



# Dudley Strategic Needs Analysis

## Part 2

### Health Risks

**Authors:** Peter Fryers, Head of Public Health Intelligence  
Angela Moss, Public Health Information Analyst

**QA:** Valerie Little, Director of Public Health

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# Commissioning Strategy Needs Analysis

## Health Risks

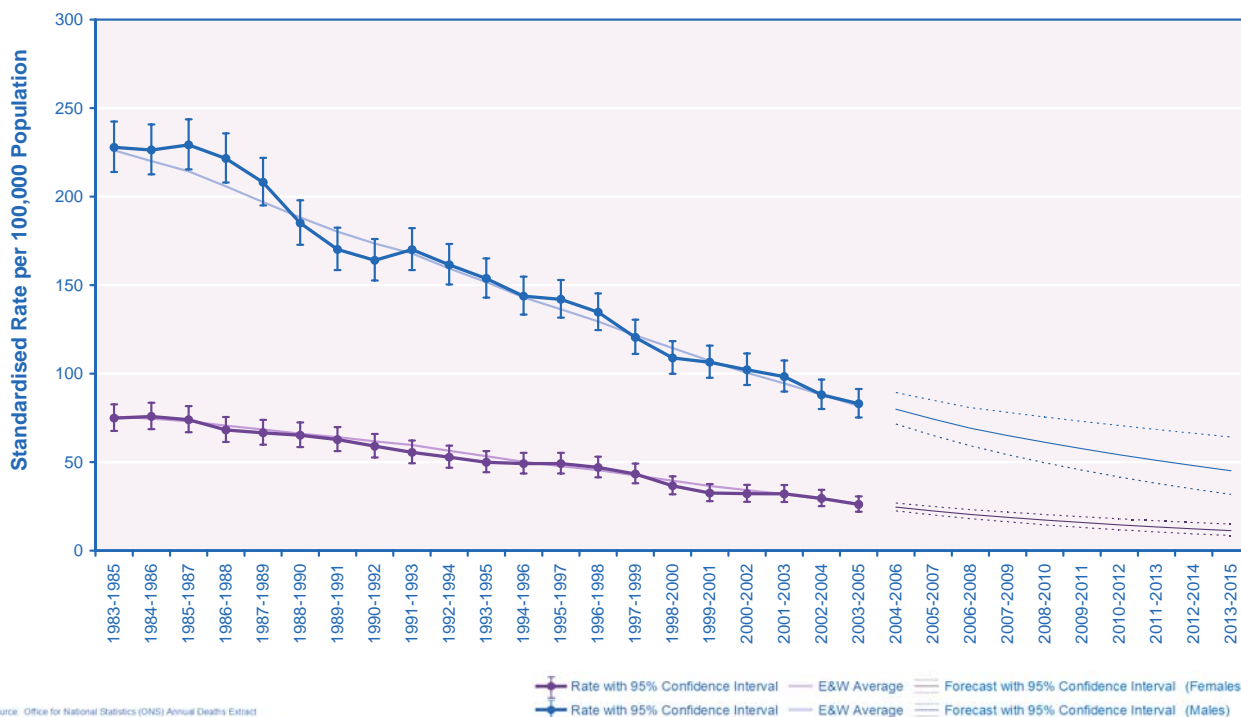
### The Big Killers

- The two biggest causes of premature mortality are circulatory diseases and cancer
- Both have decreased over the last 20 years and more
- Inequalities are greatest for circulatory diseases
- Some areas of Dudley lag ten years behind the district average
- Reducing smoking rates is likely to have the biggest impact
- Accident rates are no lower now than ten years ago
- There has been an upturn in accident mortality rates for women aged 65+

### Coronary Heart Disease (CHD)

CHD is still the biggest cause of premature death of any single disease, accounting for around 200 deaths in the under 75s in Dudley each year. However rates have fallen rapidly and are less than 40% of what they were 20 years ago.

Directly Standardised Mortality Rates from CHD by Year  
3-Year Rates, Dudley MBC, Males & Females Aged Under 75, 1983-1985 to 2013-2015



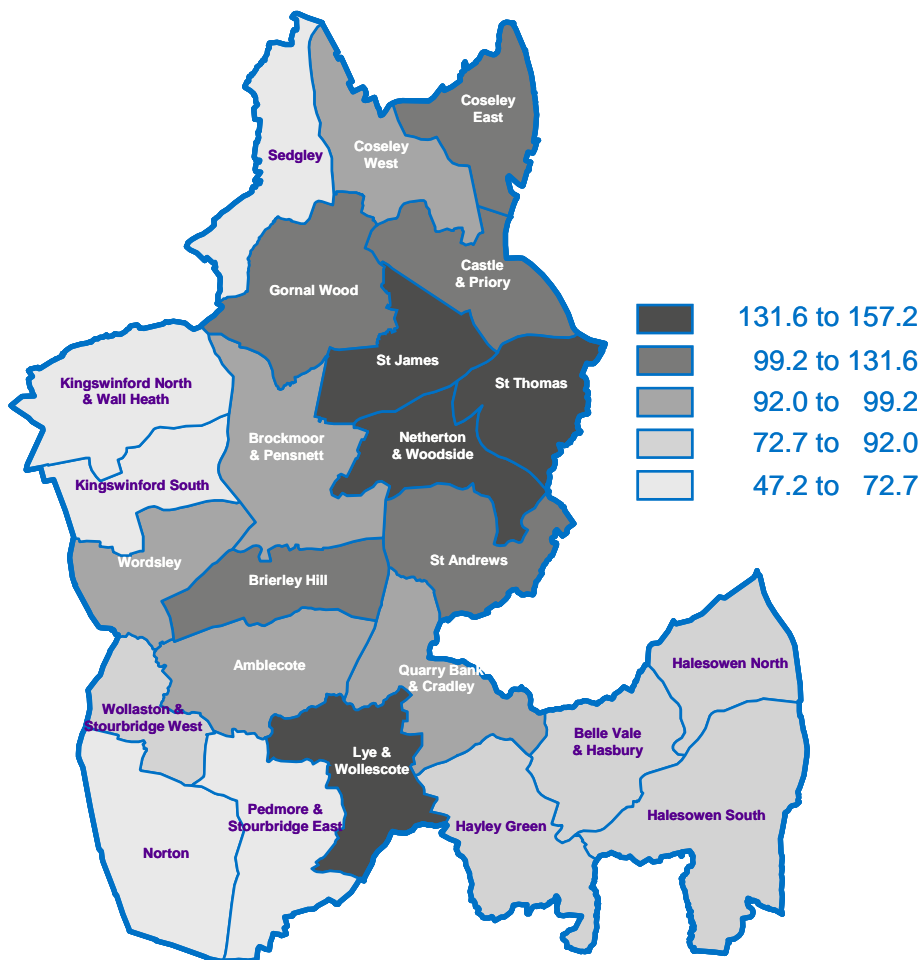
Source: Office for National Statistics (ONS) Annual Deaths Extract  
Office for National Statistics (ONS) Mid-Year Population Estimates

There is no reason to think that this trend will not continue in the short-term. However the rate of decline will slow naturally as the rates approach zero. This will also mean that the reduction for men is likely to carry on faster and longer as the rates for men are nearly three times those for women. Nationally it has been demonstrated that about 42% of the reduction in CHD deaths from 1981 to 2000 could be attributed to medical and surgical treatments, with the remaining 58% due to change in risk factors, with most of this coming from the fall in smoking prevalence. There is still a lot that can be done to reduce smoking prevalence, as still around a quarter of the Dudley

population smokes, but it is also possible that we may eventually see an increasing trend if current trends in obesity and alcohol related diseases continue (see below).

Circulatory diseases as a whole, of which CHD accounts for more than half are also a major factor in overall health inequalities, with rates in some wards more than 3 times those in others. To put this in perspective, it means that the rate in the ward with the highest mortality rate from circulatory diseases (Castle & Priory) is only now at the rate that Dudley as a whole was more than 10 years ago, so some areas are lagging a decade behind in the improved mortality from these diseases. In order to continue the downward trend in premature mortality from CHD a greater degree of targeting resources at the more deprived will be required.

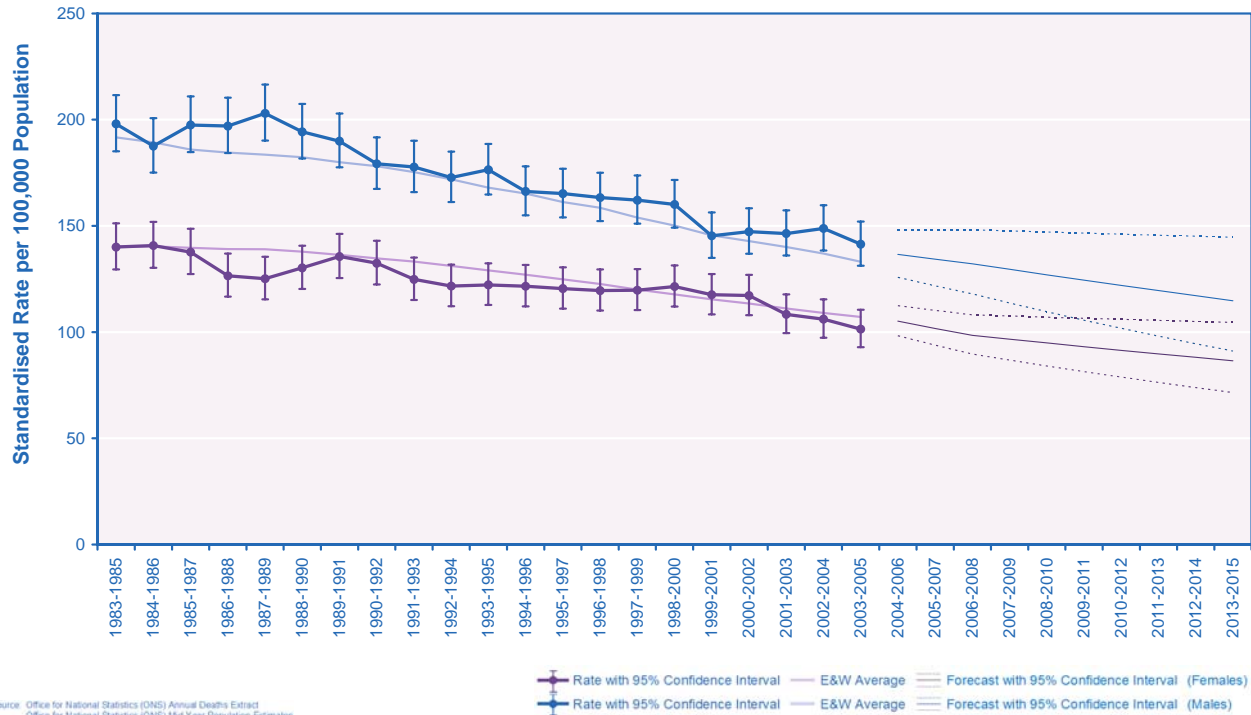
**Directly Standardised Mortality Rates from All Circulatory Diseases by Ward  
3-Year Rates, Dudley MBC, Both Sexes Aged Under 75, 2003-2005**



## Cancer

Cancer as a group of diseases now causes more premature mortality in Dudley than circulatory diseases do. However, cancers cannot be treated as a single disease as different cancers have different causes, treatment and outcomes. As with CHD, cancer mortality has been declining steadily, however, the decline is not as rapid as that for circulatory diseases.

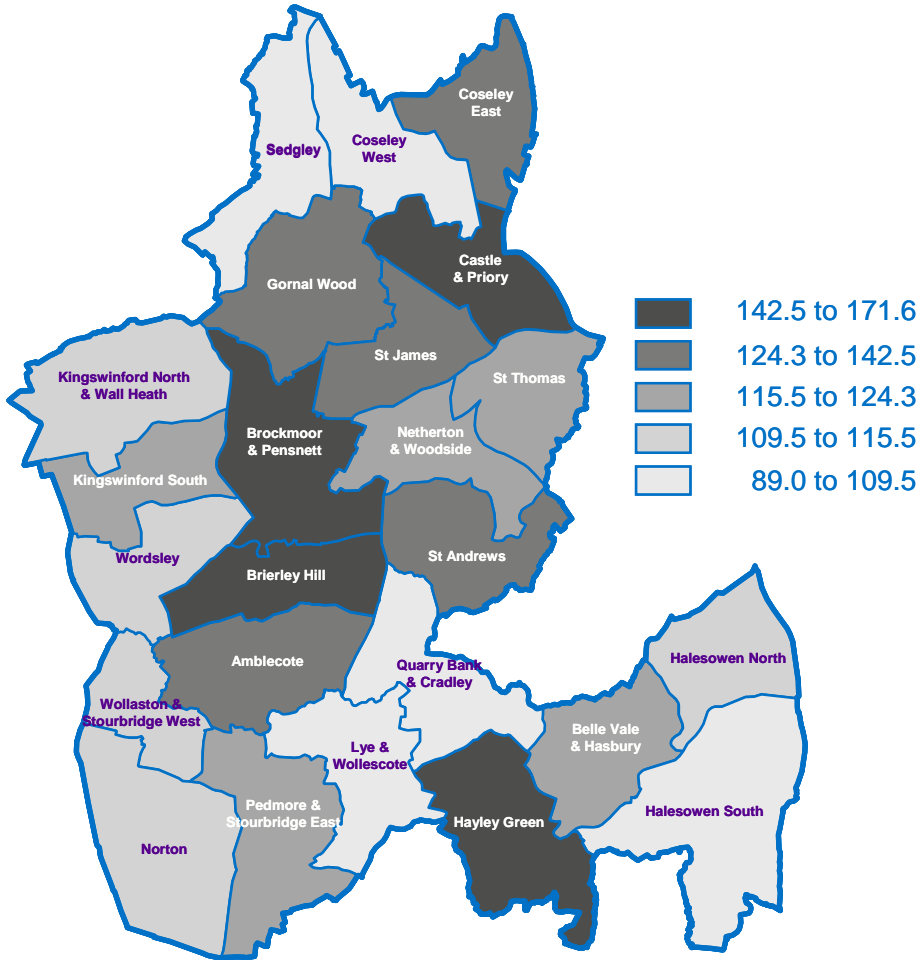
**Directly Standardised Mortality Rates from All Cancers by Year  
3-Year Rates, Dudley MBC, Males & Females Aged Under 75, 1983-1985 to 2013-2015**



Source: Office for National Statistics (ONS) Annual Deaths Extract  
Office for National Statistics (ONS) Mid-Year Population Estimates

Lung cancer is the biggest cause of mortality of any cancer overall, although breast cancer is the biggest cause for women. The patterns of these are very different, although mortality from both is decreasing. Incidence of lung cancer is also on the decrease, whereas incidence of breast cancer is increasing. Lung cancer also affects those in deprived areas more, whereas breast cancer incidence is higher in more affluent areas. It is partly for this reason that inequality in overall premature mortality from cancer between areas of Dudley is less than for circulatory diseases, with rates in the worst ward being less than twice that in the best (compared to about 3½ times for circulatory diseases).

Directly Standardised Mortality Rates from All Cancers by Ward  
 3-Year Rates, Dudley MBC, Both Sexes Aged Under 75, 2003-2005



## Accidents

Although the numbers of deaths from accidents is small compared to the above two causes, they are all considered avoidable and therefore it is an important area of concern. The target set in Our Healthier Nation was to reduce mortality from accidents by 20% by 2010, a target that on current trajectory will be missed. Rates for men are not going down significantly, whereas those for women are increasing. This increase is almost entirely within the 65+ age group, where interventions relating to falls prevention for example are very important.

Directly Standardised Mortality Rates from Accidents by Year  
3-Year Rates, Dudley MBC, Males & Females All Ages, 1983-1985 to 2003-2005



## Prevalence of major diseases

- Monitoring of disease prevalence in the community is becoming much better
- Some diseases are seriously under-diagnosed

Data on the prevalence of diseases in the population are not as accurate as those for mortality for example. However, new data in the last couple of years has become available from GP systems due to the introduction of the new GP contracts. The QMAS system for collecting these data reports the numbers of people on the various disease registers demanded by the contract. However some diseases in particular are known to be under-diagnosed. To get an estimate of the likely levels of under-diagnosis in Dudley a modelled prevalence can be calculated by taking national survey figures for actual prevalence applied to the Dudley population. The table below gives the two prevalence figures for the main disease registers for which models exist.

	QMAS Prevalence	Modelled Prevalence*	Percentage Ratio
CHD	11,906	12,617	94.4%
Stroke	4,280	6,672	64.2%
Diabetes	10,589	13,471	78.6%
COPD	3,921	5,523	71.0%
Treated Epilepsy	2,129	2,038	104.5%
Mental Illness	1,410	1,121	125.8%
Asthma	16,831	35,001	48.1%

Of course the modelled prevalence itself may not be 100% accurate, but the figures demonstrate the under-diagnosis in stroke, diabetes and COPD.

## Prevalence of major health risk factors

- The most important lifestyle factor affecting health is still smoking
- Smoking rates are falling
- Other risk factors are increasing
- A quarter of people in Dudley drink too much
- More than a fifth indulge in binge drinking behaviour
- Only a quarter of the population eat enough fruit and vegetables
- Less than half do enough exercise

The Dudley Health Survey 2004 allowed us to estimate the prevalence of health risk factors in the Dudley population. The table below gives some of the headline figures from the survey.

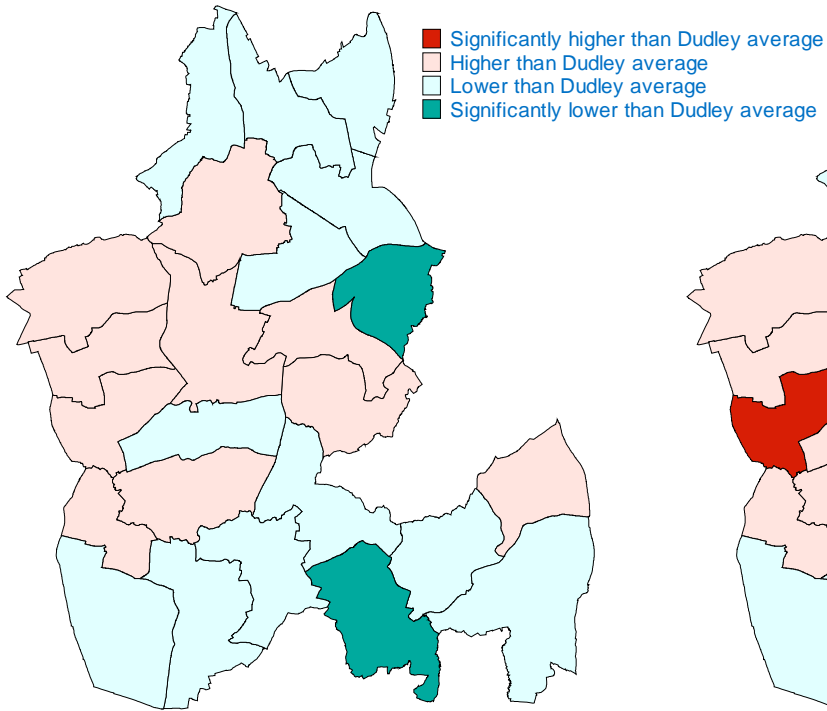
	Proportion of Adult Population
Drinking Heavily in Last Week	24%
Binge Drinking in Last Week	22%
Current Smoker	21%
Obese	17%
Not Eating 5-a-day	75%
Not Exercising Enough	53%

Of all these, smoking has the biggest direct impact on health outcomes, but it is also the only one where trends have been going in the right direction. All the others have increased and are still on the increase. Only a quarter of the population eats the recommended amount of fruit and vegetables and if we look at other diet behaviour from the survey, only around 6% have an overall diet in line with recommendations.

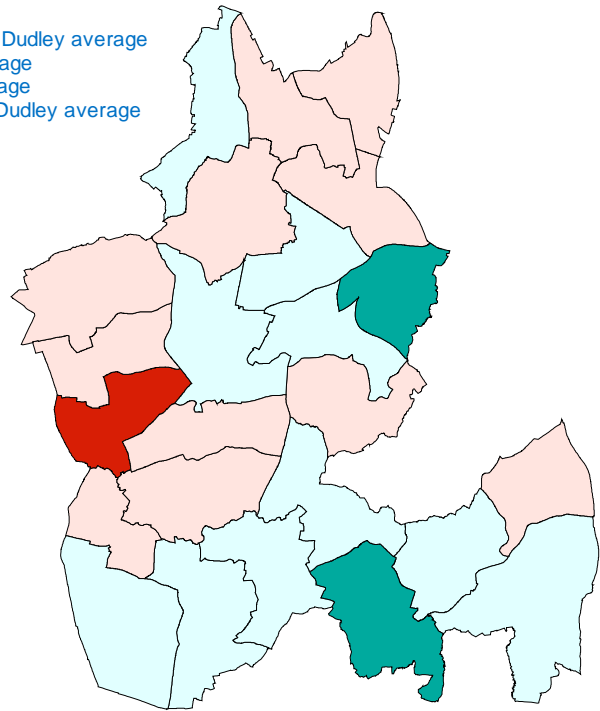
The maps below show how these figures vary by ward and how the geographical variation is slightly different for different risk factors.



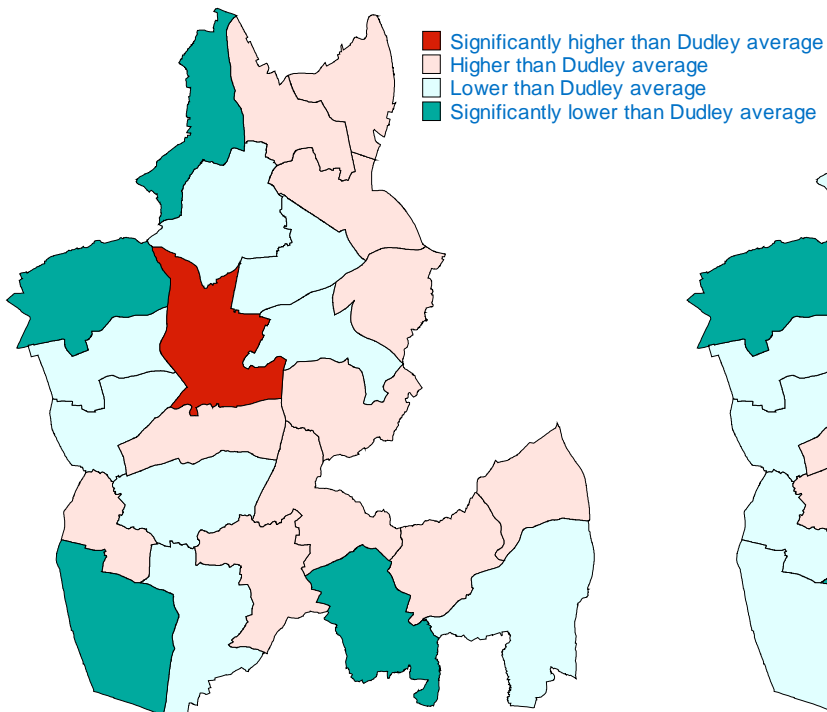
**Drinking Heavily in Last Week**



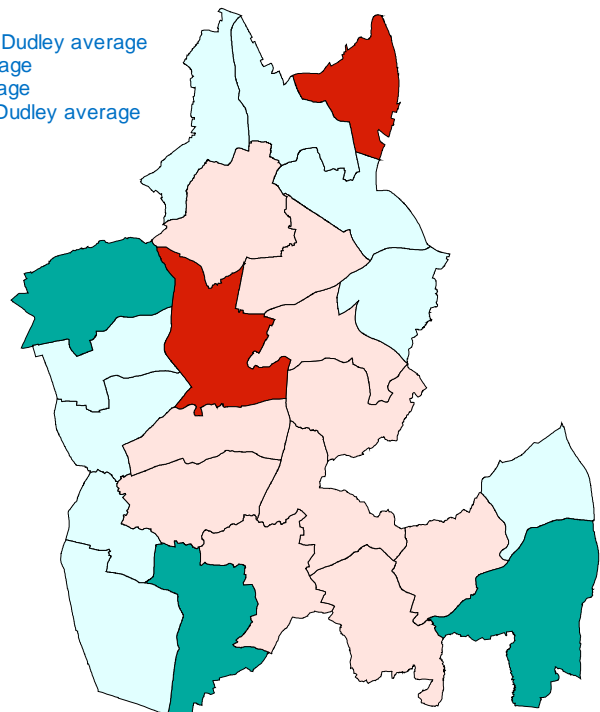
**Binge Drinking in Last Week**

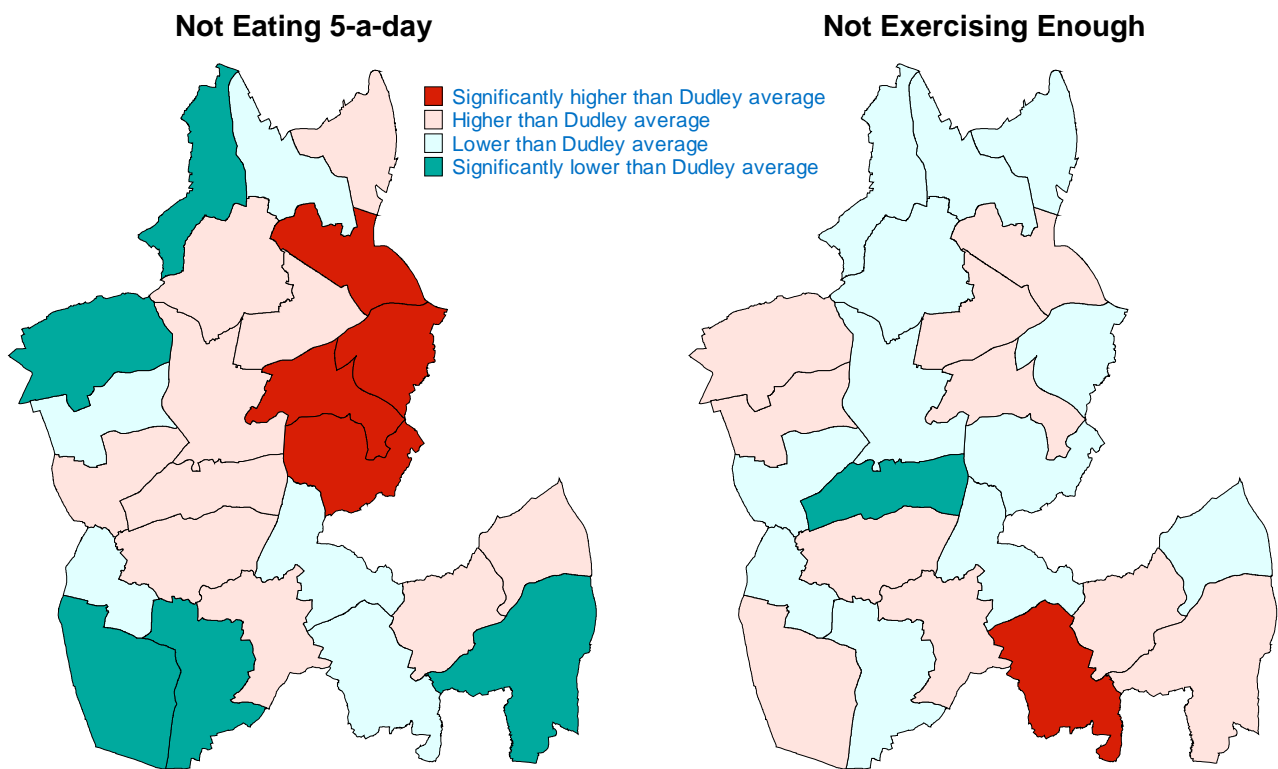


**Current Smoker**



**Obese**





### Deprivation and Inequalities

A major factor cutting across all these outcomes and behaviours is deprivation. A quick visual comparison of the maps of mortality and of risk factor prevalence with the map in the demography section showing the Index of Multiple Deprivation for 2004 shows the correlation between high deprivation and high prevalence and disease rates. In order to tackle inequalities such as these resources need to be targeted both at particular areas of high deprivation and at specific groups who may be geographically dispersed. These are also the areas where most health gain can be made, although by their nature they are also the hardest to reach.

## Major new health risks

- The two most important recent trends in health risk factors are the rise in obesity and the increase in alcohol-related diseases
- Obesity levels in Dudley more than doubled between 1992 and 2004
- The proportion who are morbidly obese has more than doubled
- More than 33% more children are overweight in England than a decade ago
- Alcohol-related diseases have risen rapidly in recent years
- Soon more people in Dudley will die from alcohol-related diseases than die from all strokes

## Obesity

Obesity is recognised as a problem nationally and prevalence has increased to such an extent that it is legitimately described as an epidemic. In 1980 just 8% of the population were obese; in 2003 the figure was 23% and by 2010 the figure is projected to be over 30%. The cost of treating obesity in the NHS is currently £2 billion and this will increase at least proportionally, so could be £3 billion or more by 2010. Two local surveys conducted in 1992 and 2004 show that in Dudley obesity (people with a Body Mass Index (BMI) greater than 30) prevalence has more than doubled in adults over the intervening 12 years. Within this, morbid obesity (BMI >40) has doubled for men and increased by 2½ times in women to 1% and 2% respectively. Obesity levels have a major impact on health services and health outcomes, with people with obesity more likely to contract circulatory diseases, certain cancers and also some chronic conditions. People with obesity who require hospital treatment are also more likely to suffer complications and have longer stays. Surgery can also be more difficult on people with high levels of body fat.

		1992	2004
<b>Men:</b>	BMI >25	49.8 (47.5,52.1)	60.6 (58.9,62.4)
	BMI >30	8.3 (7.1,9.7)	17.7 (16.4,19.2)
	BMI >40	0.5 (-1.6,4.0)	1.0 (0.5,1.7)
<b>Women:</b>	BMI >25	37.3 (35.2,39.5)	47.4 (45.7,49.0)
	BMI >30	10.8 (9.5,12.2)	17.1 (15.9,18.3)
	BMI >40	0.8 (-0.9,3.1)	2.0 (1.4,2.8)

From these figures we can estimate that over 40,000 adults in Dudley are currently obese and the problem is one which is currently getting worse, with all the data indicating that rates of obesity continue to rise. Locally the two surveys indicate that rates have increased across all ages, which suggests that as the current population ages the rates will continue to get worse as more younger people are already obese.

There has also been a dramatic rise in obesity levels in children, suggesting that the problem will get a lot worse before it gets better. In England in 1995 24% of boys and 25% of girls were classed as overweight or obese. In 2004 these had risen to 32½ % and 34% respectively, meaning that for both boys and girls the rates had increased by more than a third in less than 10 years.

Application of national estimates suggest that there are likely to be of the order of **8 – 9,000 obese children in Dudley** and a further **8,000 who are overweight**. This scale of problem requires whole-population level approaches if the Government target of halting the rise in obesity in children up to 11 years old (24) is to be achieved.

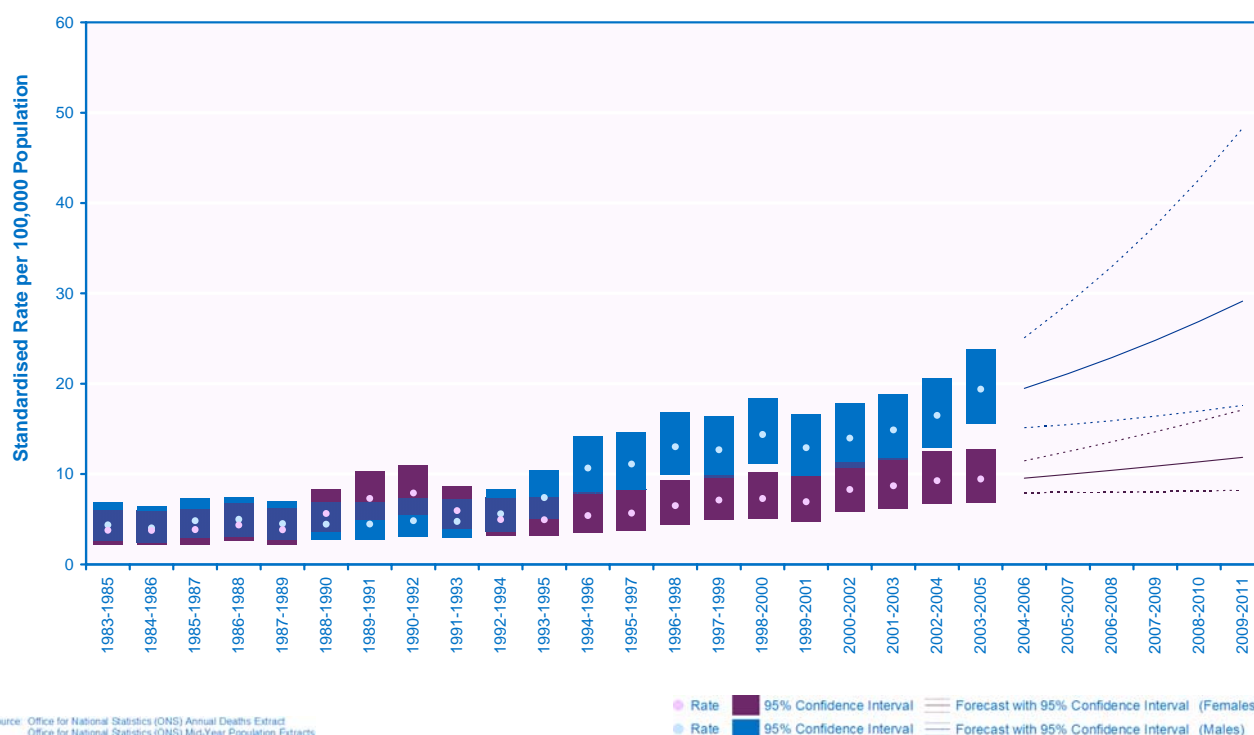
Extract from Dudley Public Health Annual Report 2005

Obesity also contributes to health inequalities, with prevalence being higher in more deprived areas and lower social classes. In the 2004 Dudley Health Survey, the most deprived areas had significantly higher levels of obesity than the least deprived.

## Alcohol

Although not a new phenomenon, alcohol related disease has increased dramatically over the last decade and the rate of increase in alcohol related deaths is going up. It is also increasingly younger people who are getting serious diseases and dying as a result of excessive alcohol consumption. In Dudley mortality rates have doubled in the last decade and alcohol will soon be killing more people aged under 75 than die of stroke.

**Directly Standardised Mortality Rates from Alcohol-Related Diseases by Year  
3-Year Rates, Dudley MBC, Males & Females Aged Under 75, 1983-1985 to 2009-2011**



Nationally the trends in deaths from alcohol have increased most in 35-60 year-olds and this pattern is reflected locally. Perhaps most worrying is the increase in deaths in men aged under 40 in Dudley, from less than 2 per year 10 years ago to 20 in the three year period 2003-2005 (there was just 1 female death aged under 40 from the same causes in the same period), 4 times the number. To put this in perspective, smoking-related diseases killed 4 men and 5 women in this age group over the same period and road-traffic accidents 17 men and 4 women.

This is of course only a part of the impact of alcohol on health and health services. It is a major contributory factor in accidents, violence, domestic and otherwise and unwanted conceptions. In addition it has an enormous impact on accident and emergency services and on other frontline services.

With the real-terms decrease in the cost of alcohol, the increase in drinks aimed at younger people, the rise of the binge drinking culture and the changes in licensing laws, it is not difficult to see why these trends are being seen and many of these trends are likely to continue or at best only change very slowly.

## Other potential risks

### Pandemic Flu

Clearly the nature of this risk means that the timing and impact, if it occurs at all, are unknown. However, international experts are seemingly increasingly convinced that the risk is getting increasingly high and a pandemic could happen at any time.

It is likely that all commissioning priorities and plans will be put on hold for the period of the outbreak, with only emergency work being carried out in most instances. However the impact would be likely to be far more than just during the outbreak itself. If even the most conservative estimates are correct, there will be a high proportion of people affected, including those working in the services, with a consequent knock-on effect on the delivery of services.

### Climate Change

A report to the Department of Health in 2002 examined the possible impact of climate change on health and what the implications for the NHS were. The following extract is taken from this report.

“We have considered the likely effects of climate change on health in the UK. We acknowledge that there are considerable uncertainties relating to these predictions. For the purposes of this summary we focus on the Medium-High scenario for the 2050s. Briefly, our conclusions can be summarised as follows:

- cold-related deaths are likely to decline substantially, by perhaps 20 000 cases pa;
- heat-related deaths are likely to increase, by about 2000 cases pa;
- cases of food poisoning are likely to increase significantly, by perhaps 10 000 cases pa;
- vector-borne diseases may present local problems but the increase in their overall impact is likely to be small;
- water-borne diseases may increase but, again, the overall impact is likely to be small;
- the risk of major disasters caused by severe winter gales and coastal flooding is likely to increase significantly;
- in general, the effects of air pollutants on health are likely to decline but the effects of ozone during the summer are likely to increase: several thousand extra deaths and a similar number of hospital admissions may occur each year;
- cases of skin cancer are likely to increase by perhaps 5000 cases per year and cataracts by 2000 cases per year;
- measures taken to reduce the rate of climate change by reducing greenhouse gas emissions could produce secondary beneficial effects on health.

When the preparation of this report began we were asked to advise on the implications for the NHS of the effects of climate change on health in the UK. Given the uncertainties surrounding our estimates of likely effects on health, such advice is particularly difficult. However, in general terms and given adequate planning and resources, the NHS should cope well with the impact of climate change on health in the UK. An exception to this perhaps optimistic conclusion is provided by the possibility of major coastal flooding on a scale not seen in the UK since 1953. Should such an event occur, and climate change may well increase the risk of such an event occurring, local NHS resources would be likely to be overwhelmed.”

## **Emerging diseases**

There is always a continuing threat of new or undiscovered diseases suddenly appearing in a virulent and highly infectious form, such as the recent emergence of the SARS virus. The effects of these will be similar to a pandemic in the short term, but may have greater lasting implications if they become endemic over time.

An example of the sort of impact we might see from new diseases is the emergence of HIV and AIDS in the 1980s. Initially the impact appeared to be restricted to certain high-risk groups, but as the prevalence of the disease increased, a greater proportion of the population and new groups within it became at risk. The epidemiology of the disease then took two paths: in some areas of the world, in particular sub-Saharan Africa, the disease has become endemic and one of the leading causes of death; in this country, due to the development of new treatments, it is now treated as a long-term chronic condition. It is however a major cost on the health services.