

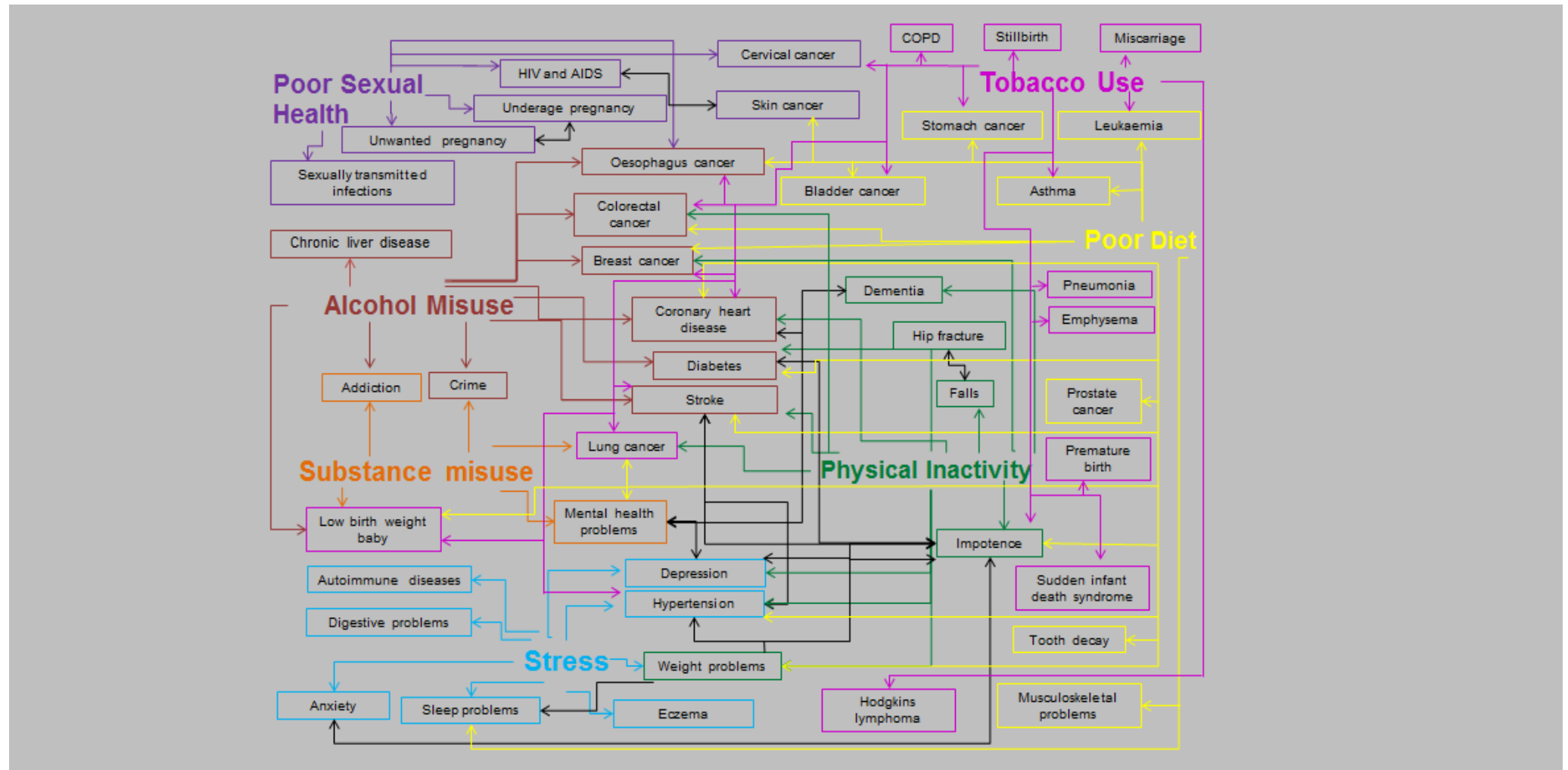


# **Health behaviours joint strategic needs assessment secondary data analysis**

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## Unhealthy behaviour could lead to:



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## Contents

<b>Introduction.....</b>	<b>4</b>
<b>What we looked at .....</b>	<b>4</b>
<b>Executive summary .....</b>	<b>5</b>
<b>Key findings and data gaps:.....</b>	<b>6</b>
Alcohol .....	6
Data gaps.....	6
Diet .....	6
Data gaps.....	6
Physical activity.....	7
Data gaps.....	7
Sexual health .....	7
Data gaps.....	7
Stress.....	7
Data gaps.....	7
Substance misuse.....	8
Data gaps.....	8
Tobacco .....	8
Data gaps.....	9
<b>Alcohol .....</b>	<b>9</b>
Underage drinking.....	9
All age alcohol-specific hospital admissions .....	10
Under-20s alcohol specific hospital admissions .....	11
Under-18s alcohol-specific hospital admissions.....	13
Alcohol-related recorded crime .....	13
Outcomes.....	14
<b>Diet.....</b>	<b>17</b>
Estimated levels of healthy eating.....	17
Consumption of caffeinated energy drinks.....	19
Oral health .....	20
Oral health: five-year olds survey.....	20
Oral health: twelve-year olds survey .....	21
Fast food outlets per district .....	22
Breastfeeding.....	22
Adult weight .....	24
Key findings: .....	26
Bariatric surgery.....	26
Outcomes.....	26
<b>Physical activity.....</b>	<b>27</b>
Physical inactivity.....	27
Sports participation .....	29
Primary method of travel to work .....	31
Outcomes.....	31
<b>Sexual health.....</b>	<b>32</b>
Sexually transmitted infections.....	32
Chlamydia trachomatis.....	33

HIV and AIDS.....	34
HIV testing in genitourinary medicine (GUM) clinics .....	34
Late HIV diagnosis indicator .....	35
Teenage pregnancy .....	35
Under-16 conceptions.....	35
Under-18 conceptions.....	36
Under-18 abortions .....	36
Outcomes.....	37
<b>Stress.....</b>	<b>38</b>
Anxiety .....	38
Percentage of the population affected by noise .....	39
<b>Substance misuse .....</b>	<b>39</b>
Adult drug misuse .....	39
Drug treatment .....	40
Drug use by children and young adults.....	40
Substance misuse by groups at risk .....	41
Outcomes.....	41
<b>Tobacco.....</b>	<b>41</b>
Smoking prevalence .....	42
Smokers with long-term conditions .....	42
Smoking status at time of delivery .....	43
Smoking-attributable hospital admissions.....	44
Smoking-attributable mortality.....	44
Smoking-attributable mortality from heart disease .....	45
Smoking-attributable mortality from stroke.....	45
Tobacco – children and young people .....	46
Smoking behaviours in young people .....	47
Parental influence .....	48
Parental and peer supply .....	49
Counterfeit tobacco – the informal economy .....	49
Niche tobacco .....	50
Electronic cigarettes.....	51
Outcomes.....	53
Lung cancer .....	54
Age breakdown .....	55
<b>Cross-area outcomes .....</b>	<b>55</b>
Low birth weight .....	55
<b>Appendices .....</b>	<b>57</b>
Appendix A: Mortality from unhealthy behaviour 2010/12 – Lancashire .....	57
Appendix B: Quality Outcomes Framework disease prevalence.....	58
Appendix C: Sport England, Active People Survey 2013-13 self-reported adult weight...	59
Appendix D: Lancashire priority neighbourhoods.....	60
<b>References and sources .....</b>	<b>61</b>

## Introduction

This report details the findings of the secondary data analysis process of the health behaviours JSNA project. The purpose of this process was to identify what we currently know about the seven overarching behaviours, which are:

- ❖ alcohol
- ❖ physical activity
- ❖ stress
- ❖ tobacco
- ❖ diet
- ❖ sexual activity
- ❖ substance misuse

Not only will this process give us a clear picture of the current situation in Lancashire\* across these seven areas, it should also help us to identify any data gaps which exist as well as being an opportunity to bring together a number key data sets that may have otherwise been analysed in isolation from one another.

## What we looked at

For each of the overarching themes we have examined the latest available data mostly focusing on prevalence and mortality level data. Where possible this has been expanded to include demographic-level analysis. In some cases, we have also examined the latest incidence rates, although due to time constraints we have kept this to a minimum.

We have examined figures from national and local sources, taking into account surveys, hospital admission statistics, GP data sets and mortality rates from a wide range of sources including:

- ❖ 2011 Census
- ❖ 2011 General Lifestyle Survey
- ❖ Chartered Institute of Environmental Health (CIEH)
- ❖ National Dental Epidemiology Programme for England, Oral Health Survey
- ❖ Public Health England - Local Alcohol Profiles for England (LAPE)
- ❖ Public Health England - Local Health Profiles
- ❖ Public Health England - Outcomes Framework Tool
- ❖ Public Health England - Tobacco Profile
- ❖ Sport England: Active People Survey
- ❖ The Health and Social Care Information Centre - information portal
- ❖ Health Survey for England (HSE)
- ❖ Hospital Episodes Statistics (HES)
- ❖ The Integrated Household Survey (IHS)
- ❖ The Pupil Attitude Questionnaire
- ❖ Quality and Outcomes Framework (QOF)
- ❖ Secondary Uses Service, commissioning data sets (SUS-CDS)
- ❖ Trading Standards - Lancashire Alcohol and Tobacco Survey 2013
- ❖ Office for National Statistics

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\* Lancashire refers to the 12 districts in the county council area. Lancashire-14 includes the two unitary authorities of Blackburn with Darwen and Blackpool.

## Executive summary

An unhealthy lifestyle greatly increases the chances of premature death, with smoking, drinking too much alcohol, poor diet, lack of physical activity and being overweight all key contributors. The latest Longer Lives all-cause premature mortality data sets, published by Public Health England show that between the years 2011 and 2013, 12,071 people died prematurely in Lancashire.

Additionally the county also recorded a significantly higher mortality rate from diseases considered preventable (2011/13) than the England national average. Preventable mortality includes causes of death which could *potentially* have been avoided through good quality healthcare and public health interventions.<sup>1</sup> It includes diseases such as bronchitis, cancer, cardiovascular diseases, diabetes, hepatitis, HIV and liver disease, linking to the seven overarching themes of this report. The latest figures indicate that across Lancashire 7,215 people have died from such causes (2011/13).

Of the six clinical commissioning groups (CCG) in Lancashire,<sup>†</sup> NHS East Lancashire CCG, NHS Fylde & Wyre CCG and NHS Greater Preston all have significantly lower male and female healthy life expectancies at birth estimates (2010/12) than the England average.<sup>2</sup>

During this data-gathering process we identified 54 health outcomes and diseases which include one or more of the seven overarching areas of alcohol, diet, physical activity, sexual activity, stress, substance misuse and tobacco as a risk factor. A risk factor is any attribute, characteristic or exposure of an individual that increases the likelihood of developing a disease or injury and it is accepted there will be more than 54 outcomes and diseases linked to our seven theme areas. Examining the mortality figures for 20 of these 54 conditions ([appendix A](#)), we found that in the three-year period 2011-13, they were responsible for 39,300 deaths in Lancashire. Figures like these highlight how strategies such as tackling obesity, reducing problem drinking, increasing levels of physical activity and reducing drug dependency are not just about shrinking people's waistlines or getting them to cut back on their drinking, it is about improving their health and wellbeing enabling them to live long and happy lives and reducing the burden of disease as part of the wider shift from treatment, support and cure, to prevention and protection.

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<sup>†</sup> The six CCGs are: NHS Greater Preston, NHS Chorley and South Ribble, NHS East Lancashire, NHS Fylde and Wyre, NHS Lancashire North and NHS West Lancashire.



## Key findings and data gaps:

### Alcohol

- ❖ 61% of 14-17 year olds across Lancashire drink alcohol, 18% binge drink at least once a week, whilst 58% claimed to get alcohol from their parents (Lancashire Alcohol and Tobacco survey 2013).
- ❖ In 2012/13 there were 4,830 alcohol-specific all-age admissions to hospital across Lancashire, accounting for 13% of the North West total (HES).
- ❖ In 2012/13, 6,196 arrestees tested positive for alcohol in Lancashire, accounting for 16% of the North West total (ONS).
- ❖ In 2011/13 Lancashire recorded mortality rates significantly above the rate for England for chronic liver disease including cirrhosis (ONS).

### Data gaps

- ❖ Alcohol consumption levels and how often people drink.
- ❖ Number of adults who drink to get drunk.
- ❖ Number of adults who think it's normal to get drunk.
- ❖ Elderly people's drinking habits.
- ❖ Do parents/guardians supply alcohol to their children?
- ❖ Who people drink with/do they drink alone?

### Diet

- ❖ Lancashire has significantly lower proportions of adults who report eating five portions of fruit and vegetables each day than the England average (HSE 2010).
- ❖ 63% of young people aged 14-17 drink caffeinated energy drinks (Lancashire Alcohol and Tobacco survey 2013).
- ❖ Figures for 2012/13 show that across Lancashire fewer mothers breastfed their children at time of delivery than the England national average (PHE local health profiles and Department of Health).
- ❖ Approximately 23% of adults across Lancashire are estimated to be obese (Sport England Active People Survey, 2012/13).
- ❖ 10% of reception age children and 18% of year six children across Lancashire are estimated to be obese (National Child Measurement Programme).

### Data gaps

- ❖ Are they a member of a slimming group/on a diet plan?
- ❖ Frequency of fast food consumption.
- ❖ Gender, age and ethnicity in relation to adult obesity data.
- ❖ How often do people cook their own meals (not ready meals)?
- ❖ Oral health in adults.



**Physical activity**

- ❖ 46% of people in Lancashire stated that they had not engaged in any physical activity over the past 28 days (Sport England Active People Survey, 2012/13).
- ❖ In 2011/13 those aged 55+ in Lancashire are more likely to be physically inactive (Sport England Active People Survey, 2012/13).
- ❖ In 2009 the British Heart Foundation calculated the cost impact of physical inactivity to Lancashire to be £22.6 million.

**Data gaps**

- ❖ Awareness of the benefits of physical activity.
- ❖ Barriers to physical activity – what is stopping people becoming active?
- ❖ What type of physical activity are people engaging in/are they members of any sports groups or gyms?

**Sexual health**

- ❖ A higher proportion of people tested positive for chlamydia in four districts in Lancashire compared to the England average (CTAD).
- ❖ The rate of under-18 conceptions (per 1,000 females) is higher in Lancashire compared to England (ONS).
- ❖ There were 190 new cases of cervical cancer diagnosed in Lancashire between 2010 and 2012 (ONS).

**Data gaps**

- ❖ Alcohol/substance misuse link to sex – were people drunk when they engaged in sexual activity?
- ❖ Contraception types.
- ❖ Have they ever regretted having sex after drinking alcohol/taking illicit substances?

**Stress**

- ❖ 20% of people in Lancashire are estimated to be suffering from anxiety (Integrated Household Survey 2012).
- ❖ In 2012/13 there were 5,958 complaints about noise across Lancashire, accounting for 19% of all noise-related complaints in the North West region (Chartered Institute of Environmental Health).
- ❖ All six CCGs across Lancashire have significantly higher levels of depression prevalence than the England rate (2012/13 QOF disease prevalence).

**Data gaps**

- ❖ What do people do to reduce their stress levels; for example use alcohol, take drugs or partake in physical activity?
- ❖ What has caused their stress: for example work, alcohol/drug use, family life?
- ❖ What is people's understanding of stress?

## Substance misuse

- ❖ In 2010/11 the districts of Burnley, Hyndburn, Lancaster, Pendle and Preston had significantly worse estimated rates of opiate and/or crack cocaine users than the England national average (PHE – local health profiles).
- ❖ In 2012 just 8% of persons entering an opiate treatment programmes from Lancashire were considered to have been successfully treated (PHE outcomes framework).
- ❖ In 2011/12 there were 564 young people aged 15-17 in substance misuse treatment programmes across Lancashire-14<sup>‡</sup> (Lancashire Drug and Alcohol Action Team).

## Data gaps

- ❖ Types of drugs used.
- ❖ Do they know anyone who is a recreational drug user?
- ❖ Why do people use drugs – recreation, peer pressure, friends, and addiction?

## Tobacco

- ❖ In 2013 it was estimated that 20% of people from Lancashire smoked (Integrated Household Survey 2012).
- ❖ In 2010/11 there were significantly higher levels of smoking-attributable hospital admissions in Lancashire compared to the England national average (HES).
- ❖ In 2012/13 a higher proportion of mothers were recorded as smokers in Lancashire compared to the England national average (APHO and Department of Health).
- ❖ Figures from 2010/12 show that significantly more people died from lung cancer in Lancashire when compared to the rate for England (ONS).
- ❖ Lancashire recorded significantly higher smoking-attributable mortality rates (2010/12) than the England national average (PHE Local Tobacco Control Profile).
- ❖ Lancashire recorded significantly higher smoking-attributable mortality rates from both heart disease and stroke (2011/13) when compared to England (PHE Local Tobacco Control Profile).
- ❖ Approximately 16% of young people aged 14-17, from across Lancashire state they were smokers (Lancashire Alcohol and Tobacco Survey 2013).
- ❖ Almost a fifth (19%) of young people claim to obtain cigarettes from their parents and/or guardians (Lancashire Alcohol and Tobacco Survey 2013).

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<sup>‡</sup> Lancashire-14 refers to the 12 county districts of Lancashire, plus the unitary authorities of Blackpool and Blackburn with Darwen.

## Data gaps

- ❖ Why and when people start smoking.
- ❖ How long have they smoked?
- ❖ Have they tried to quit and how?
- ❖ If they have children have they ever provided them with cigarettes?
- ❖ Where do they smoke, e.g. car, home or around children.
- ❖ Non-smokers and ex-smokers who have tried e-cigarettes.

One additional data gap would be the number of people who are engaging in more than one unhealthy behaviour or who have been diagnosed with more than one long-term condition.

## Alcohol

Alcohol is England's second biggest cause of premature deaths behind tobacco use.<sup>3</sup> The 2011 General Lifestyle Survey reported that 34% of men and 28% of women stated they exceeded the current alcohol consumption guidelines on at least one day in the last seven. Regular heavy drinking and binge-drinking behaviours are associated with a whole range of problems including anti-social behaviour, violence, accidents, physical and mental health problems, and poor school performance in the young.<sup>4</sup> The 2012 report 'The Cost of Alcohol to the North West Economy' found the cost impact of alcohol on health care, policing, licensing, social services, the local workforce and the wider economy for Lancashire was £495m (2010/11).<sup>5</sup>

During our analysis we identified the following key data sets relating to alcohol:

- ❖ underage drinking;
- ❖ alcohol-specific admissions to hospital;
- ❖ alcohol recorded crime;
- ❖ alcohol-specific mortality (conditions where alcohol is causally implicated in all cases of the condition for example alcohol-related liver cirrhosis<sup>6</sup>); and
- ❖ mortality from chronic liver disease.

## Underage drinking

The Lancashire Alcohol and Tobacco Survey 2013 resulted in responses from 4,458 young people aged between 14-17 years old across Lancashire-14. It revealed that:

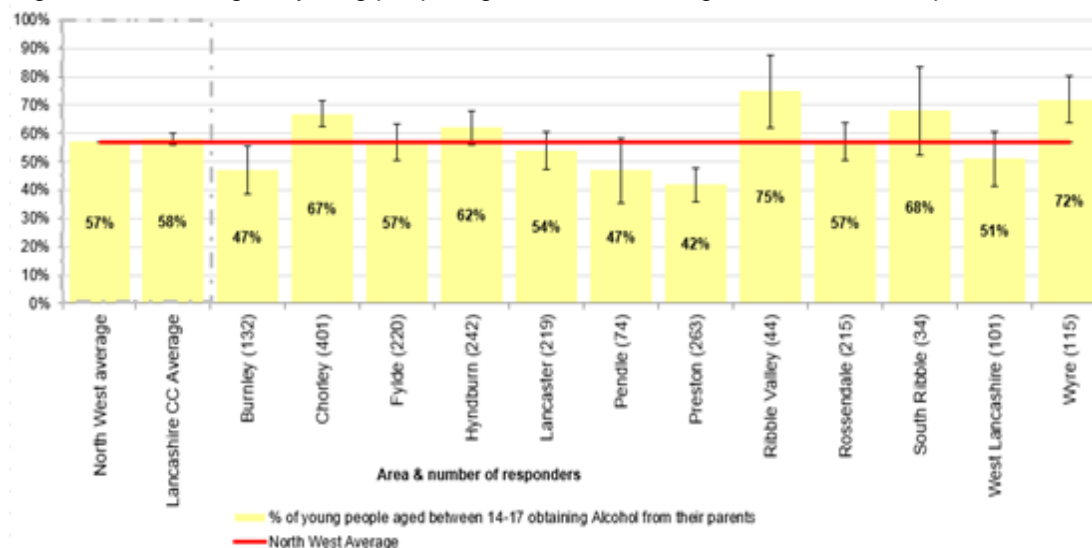
- ❖ the rate of drinking alcohol once a week or more has continued to decline;
- ❖ binge drinking regularly (five or more alcoholic drinks at least once a week) has reduced; and
- ❖ the percentage of young people claiming to buy alcohol themselves has fallen.

Although these are significant improvements the survey across Lancashire-14 also found:

- ❖ 63% have drunk alcohol;
- ❖ 46% binge drink and of these, 12% binge drink at least once a week;
- ❖ 23% had been violent or in a fight whilst drunk whilst 25% regretted having sex after drinking (Lancashire only);
- ❖ 44% drink to get drunk; and
- ❖ 70% think getting drunk is fun and 55% think getting drunk is normal.

Most 14-17 year olds in Lancashire claim to get alcohol from their friends and family, with 58% claiming to get it from their parents. At a district level the percentage of children who reported obtaining alcohol from their parents ranged from 42% in Preston to 75% in Ribble Valley.

Figure 1: Percentage of young people aged 14-17 obtaining alcohol from their parents



Source: Lancashire Alcohol and Tobacco Survey 2013

The survey also found that on average 30% of respondents from across Lancashire had knowledge of party houses and drinking dens in their local area. Again, at a district level this varied greatly from 16% in Ribble Valley and South Ribble to 45% in Pendle.

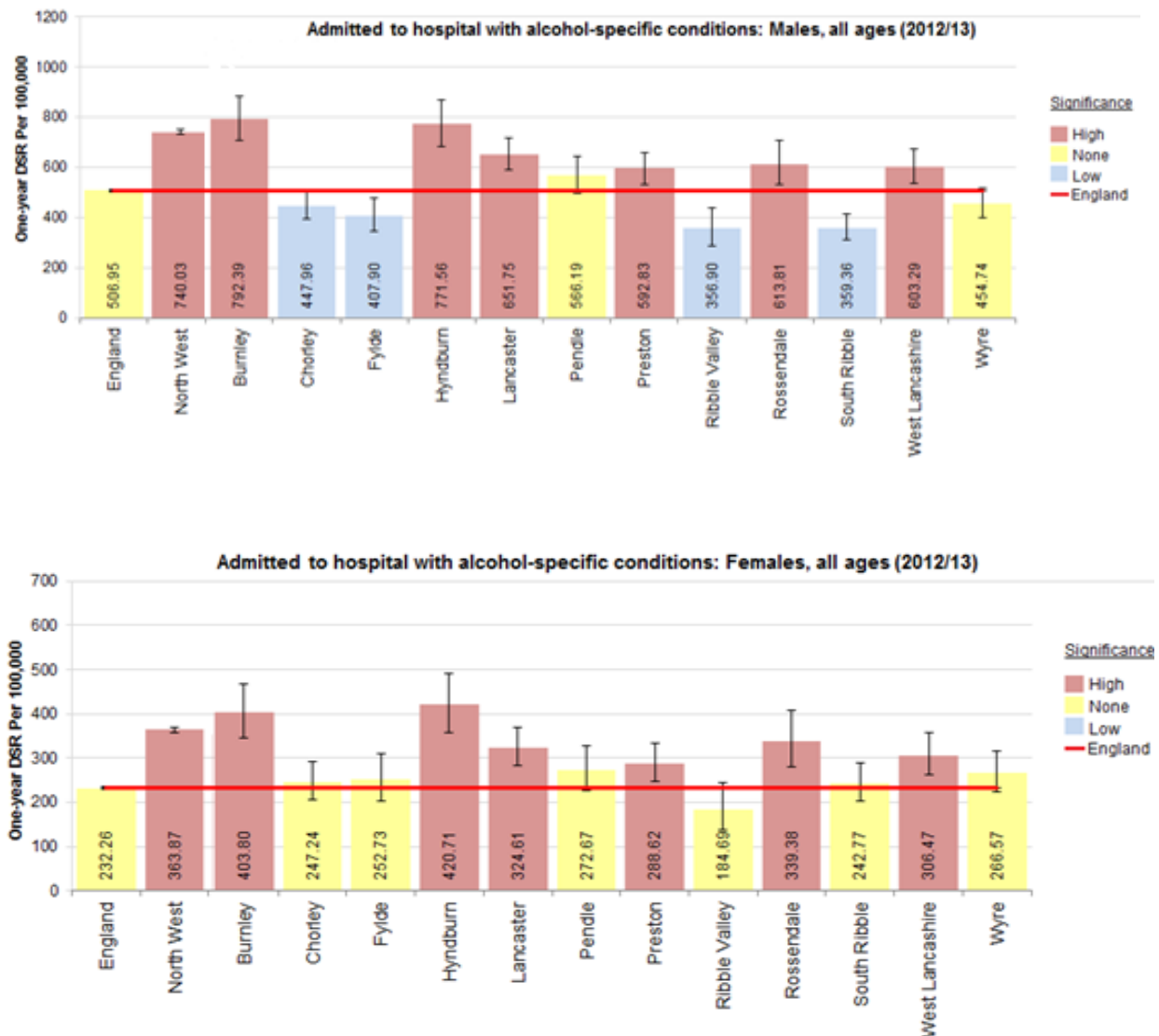
### All age alcohol-specific hospital admissions

During the financial year 2012/13 there were 4,830 alcohol-specific admissions to hospital across Lancashire, accounting for 13% of the North West region total. Of these admissions 64% were for males. Of particular concern were the districts of Burnley, Hyndburn, and Lancaster, all of which reported one-year male and female directly standardised rates (DSR per 100,000 of the population) significantly above those for

England. Hyndburn ranked in the worst 5% of authorities in England for female alcohol-specific admissions.

Comparing the male admissions in Lancashire for 2012/13 against those from 2008/09, only Preston and South Ribble have seen a decrease in their rates. For females, Chorley, Preston, Ribble Valley and South Ribble saw a drop in their admission rates.

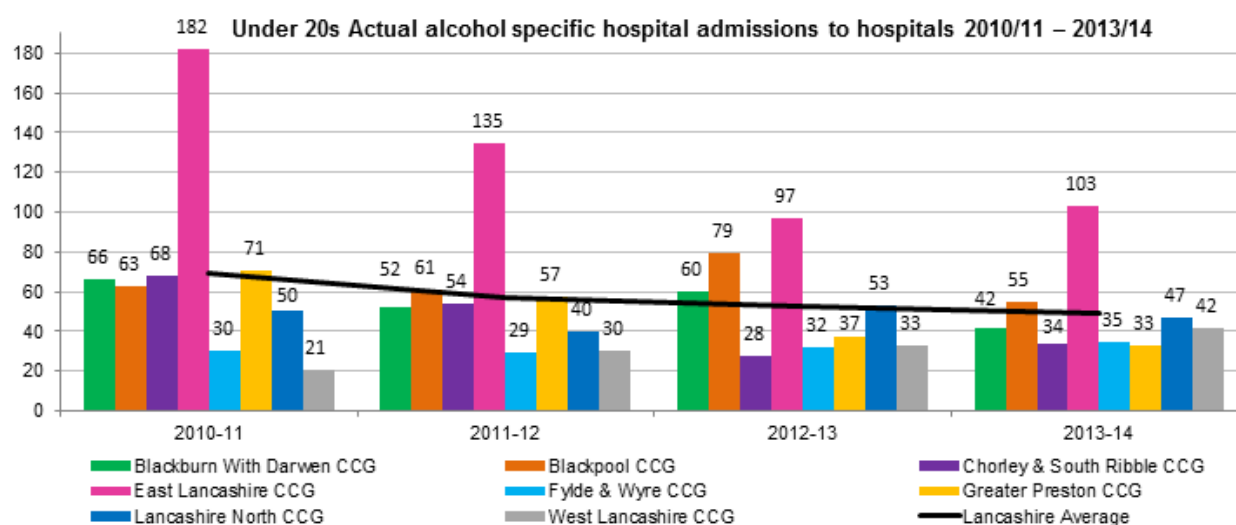
Figure 2: HES 2012/13 alcohol-specific admission rates, split by gender across Lancashire



### Under-20s alcohol specific hospital admissions

Data from the Secondary Uses Service Commissioning Data Sets (SUS-CDS) show that there have been 1,819 alcohol-related admissions to hospitals for young people in Lancashire-14 (between financial years 2010/11 and 2013/14). The total actual admissions each year are decreasing in most areas with the exception of Fylde, West Lancashire and Wyre where marginal increases have been seen.

Figure 3: Under-20s actual alcohol-specific hospital admissions to hospitals 2010/11 to 2013/14 split by CCG



Using these figures to calculate a Lancashire crude per 100,000 rate shows a reduction in alcohol-specific hospital admissions for persons aged 19 and under (table one below).

Table 1: Lancashire-14 Under-20s actual alcohol-specific hospital admissions to hospitals 2010/11 – 2013/14

Year	No. of admissions	Total mid-year CCG under-20 population*	Crude rate per 100,00
2010/11	422	277,266	152.2
2011/12	345	275,904	125.0
2012/13	280	274,973	101.8
2013/14	294	301,568	97.5
*combined totals for all six Lancashire CCGs, covering the Lancashire-14 area			
Change between 2010/11 and 2013/14		Actual change	Percentage change
Change in no. of admissions		-128	-30%
Change in population		24,302	+9%
Change in crude rate		-54.7	-36%

Source: SUS-CDS

This gradual decline in admissions has also been seen at a national level and it has been suggested it could be an indication of a change in attitude towards drinking. The 2011 report Smoking, drinking and drug use among young people in England found an increase in the number of young people who state they have never drank alcohol rising from 39% in 2003, to 55% in 2011.

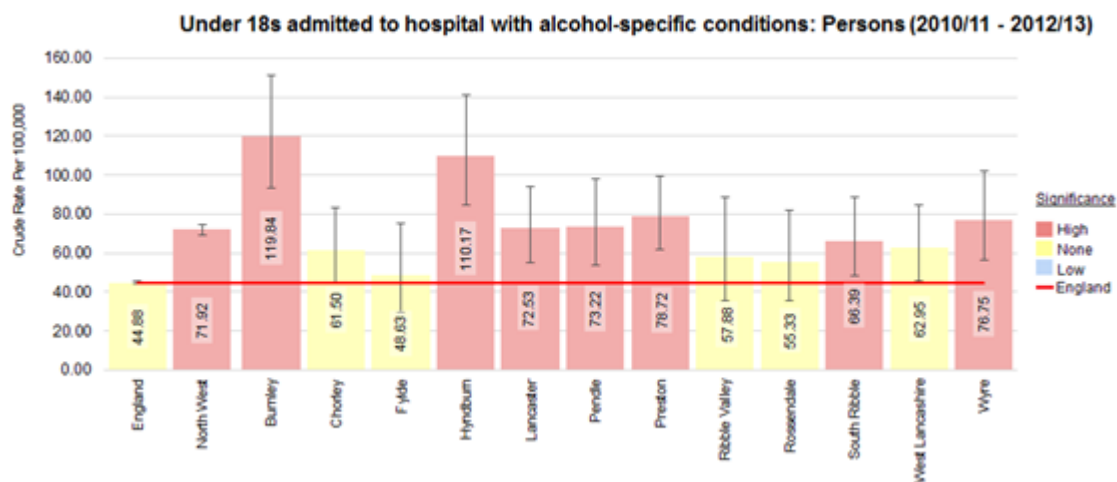
An alternative interpretation is that it is becoming harder for young persons to obtain alcohol, with the 2013 report 'sobering up' suggesting that retailers have become more vigilant in preventing under-age sales, and echoing Lancashire's 2013 Trading Standards

survey findings in suggesting that young people are increasingly obtaining alcohol from their parents or guardians.

### Under-18s alcohol-specific hospital admissions

Unlike the adult admissions, the under-18 admissions data from the Local Alcohol Profiles for England (LAPE) tool is grouped into sets of three financial years which crossover. This affects our ability to perform trend line analysis, due to the overlapping time frames, and a crude admission rate rather than a standardised rate is used. The latest figures (2010/11 to 2012/13) show that the majority of districts within Lancashire have recorded significantly higher rates of under-18 admissions compared to England with Burnley and Hyndburn recording the highest rates.

Figure 4: Under-18s admitted to hospital with alcohol-specific conditions, all persons (2010/11 – 2012/13)



### Alcohol-related recorded crime

The ONS crime statistics show that 6,196 arrestees tested positive for alcohol across Lancashire (2012/13), accounting for 16% of the North West total. Looking at the individual districts of Lancashire, we found that Burnley and Preston were significantly above the England rate. Comparing the 2012/13 figures against the figures from 2008/09 reveals that Chorley, Hyndburn and Ribble Valley have seen an increase in their alcohol-related crime rates.



Figure 5: Alcohol-related recorded crimes, all persons, all ages, 2012/13, Lancashire authorities benchmarked against the England national average



## Outcomes

The 2010/12 alcohol-specific mortality rates (directly-standardised rate per 100,000) show that Preston and Lancaster had significantly higher mortality rates for males when compared to England and both districts were within the top 5% of local authorities for alcohol mortality. For females, Preston and Lancaster had significantly higher rates than England, but only Lancaster fell within the top 5% of local authorities for alcohol mortality.

Figure 6: 2010/12 alcohol-specific mortality males

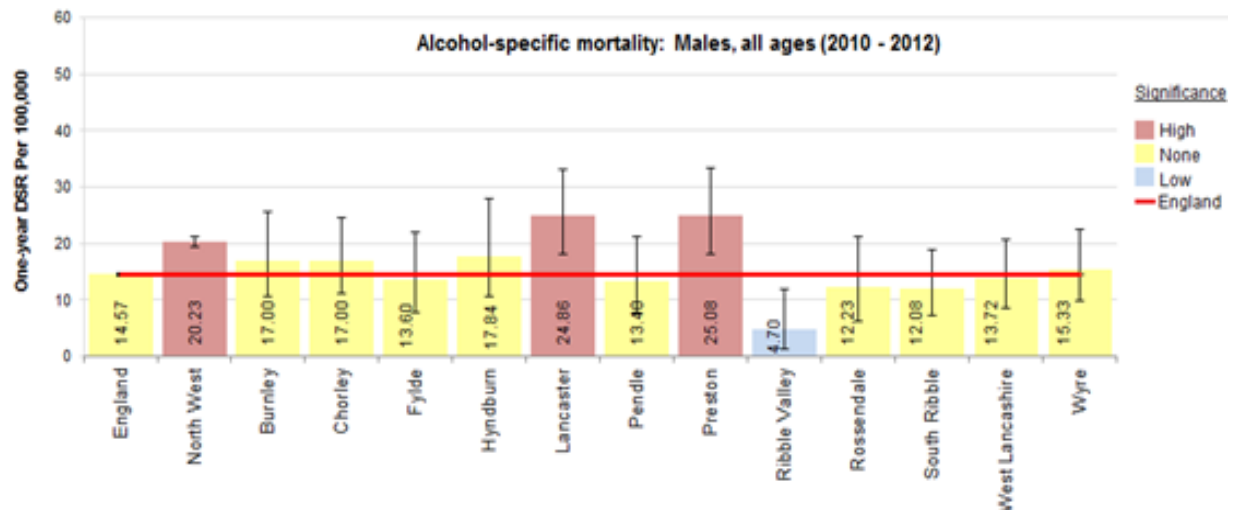
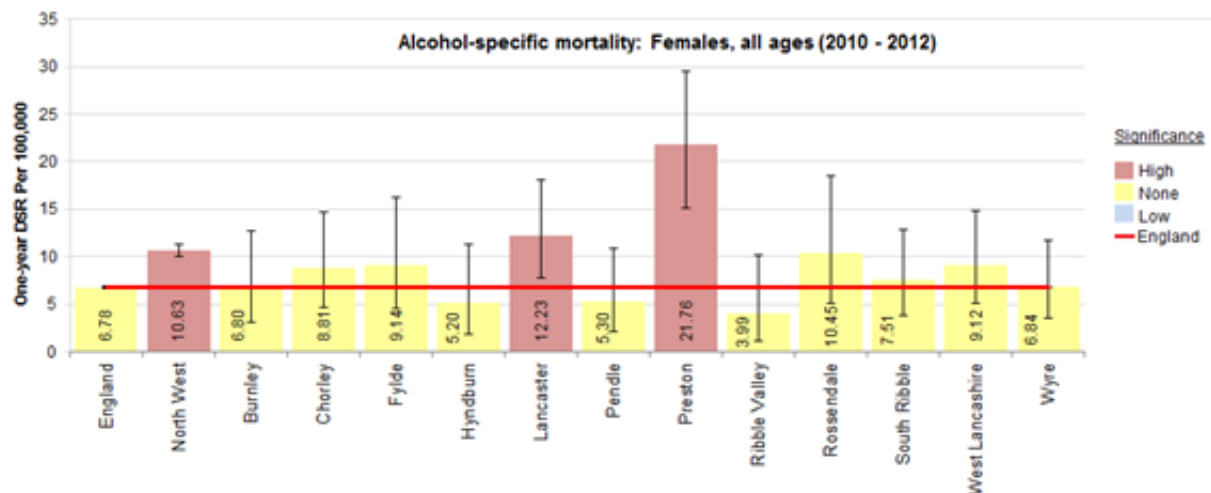


Figure 7: 2010/12 alcohol-specific mortality females



Source: Local Alcohol Profiles for England

Excessive alcohol consumption is a risk factor for many conditions, including the following diseases:

- ❖ breast cancer
- ❖ colorectal cancer
- ❖ diabetes
- ❖ stroke
- ❖ chronic liver disease
- ❖ coronary heart disease
- ❖ oesophageal cancer

The latest prevalence figures from the Quality and Outcomes Framework (QOF) incentive show that:

- ❖ all six Lancashire CCGs have a significantly higher prevalence of coronary heart disease compared to England;
- ❖ all six have significantly higher levels of stroke prevalence;
- ❖ five have significantly higher levels of cancer prevalence; and
- ❖ four have significantly higher levels of diabetes prevalence ([appendix B](#) provides a more detailed breakdown).

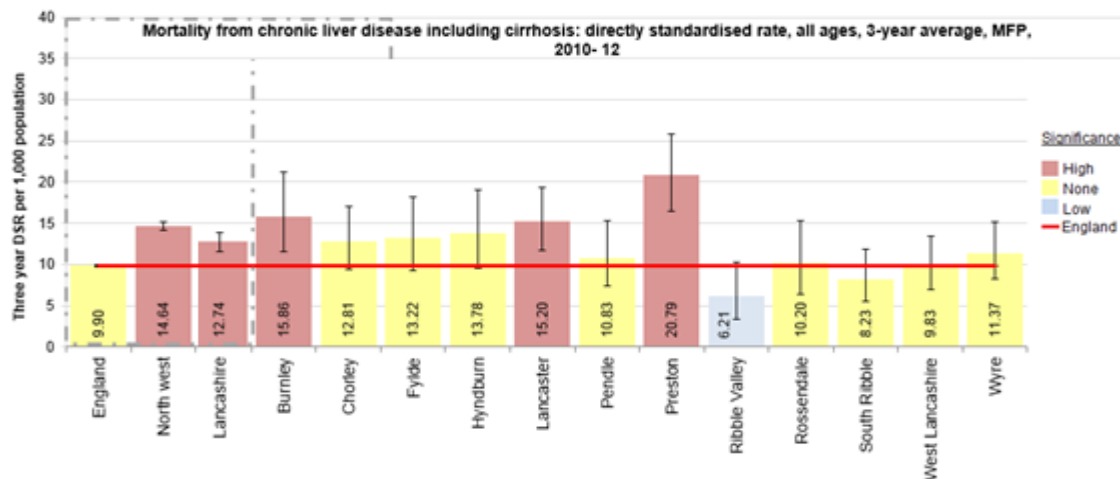
It should be noted that having a higher registered QOF prevalence level than the England average may reflect relatively better diagnosis and identification of disease as opposed to higher true prevalence. Further analysis of incidence rates of these diseases, where possible, is recommended.

Looking at the 2011/13 all age, all persons mortality (DSR per 100,000 of the population) for each of these diseases, we found that Lancashire has a significantly higher mortality

rate than England for chronic liver disease, coronary heart disease, stroke and oesophagus cancer.

Chronic liver disease is a key indicator on the Local Alcohol Profiles for England and over the three-year period 2010/12, 510 people died from chronic liver disease (including cirrhosis) across Lancashire, of which 63% were male. Burnley, Lancaster and Preston recorded mortality rates significantly above England.

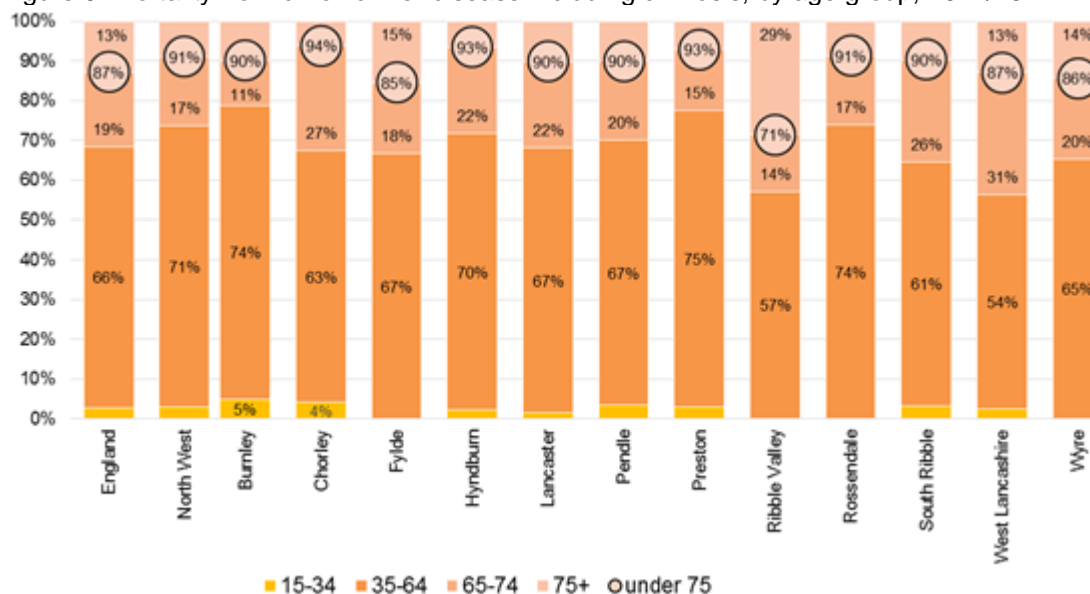
Figure 8: 2010/12 mortality from chronic liver disease all ages, males and females



Source: Local Alcohol Profiles for England

Figure nine below provides a breakdown of mortality from chronic liver disease including cirrhosis (2011/13) by age group. This chart shows that overwhelmingly this disease is killing people under-75 years (represented by the % in the circle) and that the majority of people who die from this disease are aged 35-64.

Figure 9: Mortality from chronic liver disease including cirrhosis, by age group, 2011/13



## Diet

While the reasons for excess weight and underweight can be wide ranging and include physiological, psychological and financial factors, many studies have shown that a good diet, even before birth can be key to living a healthy life and avoiding chronic illness.<sup>7</sup>

When it comes to a healthy diet, balance is the key to getting it right. Healthy eating is consuming the right quantities of foods from all food groups in order to ensure an individual's body is appropriately nourished and capable of functioning appropriately, dependent on lifestyle and activity levels. The current government guidelines for healthy eating include eating five portions of fruit and vegetables per day, reducing levels of fat, salt and sugar, and ensuring alcohol consumption is limited.

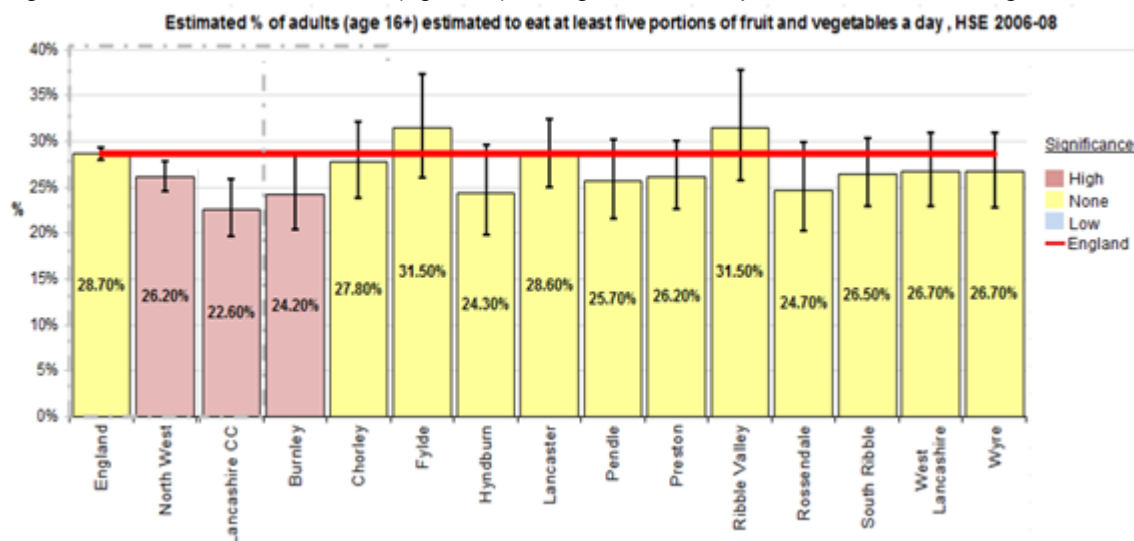
During this process we identified the following key data sets relating to diet:

- ❖ estimated levels of healthy eating (adults and children);
- ❖ consumption of caffeinated energy drinks (ages 10-18);
- ❖ oral health;
- ❖ number of fast food outlets per district;
- ❖ breastfeeding;
- ❖ adult weight (underweight, healthy weight, overweight, obese);
- ❖ childhood obesity; and
- ❖ bariatric surgery numbers.

### Estimated levels of healthy eating

The Health Survey for England (2006/08) found that Lancashire has a significantly lower proportion of people who report eating five portions of fruit and vegetables each day compared to the England average. At a district level Burnley is estimated to have a significantly lower proportion of people eating five portions of fruit and vegetables a day. The best performing district was Ribble Valley where 31% of people are estimated to have a healthy diet.

Figure 10: Estimated % of adults (age 16+) eating at least five portions of fruit and vegetables a day



Source: Health Survey for England

The Pupil Attitude Questionnaire provides an insight into the eating habits of primary school children. The latest figures show a slight increase in the proportion of Lancashire primary school pupils who reported that they would choose a healthy food option, increasing from 78% in 2011/12 to 80% in 2012/13. However, this does suggest that approximately 20% of pupils would still choose an unhealthy option. The figures also show that the highest proportion of primary pupils who would choose healthy food options lived in Chorley and Fylde, with Lancaster and Burnley having the lowest.

Table 2: Pupil Attitude Questionnaire: proportion of primary school pupils who choose the healthy food option

Area	2010/11			2011/12			2012/13		
	Pupils	Positive responses	%	Pupils	Positive responses	%	Pupils	Positive responses	%
Burnley	-	-	-	824	679	82.4	1,496	1,117	75.0
Chorley	1,240	953	76.9	1,455	1,168	80.3	1,666	1,402	84.0
Fylde	633	495	78.2	667	527	79.0	871	723	83.0
Hyndburn	826	608	73.6	1,120	864	77.1	1,303	1,026	79.0
Lancaster	1,046	788	75.3	1,104	849	76.9	1,656	1,225	74.0
Pendle	75	594	79.2	547	420	76.8	1,086	866	80.0
Preston	1,150	871	75.7	1,278	967	75.7	1,996	1,594	80.0
Ribble Valley	505	403	79.8	643	527	82.0	720	591	82.0
Rossendale	665	531	79.9	538	397	73.8	764	613	80.0
South Ribble	921	701	76.1	956	719	75.2	1,199	983	82.0
West Lancs	1,192	898	75.4	1,196	907	75.8	1,691	1,353	80.0
Wyre	632	472	74.7	626	478	76.4	1,039	811	78.0
<b>Lancashire</b>	<b>10,002</b>	<b>7,639</b>	<b>76.3</b>	<b>10,954</b>	<b>8,500</b>	<b>77.6</b>	<b>15,487</b>	<b>12,304</b>	<b>79.5</b>

Please note: gaps in district data are due to low response rates

Source: Pupil Attitude Questionnaire 2013

### Consumption of caffeinated energy drinks

Recent research from a European survey across 16 countries showed that 69% of young people in the UK aged 10-18 had drunk an energy drink in the past year.<sup>§</sup> These consumers drank more each on average (3.1 litres a month) compared to teenagers in other countries (2 litres).

In order to determine the prevalence of the use of energy drinks amongst young people across Lancashire additional questions were included in the Lancashire Alcohol and Tobacco survey (2013). Approximately 98% of the respondents answered the questions regarding consumption of high energy/caffeine drinks. Of these 63% stated that they drank these types of drinks, with male respondents (70%) and respondents in Rossendale (75%) more likely to drink high energy/caffeine drinks. Almost half (46%) of young people admitted to mixing these with alcohol. A third of UK young people (aged 10-18) who drank energy drinks said they had mixed them with alcohol.

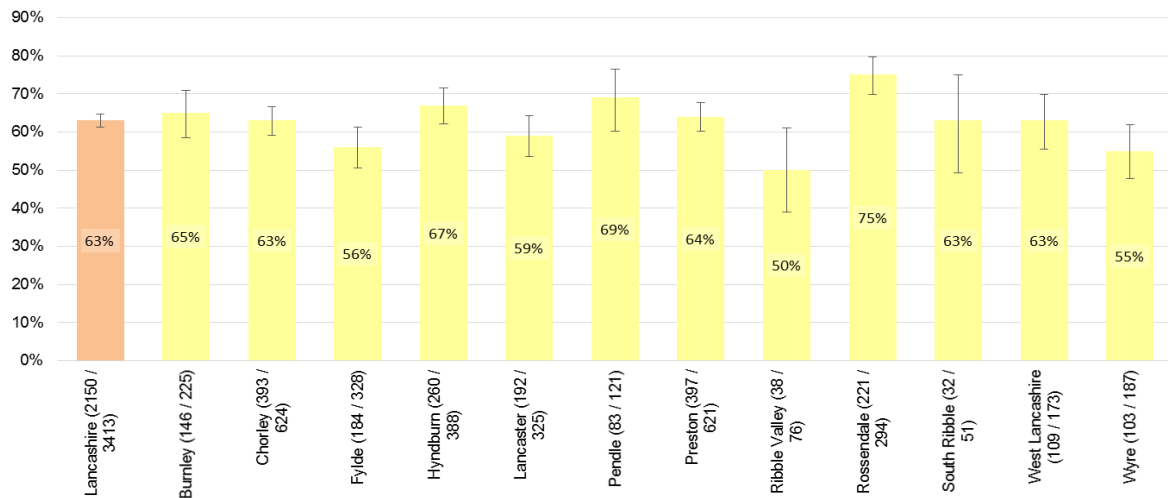
An increasing body of evidence exists to show the possible dangers of mixing energy drinks with alcohol. Whilst alcohol is a depressant, caffeine is a stimulant, and a number of studies have shown that consuming energy drinks with alcohol may make drinkers feel more alert. One potential result is that drinkers will take more risks, since they are less aware of how drunk they actually are.<sup>8</sup> A survey of students in North Carolina in 2006 found that those who mixed alcohol and energy drinks were more likely to have an injury, ride with a drunk driver, or have an unwanted sexual experience.<sup>9</sup>

There are also concerns about the harm that may arise from drinkers mixing alcohol and energy drinks as the practice enables them to drink for longer and achieve higher levels of intoxication. This inevitably will have an impact on young people's behaviour and health and on local communities. Nearly a quarter of the young people surveyed admitted to being violent or in a fight whilst drunk and just over a third said that they do not always feel in control when they have been drinking alcohol.

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<sup>§</sup> The term “energy drinks” refers to beverages that contain caffeine in combination with other ingredients such as taurine, guarana, and B vitamins, and that claims to provide its consumers with extra energy.

Figure 11: Trading Standards Alcohol and Tobacco survey (2013) consumption of caffeinated energy drinks – do you drink energy drinks?



## Oral health

Good oral health for children is an important part of their general health and is also an indicator of a healthy diet. Dental health in children has improved substantially over recent decades, largely due to the use of fluoride in water and toothpaste, and improved diet and oral hygiene. There are wide social inequalities in tooth decay rates with children living in poverty tending to experience the highest rates of disease.

The British Association for the Study of Community Dentistry co-ordinates surveys of the dental health of school children. Results for five-year olds are available for the school years 2007/08 and 2011/12, and for 12-year olds for the school year 2008/09.

### Oral health: five-year olds survey

Overall, in 2011/12, the oral health of five-year olds has improved in Lancashire both in terms of the prevalence of children with decay experience (with one or more decayed, missing due to decay and filled teeth: '% d3mft > 0') and severity of tooth decay (average number of decayed missing and filled teeth per child: 'mean d3mft'). The survey also found that the areas with poorer oral health tended to be in the east of the county and in the more deprived districts on a whole. The 2011/12 Lancashire figures should be treated with caution as Chorley, Lancaster, South Ribble, and West Lancashire districts did not take part in the survey, reducing the sample size for Lancashire to 4,891 from 7,506 in 2008/09.



Table 3: NWPH - National Dental Epidemiology Programme for England, Oral Health survey of five-year-old children 2012

LA/area	2007/08			2011/12		
	Mean d3mft*	%d3mft >0**	Mean d3mft (%d3mft >0) ***	Mean d3mft*	%d3mft >0**	Mean d3mft (%d3mft >0) ***
Burnley	1.9	43.5	4.3	1.7	41.8	4.1
Chorley	1.3	36.4	3.5	N/A	N/A	N/A
Fylde	0.9	25.0	3.3	0.9	28.9	3.2
Hyndburn	2.1	45.9	4.5	1.5	41.8	3.5
Lancaster	0.9	25.2	3.5	N/A	N/A	N/A
Pendle	2.0	46.9	4.1	1.9	44.7	4.2
Preston	2.0	46.3	4.1	1.7	42.3	4.0
Ribble Valley	0.9	25.0	3.4	0.6	19.8	2.9
Rossendale	1.6	36.5	4.0	1.1	31.1	3.6
South Ribble	1.3	35.5	3.5	N/A	N/A	N/A
West Lancashire	1.4	38.5	3.5	N/A	N/A	N/A
Wyre	1.3	33.0	3.8	1.1	27.5	3.9
Lancashire	1.5	36.5	3.8	1.3	34.9	3.7
North West	1.5	38.1	3.8	1.3	34.8	3.7
England	1.1	30.1	3.5	0.9	27.9	3.4

N/A: District did not take part in survey.

\*Average number of obviously decayed, missing (due to decay) and filled teeth per child.

\*\*Percentage of children with decay experience (i.e. with one or more obviously decayed, missing (due to decay) and filled teeth).

\*\*\*For those children with decay experience, the average number of obviously decayed, missing (due to decay) and filled teeth per child.

### Oral health: twelve-year olds survey

Overall in 2008/09 the oral health of twelve-year olds in Lancashire in terms of the prevalence and severity of tooth decay was worse than that seen at national and regional levels. The figures for Preston, Chorley, and South Ribble showed they had the highest proportion of surveyed twelve-year-old with experience of tooth decay. Ribble Valley and Fylde had the lowest proportions.

Table 4: NWPH - National Dental Epidemiology Programme for England, Oral Health Survey of twelve-year old children 2008/09

LA/area	Mean d3mft*	%d3mft >0**	Mean d3mft (%d3mft >0) ***
Burnley	1.0	41.5	2.3
Chorley	1.1	44.7	2.5
Fylde	0.8	30.3	2.5
Hyndburn	1.0	42.6	2.4
Lancaster	0.9	33.5	2.3
Pendle	0.9	37.0	2.4
Preston	1.2	47.5	2.6
Ribble Valley	0.5	25.8	2.1
Rossendale	0.8	35.4	2.3
South Ribble	1.2	44.5	2.8
West Lancashire	0.9	39.3	2.3

LA/area	Mean d3mft*	%d3mft >0**	Mean d3mft (%d3mft >0) ***
Wyre	0.8	33.7	2.3
Lancashire	0.9	38.0	2.4
North West	1.0	39.8	2.4
England	0.7	33.4	2.2

\* Average number of obviously decayed, missing (due to decay) and filled teeth per child.

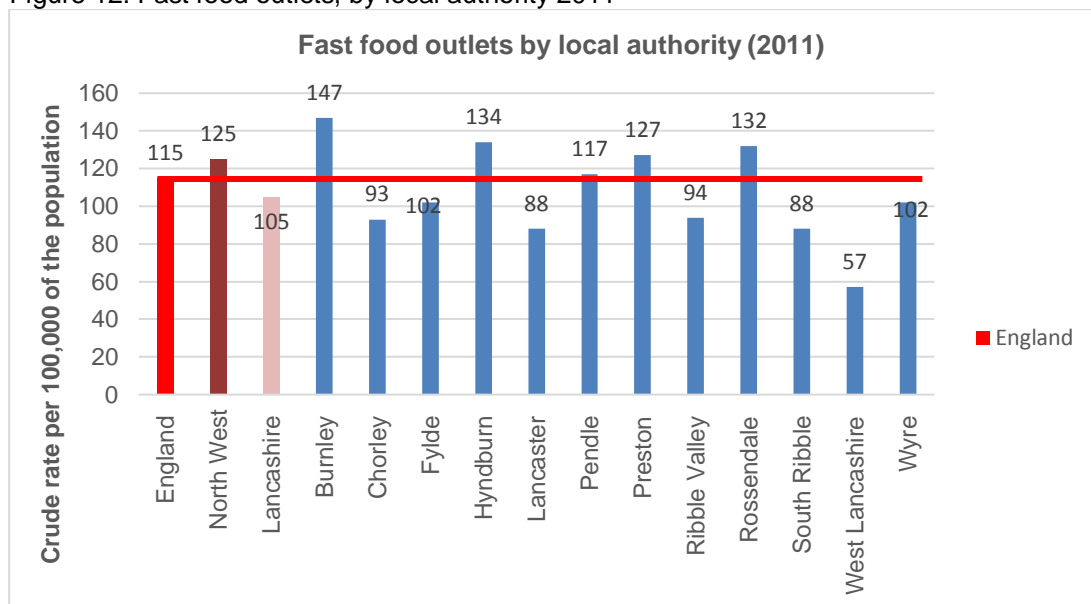
\*\* Percentage of children with decay experience (i.e. with one or more obviously decayed, missing (due to decay) and filled teeth).

\*\*\* For those children with decay experience, the average number of obviously decayed, missing (due to decay) and filled teeth per child.

## Fast food outlets per district

The Office for National Statistics (ONS) publishes figures on the number and rate of fast food outlets by local authority. Burnley, Hyndburn, Pendle, Preston and Rossendale have more outlets per 100,000 population in 2011 than the England national average.

Figure 12: Fast food outlets, by local authority 2011



Source: Local Government Inform

## Breastfeeding

There is significant evidence to show that breastfeeding has health benefits for both the infant and the mother.<sup>10</sup> These include:

- ❖ a reduced risk of gastro-intestinal infection, respiratory infections, necrotising enterocolitis, urinary tract infections, ear infections, allergic disease (eczema and wheezing), insulin-dependent diabetes mellitus, sudden infant death syndrome, and childhood leukaemia compared to artificially-fed babies;
- ❖ better neurological development;
- ❖ protection against multiple sclerosis and acute appendicitis; for the mother this includes protection against rheumatoid arthritis;
- ❖ women who have breastfed their babies are at lower risk of breast cancer, ovarian cancer, and hip fractures; and
- ❖ protection against obesity and conditions associated with excess weight.

Higher breastfeeding rates would significantly improve the health of the nation and the population of Lancashire. This is an excellent reason why obstacles to successful breastfeeding should be removed.

Since 2003, the Department of Health has recommended exclusive breastfeeding for the first six months of a baby's life. The breastfeeding initiation rates in Lancashire are lower than the national rates, with almost a third of mothers recorded as not breastfeeding at the time of delivery. This means approximately 4,000 babies each year are not receiving any breast milk. Where available, rates of continued breastfeeding across Lancashire show that fewer mothers continue to breastfeed than nationally. The proportion breastfeeding for the recommended six months is therefore likely to be significantly lower still. These figures indicate that in Lancashire there remains a culture of bottle-feeding as the norm and urgent action is needed to address this situation.

Table 5: Proportion of mothers initiating breastfeeding

Primary care trust	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Central Lancashire	64.3%	67.2%	65.8%	63.5%	66.8%	66.3%
East Lancashire	1.9%	68.3%	67.0%	68.3%	68.9%	69.0%
North Lancashire	62.8%	61.4%	68.5%	68.6%	69.0%	64.3%
<b>North West</b>	<b>60.1%</b>	<b>61.8%</b>	<b>63.0%</b>	<b>63.4%</b>	<b>62.0%</b>	<b>66.5%</b>
<b>England</b>	<b>69.9%</b>	<b>71.7%</b>	<b>72.7%</b>	<b>73.7%</b>	<b>74.0%</b>	<b>62.2%</b>

Source: APHO and Department of Health

Table 6: Prevalence of breastfeeding at 6-8 weeks

Primary care trust	2008/09	2009/10	2010/11	2011/12	2012/13
Central Lancashire	34.3%	32.5%	33.9%	33.3%	33.6%
East Lancashire	38.8%	39.5%	35.7%	25.6%	23.3%
North Lancashire	29.8%	34.9%	37.6%	37.5%	33.8%
<b>North West</b>	-	<b>32.5%</b>	<b>43.0%</b>	<b>34.1%</b>	<b>33.0%</b>
<b>England</b>	-	<b>44.7%</b>	<b>46.1%</b>	<b>47.2%</b>	<b>47.2%</b>

Source: APHO and Department of Health

Data published during 2013/14 at clinical commissioning group level shows the proportion of mothers initiating breastfeeding was significantly lower than the England average in Hyndburn, Lancaster, Preston, South Ribble, West Lancashire and Wyre CCG areas. The prevalence rates at 6-8 weeks were also significantly lower than the national average in all Lancashire districts, except Ribble Valley which was similar to the national rate.

## Adult weight

The adult weight categories are defined as follows:

- ❖ underweight - body mass index (BMI) of less than 18.5kg/m<sup>2</sup> ;
- ❖ healthy weight - BMI greater than or equal to 18.5, but less than 25kg/m<sup>2</sup>;
- ❖ overweight - BMI greater than or equal to 25 but less than 30kg/m<sup>2</sup>; and
- ❖ obese - BMI greater than or equal to 30kg/m<sup>2</sup>.

Using figures published from the Sport England Active People Survey (APS) 2012/13 the districts of Chorley, Fylde, Rossendale and Wyre are all estimated to have significantly less people classed as having a healthy weight than the England average. Preston is estimated to have significantly more people classed as underweight than the England average, whilst Fylde is estimated to have significantly more people classed as overweight.

The rate of obesity in Lancashire is 23% which is marginally below the England rate (24.8%) and not significantly different. Hyndburn and Wyre are estimated to have significantly more people classed as obese compared to England. England still has one of the highest obesity levels in the developed world and is ranked sixth out of the 33 organisations for economic cooperation and development (OECD). [Appendix C](#) provides a full breakdown of the adult weight data.

## Childhood obesity

Obesity in childhood is linked to a range of diseases in adult life, including diabetes, coronary heart disease and depression. In the annual analysis of the National Child Measurement Programme (NCMP) data, comparisons were made between local and national prevalence.

The latest figures indicate that the proportion of obese children in reception classes across Lancashire is slightly above the England average, with a number of East Lancashire districts showing levels over 10%. While the average year six prevalence figure for the county was below that of the England national level, a number of districts again reported rates over 10%.

Table 7: Proportions of obese children in reception class 2007/08 – 2013/14

District	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Trend line
Burnley	10.10%	9.60%	11.40%	11.00%	11.10%	10.90%	9.57%	
Chorley	8.50%	7.80%	9.60%	7.10%	8.30%	8.60%	9.59%	
Fylde	6.90%	8.10%	7.20%	8.20%	8.00%	8.00%	9.39%	
Hyndburn	8.60%	11.20%	10.80%	10.30%	9.70%	10.80%	11.67%	
Lancaster	10.20%	10.90%	10.70%	10.60%	9.30%	11.00%	9.09%	
Pendle	10.00%	8.00%	9.50%	9.80%	10.50%	12.50%	11.04%	
Preston	11.20%	8.50%	9.10%	8.60%	9.20%	7.90%	7.38%	
Ribble Valley	8.50%	7.40%	10.20%	7.80%	10.60%	8.50%	10.04%	
Rossendale	11.70%	9.40%	9.50%	10.70%	9.70%	10.10%	11.85%	
South Ribble	8.60%	6.80%	8.50%	8.40%	9.20%	7.80%	9.70%	
West Lancs	10.20%	11.00%	10.80%	10.80%	11.10%	8.60%	8.27%	
Wyre	7.80%	8.60%	7.60%	7.00%	8.60%	9.80%	8.52%	
Lancashire-12	9.50%	9.00%	9.70%	9.20%	9.60%	9.60%	9.53%	
Blackburn with Darwen	8.20%	8.90%	10.40%	9.90%	9.60%	10.70%	9.93%	
Blackpool	10.10%	9.70%	9.00%	9.50%	8.60%	10.60%	11.71%	
Lancashire-14	9.30%	9.20%	9.70%	9.50%	9.30%	9.80%	10.50%	
North west	10.00%	9.60%	9.90%	9.70%	9.70%	9.60%	9.91%	
England	9.60%	9.60%	9.80%	9.40%	9.50%	9.30%	9.48%	

Table 8: Proportions of obese children in year six 2007/08 – 2013/14

District	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Trend line
Burnley	17.00%	18.10%	19.90%	20.30%	22.50%	19.10%	20.99%	
Chorley	16.50%	16.30%	15.10%	17.10%	16.90%	16.60%	14.29%	
Fylde	16.30%	14.10%	18.00%	16.00%	15.40%	12.40%	12.08%	
Hyndburn	18.00%	19.40%	18.50%	18.70%	18.70%	19.50%	20.91%	
Lancaster	16.80%	16.50%	16.80%	16.20%	15.30%	19.10%	17.86%	
Pendle	18.40%	16.30%	17.80%	17.20%	19.10%	19.90%	21.61%	
Preston	16.50%	17.30%	17.00%	18.60%	16.30%	16.40%	17.71%	
Ribble Valley	13.80%	15.30%	12.70%	12.20%	15.30%	11.10%	14.43%	
Rossendale	15.70%	17.90%	20.00%	16.50%	16.90%	18.00%	20.40%	
South Ribble	17.50%	16.30%	18.00%	16.20%	18.00%	18.30%	17.86%	
West Lancs	19.80%	18.80%	19.40%	21.50%	19.50%	20.30%	18.30%	
Wyre	17.70%	16.90%	16.80%	18.50%	15.30%	18.80%	17.37%	
Lancashire-12	17.20%	17.00%	17.60%	17.70%	17.50%	17.90%	18.06%	
Blackburn with Darwen	18.90%	17.90%	18.00%	18.70%	17.40%	19.70%	18.79%	
Blackpool	18.30%	19.60%	18.80%	19.80%	18.00%	20.20%	22.03%	
Lancashire-14	18.10%	18.20%	18.10%	18.70%	17.60%	18.30%	18.31%	
North west	18.30%	18.90%	19.30%	19.70%	19.80%	19.60%	19.84%	
England	18.30%	18.30%	18.70%	19.00%	19.20%	18.90%	19.09%	

**Key findings:**

- ❖ almost a quarter (23.6%) of reception year children were overweight or obese in Lancashire during 2012/13 and in year six the rate was approximately a third (32.9%);
- ❖ 10% of reception age children and 18% of year six children were obese;
- ❖ Hyndburn and Rossendale recorded significantly higher levels of reception age obesity than the England national average;
- ❖ Burnley, Fylde, Hyndburn, Pendle, Ribble Valley, Rossendale and Wyre all recorded significantly higher levels of reception age levels of overweight than the England national average;
- ❖ Burnley, Fylde, Pendle, Ribble Valley, Rossendale and Wyre all recorded significantly higher levels of year six levels of overweight than the England national average.

**Bariatric surgery**

There has been a large increase of bariatric/weight loss surgeries across Lancashire over the past three financial years from 19 in 2010/11 to 56 in 2012/13. Whilst with value and potentially life changing, this type of surgery is not without risk and the following health outcomes have all been identified: infection, blood clots, internal bleeding, excess skin, gallstones, food intolerance and mental health issues.<sup>11,12,13</sup>

**Outcomes**

Evidence shows poor diet and/or being overweight are risk factors for the following health conditions:

- |                            |                                  |
|----------------------------|----------------------------------|
| ❖ asthma                   | ❖ bladder cancer                 |
| ❖ breast cancer            | ❖ colorectal cancer              |
| ❖ coronary heart disease   | ❖ diabetes                       |
| ❖ hypertensive disorder    | ❖ impotence                      |
| ❖ leukaemia                | ❖ lung cancer                    |
| ❖ malignant melanoma       | ❖ mental health disorders        |
| ❖ musculoskeletal problems | ❖ obstructive sleep apnoea (OSA) |
| ❖ oesophageal cancer       | ❖ prostate cancer                |
| ❖ stomach cancer           | ❖ stroke                         |
| ❖ tooth decay              |                                  |

Several of these conditions are presented in [appendix A](#), alongside the latest mortality figures. The mortality statistics show Lancashire has significantly higher mortality rates than England for lung cancer, chronic heart disease, stroke, and oesophageal cancer.

## Physical activity

Physical activity is an important determinant of good physical health and there is a wealth of evidence which also highlights the importance of keeping active for positive mental health and wellbeing. Physical education sessions in schools ensure children are undertaking a number of activities per week, however a drop off tends to occur in these levels when young people leave school. For some this may represent a change in behaviour that continues throughout their adult life with implications for their long-term health.

Inactivity is described by the Department of Health as a silent killer; it is the fourth leading cause of global mortality<sup>14</sup> and studies have shown that physical activity can help reduce the risks of non-communicable or chronic disease and increase healthy life expectancy. As most of these diseases are more prevalent as people age, so the importance of physical activity to public health will increase as the population ages.<sup>15</sup>

The health benefits of being physically active include:<sup>16</sup>

- ❖ up to a 35% lower risk of coronary heart disease and stroke;
- ❖ up to a 50% lower risk of colon cancer;
- ❖ a 30% lower risk of falls (among older adults);
- ❖ a 30% lower risk of early death;
- ❖ up to a 50% lower risk of type 2 diabetes;
- ❖ up to a 20% lower risk of breast cancer;
- ❖ up to an 83% lower risk of osteoarthritis;
- ❖ up to a 68% lower risk of hip fracture; and
- ❖ up to a 30% lower risk of dementia.

During this process we identified the following key data sets relating to physical activity:

- ❖ physical inactivity;
- ❖ cost of physical inactivity;
- ❖ sports participation; and
- ❖ primary method of travel to work.

## Physical inactivity

The Active People Survey (APS) provides estimates on the number of people aged 16 and over who take part in sport and how often. Across Lancashire 46% of the 6,012 people surveyed stated that they had not engaged in any physical activity over the past 28 days.



Table 9: Participation in physical activity, in the past 28 days

Area	Percentage				Sample size
	None	1 to 11 days	12 to 19 days	20 to 28 days	
England average <sup>a</sup>	47	28	11	14	1,002
North West region <sup>b</sup>	49	26	11	14	1,030
Lancashire	46	27	10	17	6,012
Burnley	55	22	10	13	1,014
Chorley	45	28	12	16	970
Fylde	47	24	13	16	1,014
Hyndburn	53	26	8	14	1,012
Lancaster	46	27	11	16	1,000
Pendle	50	25	11	14	1,009
Preston	48	29	9	15	1,015
Ribble Valley	43	29	12	17	1,013
Rossendale	51	27	9	14	1,000
South Ribble	44	27	12	17	999
West Lancashire	47	29	9	14	1,018
Wyre	50	24	10	16	992

Source: Sport England - Active People Survey Oct 2011- Oct 2013

[a] based on the averages of the combined 24 rolling month result for APS 6&7 (Oct 11 – Oct 13) for all 326 local authorities in England. [b] based on the averages of the combined 24 rolling month result for APS 6&7 (Oct 11 – Oct 13) for all 38 local authorities in the North West.

More detailed analysis of revealed:

- ❖ the numbers of males and females not participating in any sport has increased in England and in Lancashire over the past 12 months (2012/13);
- ❖ Burnley, Chorley, Pendle, Preston, Ribble Valley, West Lancashire and Wyre have seen an overall decrease in sports participation;
- ❖ Fylde, Hyndburn, Lancaster, Rossendale and South Ribble have experienced a decrease in the non-participation of both males and females in sport; and
- ❖ in Pendle, Preston, Ribble Valley and Chorley there has been an increase in female non-participation in sport.

The survey also found that compared to previous years, there has been an overall increase in the desire to participate in physical activity across Lancashire, particularly amongst women.

Table 10: Sports participation - the proportion of people wanting to do more physical activity

Area	Percentage of people who would like to do more sport		
	All	Male	Female
England	58	57	58
Lancashire	54	52	56
Burnley	55	49	61
Chorley	54	53	54
Fylde	54	54	55
Hyndburn	54	54	53
Lancaster	57	55	59
Pendle	55	49	61
Preston	57	56	59
Ribble Valley	54	48	59
Rossendale	60	58	62
South Ribble	50	49	51
West Lancashire	48	44	52
Wyre	50	51	48
Green = increase in last 12 months; red = decrease in last 12 months			

Source: Active People Survey (APS7)

In 2009, Sport England commissioned the British Heart Foundation to calculate the cost impact of physical inactivity by primary care trust (PCT) and by district. In Lancashire the total estimated cost was £22,613,330.

### Sports participation

A key measure from the Active People Survey (ASP) is the 1 x 30 indicator, defined as 'the percentage of the adult population participating in sport, at moderate intensity, for at least 30 minutes, on at least four days out of the last four weeks on one or more day a week'. The latest figures indicate that Burnley, Hyndburn, Pendle, Preston, and West Lancashire have lower levels of participation in sport at a moderate intensity compared to the national average.

More detailed analysis found:

- ❖ Across Lancashire participation in sport and physical activity at least once a week (for 30 minutes) increased for both males and females between 2012 and 2013.
- ❖ Between 2005/6 and 2012/13 those aged 65+ years in Lancashire were found to be the least likely to participate in sport and physical activity.
- ❖ Those aged 16-25 years are consistently found to be the most likely age group to participate in sport at least once a week.
- ❖ People with occupations considered more affluent were found to participate more in sport physical activity during 2005/6 and 2012/13.

- ❖ Those people who have a limiting disability were found to be less likely to take part in sport and physical activity at least once a week.
- ❖ No significant difference was found between sport participation rates for white and non-white people over both measured time periods.

Table 11: Adult participation in physical activity

<b>Adult (16+) participation in sport (at least once a week) by year and demographic breakdown</b>		
<b>Demographic</b>	<b>Lancashire %</b>	
	<b>2005/06</b>	<b>2012/13</b>
All	34%	37%
Male	39%	42%
Female	30%	31%
White	34%	37%
Non-white	36%	36%
Limiting disability	15%	20%
No limiting disability	38%	40%
16-25 years	57%	58%
26-34 years	47%	47%
35-54 years	41%	42%
55-64 years	24%	29%
65+ years	16%	19%
NS SEC1-4	37%	39%
NS SEC 5-8	28%	32%

NS SEC = National Statistics Socio-economic Classification.

Source: Active People Survey (2005/06 and 2012/13)

The Pupil Attitude Questionnaire 2012/13 found there has been a decrease in the proportion of Lancashire pupils who enjoy sport and physical exercise. The districts of Ribble Valley and South Ribble reported the highest levels of positive response whilst Lancaster reported the lowest level.

Table 12: Lancashire Pupil Attitude Questionnaire - proportion of primary school pupils who enjoy sporting activities and physical exercise

Area	2010/11			2011/12			2012/13		
	Pupils	Positive responses	%	Pupils	Positive responses	%	Pupils	Positive responses	%
Burnley	-	-	-	824	786	95.4	1,496	1,388	92.8
Chorley	1,240	1,170	94.4	1,455	1,384	95.1	1,666	1,581	94.9
Fylde	633	587	92.7	667	625	93.7	871	820	94.1
Hyndburn	826	770	93.2	1,120	1,060	94.6	1,303	1,218	93.5
Lancaster	1,046	990	94.7	1,104	1,028	93.1	1,656	1,489	89.9
Pendle	75	718	95.7	547	530	96.9	1,086	1,011	93.1
Preston	1,150	1,083	94.2	1,278	1,206	94.4	1,996	1,881	94.2
Ribble Valley	505	483	95.6	643	612	95.2	720	688	95.6
Rossendale	665	641	96.4	538	499	92.8	764	724	94.8
South Ribble	921	868	94.2	956	909	95.1	1,199	1,136	94.7
West Lancashire	1,192	1,123	94.2	1,196	1,119	93.6	1,691	1,574	93.1
Wyre	632	605	95.7	626	568	90.7	1,039	970	93.4
Lancashire	10,002	9,441	94.4	10,954	10,330	94.3	15,487	14,480	93.5

*Gaps in district data are due to low response rate*

### Primary method of travel to work

The Census 2011 asked people to state their primary method of travel to work with 8.4% of respondents from Lancashire indicating they either cycled or walked to work compared to the England figure (8.8%). Recent studies have found that changes to the built environment, including providing high-quality, traffic-free routes for walking and cycling and making improvements to current infrastructure such as improving walkability and increased street lighting and furniture can lead to increased levels of physical activity and active transport such as cycling, running and walking to work.<sup>17,18,19</sup>

### Outcomes

Evidence shows that physical inactivity is a risk factor for the following health conditions:

- ❖ breast cancer
- ❖ colorectal cancer
- ❖ coronary heart disease
- ❖ dementia
- ❖ depression
- ❖ diabetes
- ❖ excess weight
- ❖ hypertensive disease
- ❖ impotence
- ❖ lung cancer
- ❖ osteoarthritis
- ❖ stroke

The latest Quality Outcomes Framework (QOF) figures show compared to England:

- ❖ all six Lancashire CCGs have significantly higher levels of depression, stroke, coronary heart disease prevalence than the England averages;
- ❖ five have significantly higher levels of cancer prevalence;
- ❖ four have significantly higher levels of dementia prevalence;

- ❖ three have significantly higher levels of obesity prevalence;
- ❖ three have significantly higher levels of hypertension prevalence; and
- ❖ one had significantly higher levels of osteoarthritis prevalence.

Several of these conditions are in [appendix A](#), alongside the latest mortality figures. These statistics indicate that Lancashire has significantly higher mortality rates than the England rates for lung cancer, chronic heart disease and stroke.

## Sexual health

Sexually transmitted infections (STIs) and human immunodeficiency virus (HIV) cause a wide range of illnesses and ill health, they are a significant cause of long-term and serious disability and can lead to premature death.

Unwanted pregnancy has a significant human and life-changing impact on individuals, especially teenagers. Teenage pregnancy can lead to health inequalities and social exclusion, leading to poor health and social outcomes for the mother and baby. The termination of an unwanted pregnancy can have lasting physical and psychological effects, leading to further health problems in the future. Poor access to sexual health services contributes to the increase in STIs, this is important as the rapid diagnosis of STIs allows for fast treatment and prevents more people becoming infected. A person's sexual health is influenced significantly by their sexual attitudes and behaviour.

For this section we identified the following key datasets:

- ❖ sexually transmitted infections; and
- ❖ teenage pregnancy.

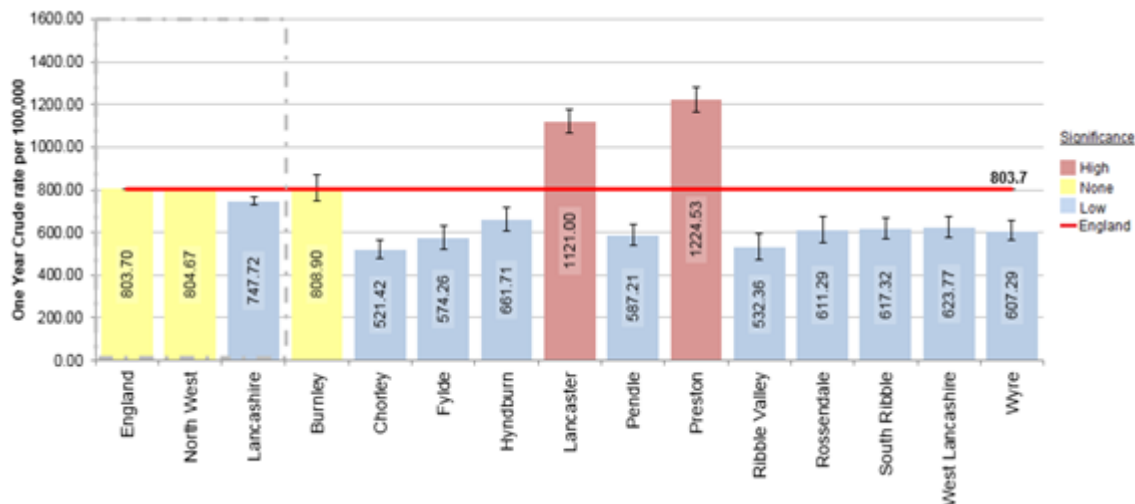
### Sexually transmitted infections

Using figures obtained from Public Health England's Local Health Profiles we were able to examine the crude rates of acute STIs diagnosed in GUM clinics during 2012 and reported in both the Genitourinary Medicine Clinical Activity Dataset (GUMCAD) and the Chlamydia Testing Activity Datasets (CTAD). These figures relate to the following infections: chlamydia, gonorrhoea, syphilis, genital herpes (first episode), genital warts (first episode), non-specific genital infection, pelvic inflammatory disease (PID) and epididymitis, chancroid, lymphogranuloma venereum (LGV), donovanosis, molluscum contagiosum, trichomoniasis, scabies, pediculus pubis, new HIV diagnosis and acute infection.

The statistics show that Lancaster and Preston had significantly higher crude rates of STI than England in 2012. However, these figures need to be interpreted with caution as they only represent a one-year period and STI diagnosis rates are heavily influenced by

screening uptake and coverage. This is particularly relevant for the full year chlamydia screening figures for 2012 which indicate Lancaster and Preston had the highest coverage rate of persons aged 15-24 across Lancashire, and coverage rates above the England average. This could indicate that better coverage is required in the other eleven districts of the Lancashire area in order to obtain a truer picture.

Figure 13: Acute sexually transmitted infections (2012)



Source: GUMCAD, CTAD

### Chlamydia trachomatis

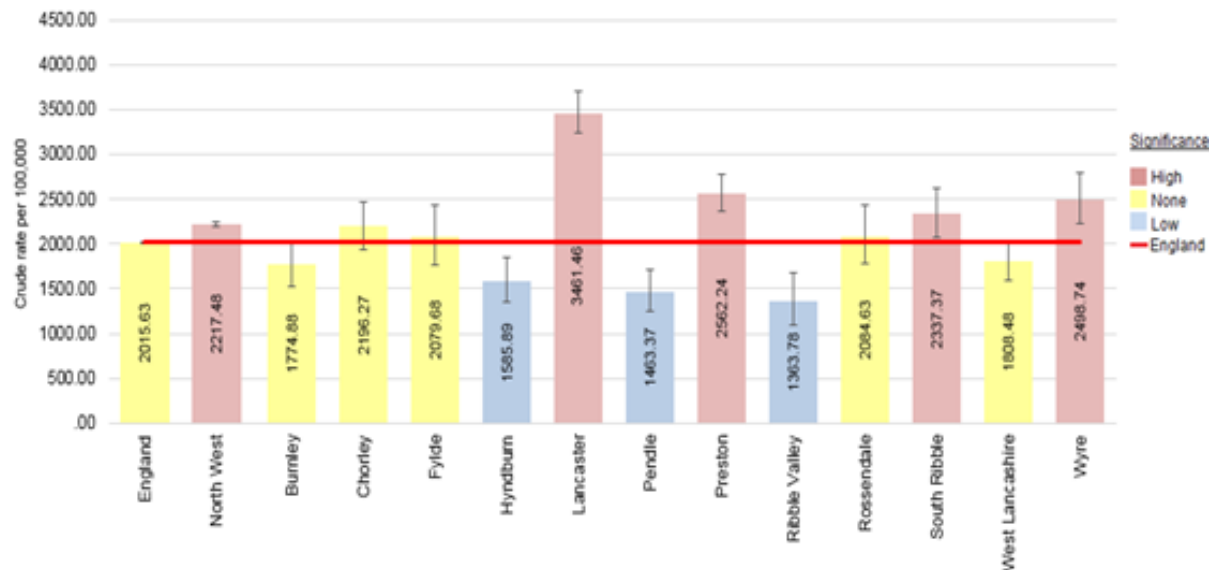
Chlamydia is the most common bacterial sexually transmitted infection in the UK, particularly among young people under 25. Untreated chlamydia is associated with pelvic inflammatory disease (PID), which causes scarring of the fallopian tubes which is associated with ectopic pregnancy and tubal infertility. Chlamydia infection can be effectively cured with antibiotics once it is detected.

A national screening programme for chlamydia was launched in 2003 with a target of screening 50% of all 15 to 24 year olds. Hence good performance is determined by an increase in the number of screenings and therefore potentially an increase in the number of positive tests. In 2013, the proportion of 15-24 year olds tested in Lancashire was estimated to be 21%, below the target and below the national level of 25%. There is a wide variation in screening rates, with six districts having screening uptake rates of less than 20%: Burnley (19%), Hyndburn (16%), Pendle (14%), Ribble Valley (16%), Rossendale (18%) and West Lancashire (19%).

Detailed analysis of the 2013 figures also showed more females (26,155) than males (13,825) were tested, suggesting more work is required to increase screening attendance for males. In terms of positive test results, four districts recorded positive test rates

significantly above the England national average: Lancaster, Preston, South Ribble and Wyre.

Figure 14: Chlamydia positive diagnosis, crude rate per 100,000, all persons, 15-24 year olds, 2013



## HIV and AIDS

Human Immunodeficiency Virus (HIV) is associated with serious morbidity, high costs of treatment and care, and a high number of potential years of life lost. The infection is still frequently regarded as stigmatising and has a prolonged silent period during which it often remains undiagnosed. In total there are 495 residents accessing HIV related care across Lancashire giving the area a prevalence crude rate of 1.02 per 1,000, below the England national rate of 2.01. At a district level, all areas recorded prevalence rates significantly below the national level.

## HIV testing in genitourinary medicine (GUM) clinics

National guidelines recommend that all those attending a GUM clinic should be offered a HIV test.<sup>20</sup> In 2013, a test was offered to 79% of all eligible GUM attendances in England, of which 80% were accepted.

There were 26,859 attendances at GUM clinics by Lancashire residents during 2013 and the test was offered in 82% (22,912), of cases and accepted in 16,632 cases, equating to a 73% uptake rate. At a district level Burnley had the lowest uptake rate of 60%, while West Lancashire had the highest with 82%.



### **Late HIV diagnosis indicator**

The British HIV Association state that late diagnosis is “the most important factor associated with HIV-related morbidity and mortality in the UK”.<sup>21</sup> In view of this, an indicator measuring the 'proportion of persons presenting with HIV at a late stage of infection' has been included in the new Public Health Outcomes Framework. Many areas see relatively few HIV diagnoses each year, and even fewer late diagnoses. This means that the late diagnosis rate can fluctuate greatly from year to year due to chance alone and a three-year rate provides a more accurate figure. In 2011-13 there were 47 late diagnoses out of 102 (46%) across Lancashire.

### **Teenage pregnancy**

The life chances of teenage parents and their children are worse than those of older parents and their children. Teenage mothers are likely to experience a lower standard of living and poorer mental health. The children of teenage mothers are also likely to do less well in educational terms, are more likely to become economically inactive and more likely to become teenage parents themselves. The infant mortality rate for babies of teenage mothers is 60% higher than for older mothers. Around half of teenage conceptions end in abortion suggesting that they are unplanned.<sup>22</sup>

### **Under-16 conceptions**

Nationally, the rate of under-16 conceptions fell 23% between 2005/07 and 2010/12. The North West region also saw its rate decrease 18% in the same period, along with Lancashire (-14%). Within Lancashire the rates (per 1,000) remain high in Burnley (13.8), Preston (7.6) and Hyndburn (7.4). Burnley's rate was the highest in the country in 2010/12. The districts of Wyre, Burnley and Fylde saw substantial percentage increases in their rates between 2005-07 and 2010-12 (22%, 20% and 14% respectively); whilst in Pendle there was a 30% reduction.

Table 13: Under 16 (Ages 13-15) conceptions (numbers and rates per 1,000) 2005 to 2012

LA Area	2005/07		2006/08		2007/09		2008/10		2009/11		2010/12		% change
	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	No	Rate	2005/07 to 2010/12
Burnley	66	11.5	70	13	66	11.5	70	13	62	13.1	64	13.8	20%
Chorley	38	6.5	45	7.7	38	6.5	45	7.7	32	5.5	28	4.9	-25%
Fylde	21	5.1	14	3.5	21	5.1	14	3.5	22	6	21	5.8	14%
Hyndburn	53	10	53	10.1	53	10	53	10.1	41	8.5	35	7.4	-26%
Lancaster	65	7.9	76	9.3	65	7.9	76	9.3	51	7.2	44	6.3	-20%
Pendle	49	8.4	48	8.6	49	8.4	48	8.6	32	6.5	28	5.9	-30%
Preston	76	10	75	10.3	76	10	75	10.3	56	7.9	54	7.6	-24%
Ribble Valley	15	4.1	17	4.7	15	4.1	17	4.7	10	3	11	3.3	-20%
Rossendale	37	8.1	33	7.3	37	8.1	33	7.3	31	7.8	27	6.9	-15%
South Ribble	41	6.5	41	6.7	41	6.5	41	6.7	40	6.9	38	6.6	2%
West Lancashire	50	7.7	46	7.3	50	7.7	46	7.3	39	6.5	35	5.9	-23%
Wyre	31	5	43	7.1	31	5	43	7.1	40	7.2	33	6.1	22%
<b>Lancashire</b>	<b>542</b>	<b>7.8</b>	<b>561</b>	<b>8.3</b>	<b>542</b>	<b>7.8</b>	<b>561</b>	<b>8.3</b>	<b>456</b>	<b>7.3</b>	<b>418</b>	<b>6.7</b>	<b>-14%</b>
<b>North West</b>	<b>3,520</b>	<b>8.7</b>	<b>3,479</b>	<b>8.9</b>	<b>3,520</b>	<b>8.7</b>	<b>3,479</b>	<b>8.9</b>	<b>2,967</b>	<b>7.8</b>	<b>2,681</b>	<b>7.1</b>	<b>-18%</b>
<b>England</b>	<b>22,518</b>	<b>7.9</b>	<b>22,179</b>	<b>7.9</b>	<b>22,518</b>	<b>7.9</b>	<b>22,179</b>	<b>7.9</b>	<b>18,683</b>	<b>6.7</b>	<b>17,048</b>	<b>6.1</b>	<b>-23%</b>

Source: Office for National Statistics

### Under-18 conceptions

Locally, regionally and nationally the numbers and rates of under-18 conceptions fell between 2005/07 and 2010/12. However the conception rates in Burnley (54.5 per 1,000), Hyndburn (39.9) and Rossendale (37.7) remain particularly high, with the Burnley being the third highest in the country (2010/12). Analysis of the change in rates between 1998/2000 and 2010/12, shows that all districts except South Ribble (+7%), have seen a decrease in their rates, with Hyndburn (-39.7%), Lancaster (-36.9%) and Pendle (-32.5%) seeing the largest improvements.

### Under-18 abortions

Nationally and regionally, around half of teenage pregnancies lead to abortion. Locally, between 2010/12 in Ribble Valley there were 72% pregnancies leading to abortion, this is the seventeenth highest level of under-18 abortions in England.

Table 14: Under-18 (ages 15-17) conceptions leading to abortion, per 1,000, 2005 to 2012

Area	% leading to abortion						% change
	2005/ 07	2006/ 08	2007/ 09	2008/ 2010	2009/ 11	2010/ 12	2005/07 to 2010/12
Burnley	40	44	43	44	46	45	5%
Chorley	46	51	52	54	59	57	11%
Fylde	54	55	56	47	50	35	-19%
Hyndburn	40	40	41	40	42	44	4%
Lancaster	47	47	48	47	48	54	7%
Pendle	44	46	49	52	53	59	15%
Preston	38	40	43	44	42	42	4%
Ribble Valley	64	66	69	72	67	72	8%
Rossendale	47	50	47	43	43	46	-1%
South Ribble	46	47	49	50	50	55	9%
West Lancashire	43	45	47	50	54	53	10%
Wyre	37	44	46	48	46	45	8%
<b>Lancashire-12</b>	<b>44</b>	<b>46</b>	<b>47</b>	<b>48</b>	<b>49</b>	<b>50</b>	<b>6%</b>
<b>North West</b>	<b>46</b>	<b>48</b>	<b>49</b>	<b>49</b>	<b>49</b>	<b>51</b>	<b>5%</b>
<b>England</b>	<b>49</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>52</b>	<b>3%</b>

Source: Office for National Statistics

More information and analysis on teenage pregnancy including district- and ward-level statistics on under-16 and under-18 conception rates, under-19 abortions and repeat abortions can be found on the county council's children and young people's web pages. Additionally, in 2012, partners from across Lancashire worked together to produce a full needs assessment for teenage pregnancy. This needs assessment takes an in-depth look at the issues surrounding teenage pregnancy, from attitudes and education to service provision and support and it is available online.

## Outcomes

The following health conditions also have sexual behaviour as a risk factor:

- ❖ cervical cancer;
- ❖ oesophageal cancer; and
- ❖ skin cancer - immune suppressing illness such as HIV can increase the risk of melanoma.

In almost all cases cervical cancer is the result of a change in cell DNA caused by the human papilloma virus (HPV). HPV is a group of viruses, rather than a single virus and there are more than 100 different types. HPV is spread during sexual intercourse and infection is thought to be very common.<sup>23</sup>

Cervical cancer is not common, and the number of people affected by it could be further reduced by the HPV vaccination, which is believed to prevent at least 70% of the most common types of cervical cancer. In 2008 a nationwide vaccination programme was launched aimed at girls aged 12-13, although it will take a number of years before it has an impact on the diagnoses and mortality rates of this disease. Figures for 2013/14 indicate that Lancashire has an uptake rate of 91%, which is above the England uptake rate of 86%.

The latest cervical cancer incidence rates cover the years 2010/2012 and reveal that there were 190 new cases of cervical cancer diagnosed across Lancashire during this period, with Preston reporting a significantly higher rate than the England average. The latest mortality figures (2011-2013) show that this disease has accounted for 48 deaths over the three-year period, with 42% coming from just three districts: Burnley, Lancaster and Wyre.

## **Stress**

Individual and situational factors, such as the balance between work and family life, social support, individual outlook and personality can affect the likelihood of stress.<sup>24</sup> Stress can contribute to illness directly through physiological effects, or indirectly via health behaviours, for example smoking, drinking and poor eating habits. In 2013, 15.2 million days of work lost in the UK were attributed to sickness, with stress, depression and anxiety recorded as the reason for absence.<sup>25</sup>

During this data analysis process we identified the following key data sets relating to stress:

- ❖ self-reported wellbeing: people with a high anxiety score; and
- ❖ population affected by noise.

## **Anxiety**

The Integrated Household Survey, aimed at persons aged 16+, asks the question "Overall, how anxious did you feel yesterday?" with responses given on a scale of 0-10, where ten is the most anxious. The percentage of those scoring 6-10 (respondents who scored themselves the highest marks) in the question are used to establish an estimated level (%) anxiety in a population.

The latest figures cover the financial year 2012/13 and show that Lancashire recorded a rate of 20.4%, marginally below the England national level of 21% but this wasn't statistically significantly different.

### Percentage of the population affected by noise

Modelled estimates from the Public Health England Outcomes Framework (collated by the Chartered Institute of Environmental Health) show for Lancashire there were 5,958 complaints regarding noise (2012/13). This accounted for 19% of all complaints in the North West region.

There are a number of health conditions where stress can be a prominent risk factor:

- ❖ auto-immune diseases
- ❖ depression
- ❖ digestive problems
- ❖ hypertension (high blood pressure)
- ❖ skin conditions, such as eczema
- ❖ sleep problems
- ❖ weight problems (gain or loss)

From [appendix A](#) we can see that Lancashire has recorded a significantly lower level of mortality from hypertension than the England national level. The latest QOF figures show that three of the six CCGs covering Lancashire have significantly higher levels of hypertension prevalence than the England rate. All six CCGs have significantly higher levels of depression prevalence than England

### Substance misuse

Drug and alcohol misuse are complicated cross-cutting issues that continue to present significant challenges both locally and nationally. Drug-related harm varies according to the different types of drugs being used, the way it is used, the interaction with other substances and the social context in which they are used. Drugs impact on those involved in misuse and on society as a whole. From crime in local neighbourhoods and families affected by dependency to the corrupting effect of drug dealing and international organised crime, drugs have a profound and negative effect on communities, families and individuals.<sup>26</sup>

We identified the following key data sets relating to substance misuse:

- ❖ adult drug misuse;
- ❖ numbers in drug treatment services; and
- ❖ substance misuse by children and young adults.

### Adult drug misuse

Public Health England publishes modelled synthetic estimates of crude rates of opiate and/or crack cocaine users, per 1,000 (ages 15-64). The figures are based on persons identified as using drugs, in drug treatment, and from probation, police and prison data. The latest figures cover the financial year 2010/11 and show Burnley (18.7), Pendle

(11.8), Preston (10.9), Hyndburn (10.7) and Lancaster (9.5) all have significantly worse rates of opiate and/or crack cocaine users than England (8.6).<sup>27</sup>

### Drug treatment

Public Health England provides figures on successful completion of drug treatment programmes for opiate and non-opiate users. In 2013 of the 3,793 opiate users (aged 18-75) in treatment programmes across Lancashire only 8.4% (320) were considered to have left drug treatment successfully (free of drug(s) of dependence) and did not re-present to treatment within 6 months. This is above the England average of 8.2%. For non-opiate users this figure was 41% (503 of 1,222 users), above the England average of 40%. This highlights the challenge facing both those that work in the drug treatment programmes and the users themselves.

### Drug use by children and young adults

As part of research conducted by Lancashire Drug and Alcohol Action Team (LDAAT) and Lancaster University, two thirds (66%) of a small focus group of young adults in Lancashire-14 reported that they had tried an illicit drug at least once in their lifetime.

Research by the Drug Education Forum has found that cannabis is the illegal drug most widely used by young people, although misuse of volatile substances (such as glue, gas and aerosols) is commonest among 11 and 12 year olds. In Lancashire 57% of young people in treatment stated cannabis was their main addiction.

Preventive services are having a positive effect. Recent data from LDAAT shows that, between 2011 and 2012 around three quarters of young people in Lancashire-14 successfully ended their treatment without being referred again in the same period. Of the young people in treatment, 77% were aged 15 to 17 years old, with nearly a third (29%) aged 16.

Table 15: LDAAT: drugs used by children and young adults, 2011/12

Area	Referrals	No. in treatment	Rate per 1,000	No. successful completions	% successful completions	Main presenting substance
Lancashire-14	420	564	3.6	259	74%	57% cannabis, 36% alcohol
North Lancashire	112	144	3.4	79	74%	44% cannabis 42% alcohol
Central Lancashire	194	258	4.2	139	77%	66% cannabis 27% alcohol
East Lancashire	216	333	6.4	166	77%	50% cannabis 37% alcohol

Source: LDDAAT

## Substance misuse by groups at risk

The Pupil Attitude Questionnaire (2012/13) indicates that a large percentage of Lancashire secondary school pupils are not concerned about their peers bringing drugs or substances into school. However, in the more deprived districts, the number of positive responses was lower, particularly in Pendle and Burnley.

The majority of children and young people who seek help for substance misuse have other emotional or social problems, such as self-harming, offending, and/or family issues. They are also less likely to be in education, employment or training. Studies have shown that young people from more than one vulnerable group are more at risk of drug or alcohol misuse (NHS Information Centre, 2011). The groups at risk include young offenders, looked-after children, care leavers, children affected by parental substance misuse, homeless young people, young people at risk from sexual exploitation, children excluded from school, and persistent truants.

The children looked after data released annually by the Department for Education indicates that Lancashire has a higher proportion of children looked after that misuse substances, than seen nationally and regionally.

Table 16: Substance misuse by children who have been looked after continuously for at least 12 months

Area	2008/09	2009/10	2010/11	2011/12	2012/13
Lancashire	6.0%	4.7%	1.7%	5.2%	3.8%
North West	6.0%	3.8%	3.6%	4.8%	3.3%
England	5.1%	4.3%	4.3%	4.1%	3.5%

## Outcomes

Alongside addiction issues and risk of mortality from drug use, evidence suggests that cannabis use increases lung cancer risk<sup>28,29</sup> and the risk of developing mental health problems.<sup>30</sup> The latest mortality figures for lung cancer show that Lancashire has a recorded rate significantly above the England average.

## Tobacco

The tobacco epidemic is one of the biggest public health threats, killing nearly six million people a year, with up to half of all smokers expected to die of a tobacco-related disease. Studies suggest that nicotine, a psychoactive component of tobacco, plays a major role in tobacco dependence and is highly addictive. However, it is primarily the toxins and carcinogens in tobacco smoke that cause illness and death.<sup>31</sup>



Tobacco is most often smoked, usually in the form of cigarettes, cigars, or in pipes. Other methods of consumption include water pipes (shisha/hookah), chewing tobacco, snuff, and bidis (hand-rolled cigarettes). All these products contain nicotine.

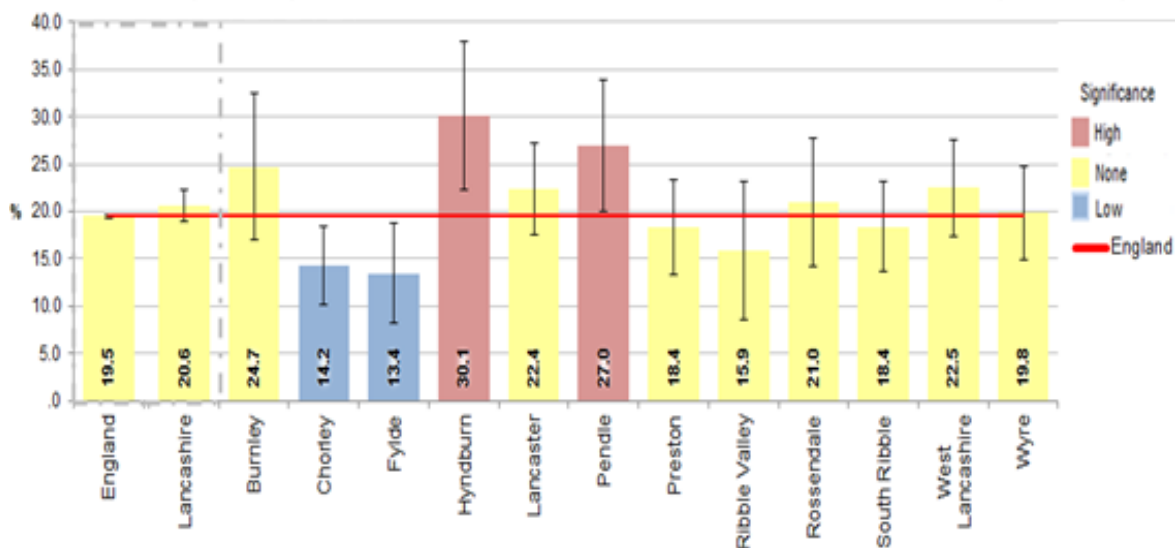
For this section we identified the following key data sets relating to tobacco:

- ❖ smoking prevalence;
- ❖ smokers with long-term conditions;
- ❖ smoking in pregnancy (smoking status at time of delivery);
- ❖ smoking-attributable hospital admissions;
- ❖ smoking-attributable mortality;
- ❖ smoking-attributable mortality from heart disease;
- ❖ smoking-attributable mortality from stroke; and
- ❖ smoking and young people.

### Smoking prevalence

Smoking prevalence estimates taken from responses to the 2013 Integrated Household Survey (IHS) suggest that 20% of Lancashire's population are smokers, above the estimated national estimate of 18%. At a district level three districts were estimated to have significantly higher smoking prevalence rates than the national average: Hyndburn (29%), Lancaster (24%), and Preston (27%).

Figure 15: prevalence of smoking amongst persons aged 18 and over



Source: Integrated Household Survey (IHS) 2012

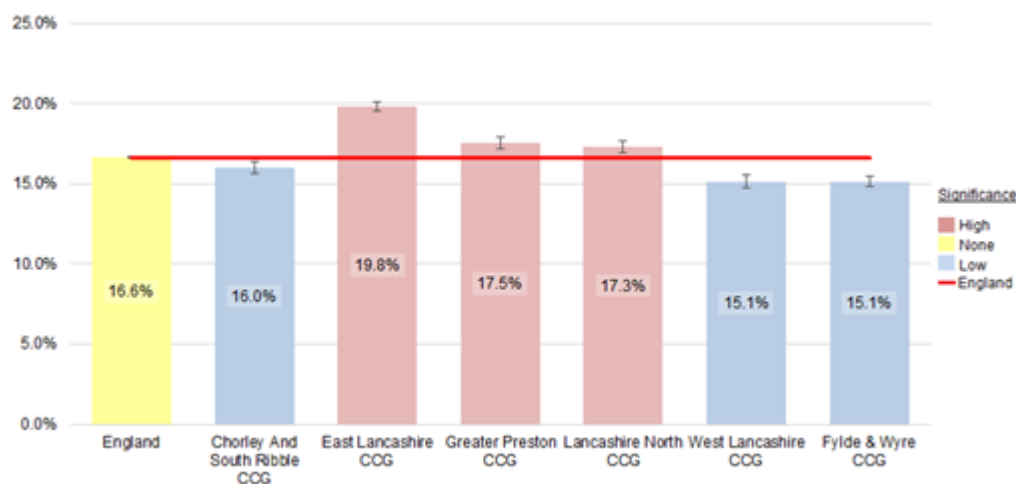
### Smokers with long-term conditions

Smokers with long-term conditions incorporate the percentage of patients with one or any combination of the following conditions: chronic heart disease (CHD), peripheral artery

disease (PAD), stroke or transient ischaemic attack (TIA), hypertension, diabetes, chronic obstructive pulmonary disease (COPD), chronic kidney disease (CKD), asthma, schizophrenia, bipolar affective disorder or other psychoses whose notes record smoking status in the preceding 12 months.

The latest QOF figures for 2013/14 indicate that across the six Lancashire CCGs there are 270,230 patients registered with one or more of the above illnesses/diseases. Of these 17% (47,011) had a smoking status of 'current smoker' recorded in their notes. When this is then split by CCG we find that 35% of the 47,011 patients came from the East Lancashire area and that along with Greater Preston and Lancashire North CCGs, it was reporting a prevalence level significantly above the England national average.

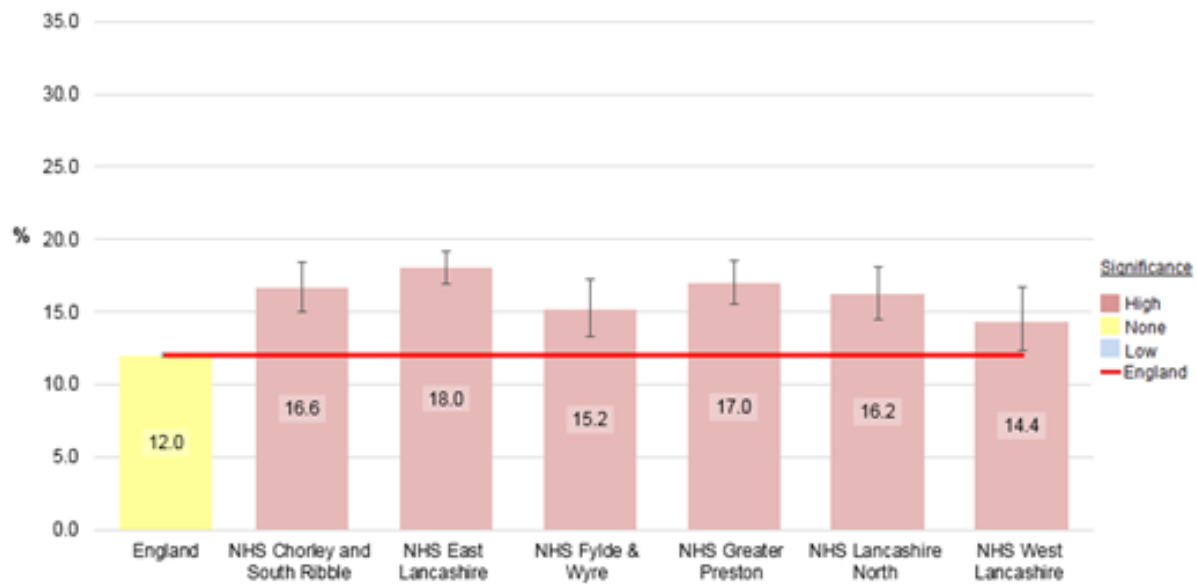
Figure 16: Proportion of GP patients registered with a long-term condition who smoke, by CCG, QoF 2013/14



### Smoking status at time of delivery

Maternal smoking is a major risk factor for low birth weight<sup>32</sup> with babies born to women who smoke are on average 200-250 grams lighter than babies born to non-smoking mothers. Furthermore it is estimated that maternal smoking causes one third of all pre-natal deaths.<sup>33</sup> More than one quarter of the risk of Sudden Infant Death Syndrome is attributable to smoking, and women who smoke in pregnancy are more likely to be younger, single, of lower educational achievement and in unskilled occupations.<sup>34</sup> Data published by the Health and Social Care Information Centre (HSCIC) for 2013/14 shows that the smoking rates in all Lancashire CCG areas are significantly above the England average.

Figure 17: HSCIC smoking status at time of delivery by clinical commissioning group, 1 April 2013 – 31 March 2014



### Smoking-attributable hospital admissions

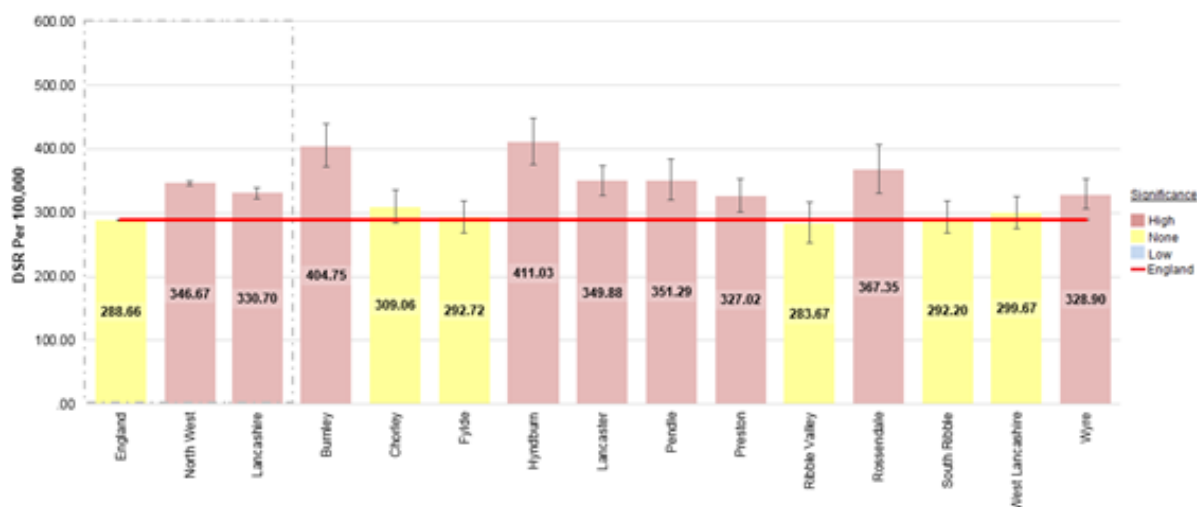
The Public Health England Local Tobacco Control Profiles show that the North West region has the third highest number of hospital attendances (1,608.8 per 100,000 of the population, 2010/11) out of all nine regions in England. Lancashire (1,599.1), has a rate significantly above the England average of 1,419.6.

### Smoking-attributable mortality

The Local Tobacco Control Profiles provide figures on mortality related to smoking, based on deaths of persons aged 35 years and over.\*\* The latest figures cover the period 2011/13 and show that Lancashire has recorded significantly higher rate of mortality attributable to smoking than the England national rate. At a district level Burnley, Hyndburn, Lancaster, Preston, Rossendale and Wyre have also recorded rates significantly above the England national average.

\*\* With relative risk by ICD10 code relating to smoking. A full list can be found in the *Indicator Guide: Health Profiles 2013* (page 246).

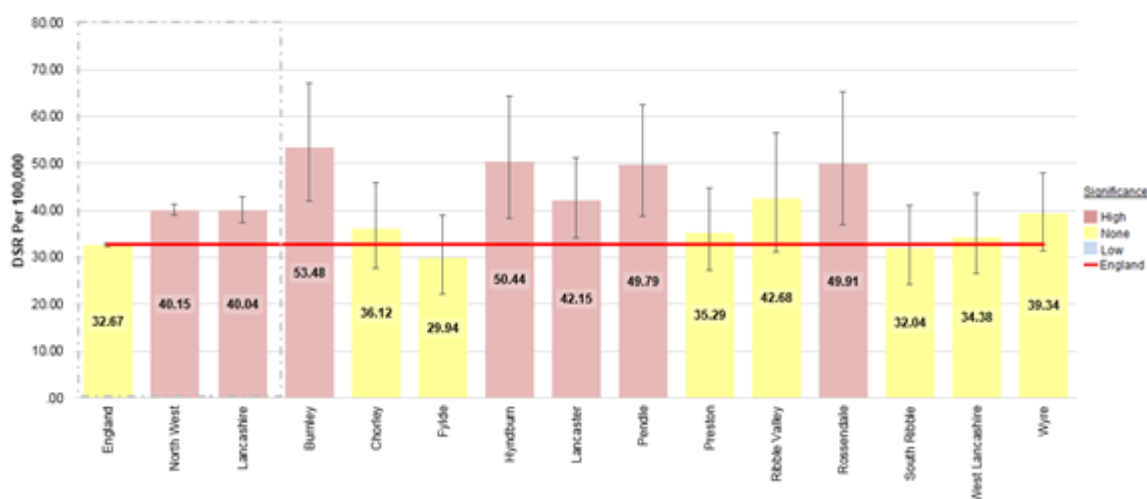
Figure 18: Smoking-attributable mortality, DSR per 100,000 2011/13, Local Tobacco Control Profile data



### Smoking-attributable mortality from heart disease

The latest figures relating to smoking-attributable deaths from heart disease cover the period 2011/13 and show Lancashire has a significantly higher rate of smoking-attributable mortality from heart disease compared to England. Five districts also record rates significantly above England. Furthermore Burnley, Hyndburn, Lancaster, Pendle, Ribble Valley and Rossendale are also in the top 10% of authorities (out of 326 in England) for deaths attributable to smoking-related heart disease.

Figure 19: Smoking-attributable mortality from heart disease, age 35+, DSR per 100,000, 2011/13

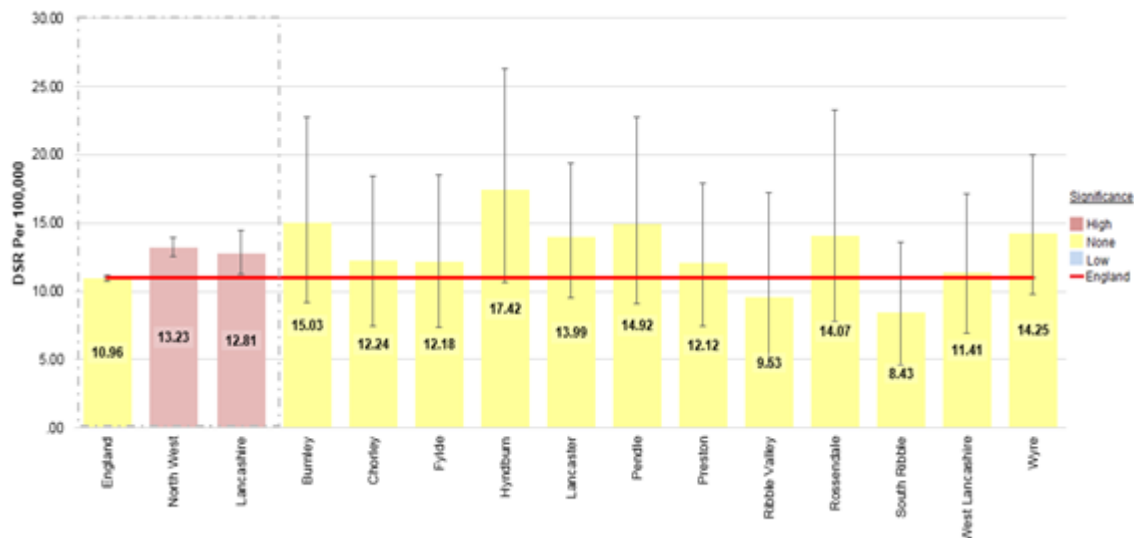


### Smoking-attributable mortality from stroke

The latest figures relating to smoking-attributable deaths from stroke show that Lancashire has a rate significantly above that of England. At a district level Burnley,

Hyndburn and Pendle all fell within the top 10% in England for deaths attributable to stroke.

Figure 20: Smoking-attributable mortality from stroke, age 35+, DSR per 100,000, 2011/13



### Tobacco – children and young people

Tobacco Free Lancashire's mission statement is to make smoking history for children in Lancashire, whilst improving the lives of Lancashire residents by reducing overall tobacco consumption. Tobacco Free Lancashire's ambition is 'to reduce rates of regular smoking among 15-year olds to 12% or less by the end of 2015'. The figure for 15-year olds is currently at 16% (Trading Standards Lancashire Alcohol and Tobacco survey 2013). The districts of Burnley and Fylde have specifically identified reducing smoking prevalence amongst their district priorities.<sup>35</sup>

Emergency hospital admissions for children under-16 years with lower respiratory tract infections continue to rise across Lancashire. Data from 2012/13 shows that West Lancashire falls within the top five districts (based on a crude rate per 100,000 of the population) for admissions in England. Burnley, Hyndburn and Rossendale all fall in the top 20% of local authorities.

The Lancashire Alcohol and Tobacco survey 2013 delivered a return of 3,471 questionnaires from young people aged between 14-17 years across Lancashire. Analysis of responses from the most deprived areas within the county ([appendix D](#)) identified some notable differences between those areas and the rest of the Lancashire. Findings for the most deprived areas include:

- ❖ 63% (from the most deprived area) said that they knew young people who smoked tobacco compared to 54% of respondents in the rest of Lancashire;

- ❖ 54% said that their parents smoked compared to 37% of respondents in the rest of Lancashire;
- ❖ 28% said that they started smoking at aged 12 compared to 15% of respondents in the rest of Lancashire;
- ❖ 21% said that they had bought fake cigarettes compared to 16% of respondents in Lancashire;
- ❖ 32% said that they had experimented with shisha smoking compared to 17% of respondents in the rest of Lancashire; and
- ❖ 32% said that they had bought or tried electronic cigarettes compared to 22% of respondents in the rest of Lancashire.

### Smoking behaviours in young people

The younger the age of smoking uptake, the greater the harm is likely to be as early uptake is associated with subsequent heavier smoking, higher levels of dependency, a lower chance of quitting, and higher mortality.<sup>36</sup> Child and adolescent smoking causes serious risks to respiratory health both in the short and long term. Children who smoke are two to six times more susceptible to coughs and increased phlegm, wheeziness and shortness of breath than those who do not smoke.<sup>37</sup>

It is estimated that each year around 207,000 children in the UK start smoking.<sup>38</sup> Smoking impairs lung growth and initiates premature lung function decline, which may lead to an increased risk of chronic obstructive lung disease later in life. The earlier children become regular smokers and persist in the habit as adults, the greater the risk of developing lung cancer or heart disease.<sup>39</sup>

The data from the Alcohol and Tobacco survey show that 16% of young people in Lancashire claim to be smokers, and while this an improvement on the previous survey it is above the North West average of 15%.

The proportion of young people who claim to have previously smoked, but have now given up (by district):

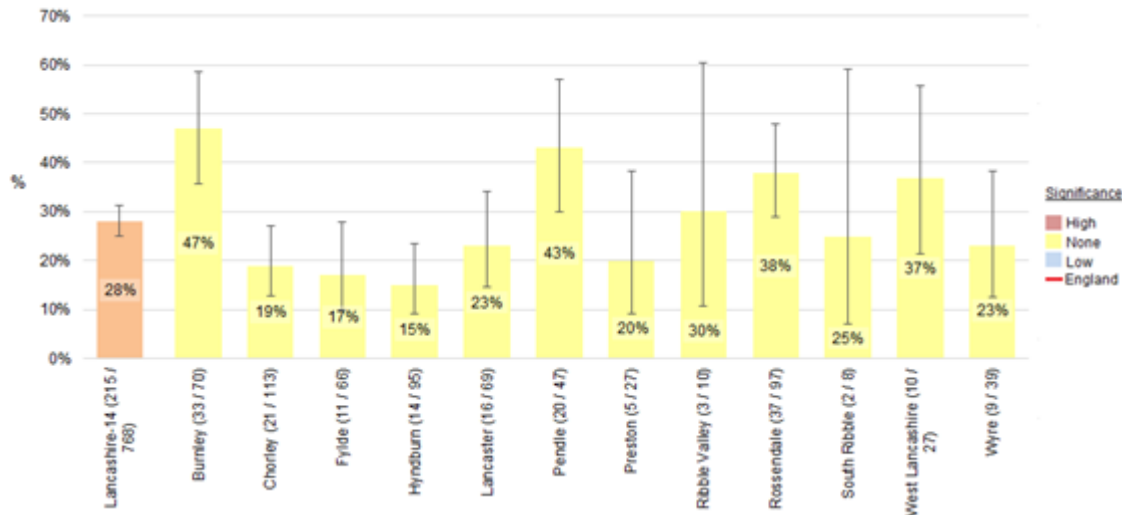
- |                   |                      |
|-------------------|----------------------|
| ❖ Burnley - 6%    | ❖ Fylde - 6%         |
| ❖ Hyndburn - 8%   | ❖ Lancaster - 6%     |
| ❖ Pendle - 11%    | ❖ Preston - 7%       |
| ❖ Rossendale - 8% | ❖ South Ribble - 12% |

The proportion of young people who claim to be regularly smoking 6-10 cigarettes a day:

- ❖ Burnley - 7%    ❖ Pendle - 11%    ❖ Rossendale – 7%

The majority of young smokers claimed to have started smoking around the ages of 13-14, however 27% were 12 or under when they first smoked a cigarette.

Figure 21: Trading Standards Lancashire Alcohol & Tobacco Survey 2013 - Young smokers who claimed to have started smoking around the ages of 13-14



Evidence shows that if young people's smoking is delayed, they have a better chance of quitting successfully in later life. This means that interventions which achieve this delay can be cost effective. Research from 'Smoking, drinking and drug use among young people in England' in 2010 showed that:

- ❖ Around two-thirds (67%) of regular smokers aged 11-15 reported that they would find it difficult to not smoke for a week, while almost three-quarters (73%) reported that they would find it difficult to give up smoking altogether;
- ❖ Addiction can start early among 12-13 year old occasional smokers, two-thirds showed one or more symptoms of nicotine dependence;<sup>40</sup> and
- ❖ Young smokers are at an increased risk of illegal drug use.

### Parental influence

Children who live with parents or siblings who smoke are up to three times more likely to become smokers themselves than children of non-smoking households.<sup>41</sup> It is estimated that each year at least 23,000 young people in England and Wales start smoking by the age of 15 as a result of exposure to smoking in the home.<sup>42</sup>

Data from the Lancashire Alcohol and Tobacco Survey 2013 show that 40% of all young people completing the survey in Lancashire say that their parents or guardians smoke.



### Parental and peer supply

The survey data looked at where young people obtained their tobacco/cigarettes. From 917 responses, 19% of young people claimed to get their cigarettes from parents or guardians, the North West average was 17%. Additionally 32% claimed that they obtain them from brothers/sisters/friends aged 18 and over.

Figure 22: Parents/guardians supply me with cigarettes

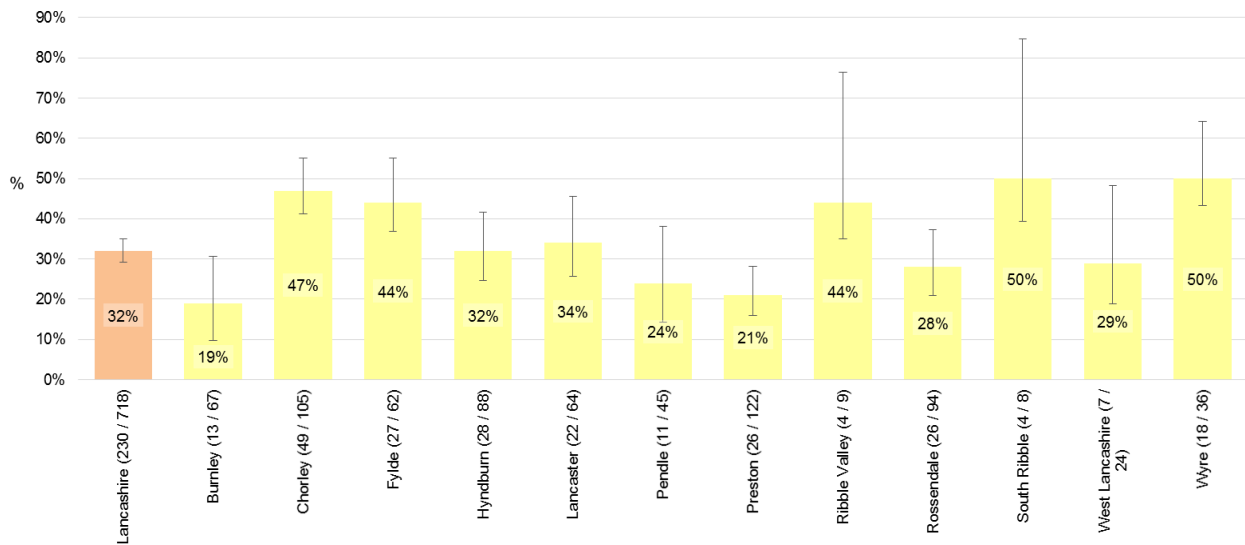
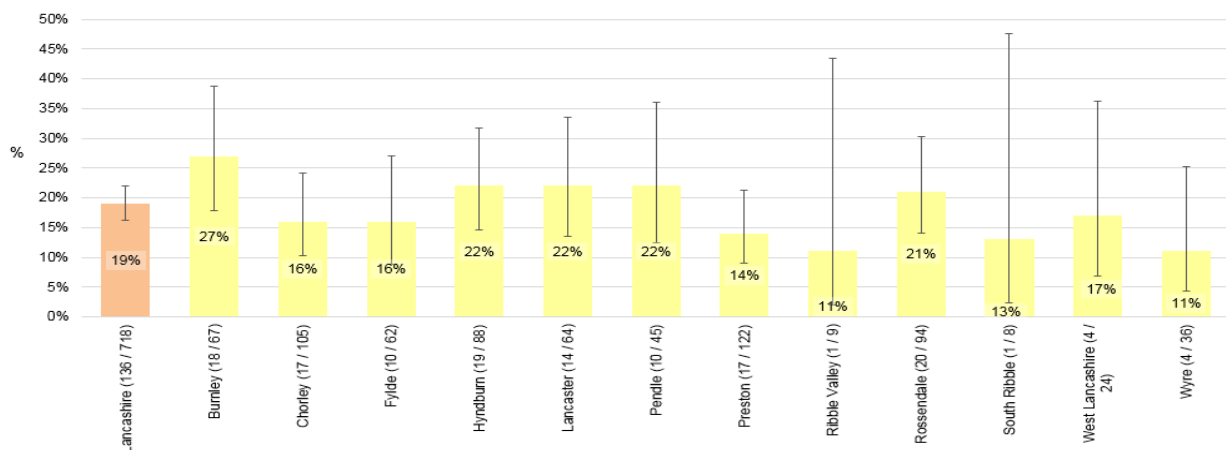


Figure 23: brothers/sisters/friends aged 18+ supply me with cigarettes



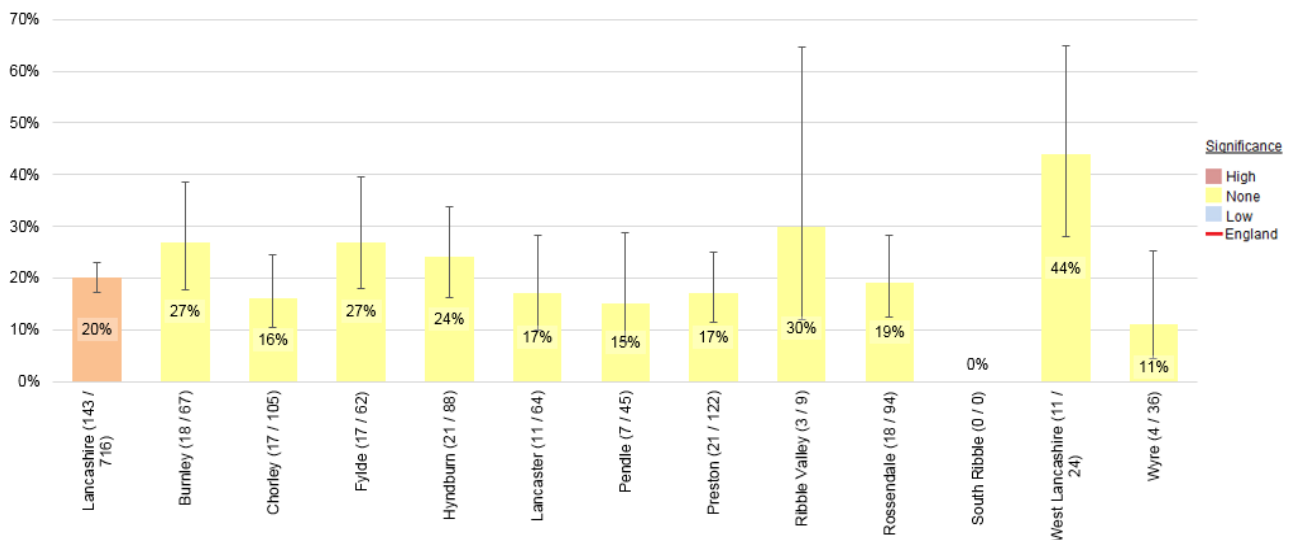
### Counterfeit tobacco – the informal economy

Illegal tobacco offers smokers cheap tobacco products and undermines the positive impact of pricing and taxation policies that are in place to help reduce smoking rates. Illegal tobacco also has a disproportionate impact on people on low incomes and young smokers, as it makes cigarettes/tobacco relatively accessible and cheap.<sup>43</sup>

The Lancashire Alcohol and Tobacco survey 2013 shows that:

- ❖ 20% of young people claim to have bought fake cigarettes;
- ❖ 36% of young people claim to buy cigarettes with health warnings in a different language; and
- ❖ 28% state they have purchased from other sellers – neighbours, market stalls, car boot sales, and ice-cream vans – a 12% reduction since 2011. The figure in the North West is 27%.

Figure 24: Trading Standards Lancashire Alcohol & Tobacco Survey 2013 - Have you ever bought fake cigarettes



### Niche tobacco

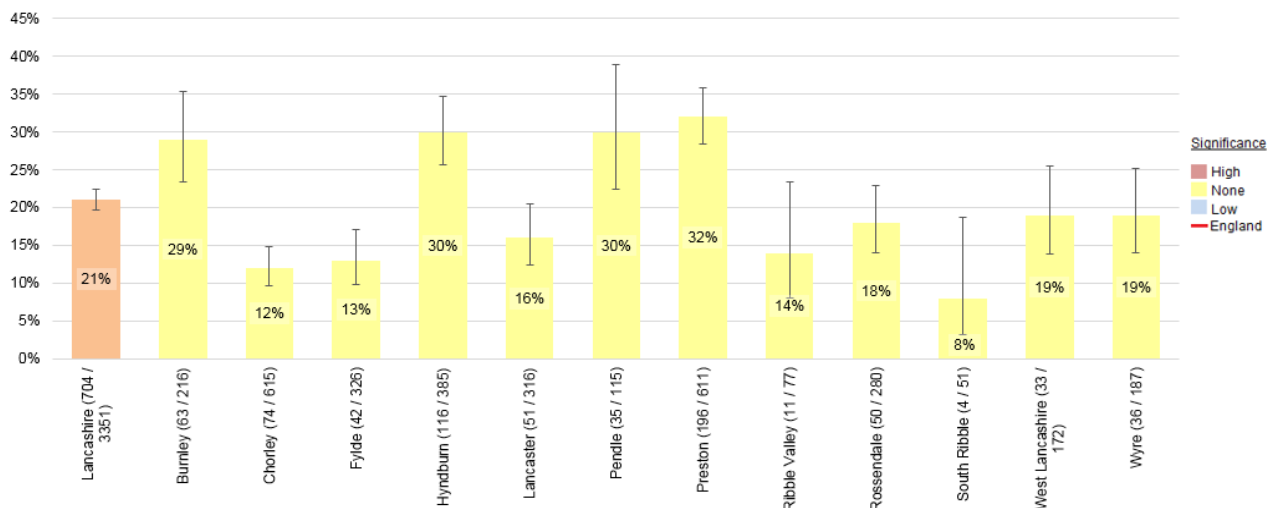
Water pipes – also known as shisha, hookah, narghiles, or hubble-bubble pipes – have long been used for smoking tobacco in the Middle East and parts of Africa and Asia and they are becoming increasingly popular in Western countries. Water pipes can be used to smoke a number of substances, mainly tobacco, which is often flavoured with fruits or sugar syrup; herbal mixtures are also commonly used. There is a misconception amongst some water pipe users that smoking in this way is less harmful and less addictive than cigarette smoking.<sup>44</sup> Although the smoke does pass through the water before it is inhaled this does not filter out any harmful substances in the tobacco/smoke.<sup>45</sup>

Research suggests that water pipe smoking is associated with many of the same risks as cigarette smoking and ‘may incur some unique health risks’.<sup>46</sup> A 2005 report published by the World Health Organization suggests that due to the longer, more sustained period of inhalation and exposure, a water pipe smoker may inhale as much smoke as consuming 100 or more cigarettes during a single session.<sup>47</sup> Over the last few years there has been a growth of 210% in the number of shisha establishments on the high streets across the country.<sup>48</sup>

A survey undertaken in 2012/13 looking at the prevalence of water pipe smoking across Lancashire showed that their usage is more popular among younger people.<sup>49</sup> The Global Youth Tobacco survey of more than half a million young people (13 -15 years old) found a net decrease in cigarette smoking prevalence between 1999-2008 but an increase in other forms of tobacco (attributed to water pipe usage) in 33 of the 97 global sites surveyed.<sup>50</sup>

Data from the Lancashire Alcohol and Tobacco Survey revealed that on average 21% of young people across Lancashire had tried shisha smoking, the North West average was 20%. Shisha cafes (48%) and a friend's house (45%) were identified as the most popular places for young people to smoke shisha in response to the question 'where have you smoked shisha'.

Figure 25: Have you ever smoked shisha?



Almost a fifth (18%) of young people claim to have smoked/used niche tobacco products, including bidis, snuff, khaini, and other chewing tobacco. Ribble Valley (50%), West Lancashire (44%), South Ribble (25%), Pendle (24%), and Burnley (23%) all have higher rates than the Lancashire average (18%).

### Electronic cigarettes

Electronic cigarettes or e-cigarettes are battery-powered devices which can be bought online, from chemists, retail premises and in some pubs. They deliver a hit of addictive nicotine and emit 'smoke' (water vapour), which mimics the feeling and look of smoking. The vapour is considered potentially less harmful than cigarette smoke and is free of some of its damaging substances such as tar. Whether electronic cigarettes are harmful or not is still unclear as the effects of their use have not yet been fully established, although there are concerns about the content of such devices and their effects. It is not

known whether the contents of electronic cigarettes could be damaging to young people's health. Whilst smoking rates have fallen to their lowest level, there is a fear these electronic substitutes could be encouraging teenagers to take up the habit.

The effects of nicotine are well documented, it affects the brain within seconds of inhalation, increasing the user's heart rate and causing a surge in the hormones noradrenaline and dopamine in their brain. This has a positive effect on a user's mood and ability to concentrate, leading to the 'nicotine rush' on which users can become dependent. In between cigarettes, levels of these hormones drop leaving users feeling irritable, anxious and in need of another cigarette. The more a person smokes, the more their brain becomes used to the nicotine, resulting in higher levels of smoking needed to get the same effect.<sup>51</sup>

Within 24 hours, withdrawal from nicotine can cause the following side effects:

- ❖ depressed mood
- ❖ irritability, frustration or anger
- ❖ difficulty concentrating
- ❖ decreased heart rate
- ❖ increased appetite
- ❖ difficulty sleeping
- ❖ anxiety
- ❖ restlessness
- ❖ dizziness

As well as being highly addictive, nicotine can be dangerous if a person has high blood pressure (hypertension). It increases the risk of accelerated hypertension, which is a sudden rise in already-high blood pressure that can cause headaches, blurred vision and vomiting. Nicotine also slows down the body's ability to heal itself.

The British Medical Association states that the use of e-cigarettes "normalises smoking behaviour and they shouldn't be marketed to appeal to non-smokers, particularly children and young people". The government has announced that under-18s in England are to be banned from buying electronic cigarettes. Action on Smoking and Health (ASH) commissioned a survey in March 2013 regarding the use of e-cigarettes amongst children aged 11 to 18. Children who had heard of e-cigarettes were asked about their use and knowledge of them. Awareness of e-cigarettes was very high, however usage was confined almost entirely to children who currently smoke or used to smoke and usage was quite low. The study also showed:

- ❖ 1 in 10 young people aged 16-18 who had heard of e-cigarettes (1 in 20 among 11-15 year olds) have 'tried e-cigarettes once or twice';
- ❖ 1 in 100 young people aged 16-18 year olds and no 11-15 year olds uses e-cigarettes more than once a week; and

- ❖ among young people who have never smoked 1% have 'tried e-cigarettes once or twice', none reported continued e-cigarette use and none expected to try an e-cigarette soon.

At a more local level the Lancashire Alcohol and Tobacco survey showed that:

- ❖ 28% of young people in Lancashire have bought or tried electronic cigarettes (North West average 20%);
- ❖ male respondents (31%) and respondents aged 17 (57%) are more likely to have bought or tried electronic cigarettes; and
- ❖ young people in Rossendale (36%), Hyndburn (35%), Burnley (35%), Preston (33%) and Pendle (32%) are more likely to have bought or tried electronic cigarettes.

## Outcomes

The following health conditions and issues all have tobacco use as risk factor:

- |                        |  |
|------------------------|--|
| ❖ asthma               | ❖ bladder cancer                               |
| ❖ breast cancer        | ❖ cerebrovascular disease                      |
| ❖ cervical cancer      | ❖ coronary heart disease                       |
| ❖ colorectal cancer    | ❖ Hodgkin's lymphoma                           |
| ❖ emphysema            | ❖ impotence                                    |
| ❖ hypertensive disease | ❖ low birth weight baby                        |
| ❖ leukaemia            | ❖ miscarriage                                  |
| ❖ lung cancer          | ❖ peripheral vascular disease                  |
| ❖ oesophageal cancer   | ❖ premature birth                              |
| ❖ pneumonia            | ❖ stomach cancer                               |
| ❖ stillbirth           | ❖ chronic obstructive pulmonary disease (COPD) |
| ❖ stroke               |  |

The latest QOF figures shown in [appendix B](#); show:

- ❖ all six Lancashire CCGs have significantly higher levels of COPD, coronary heart disease and stroke prevalence than the England averages;
- ❖ five have significantly higher levels of cancer prevalence than the England average; and
- ❖ three have significantly higher levels of hypertension prevalence than the England average.

The mortality rates breakdown shown in [appendix A](#); show that the Lancashire county recorded significantly higher mortality rates than the England average for COPD, CHD, lung cancer, pneumonia, stroke and oesophagus cancer.

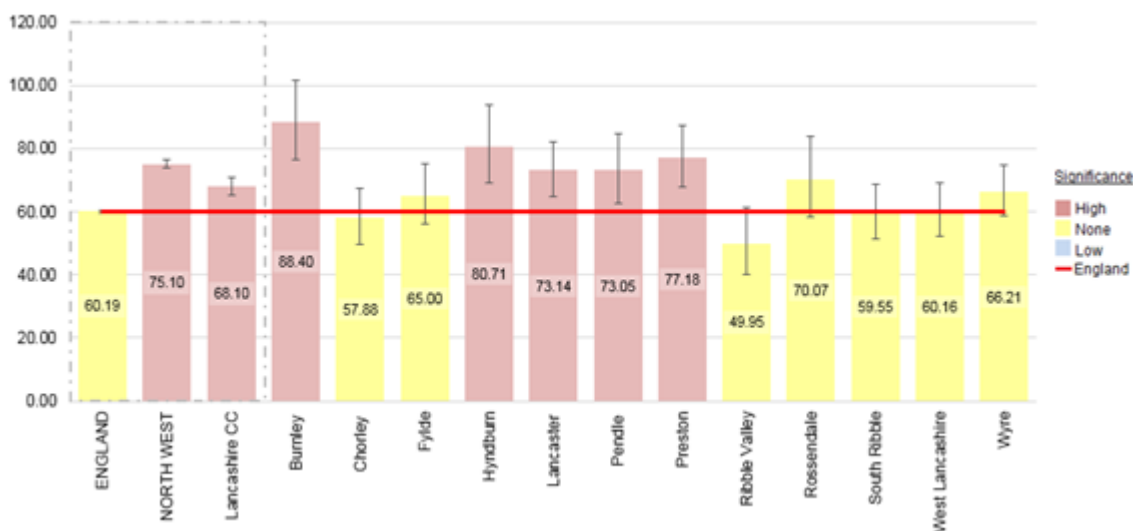
### Lung cancer

Smoking is the biggest risk factor linked to lung cancer, with an estimated 90% of cases associated with smoking cigarettes<sup>52</sup> and we have used this section of the report to provide a focus on lung cancer.

Incidence of cancer refers to the number of new registrations for all cancers excluding skin cancers other than malignant melanoma within a given time period.<sup>53</sup> The latest figures cover the period 2010/12 and show that Burnley, Hyndburn, Lancaster and Preston have incidence rates significantly above the England rate, and are in the worst 20% of all local authorities.

Looking at the latest lung cancer mortality figures (2011-2013), we found that Lancashire (overall), Burnley, Hyndburn, Lancaster, Pendle and Preston recorded mortality rates significantly above the England rate. Further analysis found five of the 12 Lancashire districts fell within the top 20% in England, for all age, lung cancer mortality.

Figure 26: Lung cancer mortality, DSR, 2011-13, all persons, all ages

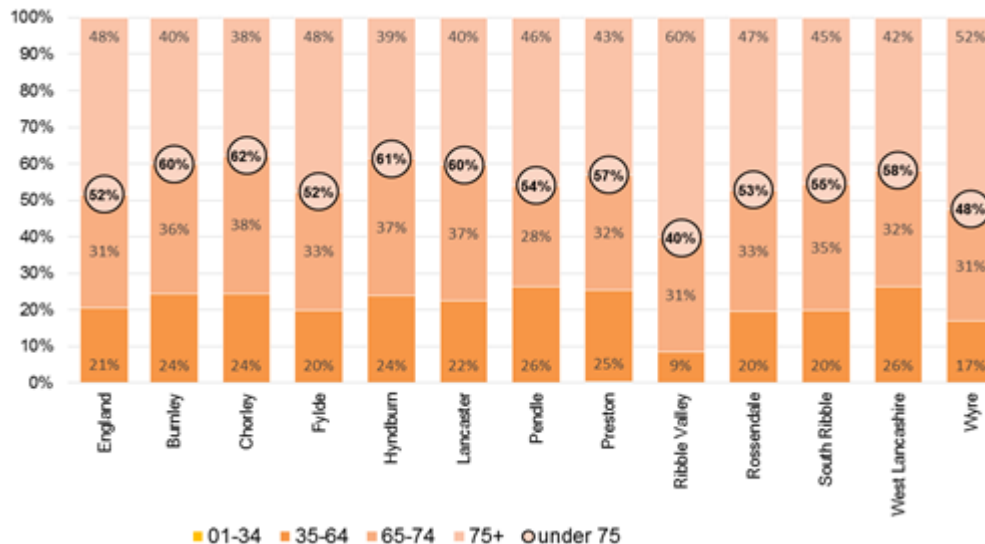


Source: Office for National Statistics

## Age breakdown

Breaking the 2011/13 lung cancer mortality figures into age groups, we find that while most people who died from lung cancer were under the age of 75, there are some big differences between the districts in Lancashire. For example in Ribble Valley 40% of people who died from lung cancer were under the age of 75, however in Chorley, this figure was 62%.

Figure 27: Age breakdown of lung cancer mortality in Lancashire, 2011/13



## Cross-area outcomes

### Low birth weight

Low birth weight (LBW) is defined by the World Health Organization (WHO) as an infant with a birth weight of less than 2,500 grams (5lbs 8oz). Low birth weight babies have a higher chance of infant mortality, morbidity and impaired cognitive development, alongside other health issues, compared with babies of normal birth weight. Research shows that the risk of heart disease, high blood pressure, diabetes and osteoporosis is higher in people who had low birth weight and under nutrition during infancy, in particular a lack of vitamin D is linked to stroke.<sup>54,55</sup>

There is a strong association between LBW and the deprivation status of the mother. Reducing the number of babies of LBW is therefore important in breaking the inter-generational cycle of health inequality. Other factors, which have an impact on birth weight are the general health of the mother, smoking status, nutrition, drug or alcohol use during pregnancy, and socio-economic position. The age of the mother is also important, with teenage mothers more likely to have a LBW baby.



In 2012, the proportion of Lancashire babies born under 2,500 grams had increased to 8.2% and was higher than the England average (7.3%). This was also the case for seven of the Lancashire districts. In Pendle and Hyndburn the proportion was recorded at 9.8%, with Preston just below at 9.7%, the lowest rate of 5.8% was found in Wyre.

**Table 17: Percentage of babies with low birth weight 2009 – 2012**

<b>Percentage of babies with low birth weight (less than 2.5kg)</b>				
<b>Area</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Burnley	9.2%	8.1%	8.4%	8.8%
Chorley	7.8%	7.1%	8.8%	9.3%
Fylde	5.4%	6.9%	5.3%	6.4%
Hyndburn	8.9%	8.1%	7.7%	9.8%
Lancaster	6.2%	5.2%	7.0%	6.9%
Pendle	8.2%	8.8%	9.2%	9.8%
Preston	9.6%	7.9%	8.6%	9.7%
Ribble Valley	6.4%	5.3%	6.8%	6.3%
Rossendale	7.5%	8.5%	7.9%	8.2%
South Ribble	5.7%	7.1%	7.7%	6.7%
West Lancashire	8.3%	7.1%	7.4%	7.5%
Wyre	6.6%	5.8%	7.2%	5.8%
<b>Lancashire</b>	<b>7.7%</b>	<b>7.3%</b>	<b>7.9%</b>	<b>8.2%</b>
<b>North West</b>	<b>7.5%</b>	<b>7.2%</b>	<b>7.4%</b>	<b>7.2%</b>
<b>England</b>	<b>7.5%</b>	<b>7.3%</b>	<b>7.4%</b>	<b>7.3%</b>

Source: Health & Social Care Information Centre HSCIC

## Appendices

### Appendix A: Mortality from unhealthy behaviour 2010/12 – Lancashire

Lancashire		Gender	Observed	DSR (per 100,00)	Significance to England	Links to health behaviours						
						Alcohol	Nutrition 1	Physical inactivity	Sexual activity <sup>2</sup>	Stress	Subs. misuse	Tobacco
Cancer	All cancers (C00-C97)	All	9,847	289.3	High (0.001)							
	Bladder cancer (C67)	All	313	9.2	-		✓					✓
	Breast cancer (C50)	F	644	34.3	-	✓	✓	✓				✓
	Cervical cancer (C53)	F	48	2.6	-				✓			✓
	Colorectal cancer (C17-C21)	All	1,003	29.6	-	✓	✓	✓				✓
	Hodgkin's Lymphoma (C81)	All	16	0.5	-							✓
	Leukaemia (C91-C95)	All	253	7.5	-		✓					✓
	Lung cancer (C33-C34)	All	2,325	68.1	High (0.001)		✓	✓			✓	✓
	Malignant melanoma (C43)	All	118	3.5	-		✓					
	Oesophagus cancer (C15)	All	530	15.6	High (0.001)	✓	✓		✓			✓
	Prostate cancer (C61)	M	634	48.4	-		✓					
	Skin cancer other than melanoma (C44)	All	41	1.2	-				✓			
	Stomach cancer (C16)	All	314	9.3	High (0.025)		✓					✓
Circulatory disease	All circulatory disease (I00-I99)	All	10,388	309.8	High (0.001)							
	Coronary heart disease (I20-I25)	All	5,02	148.9	High (0.001)	✓	✓	✓				✓
	Hypertensive disease (I10-I15)	All	264	8.0	Low (0.001)		✓	✓		✓		✓
	Stroke (I60-I69)	All	2,540	76.3	High (0.001)	✓	✓	✓				✓
Digestive diseases	Chronic liver disease (K70,K73-K74) <sup>3</sup>	All	521	15.0	High (0.001)	✓						
Endocrine & metabolic	Diabetes (E10-E14)	All	354	10.6	-	✓	✓	✓				
Respiratory	Pneumonia (J12-J18)	All	2,096	63.6	High (0.001)							✓
	COPD (J40-J44) <sup>4</sup>	All	1,965	57.8	High (0.001)							✓
	Asthma (J45-J46)	All	66	2.0	-		✓					✓

[1] Includes excess weight, obese and underweight. [2] HPV - human papilloma virus. [3] Mortality from chronic liver disease including cirrhosis. [4] Mortality from bronchitis, emphysema and other COPD.

## Appendix B: Quality Outcomes Framework disease prevalence

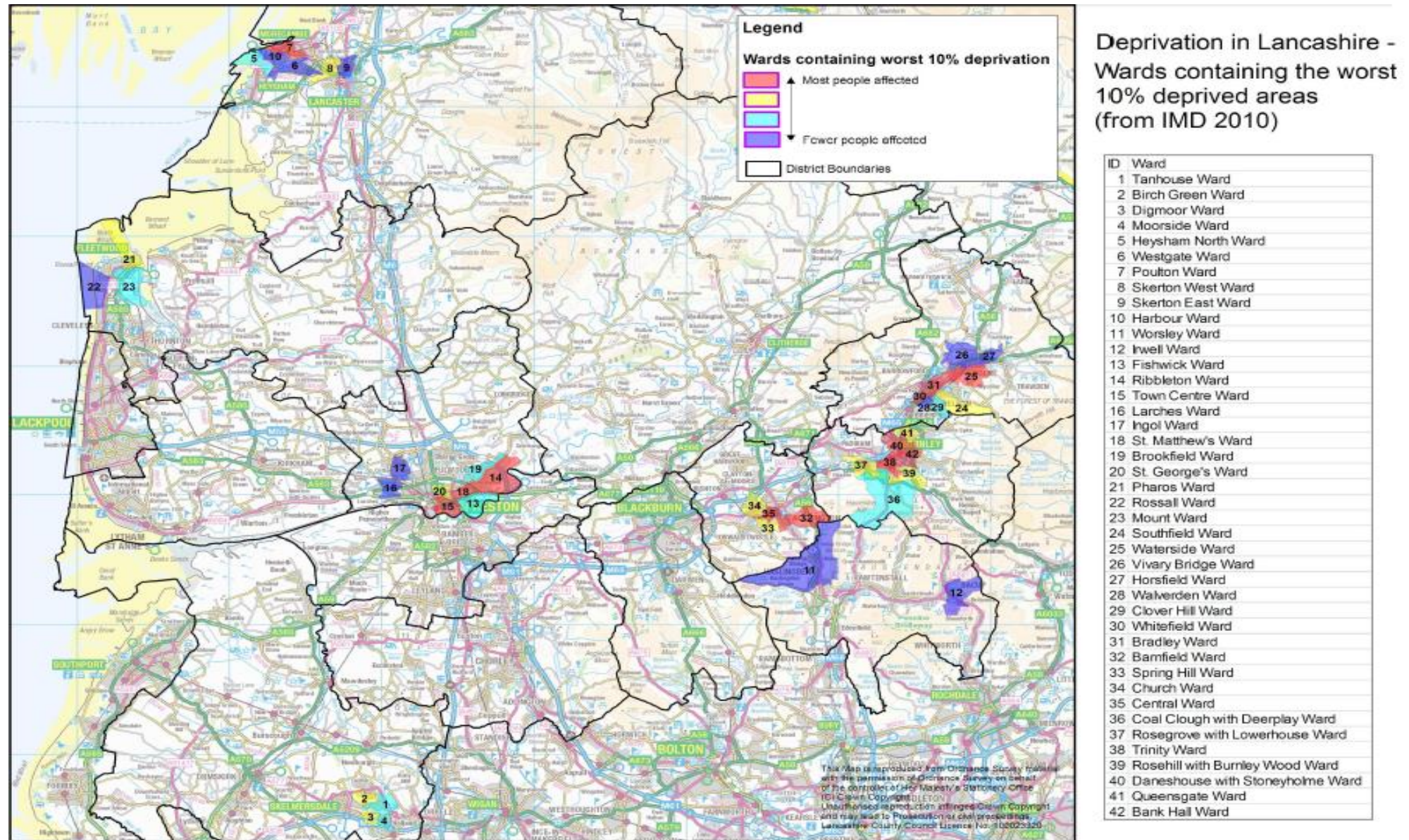
CCG	% prevalence													
	Asthma	Coronary heart disease	Chronic obstructive pulmonary disease	Cancer	Cardiovascular disease primary prevention	18+ years depression	17+ years diabetes mellitus	Dementia	Heart failure	Hypertension	16+ years obesity	50+ years osteoporosis	Peripheral arterial disease	Stroke or transient ischaemic attack
NHS Chorley & South Ribble	6.5	4.1	2.2	2.4	3.3	8.2	6.7	0.7	0.9	14.7	9.7	0.3	0.9	1.9
NHS East Lancashire	7.0	4.1	2.4	2.2	2.9	6.9	6.6	0.6	0.9	13.8	9.8	0.4	1.0	2.0
NHS Fylde & Wyre	6.3	3.5	2.0	2.0	2.7	8.6	6.2	0.6	0.9	13.1	9.2	0.3	0.8	1.8
NHS Greater Preston	6.6	4.0	2.2	2.3	2.9	8.4	6.3	0.8	0.8	13.4	8.5	0.4	1.0	1.9
NHS Lancashire North	6.4	3.9	2.1	2.4	3.2	7.5	6.4	0.7	0.9	15.4	9.5	0.4	0.8	2.0
NHS West Lancashire	6.7	5.2	2.5	3.0	3.7	8.3	6.8	0.9	1.4	17.2	11.1	0.5	1.1	2.5
England	5.9	3.3	1.8	2.1	2.8	6.5	6.2	0.6	0.7	13.7	9.4	0.4	0.6	1.7

## Appendix C: Sport England, Active People Survey 2013-13 self-reported adult weight

Area Name	Weighted Sample	Underweight					Healthy Weight					Overweight					Obese				
		% Underweight	%Point diff. from national rate	Significance	Rank	Percentile Rank	% Healthy weight	%Point diff. from national rate	Significance	Rank	Percentile Rank	% Overweight	%Point diff. from national rate	Significance	Rank	Percentile Rank	% Obese	%Point diff. from national rate	Significance	Rank	Percentile Rank
England	133618	1.2%					35.0%					40.8%					23.0%				
North West	17941	1.3%	0.04%	-	3 Out of 9 regions	75.0%	32.7%	-2.24%	worse	8 Out of 9	12.5%	41.7%	0.88%	-	4 Out of 9	62.5%	24.3%	1.33%	worse	4 Out of 9	62.5%
Blackburn with Darwen	352	1.9%	0.68%	-	53 Out of 326 LA & UA	84.0%	30.2%	-4.75%	worse	261 Out of 326	20.0%	41.5%	0.70%	-	164 Out of 326	49.6%	26.3%	3.38%	worse	67 Out of 326	79.6%
Blackpool	369	0.4%	-0.82%	-	257 Out of 326 LA & UA	21.2%	27.4%	-7.54%	worse	309 Out of 326	5.2%	42.6%	1.82%	-	138 Out of 326	57.7%	29.5%	6.54%	worse	22 Out of 326	93.5%
Lancashire	3002	1.2%	-0.01%	-	8 Out of 27 counties	73.0%	34.0%	-0.94%	-	13 Out of 27	53.8%	41.8%	1.00%	-	19 Out of 27	30.7%	22.9%	-0.05%	-	14 Out of 27	50.0%
Burnley	220	1.9%	0.65%	-	56 Out of 326 LA & UA	83.0%	34.6%	-0.44%	-	146 Out of 326	55.3%	39.3%	-1.56%	-	233 Out of 326	28.9%	24.3%	1.35%	-	114 Out of 326	65.2%
Chorley	282	1.0%	-0.24%	-	159 Out of 326 LA & UA	51.3%	29.9%	-5.06%	worse	268 Out of 326	17.8%	45.6%	4.83%	-	37 Out of 326	90.2%	23.4%	0.47%	-	145 Out of 326	55.6%
Fylde	202	2.1%	0.88%	-	40 Out of 326 LA & UA	88.0%	28.7%	-6.24%	worse	295 Out of 326	9.5%	48.1%	7.27%	worse	8 Out of 326	98.8%	21.1%	-1.90%	-	226 Out of 326	30.7%
Hyndburn	201	0.6%	-0.67%	-	230 Out of 326 LA & UA	29.5%	32.0%	-3.03%	-	216 Out of 326	33.8%	39.8%	-1.02%	-	220 Out of 326	32.3%	27.7%	4.73%	worse	38 Out of 326	88.6%
Lancaster	356	1.3%	0.09%	-	113 Out of 326 LA & UA	65.5%	40.4%	5.45%	better	42 Out of 326	87.3%	41.7%	0.85%	-	158 Out of 326	51.7%	16.6%	-6.39%	better	305 Out of 326	6.4%
Pendle	214	0.3%	-0.95%	-	283 Out of 326 LA & UA	13.2%	32.0%	-2.95%	-	212 Out of 326	35.0%	42.4%	1.61%	-	142 Out of 326	57.8%	25.3%	2.29%	-	90 Out of 326	72.6%
Preston	363	2.9%	1.63%	worse	17 Out of 326 LA & UA	95.0%	41.0%	5.97%	better	37 Out of 326	88.9%	33.2%	-7.65%	better	317 Out of 326	2.9%	23.0%	0.05%	-	156 Out of 326	52.3%
Ribble Valley	148	0.6%	-0.60%	-	213 Out of 326 LA & UA	34.7%	35.0%	0.01%	-	137 Out of 326	58.1%	45.7%	4.92%	-	36 Out of 326	91.1%	18.6%	-4.32%	better	284 Out of 326	12.9%
Rossendale	179	1.2%	-0.06%	-	131 Out of 326 LA & UA	60.0%	29.7%	-5.29%	worse	273 Out of 326	16.3%	43.6%	2.81%	-	101 Out of 326	71.4%	25.5%	2.54%	-	84 Out of 326	74.4%
South Ribble	277	0.6%	-0.67%	-	227 Out of 326 LA & UA	30.4%	33.3%	-1.64%	-	178 Out of 326	45.5%	44.2%	3.36%	-	82 Out of 326	77.8%	21.9%	-1.05%	-	186 Out of 326	43.0%
West Lancashire	286	1.3%	0.07%	-	115 Out of 326 LA & UA	64.9%	35.6%	0.58%	-	125 Out of 326	61.8%	40.7%	-0.17%	-	199 Out of 326	39.7%	22.5%	-0.49%	-	171 Out of 326	47.6%
Wyre	276	0.2%	-1.06%	-	294 Out of 326 LA & UA	9.8%	28.9%	-6.06%	worse	288 Out of 326	11.6%	43.4%	2.62%	-	108 Out of 326	68.4%	27.5%	4.49%	worse	43 Out of 326	87.0%



## Appendix D: Lancashire priority neighbourhoods



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