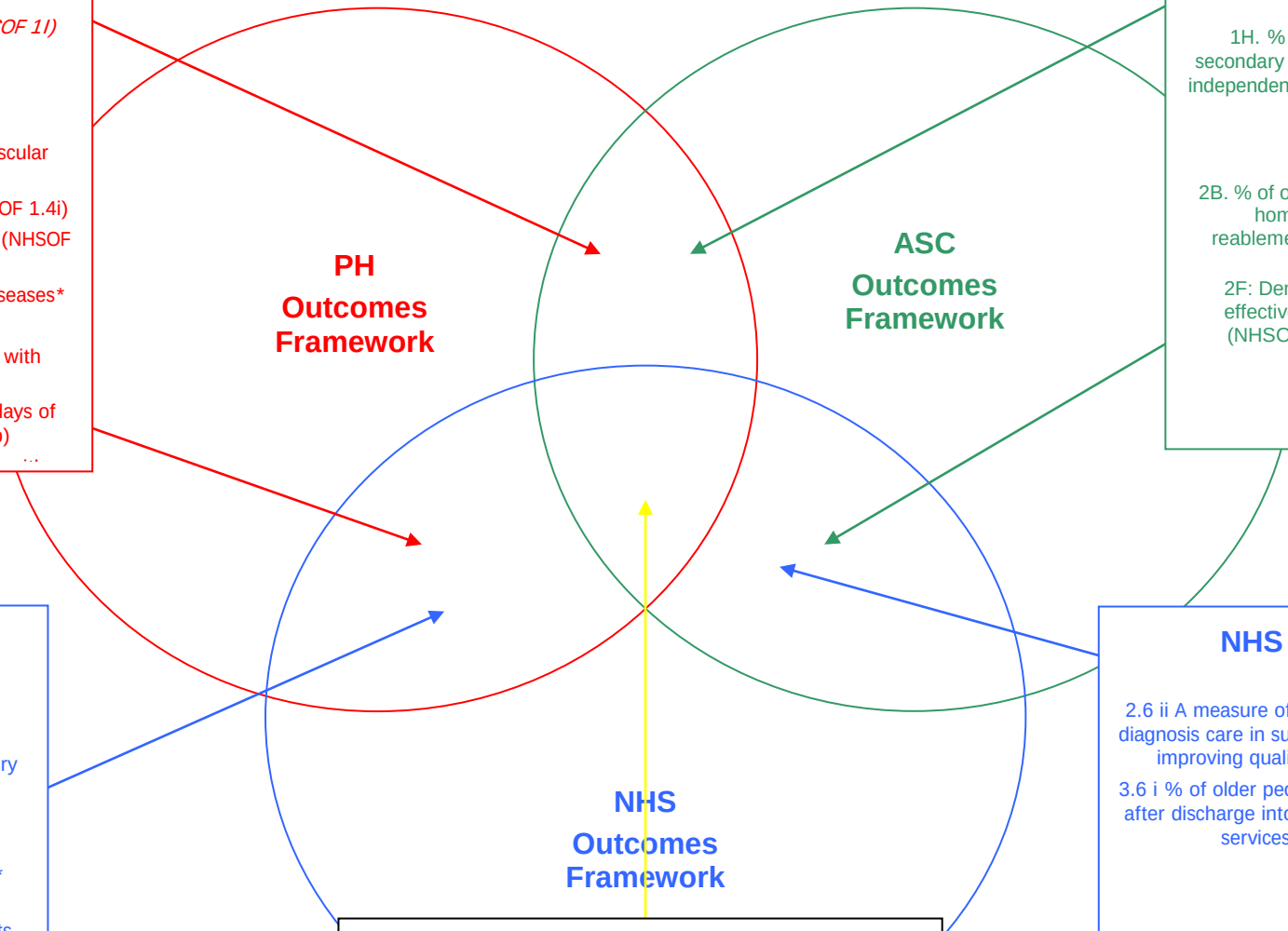
†† Complementary to indicators in the Adult Social Care Outcomes Framework

Indicators in italics are new measures or placeholders, pending development or identification

Figure c: What is being monitored in partnerships across Health and Social Care? – Shared Indicators



PH OF

1.6 Adults with a LD who live in stable accommodation† *(ASCOF 1G, 1H)*

1.18 Social isolation (Placeholder) † (ASCOF 1I)

4.1 Infant mortality* (NHSOF 1.6i)

4.4 < 75 mortality rate from all cardiovascular diseases* (NHSOF 1.1)

4.5 < 75 mortality rate from cancer* (NHSOF 1.4i)

4.6 < 75 mortality rate from liver disease* (NHSOF 1.3)

4.7 < 75 mortality rate from respiratory diseases* (NHSOF 1.2)

4.9 Excess < 75 mortality rate in adults with serious mental illness*(NHSOF 1.5)

4.11 Emergency readmissions within 30 days of discharge from hospital* (NHSOF 3b)

ASC OF

1G. % of adults with a LD who live in their own home or with their family † (PHOF 1.6)

1H. % of adults in contact with secondary mental health services living independently, with of without support † (PHOF 1.6)

2B. % of older people (65 and over) at home after discharge into reablement/rehabilitation services * (NHSOF 3.6i)

2F: Dementia –a measure of the effectiveness of post-diagnosis.* (NHSOF 2.6ii) New placeholder

NHS OF

1.1 Under 75 mortality rate from cardiovascular disease* (PHOF 4.4)

1.2 Under 75 mortality rate from respiratory disease* (PHOF 4.7)

1.3 Under 75 mortality rate from liver disease* (PHOF 4.6)

1.4 Under 75 mortality rate from cancer* (PHOF 4.5)

1.5 Excess under75 mortality rate in adults with serious mental illness*(PHOF 4.9)

1.6 i Infant mortality* (PHOF 4.1)

2.6 i Estimated diagnosis rate for people with dementia*(PHOF 4.16)

3b Emergency readmissions within 30 days of discharge from hospital* (PHOF 4.11)

NHS OF (cont)

2.6 ii A measure of the effectiveness of post-diagnosis care in sustaining independence and improving quality of life † (ASCOF 2F)

3.6 i % of older people (65 and over) at home after discharge into reablement/rehabilitation services † (ASCOF 2B)

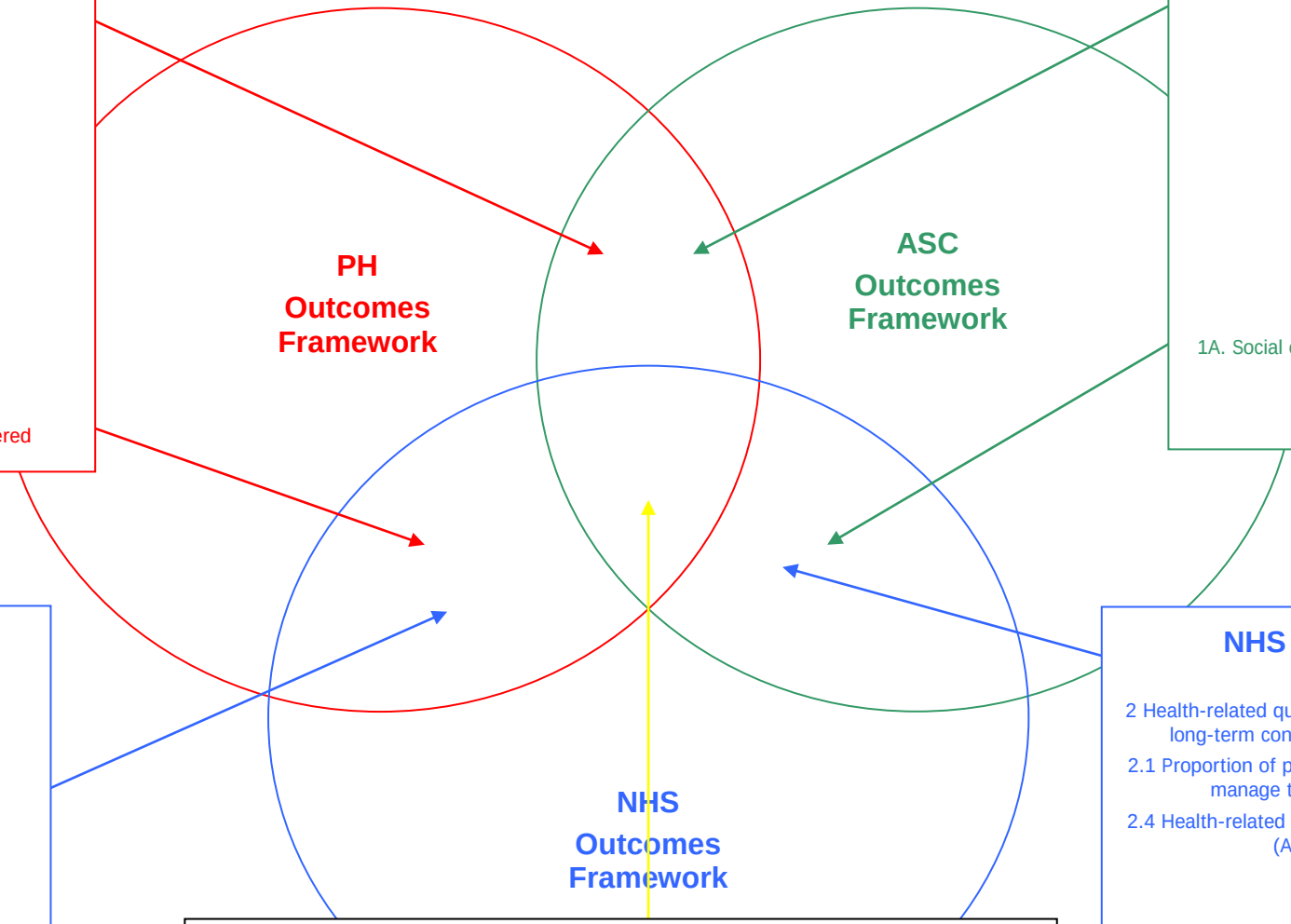
Combined OF

1.8 PHOF: Employment LTC including LD in contact with secondary mental health services

2.2 NHSOF: Employment of people with long-term conditions

11E. ASCOF: Proportion of adults with a learning disability in paid employment

Figure d: What is being monitored in partnerships across Health and Social Care? – Complimentary indictors Indicators



PH OF

1.19 Older people's perception of Community Safety †† (ASCOF 4A)

4.3 Mortality rate from causes considered preventable** (NHSOF 1a)

ASC OF

4A. The proportion of people who use services who feel safe †† (PHOF 1.19)

1A. Social care-related quality of life ** (NHSOF 2)

NHS OF

1a Potential Years of Life Lost (PYLL) from causes considered amenable to healthcare

NHS OF (cont)

2 Health-related quality of life for people with long-term conditions†† (ASCOF 1A)

2.1 Proportion of people feeling supported to manage their condition ††

2.4 Health-related quality of life for carers †† (ASCOF 1D)

Combined OF

1.8 PHOF: Employment LTC including LD in contact with secondary mental health services

1F. Proportion of adults in contact with secondary mental health services in paid employment ** NHSOF 2.5 & †† PHOF 1.8

1D. Carer-reported quality of life ** (NHSOF 2.4) & †† (PHOF 1.6)

1E. Proportion of adults with a learning disability in paid employment ** NHSOF 2.2 &†† PHOF 1.8

2.5 Employment of people with mental illness (** PHOF 1.8 & †† ASCOF 1F)