

# Health and Adult Social Care Overview and Scrutiny Committee

BRIEFING NOTE – No. 02/16

Date: 13 January 2016

Briefing paper to: All Members of the Health and Adult Social Care Overview and Scrutiny Committee

## **Purpose:** Chronic Obstructive Pulmonary Disease and Medway

(Further information on the incidence of COPD in Medway was requested at the last meeting of the Committee)

Chronic Obstructive pulmonary disease (COPD) is the collective term for a group of lung diseases, including chronic bronchitis, emphysema and chronic obstructive airways disease.<sup>1</sup> Characterised by difficulty in breathing, known as airflow obstruction, COPD is a disabling condition with a high rate of mortality. The airflow obstruction is generally progressive and, unlike asthma, not fully reversible. Although the condition cannot be cured, it can be treated, thus early diagnosis and treatment is optimal as this can slow the progression of the disease.<sup>1</sup>

### **Risk factors**

The main risk factor for COPD is smoking, which accounts for approximately 90% of cases.<sup>1</sup> Smoking progressively leads to irritation and inflammation of the lungs, which results in scarring. In the long-term this can lead to irreparable changes in the lung as the walls of the airways thicken and more mucus is produced. Consequent narrowing of the airways, as well as destruction of the alveoli, cumulatively aid in the progression of COPD.<sup>1</sup> Encouraging smoking cessation is an important mechanism through which to reduce COPD rates.<sup>2</sup> Other cases of COPD may also be caused by fumes, dust, air pollution and genetic disorders, but these are much rarer contributors.<sup>1</sup>

Over the last 4 years (2010-2014) Medway has seen rates of smoking higher than the England average, with 22.7% of the population estimated to smoke in 2014; compared with 18.0% across England overall (Figure 1).<sup>3</sup> Thus, due to the relationship between smoking and COPD, a greater proportion of the population may be seen to be at increased risk from the disease. Similarly, smoking-related death rates are significantly higher in Medway than in the rest of England (334.3 and 288.7 per 100,000 population aged over 35 respectively).<sup>3</sup>

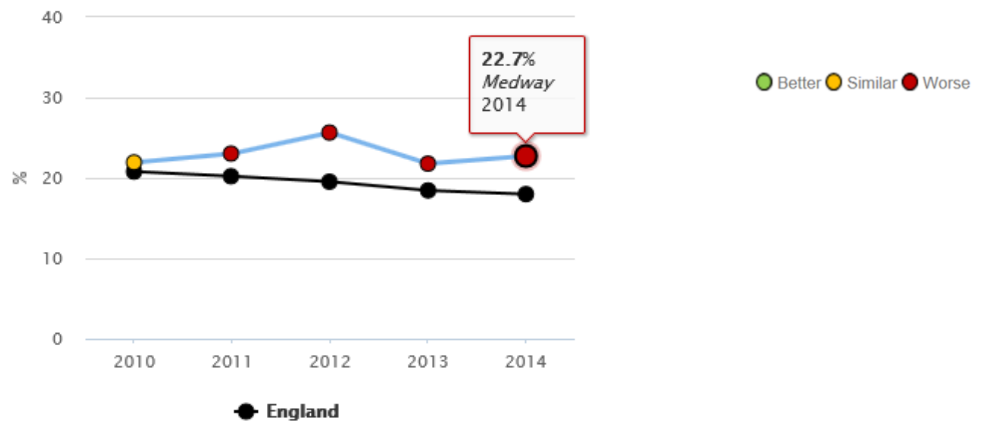


Figure 1: Smoking prevalence (18+ years) (PHOF 2.14)

### COPD prevalence in Medway

In 2014/15, the percentage of patients with COPD, as registered on Medway practice disease registers was 1.8% of the population, therefore accounting for 5,247 individuals. This figure is directly in line with the England average (1.8%).<sup>4</sup> Prevalence rates have increased over the last 10 years (2005/06 – 2014/15) both in Medway and nationally (Figure 2). However, the increase shown in Medway is seemingly greater than that shown nationally over that time frame, taking the prevalence in Medway from significantly below those seen in England overall to similar levels from 2010/11 onwards.<sup>4</sup>

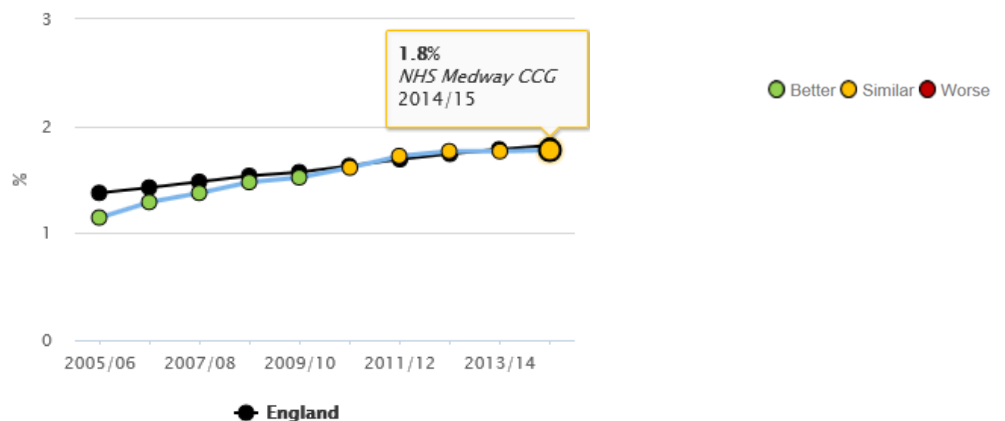


Figure 2: Prevalence of COPD (all ages) (QOF)

Although, the quality of this data is thought to be robust in nature, it is important to note that prevalence rates only take into account those individuals for which the condition has been diagnosed. It is possible that these figures may not account for all cases as some individuals, particularly those in the early stages of the disease, may not yet have sought treatment with their GP. Increases in the prevalence could therefore signify increased efficiency in detection of COPD.

An estimation model has been produced at Imperial College London which was developed using data from the 2003-2004 Health Surveys for England to take into account those registered, and those individuals that may not be currently diagnosed with the condition. The model takes into account age, sex, ethnicity, smoking status and deprivation score using input data from 2009-2011. The calculated percentage of detected COPD prevalence in Medway for 2011 was predicted to be below that of England overall (2.31% compared with 2.91% respectively). However, it is worth noting that there are some concerns regarding the quality of this data.<sup>4</sup>

Nationally, COPD is the second biggest cause of emergency hospital admissions and one of the most costly inpatient admissions to be treated on the NHS. The emergency admission rate in Medway in 2012/13 was 1.7 per 1,000 population at a cost of £2255 per emergency admission. This is significantly better than the emergency admission rate in England which was 2.06 per 1,000 (2012/13).

### **Mortality from lung disease in Medway**

Lung disease, for which COPD is a major component, is currently the 3<sup>rd</sup> highest cause of premature mortality in the UK, following cancer and heart disease.<sup>5</sup> Out of 149 local authorities Medway ranked 100<sup>th</sup> in terms of lung disease deaths, scoring as one of the worst of the local authorities.<sup>6</sup> Between 2012 and 2014 there were 243 deaths from respiratory disease in Medway in those under 75 years of age, accounting for 40.2 per 100,000 population in that age category. This figure is significantly above the England averages (32.6 per 100,000). Figure 3 shows that this relationship has been consistent over a number of years since 2001-2003.<sup>6</sup>

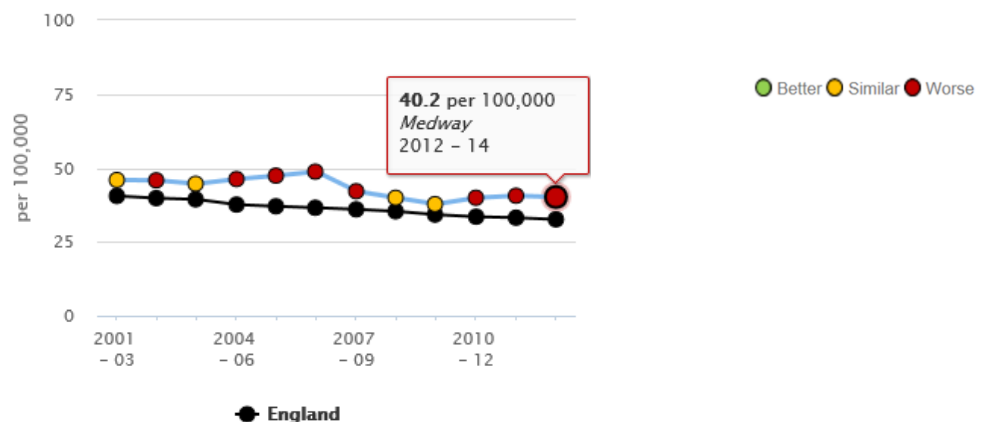


Figure 3: Under 75 mortality rate from respiratory disease (Persons) (PHOF 4.07i)

### **References**

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