

# Long-term conditions and premature mortality

Supporting evidence and key findings for the working-age population JSNA 2017

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## 1. Overview

This report focuses on long-term conditions and looks at the factors that can influence health and wellbeing and premature mortality of the working-age population (WAP). It complements the WAP joint strategic needs assessment (JSNA) final report, which provides analysis of the current and future needs for those aged 16-64 in Lancashire-12. It uses a wide range of data and resources that can be viewed on the publications section of the [Lancashire Insight](#) web pages.

Rather than take the form of a single document, the WAP JSNA should be regarded as a repository of health and wellbeing-related intelligence available for all partners. Where possible any data and statistics are quoted for the 16-64 population, when this is not available, the age range is clearly identified. Please note, due to the unavailability of certain data, estimates may be used in some instances and not all data are provided at a district level. Analysis from the health behaviours JSNA for those aged 16-64 is presented below, with other national/local data and evidence where appropriate (identified in the text for clarification).

The recommendations for the WAP are focused around three areas: healthy people, healthy spaces and healthy workplaces and full details can be found in the [WAP JSNA final report](#).

## 2. Background information

The impact of premature mortality and morbidity in the WAP is huge, with economic and social costs to both the individual and society in the form of lost productivity and increased health and social care demands.

Estimates from the Office for National Statistics suggest there were 138.7 million days of sickness absence/working days lost between 2013 and 2015 (all people aged 16+ in employment), from a wide range of conditions including:

- musculoskeletal conditions (32.4m);
- stress, depression and anxiety (17.0m);
- gastrointestinal problems (9.1m); and
- heart, blood pressure and circulation problems (4.0m).<sup>1</sup>

This sickness absence is estimated to cost UK businesses around £26 billion per year.<sup>2</sup> For the WAP, long-term conditions can have a major impact on employment, unemployment, work productivity, absenteeism and presenteeism. This is important as it is estimated that presenteeism – attending work while sick – has an average cost to employers of £605 per employee per year, due to reduced productivity and is more costly than absenteeism.<sup>3</sup>

### 3. Long-term conditions

While mortality rates are decreasing, morbidity rates are not, meaning that while people are living longer, they are potentially more likely to have multiple limiting health conditions and a reduced disability-free life expectancy. To have a healthier working population it is imperative to help people gain and stay in employment alongside encouraging a healthier lifestyle.

Prevalence estimates for long-term conditions and multi-morbidities show the rate increases the older a person gets, with statistics indicating 14% of people under-40 years have a long-term condition compared to 58% of those over-60. Additionally, those who are in the lowest socioeconomic groups have a 60% higher prevalence of multi-morbidity than those in the highest, particularly if it includes a mental health condition.<sup>4</sup>

The leading causes of premature mortality in the WAP in Lancashire-12 include all cancers, diseases of the circulatory system (including heart disease and stroke), diseases of the respiratory system (such as chronic obstructive pulmonary disease), diseases of the digestive system (including liver disease), and external causes (including falls, suicides and traffic accidents). Diabetes and poor mental health also have a big impact on mortality, and other health issues such as musculoskeletal conditions, whilst not directly life threatening, can still have a profound and debilitating effect on the health of the individual.

#### 3.1 Cancer

There is no single cause for any one type of cancer. Some of the known contributors are lifestyle factors such as smoking/tobacco use, physical inactivity, a poor diet, and excessive alcohol consumption. Being obese is the second most preventable cause of cancer in the UK after smoking and is associated with 13 different cancers.<sup>5</sup>

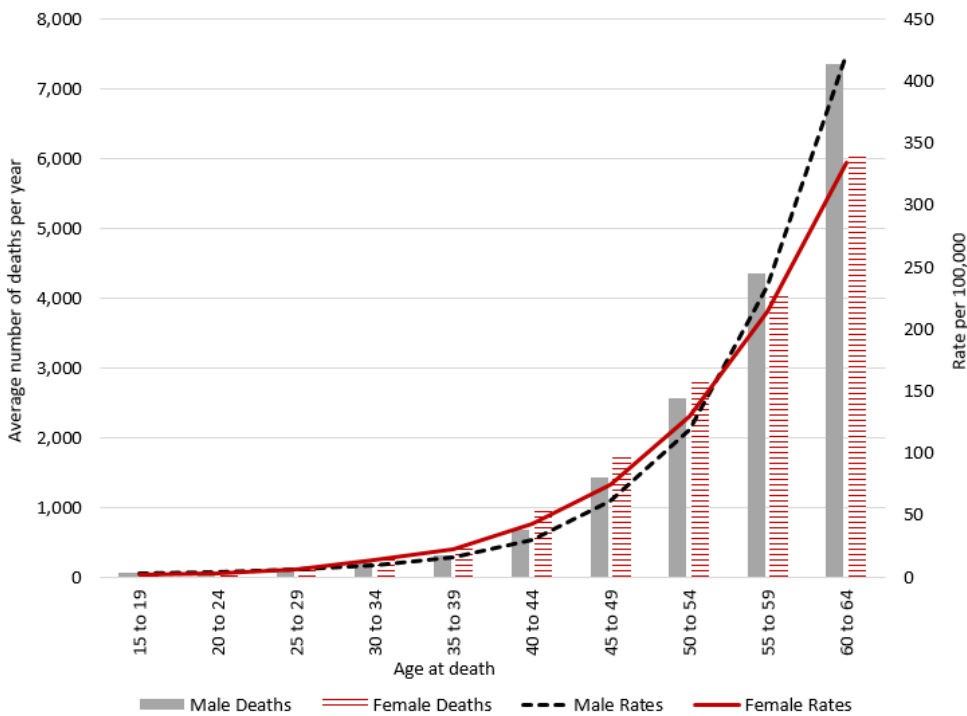
Not all cancers are terminal, but all cancers can have a serious impact on other aspects of a person's life, including their mental health and the wider determinants of health, such as their financial situation, housing, their relationships with family and friends, and work life/employment status.

Looking specifically at the WAP, evidence shows breast, lung, prostate and bowel cancers account for over a third of all new cancers each year in those aged 15-64 in the UK, while 22% of cancer deaths are amongst those aged 15-64.<sup>6</sup>

More than half of teenage and young adult cancers occur in those aged 20-24 (2000-2009), with lymphomas, carcinomas and germ cell tumours accounting for almost a third of all cancers.<sup>7</sup> Lifestyle factors have less impact on teenagers' and young adults' cancer risk, mainly due to limited exposure to these influences and it is suggested that

young people's cancer may be related to infections such as cervical carcinoma and genetic conditions.<sup>8</sup> The contrast in mortality across the age groups is highlighted in the chart below.

Figure 1: cancer mortality at age, by sex breakdown, in the UK (2012-14)



Source: Cancer Research UK (2017)

Locally, in the Lancashire-12 area (for all ages), there are [significantly higher rates](#) of lung cancer, bladder cancer, oesophagus cancer (for males, females, and all persons); skin cancer (females and all persons); and cervical cancer, when compared to England.

Mortality data for Lancashire-12 (2013-15) show over 1,972 people aged 16-64 died from cancer, which is approximately 37.6% of the total deaths for the period. When split by sex, this equates to 44.9% of all female deaths and 32.7% of all male deaths.

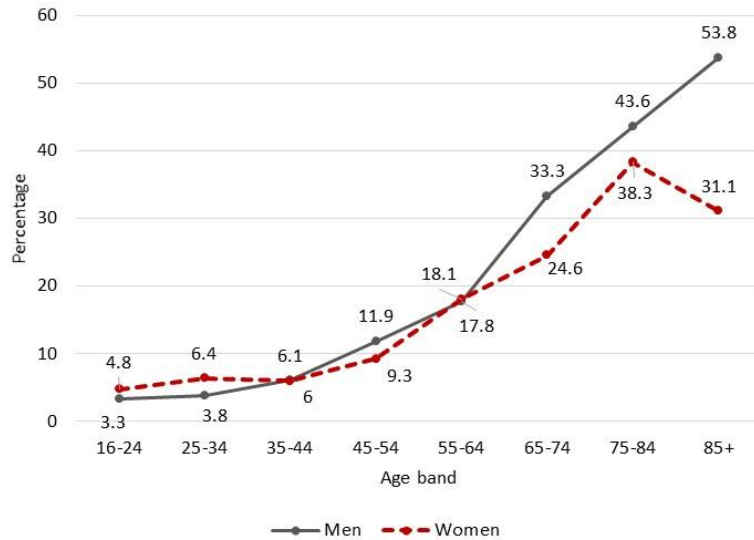
### 3.2 Heart disease and stroke

Cardiovascular disease (CVD), also known as circulatory disease, affects the heart and/or blood vessels and includes coronary heart disease, stroke, arterial disease and aortic disease. The main modifiable risk factors for heart disease are high blood pressure, smoking, high levels of cholesterol, diabetes, being overweight or obese, excessive alcohol consumption and physical inactivity.

The prevalence of CVD varies between males and females, and across age bands. The total prevalence for those aged 16+ for males is 13.9% and for females is 13.4%. The

chart below shows how prevalence increases with age (with a drop off for females aged 85+).

Figure 2: prevalence of all cardiovascular disease for males and females in England, 2011



Source: Health Survey for England, 2011

Mortality from cardiovascular diseases has been gradually decreasing since 1995 and in recent years Lancashire-12 has recorded fewer deaths from these diseases than from malignant cancers. This decline is likely due to combination of improved cardiac treatments and a drop in the associated risk factor levels. The mortality data for the Lancashire-12 area (2013-15) shows around 1,100 people aged 16-64 died from cardiovascular diseases, which is approximately 21.0% of the total deaths for the period. When split by sex, this equates to 15.4% of all female deaths and 24.0% of all male deaths.

### 3.3 Digestive diseases

Liver disease is rising in England, with a rapid increase in cases over the past ten years. There are over 100 types of liver disease in the UK, with at least two million people affected.<sup>9</sup> Mortality rates have increased 400% since 1970, while for those under 65 it has risen by almost 500%.

Analysis shows that most premature mortality from liver disease occurs in people aged 18-64 years, and leads to 62,000 years of working life lost every year. This is just behind ischaemic heart disease (74,000 years) and self-harm (71,000 years).<sup>10</sup> The most common types of liver disease are: alcohol-related liver disease, non-alcoholic fatty liver disease, and viral hepatitis. The three main risk factors for liver disease are heavy drinking, obesity, and alcoholic and viral hepatitis (in the UK hepatitis A, B, C and E are the most common).



For Lancashire-12, mortality data (2013-15) show that 588 people aged 16-64 died from diseases of the digestive system, which is 11.2% of total deaths. Breaking this down by sex, this equated to 10.2% of all female deaths and 11.9% of male deaths. Liver disease and alcohol-related deaths are linked to socioeconomic status and as identified in the [health inequalities JSNA](#) the gap between the least deprived and most deprived areas still remains for both morbidity and mortality from liver disease. The recommendations that accompany the health inequalities JSNA are therefore still relevant for the working-age population in Lancashire-12.

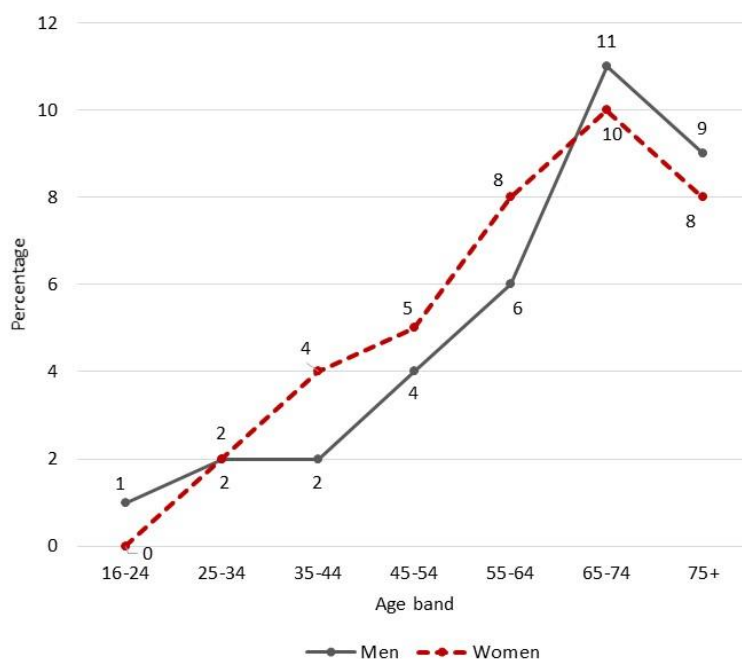
### 3.4 Respiratory diseases

Chronic respiratory diseases affect the airways and other structures of the lung. Two of the most common are asthma and chronic obstructive pulmonary disease (COPD).

[Asthma](#) is one of the most common chronic diseases, with the prevalence increasing. This has been attributed to alterations in lifestyle and/or environment, such as changes in diet; allergen exposure; pollution; cold, damp housing; smoking and obesity.<sup>11</sup>

COPD is primarily linked to tobacco smoking and air pollution. Exposure to fumes, chemicals and dust in the workplace can also contribute to COPD and it has been estimated approximately 15% of COPD cases and 4,000 deaths in the UK are linked to workplace exposure. Those occupational groups in the UK more at risk of COPD include industrial cleaners, roofers, packers/bottlers/canners/fillers and horticultural trades.<sup>12</sup>

Figure 3: prevalence of all COPD for males and females, 16+ 2010



Health Survey for England estimates 2011



Just over 400 people aged 16-64 died from respiratory diseases in Lancashire-12 (2013-15), which is 7.8% of the total deaths for the period. When split by sex, this equates to 8.9% of all female deaths and 7.0% of all male deaths.

### 3.5 Diabetes

Diabetes is a long-term health condition that occurs when the body is unable to use glucose (sugar), resulting in high levels in the blood. There are two types of diabetes: type 1 and type 2. Type 1 diabetes is characterised by an autoimmune destruction of the pancreatic cells, which produce insulin. To manage the condition, people with type 1 diabetes must take daily injections of insulin to enable the body to use glucose. Type 1 diabetes is not affected by diet or lifestyle. Type 2 diabetes accounts for 90% of all diabetes and results from an inability of the body to respond to insulin and/or abnormal insulin secretion. Type-2 is treatable with lifestyle changes, including losing weight (if overweight), eating a low carbohydrate diet and exercising.<sup>13</sup>

Diabetes is a major cause of serious morbidity and has a massive impact on all parts of the body, including the eyes, kidneys, feet and skin. Many younger people (including children) are now being diagnosed with type 2 diabetes although evidence suggests up to 58% of cases can be delayed or prevented through a healthy lifestyle.<sup>14</sup>

There is also an association between a lower socioeconomic status, diabetes and high blood pressure. This may be attributed to an unhealthy diet, poor food preferences and a higher consumption of takeaway/fast food. Data from the health behaviours JSNA (2015) indicates those aged 16-34 are significantly more likely to eat fast food or takeaways, or drink more full sugar fizzy/soft drinks more regularly compared to the older age groups.

This is a concern as the prevalence of type 2 diabetes has increased rapidly over the past three decades and it is estimated that there are nearly 87,000 (8.9%) people (16+) living with diabetes in Lancashire-12 (2016), although this is thought to be lower than the true figure. The estimates for Blackburn with Darwen (9.9%) and Blackpool (9.7%) are both higher. Projected figures (to 2035) see the number of people with diabetes increasing by 20% in Lancashire-12, 14% in Blackburn with Darwen and 10% in Blackpool.

While diabetes may not always be recorded as the main cause of death, mortality statistics for Lancashire-12 (2013-15), indicate that 91 people (16-64) died with an underlying cause of endocrine, nutritional and metabolic disease, which includes diabetes mellitus.

### 3.6 Musculoskeletal conditions

Musculoskeletal (MSK) conditions are a range of over 200 disorders which affect the joints, bones, muscles and soft tissues and tend to be more prevalent and severe in later life. MSK conditions do not normally require hospitalisation and are rarely fatal, but they still have a significant social and economic impact and can substantially reduce an individual's quality of life.

It is difficult to produce an accurate prevalence of MSK conditions as the figures from national research vary widely, although it is estimated that a fifth of the UK population will consult a GP about a MSK condition each year, while a third of people aged 45 and over have sought treatment for osteoarthritis.<sup>15</sup>

Estimated figures indicate approximately 95,000 people (16-64) in Lancashire-12 have a MSK condition, with this rising to 187,400 for all aged 16+. From the health behaviours JSNA (2015), 12% of respondents aged 16-64s have sciatica, lumbago or recurring backache. Not unexpectedly those aged 55-64 are significantly more likely to have sciatica, lumbago or recurring backache (20%) compared to those in the 16-24 age bracket (4%).

### 3.7 Mental health

Common mental disorders include anxiety, panic disorders, obsessive/compulsive disorder, stress and depression. They can be debilitating for the individual and can impact on a person's everyday functioning and quality of life.



**17 million working days lost due to stress, anxiety & depression (2015)**

The Office for National Statistics show 0.6 million working days were lost due to serious mental illness in 2015. While the figures have remained similar for serious mental illness, there has been an overall increase of almost 5 million days lost due to stress, depression and anxiety from 2009.

Stress can manifest in various ways, and can be triggered by many events, including life changes (moving house or divorce for example), factors related to work, health, or family circumstances (such as bereavement). Stress can be caused by one event, or it can be cumulative. People react differently to stress, and what can be a stress-inducing incident/event for one person may not affect another in the same way.

While stress can be stimulating and sometimes necessary, experiencing stress can be traumatic for many people. Adverse effects can include anxiety, depression, insomnia, chronic fatigue, psychosomatic symptoms, headaches, gastrointestinal disorders and hypertension. Organisational impacts include reduced productivity, more absenteeism, lower job satisfaction and lower commitment to the business/employer. It may be

caused by stress factors external to the workplace or by internal ones, such as bullying or work pressures.

Data from the Projecting Adult Needs and Service Information resource indicate that almost 49,000 males (18-64) and 77,000 females (18-64) are likely to have a common mental illness in Lancashire-12 (2017). In the two unitary authorities (Blackburn with Darwen and Blackpool) the picture is similar, with more females than males experiencing a common mental illness.

Long-term conditions, such as type 2 diabetes, coronary heart disease, hypertension, stroke, and COPD are strongly linked with depression, stress and anxiety, with the prevalence of depression two to three times higher compared to individuals without one of these conditions. This has implications for the long-term condition, in respect of treatment(s), disability and mortality, although a person can experience poor mental health without the comorbidity of a chronic physical long-term illness.<sup>16</sup>

## 4. Long-term conditions in the workplace

All long-term conditions can cause major difficulties for people at work. While adjusting to life with a long-term condition and returning to work can be a positive part of a recovery process, it can also lead to psychological and physical issues such as:

- cognitive problems;
- fatigue;
- depression/anxiety; and
- pain.

Research does suggest that people with a long-term condition will fare better if they are employed and evidence specifically around employed cancer survivors show they have a better health status, less functional limitations and less chronic conditions compared to unemployed cancer survivors.<sup>17</sup>

With regards to all long-term conditions, the experience of the employee can be improved through considerate management of the individual, making adjustments to tasks and/or the workplace and ensuring long-term support mechanisms are in place. Having a long-term condition or disability (mental and/or physical) is potentially a risk factor for being bullied at work, with quality of life, existing health conditions and productivity severely affected. This can be achieved with clear anti-bullying policies, workplace codes of conduct, and training for example.

Without these, the results are more likely to be poorer performance and functioning, with an increased likelihood of presenteeism, sickness absence and individuals leaving employment. Unmanaged long-term conditions can have a significant economic burden,

including increased production costs through absenteeism, extra staffing, or provision of fewer goods/services. Supporting both physical and mental health can help a person remain in work, or return to work, and reduces the costs to the economy, such as welfare payments, or social care budgets. It can also help a person who has been out of work or economically inactive gain work.

## 5. Conclusions

The health of people in Lancashire is improving in some areas, although there are opportunities for further reducing the burden of preventable disease. The gap in mortality rates between men and women is reducing, but health inequalities between the least deprived and most deprived areas remain. Declines in mortality have not been matched by similar declines in morbidity, resulting in people living longer with diseases.

Health policies must therefore address the causes of ill health as well as those of premature mortality. Systematic action locally and nationally is needed to reduce risk exposures, support healthy behaviours, alleviate the severity of chronic disabling disorders, and mitigate the effects of socioeconomic deprivation. With the rise in the ageing workforce, employers will have to effectively manage employees with a myriad of chronic illnesses and take steps to reduce the economic and social impact of these conditions.

Many of the recommendations identified in the final WAP report encapsulate healthy workplaces and healthy people, and recognises that reducing the burden of long-term conditions requires a preventative approach to be most effective. This would need to be supported by robust policies to manage health and wellbeing in the workforce, and links in to several of the other recommendations. To see all the recommendations, please see the [working-age population JSNA final summary report](#). This JSNA has provided a strategic overview and partners will be instrumental in guiding the further actions required and potentially implementing these recommendations across the county.

## 6. References

Please note, due to difficulties in keeping links up to date in our documents, these references are not hyperlinked, apologies for any inconvenience this may cause.

- <sup>1</sup> Office for National Statistics, estimates of the number of days of sickness absence taken by reason in the UK 2013 to 2015. [Accessed March 2017].
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- <sup>11</sup> Patel, S., Henderson, J., Jeffreys, M., Smith, G.D., and Galobardes, B., 2012. Associations between socioeconomic position and asthma: findings from a historical cohort. *Eur J Epidemiol* (2012) 27:623-631. [Accessed January 2017].
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