MORTALITY

What’s the issue?

Everybody must die, so it is common to examine and compare rates for premature mortality which is defined as mortality prior to the age of 75 years. It is also possible to examine mortality rates from deaths which are considered preventable such as deaths from suicide and accidents, liver disease from excessive alcohol, lung cancer deaths caused by smoking, etc. Mortality rates have generally been decreasing, but it is important to examine rates from specific causes and for specific groups to determine if rates are falling equally fast for all causes and different groups, and are falling to the same degree as England and comparator areas. However, in practice, it is necessary for the rate in Hull to fall at a faster rate than England to reduce the inequalities gap.

Years of life lost (YLL) measures the number of years of life lost for each person who dies prematurely (before the age of 75 years). It can be used to examine different causes in relation to the total YLL for all persons dying of that cause of death or the average YLL for each person who dies of that cause of death.

What’s our situation?

The infant (<1 year) mortality rate per 1,000 births is 4.1 per 1,000 live births (95% confidence interval 3.0 to 5.5) in Hull for 2013-15 which is slightly higher than the rate in England (3.9). There were 44 infant deaths over the three year period [26, 82]. In 2012-14, whilst the overall infant mortality rate in Hull was lower than England (3.9 versus 4.0), a higher proportion of deaths occurred in Hull compared to England seven days or later after birth (62% versus 47%) and 28 days or later (38% versus 31%) [78]. There were 7,383 deaths among Hull residents over the three year period 2013-2015 (273 per 100,000 residents) which was higher than the rate for England (184), Yorkshire and the Humber (200) and 10 of 11 comparator areas [26, 82, 83]. The main causes of death in Hull are cancer and coronary heart disease (CHD), and these two causes account for around half of all deaths under the age of 75 years (573 cancer and 257 CHD deaths among men, and 490 cancer and 89 CHD deaths among women) [77, 83]. The all age all cause mortality rate for Hull in 2013-2015 was 1,437 deaths per 100,000 men and 1,098 deaths per 100,000 women [83], and 1,422 and 1,070 per 100,000 men and women respectively in 2012-14 compared with 1,138 per 100,000 men and 838 per 100,000 women in England [78, 83]. Across Hull, the highest all age all cause mortality rates were seen in St Andrews and Southcoates West for men (over 2,000 per 100,000) and in St Andrews and Newington for women (over 1,500 per 100,000) with the lowest rates in Boothferry for men (911 per 100,000) and in Beverley for women (730 per 100,000) [77, 83]. For 2012-2014, the under 75 standardised mortality ratio (SMR) for Hull was 138 for men and 135 for women, which means the mortality rate, after adjusting for the difference in age and gender structure, is 38% higher among men and 35% higher among women, in Hull than in England [78, 83]. There was a strong association with deprivation, with the SMR among residents living in the most deprived fifth of areas of Hull 195, while among those in the least deprived fifth of areas it was 88 (12% lower than England) [77, 83]. The excess winter mortality index 1 (August 2012 to July 2015) was 16.8 in Hull and there was considerably variability over time [26, 82, 83].

Over the 15 year period 2001-15, coronary heart disease (CHD), lung cancer, suicide and undetermined injury, infant death, cirrhosis, other accidents, stroke, chronic obstructive pulmonary

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1 Ratio of winter (December to March) to non-winter (April to July current year and August to November previous year) deaths, e.g. 275 winter and 230 non-winter monthly average deaths gives index of 19.6 (275/230=1.196).
disease (COPD) and breast cancer were the top 10 causes of death with the highest total YLL in Hull, although there were differences between men and women.

For men, over the 15 year period, there were 3,329 CHD deaths (5.73 YLL per person) with a total annual average YLL of 1,271 years. Suicide and undetermined injury had the second highest annual total of YLL at 1,756 years (340 deaths with 32.14 YLL per person) followed by lung cancer (1,756 deaths, 644 annual total YLL and 5.50 YLL per person). Cirrhosis (390 deaths, 537 annual total YLL and 20.26 YLL per person) and infant deaths (83 deaths, 415 annual total YLL and 74.99 YLL per person) were the next highest causes of YLL for men.

For women, over the 15 year period, the top five causes of death with the highest YLL were lung cancer (1,401 deaths, 196 annual total YLL and 5.31 YLL per person), breast cancer (687 deaths, 401 annual total YLL and 8.76 YLL per person), infant death (78 deaths, 390 annual total YLL and 74.99 YLL per person), CHD (2,547 deaths, 380 annual total YLL and 2.24 YLL per person) and stroke (1,809 deaths, 212 annual total YLL and 1.76 YLL per person).

For more detailed information, see the JSNA Toolkit: Mortality report.

What are the strategic needs?

There are focused approaches to prevention and early detection of ill health through the City Plan [2] and the local Humber, Coast and Vale “Start Well, Live Well and Age Well” Sustainability and Transformation Plans [3] using assets approaches. 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. It should be recognised that different approaches and support are required for different people, and any specific problems or changes that are required should not be dealt with in isolation, but by considering the needs of each individual separately.

A focus on preventing (or reducing) mortality prematurely from the main causes of death where years of life lost prior to the age of 75 years is the highest would increase life expectancy the most.

References