CHRONIC OBSTRUCTIVE PULMONARY DISEASE

What's the issue?

“Chronic obstructive pulmonary disease (COPD) is the name for a collection of lung diseases including chronic bronchitis, emphysema and chronic obstructive airways disease. People with COPD have difficulties breathing, and often have a persistent cough with phlegm and frequent chest infections” [279].

“Some cases of COPD are caused by fumes, dust, air pollution and genetic disorders, but these are rarer” [279]. The most common cause is smoking, and it is estimated that 78% of all COPD deaths directly attributable to smoking [99].

“COPD is one of the most common respiratory diseases in the UK. It usually only starts to affect people over the age of 35, although most people are not diagnosed until they are in their 50s. It is thought there are more than 3 million people living with the disease in the UK, of which only about 900,000 have been diagnosed. There are around 25,000 deaths each year in the UK from COPD” [279]. Nationally, COPD has the fourth highest disability adjusted life years (DALY – see the JSNA glossary, www.hullpublichealth.org/jsna2017.html#82) and thus has a substantial impact on the quality of people’s lives [81].

Health benefits are immediate after quitting smoking [110]. Within 12 hours, carbon monoxide levels in the blood drop to normal levels [271]. Within 2-13 weeks, circulation improves and lung function increases [111]. After 1-9 months, coughing and shortness of breath decreases, and people start to retain lung function [111].

What’s our situation?

The prevalence of smoking in Hull (31%) [66] – around 50% higher than England – results in high levels of COPD in Hull. From the local adult Prevalence Survey 2014 [66], the smoking prevalence was twice as high as the rate in England among Hull residents living in the most deprived fifth of areas (44%) compared to a rate similar to England among those living in the least deprived areas of Hull (17%). For 2015/16, the prevalence of diagnosed COPD is higher for Hull (2.65%) than England (1.85%) and the average of seven comparator areas (2.39%) [93, 280]. There were 7,849 patients on the COPD disease register. There was a statistically significant increasing trend in the prevalence with increasing deprivation. The 11 practices with the highest mean patient deprivation scores serving the most deprived fifth of Hull's population had a prevalence of 3.3% compared to 2.1% among the 11 practices with the lowest mean patient deprived scores [280]. Based on modelling (October 2016) it is estimated that there are 12,875 (4.4%) registered patients who have COPD [280]. If the model gives a reasonable estimate then there are over 5,000 patients with undiagnosed COPD.

During the three year period 2008/09 to 2010/11, there were almost 3,500 admissions for COPD for Hull residents (annual average of 1,165 admissions) giving annual average admission rates of 386 and 363 per 100,000 men and women respectively. The rates in the wards differed from 61 to 727 per 100,000 residents. This was strongly influenced by the association between deprivation, smoking and COPD as the admission rates varied from 160 to 633 per 100,000 persons in the least deprived fifth compared to the most deprived fifth [280].

Around one in every 12 people who died in Hull died of COPD [83]. The under 75 standardised mortality rate (SMR) for COPD for 2012-14 for Hull was 226 so the premature mortality rate was more than twice that of England (193 for males and 266 for females), and substantially higher than the average of comparator areas [78]. Premature mortality was more than five times higher in the most deprived fifth of areas compared to the least deprived fifth of areas of Hull (directly standardised mortality rates (DSR) 73.0 versus 14.1 per 100,000 population) [77]. Over the three year period, there were a total of 582 deaths (279 men and 303 women) of which 225 (109 men and
114 women) occurred among people aged under 75 years [83, 93, 280]. All age DSRs were 140 per 100,000 men and 79 per 100,000 women in Hull for 1995-97, and fell to a low of 91 per 100,000 men in 2005-07 and to a low of 59 per 100,000 women in 2002-04, but has since increased slightly for men to 107 per 100,000 men and has since increased considerably for women to 90 per 100,000 women in 2012-14 [77, 78, 280].

Whilst the prevalence in the least deprived quintile is 62% that of the most deprived quintile (or 38% lower), the hospital admission rate is 75% lower and the mortality rate is 88% lower. This suggests that there is inequality present as those residents in the least deprived areas having fewer hospital admissions and fewer deaths in relation to the prevalence, but it is complex and there are many potential reasons for the differences observed [280, 281].

Social marketing research completed in Hull during September 2009 to assess general public knowledge and perception of COPD found a perceived health danger relating to quitting smoking – “quit and you’ll die!” together with a “prove it” attitude with a lack of trust in the link between COPD and smoking and a denial “it’s not related to me” attitude. In general, there was a low awareness of COPD and barriers relating to a “what’s the point” attitude [9].

For more detailed information, see the JSNA Toolkit: Chronic Obstructive Pulmonary Disease report.

What are the strategic needs?

Although the damage that has already occurred to the lungs cannot be reversed, the progression of the disease can be slowed, and stopping smoking is particularly effective at doing this [279]. Symptoms can be relieved with medication such as using an inhaler to make breathing easier, and pulmonary rehabilitation may also help [279]. As COPD cannot be cured, prevention is very important. Not smoking should be seen as the norm, with the aim of creating a smoke free generation.

It is necessary to work together to ensure people understand the benefit of positive life choices and know how to access information and seek early support to change. In order to do this effectively, health care providers need to work together with different communities to use existing assets to realise the benefit of positive life changes, and treating people as individuals.

People need to know that stopping smoking has immediate health effects with lung function improving within a year.

People already diagnosed with COPD should attend their annual reviews (generally within primary care) so that they get the best on-going treatment for their condition.

References


