CORONARY HEART DISEASE

What’s the issue?

“Coronary heart disease (CHD) is the term that describes what happens when your heart's blood supply is blocked or interrupted by a build-up of fatty substances in the coronary arteries. The main causes are smoking, high cholesterol, high blood pressure and diabetes” [198]. “CHD is the leading cause of death both in the UK and worldwide. It’s responsible for more than 73,000 deaths in the UK each year. About one in six men and one in ten women die from CHD. In the UK, there are an estimated 2.3 million people living with CHD. CHD generally affects more men than women, although from the age of 50 the chances of developing the condition are similar for both sexes. As well as angina (chest pain), the main symptoms of CHD are heart attacks and heart failure. However, not everyone has the same symptoms and some people may not have any symptoms before CHD is diagnosed” [198]. Nationally, CHD has the second 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].

What’s our situation?

For 2015/16, CHD prevalence was higher for Hull (3.75%) compared to England (3.20%) with 11,111 people in Hull diagnosed with CHD [93]. There was no statistically significant association between deprivation and prevalence across the general practices in Hull. This could simply reflect increased undiagnosed disease among those living in the more deprived areas rather than a lack of a true underlying relationship, and could be influenced by the higher mortality rate among those living in the most deprived areas. Based on modelling in 2011, it is estimated that 15,676 (5.50%) registered patients have CHD in Hull so over 4,000 patients with undiagnosed CHD (it has not been possible to update the model). There were a total of 3,329 and 1,919 admissions for CHD for men and women respectively over the three year period 2008/09 to 2010/11 [199]. The directly standardised admission rate was higher among men (81) compared to women (40) per 10,000 population. Just under half of these admissions (48.1%) were elective. CHD accounts for around one in eight of all premature deaths in Hull, and over the three year period 2013-15 there were a total of 936 deaths from CHD of which 346 occurred prior to the age of 75 years [77, 83, 199]. For 2012-14, the age specific mortality rates among those aged 35-64 years in Hull were almost 50% higher compared to England, 40% and 71% higher for men and women respectively among those aged 65-74 years, and 16% and 26% higher for men and women respectively among those aged 75+ years. The premature standardised mortality ratio in Hull was 145 for men and 162 for women, so 45% and 62% higher than England respectively [78]. Whilst the prevalence of CHD in the least deprived quintile was the same as the most deprived quintile, the hospital admission rate was 42% lower, angiography (diagnostic test) rates were 37% lower, revascularisation (treatment) rates were 32% lower and the premature mortality rate was 68% lower [199]. This suggests that there is inequality present, but it is complex and there are many potential reasons for the differences observed.

For more detailed information, see the JSNA Toolkit: Coronary Heart Disease report.

What are the strategic needs?

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. People need to know that stopping smoking has immediate health benefits [110], with heart rate and blood pressure dropping within 20 minutes [200], excess risk of coronary heart disease reducing to half that of a continuing smoker’s after one year [112], and risk of coronary heart disease reducing to that of a non-smoker’s after 15 years [113].
People aged 40-79 years who are eligible for the NHS Health Check should be encouraged to attend, and those who have already been diagnosed with CHD should attend their annual reviews so that they get the best on-going treatment for their condition. People at risk of familial hypercholesterolaemia should be identified so that they can commence treatment and/or be referred for specialist care [196].

“Cardiac rehabilitation is a structured set of services that enables people with CHD to have the best possible help (physical, psychological and social) to preserve or resume their optimal functioning in society” [201]. Cardiac rehabilitation also supports patients’ return to work, improves their functional capacity and physical activity status, perceived quality of life and supports the development of self-management skills. It is proven to be cost effective, with a lower cost per QALY (Quality Adjusted Life Years), compared with all other cardiology treatments. The benefits of a menu driven approach, with a choice of setting and individually identified patient goals are increasingly recognised [201]. This service should be available to all, and all people who would benefit should be encouraged to participate in a cardiac rehabilitation programme.

References