Carlisle and District
Health Improvement and Health Inequalities Strategy
2008 – 2010

Baseline Assessment and City Profile

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Executive Summary.

The purpose of this report is to provide a profile of the health of the residents of Carlisle and District local authority, and to identify those broader determinants of ill health affecting our population. The report compares the health of our residents with the broader populations of Cumbria and of England as a whole. This will inform the priorities for action in the proposed health improvement plan.

The Health of People Living in Carlisle and District.

- Within twenty years Carlisle is projected to have a much higher proportion of older residents than the average for the rest of England.
- Life expectancy for men in Carlisle is similar to that of men for the rest of England, while for women it is around one year shorter.
- There are large inequalities in the health of our population. People living in Castle and Upperby wards can expect to live for 75 years and spend around ten years or 13% of their lives in poor health. Residents of Wetheral can expect to live for around 81 years and spend just five years or 6% of their lives in poor health.
- A boy growing up in Botcherby ward in Carlisle can expect to die nine years earlier than a boy growing up in Burgh ward.
- On average residents of Carlisle can expect to spend $7^{1}/_{2}$ years or 10% of their lives in poor health.

Causes of Ill Health in Carlisle.

- The main causes of early mortality in Carlisle are circulatory diseases, particularly coronary heart disease, and suicide.
- There is a steady decreasing trend in early mortality from circulatory diseases. If this trend continues it is likely that the 2010 PSA target will be met.
- This is not the case for suicide. While there has been a small drop in the suicide rate since 2004, the mortality rate remains almost twice the national average. If the current trend continues Carlisle will fail to reach its target by 2010.
- In relation to cancer, three Carlisle wards – Morton, Currock and Denton Holme have a mortality rate significantly higher than the national average. Most notably, residents of Denton Holme have a mortality rate from cancers around 52% higher than nationally.
- Teenage conceptions remain well above the national average and more than twice the target set to be achieved by 2010.
- 32% of residents have no qualifications compared to the average for Cumbria which is 21%. Carlisle has the highest proportion of children in Cumbria who have receive no passes at GCSE level, and fewer 16 year olds stay on in education than in the rest of Cumbria and England.
- Carlisle is in the worst 25% of districts in England for air quality relating to CO2 emissions.
- Carlisle has an excess winter deaths index of 17% compared to 14% for Cumbria and 13.4% for the North West region.
- In relation to lifestyles, only 42% of Carlisle residents are a healthy weight. 42% of men are overweight compared to 29% of women.
- Less than 54% of residents are taking the recommended amount of exercise.
- Only 16.6% of Carlisle residents eat the recommended five portions of fruit and vegetables daily.
- 39% of people living in Botcherby ward smoke tobacco, compared to 19% in Stanwix Urban ward.

- 27% of men are drinking more than the recommended units of alcohol.
- There is a lack of available data relating to breastfeeding of babies.

Priority Areas for Action.

- To improve healthy life expectancy for both men and women across the district but to focus actions more specifically on the most deprived areas.
- New actions need to be identified to reduce the suicide rate, particularly in young men in our population.
- New actions need to be identified to address the teenage conception rate.
- Strategies need to be identified to maximise the potential of young people in the district.
- Short term priorities should focus on:
  - Reducing smoking
  - Improving diet
  - Reducing alcohol consumption
  - Increasing physical activity
  - Improving recording and initiating of breastfeeding.

Introduction.

Carlisle is the most northerly city in England, and the only city in Cumbria. It is situated less than ten miles from the Scottish border. Carlisle has the smallest population of any English city but is the largest in land area.
The urbanised areas of the City Council include, as well as the city of Carlisle, the towns of Brampton and Longtown. The remaining area is rural in nature.
Road transport links to the city include the M6 to the South, The A74 to the North, The A69 to the East and the A595 to the West.
Rail links are supplied by the West Coast main railway line with smaller lines serving further routes.
The city is situated at the confluence of three rivers – the Eden, Petteril and Caldew. Following severe gales and heavy rain in the winter of 2005 the city was subject to severe flooding. Following this a Task Group – Carlisle Renaissance - was established to ensure the economic, physical and social regeneration of the city in the aftermath of the floods.
Carlisle City Council is in the lowest one fifth of local authorities in England for four of five given health and deprivation indicators. Local authorities identified as such are designated Spearhead Local Authorities, linked to the appropriate Primary Care Trust and have targets to see faster progress compared to the average towards reducing inequalities in the health of the local population.

1. Population.

The City Council covers 15% of the area of Cumbria and has 21% of the total Cumbrian population with 100,739 inhabitants. Of these 71,773 live within the boundaries of the city. This is around 71% of the population.
Carlisle's proportion of residents over the age of 65 is 19%, similar to that of the rest of England. However the population of older people is predicted to rise considerably in the future, with population projections of 29.4% in this age group by 2014 and 39.4% by 2029, compared to 18% and 22% respectively for the rest of England and Wales. This means that Carlisle will have a much higher proportion of older residents than the average for the rest of the country.
The proportion of younger adults in the 20 – 39 age group is lower than the average for England at 25% compared to 27%.
Figure 1 shows the population structure of Carlisle by age band compared to the rest of England and Wales.

Figure1: Mid-2006 Population Pyramids: (Numbers in 000's): Quinary age groups for District Councils in Cumbria PCT, estimated resident population

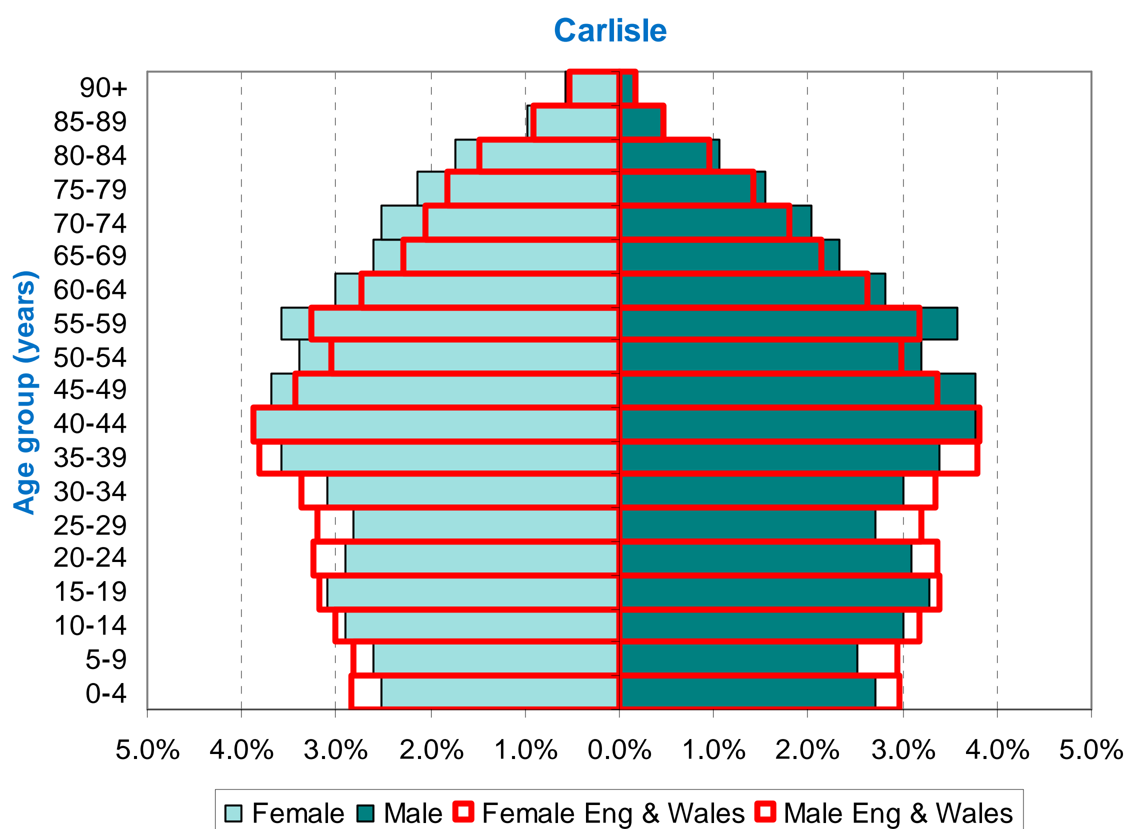


Table1: Vital statistics 2004-2006; selected indicators (numbers and rates per 1,000)

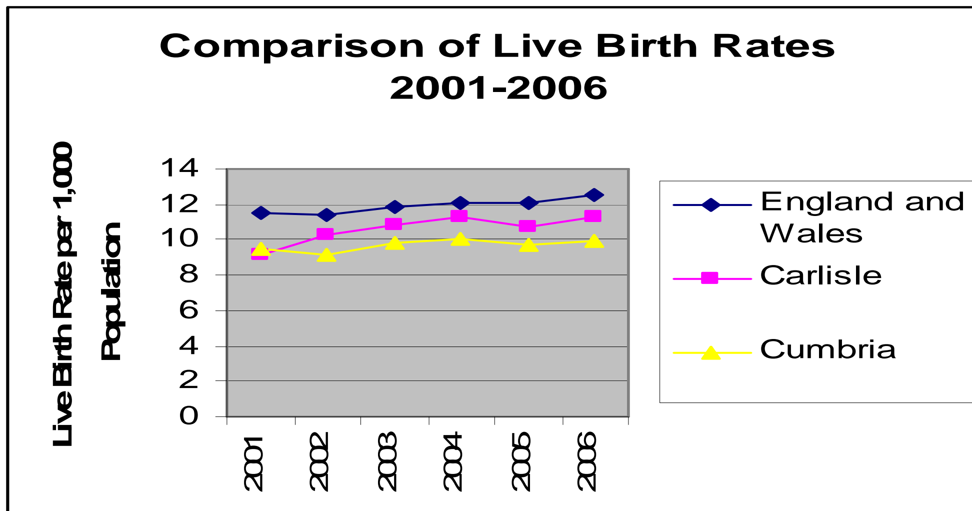
	Year	Carlisle Number		Cumbria Number		England and Wales Number	
Mid Year Population Estimate	2004	101,843		489,829		53,012,038	
	2005	103,524		494,782		53,398,502	
	2006	105,182		498,870		53,691,179	
		No	***Rate***	**No**	***Rate***	**No**	***Rate***
Live Births	2004	**1,151**	*11.3*	**4,879**	*10.0*	**639,509**	*12.1*
	2005	**1,107**	*10.7*	**4,784**	*9.7*	**645,621**	*12.1*
	2006	**1,170**	*11.1*	**4,917**	*9.9*	**669,601**	*12.5*
Infant Deaths	2004	**5**	*4.3*	**23**	*4.7*	**3,234**	*5.1*
	2005	**8**	*7.2*	**21**	*4.4*	**3,217**	*5.0*
	2006	**..**	*2.6*	**23**	*4.7*	**3,368**	*5.0*
Deaths All ages	2004	**1,131**	*10.9*	**5,589**	*11.4*	**513,034**	*9.6*
	2005	**1,145**	*11.1*	**5,449**	*11.0*	**511,840**	*9.6*
	2006	**1,078**	*10.2*	**5,384**	*10.8*	**502,599**	*9.4*

Source: ONS VS1
("" denotes that data have been suppressed where the number of events are less than 5 or where subtraction from the total may be disclosive.)

1.1 Births.

In recent years birth rates in Cumbria have been consistently lower than that of England and Wales. Carlisle and Barrow have the highest birth rates in the county. The birth rate in Carlisle in 2006 was 11.1 per 1000 of the resident population compared to the rate for England of 12.5, while the birth rate for Cumbria overall was just 9.9.
Figure 2 illustrates trends in the birth rate since 2001. Carlisle has shown a small, but fairly steady increase in live births from 9.1 in 2001 to 11.1 in 2006.

Figure 2: Comparison of Birth Rates 2001-06



1.2 Infant Mortality.

Infant mortality refers to the number of babies dying aged less than one year old divided by the total number of live births.
The infant mortality rate in Carlisle in 2005 was 6.3 per 1,000 live births. This compares to the national average of 3.4 and makes Carlisle the only local authority in Cumbria with a figure above the national average.
However, when looking at the average infant mortality rate for Carlisle over the five year period 2001-2005, the figure is lower than the national average at 2.6 compared to 3.5.

1.3 Low Birth Weight Babies.

A baby identified as low birth weight is a baby who is born weighing less than 2500 grams. Low birth weight is linked to perinatal death.

Multiple pregnancies, poor nutrition, low socio-economic status, teenage pregnancy, and smoking and drinking during pregnancy are contributory factors to this particular group of babies. The association between smoking and low birth weight was first reported in 1957. The more the mother smokes the greater the risk there is to the baby. The average reduction in birth weight of a baby born to a smoker is of the order of 15 to 250 grams. Smoking is also associated with impairment of the child. The increased risk of perinatal mortality due to smoking has been estimated at 28 percent.

Heavy alcohol consumption, particularly in the early stage of pregnancy can lead to a baby being born with foetal alcohol syndrome. Retarded growth is associated with this syndrome. Women from poorer social backgrounds are one and a half times more likely to produce a low birth weight baby

On average in England and Wales, eight percent of births produce a low birth weight baby. Carlisle has a slightly lower than the national average of low birth weight babies at 7% (Clay 2007)

2. Ethnicity.

Table 2 is taken from the 2001 census and relates to peoples' ethnic group and cultural background. In England and Wales populations are classified into 16 groups.
The table demonstrates that in Carlisle 97.82% of the population are classified as 'White British'. This is considerably higher than the national figure of 86.99%.
The largest ethnic minority group in Carlisle is 'White Other' which may represent the increasing number of people coming into the area from Poland, Portugal and other European countries, and reflects the national picture.
Interestingly the third largest ethnic minority group in England is 'Asian Indian' which makes up 2.09% of the population. However in Carlisle this group makes up just 0.09% of the population.
Carlisle has a large Gypsy / Traveller population, however there is no ethnic coding identified for this group, therefore no accurate data is available in relation to actual numbers of Gypsy/ Travellers within our population.

Table 2: Ethnicity.

		Carlisle	North West	England
All People (Persons)	Count	100,739	6,729,764	49,138,831
White: British (Persons)	Count	98,547	6,203,043	42,747,136
White: British (Persons)	%	97.82	92.17	86.99
White: Irish (Persons)	Count	523	77,499	624,115
White: Irish (Persons)	%	0.52	1.15	1.27
White: Other White (Persons)	Count	776	74,953	1,308,110
White: Other White (Persons)	%	0.77	1.11	2.66
Mixed: White and Black Caribbean (Persons)	Count	72	22,119	231,424
Mixed: White and Black Caribbean (Persons)	%	0.07	0.33	0.47
Mixed: White and Black African (Persons)	Count	47	9,853	76,498
Mixed: White and Black African (Persons)[1]	%	0.05	0.15	0.16
Mixed: White and Asian (Persons)	Count	94	17,223	184,014
Mixed: White and Asian (Persons)	%	0.09	0.26	0.37
Mixed: Other Mixed (Persons)	Count	87	13,344	151,437
Mixed: Other Mixed (Persons)	%	0.09	0.20	0.31
Asian or Asian British: Indian (Persons)	Count	94	72,219	1,028,546
Asian or Asian British: Indian (Persons)	%	0.09	1.07	2.09
Asian or Asian British: Pakistani (Persons)	Count	48	116,968	706,539
Asian or Asian British: Pakistani (Persons)	%	0.05	1.74	1.44
Asian or Asian British: Bangladeshi (Persons)	Count	85	26,003	275,394
Asian or Asian British: Bangladeshi (Persons)	%	0.08	0.39	0.56
Asian or Asian British: Other Asian (Persons)	Count	57	14,685	237,810
Asian or Asian British: Other Asian (Persons)	%	0.06	0.22	0.48
Black or Black British: Caribbean (Persons)	Count	16	20,422	561,246
Black or Black British: Caribbean (Persons)	%	0.02	0.30	1.14
Black or Black British: African (Persons)	Count	43	15,912	475,938
Black or Black British: African (Persons)	%	0.04	0.24	0.97
Black or Black British: Other Black (Persons)	Count	11	5,303	95,324
Black or Black British: Other Black (Persons)	%	0.01	0.08	0.19

		Carlisle	North West	England
Chinese or other ethnic group: Chinese (Persons)	Count	174	26,887	220,681
Chinese or other ethnic group: Chinese (Persons)	%	0.17	0.40	0.45
Chinese or other ethnic group: Other ethnic group (Persons)	Count	65	13,331	214,619
Chinese or other ethnic group: Other ethnic group (Persons)	%	0.06	0.20	0.44

3. Life Expectancy

Life expectancy is a measure of the average age a person can be expected to live if current mortality trends were to continue for the rest of that person's life. It is based on the death rates current at the time of birth and has traditionally been used as an indicator to measure health inequality.
During 2001 – 2005 life expectancy in Cumbria was 78.6 years.
Total Life Expectancy for men living in Carlisle is 75.5 years and 79.5 years for women. This compares with the average life expectancy for men in England which is 76 years and for women which is 80.7 years.
Figure 3 shows the life expectancy for the electoral wards in Carlisle City Council area for this period.
Only nine of the twenty two wards have a life expectancy longer than the rest of Cumbria.
Botcherby, Castle and Belle Vue have the lowest life expectancy being 74.8, 74.8 and 75.1 respectively, while Burgh has the highest life expectancy being 83.9. This means that residents of Burgh can expect to live for nine years longer than residents of Botcherby.

Figure 3: Life Expectancy: Carlisle

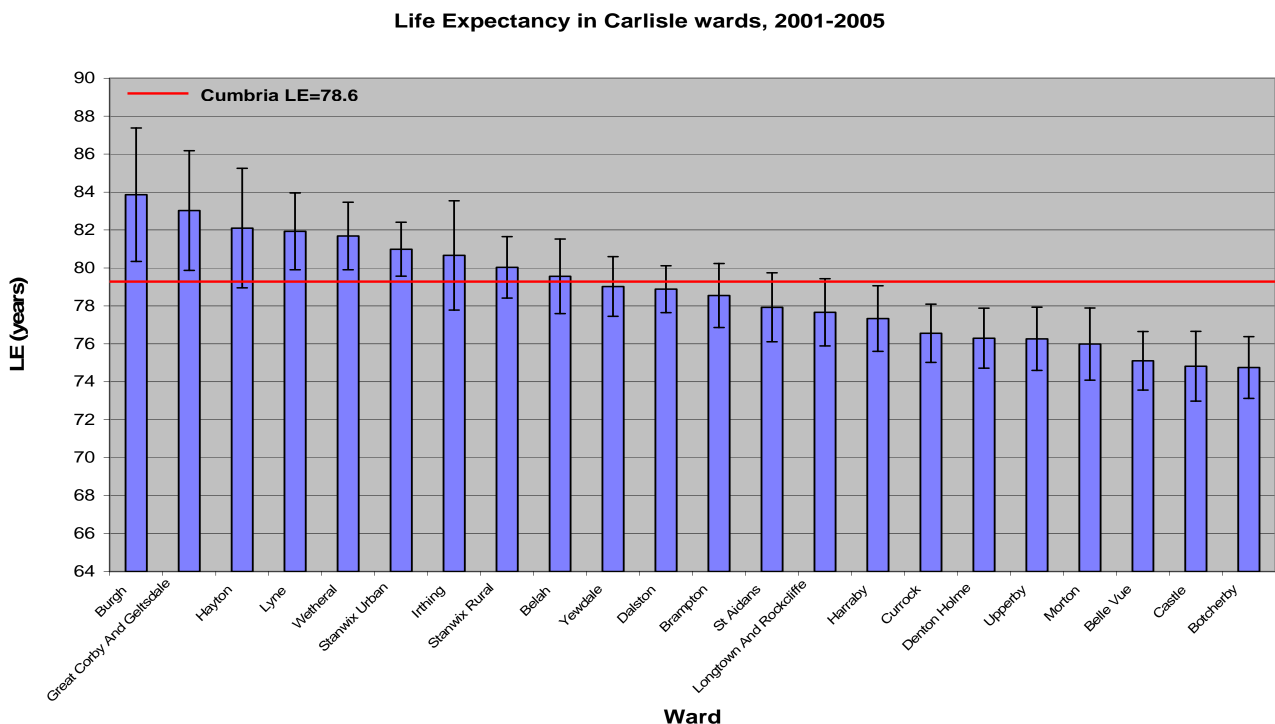
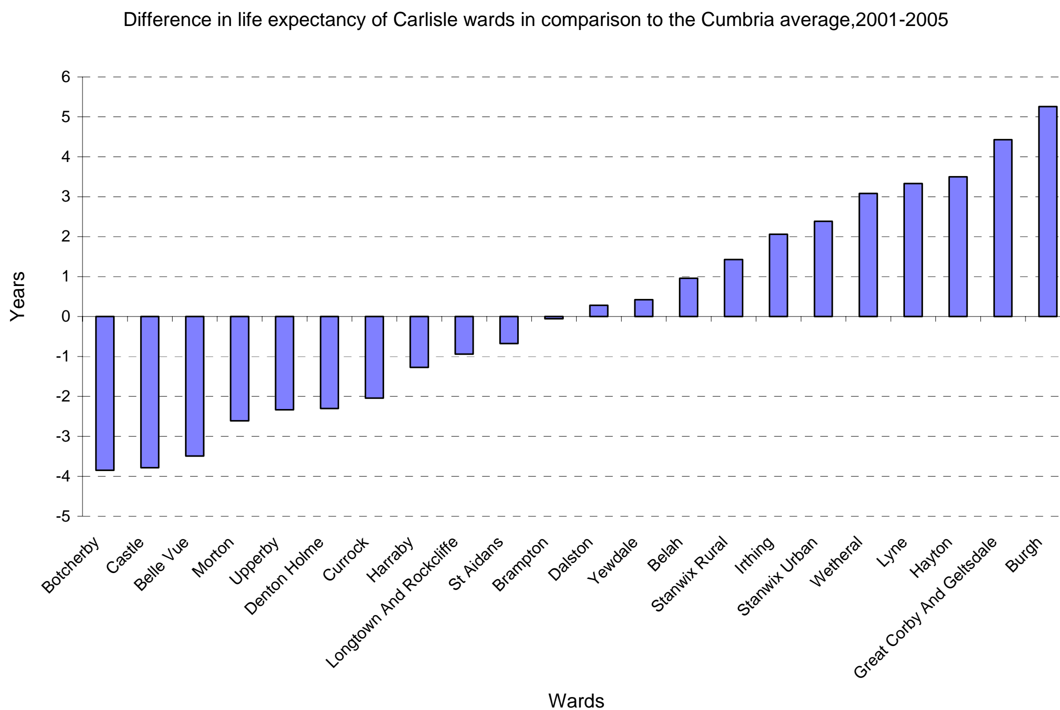


Figure 4: Comparison of Life Expectancy: Carlisle.



Total life expectancy gives an estimate of the average years of life expectancy of individuals within a population. It has traditionally been used as an indicator to measure health inequality. However, it does not reflect differences in health status while people are still living.

3. Healthy Life Expectancy.

Healthy Life Expectancy (HLE) represents the number of years that an individual can expect to live in good health and provides a useful means of reflecting morbidity within a given population. Data relating to the period 1999-2003 (experimental statistics) indicate that life expectancy for this period is 77.4 years in Carlisle while healthy life expectancy is 69.9 years indicating that residents of Carlisle can expect to spend around seven and a half years or 10% of their lives in poor health.

Residents of Castle and Upperby can expect to live for around 75 years, they can expect to spend around ten years or 13% of their lives in poor health, compared to residents of Wetheral who can expect to live for around 81 years and spend just five years or 6% of their lives in poor health.

Figure 5 illustrates healthy life expectancy for each of the Carlisle wards.

Figure 5: Healthy Life Expectancy by Ward

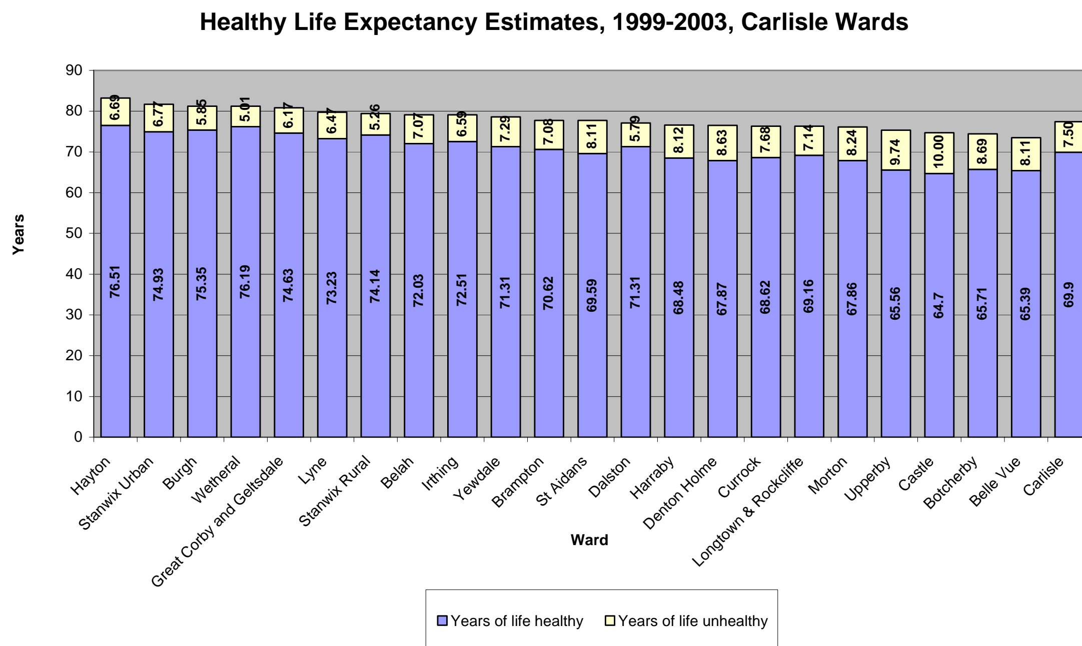
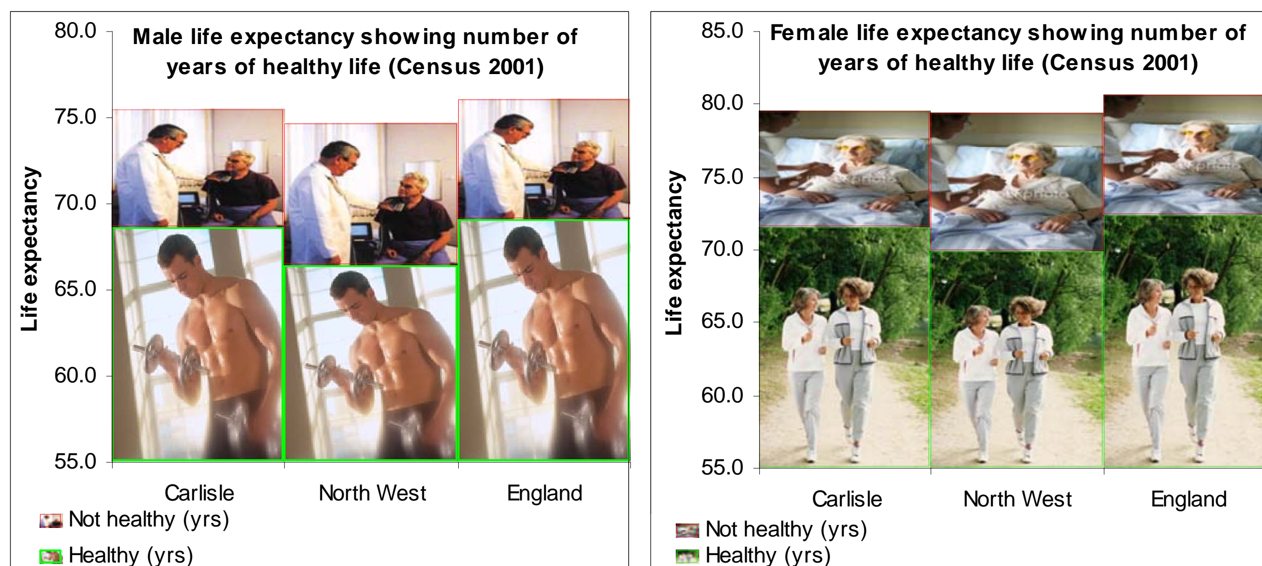


Figure 6 compares Male and Female Healthy Life Expectancy

Figure 6: Comparison of male and Female Healthy Life Expectancy

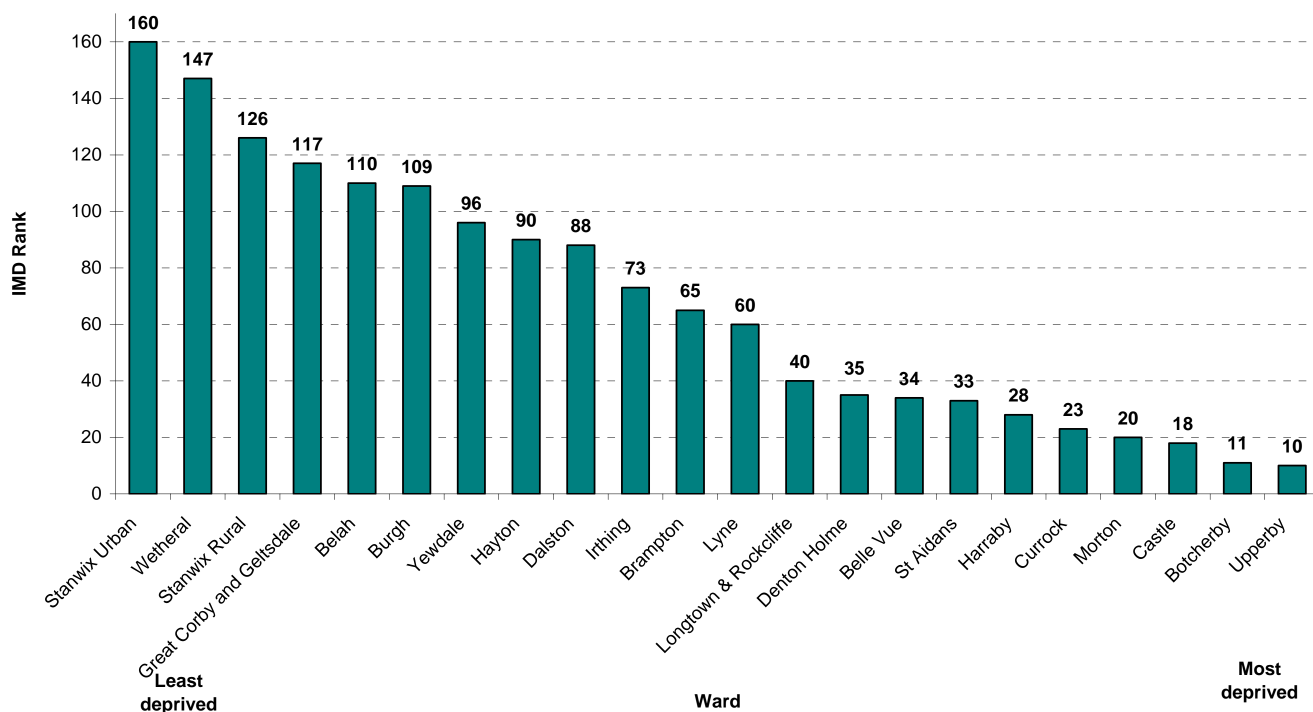


4. Indices of Multiple Deprivation.

The Index of Multiple Deprivation measures disadvantage within populations averaging around 1,500 residents - the Lower Super Output Area Level. The IMD is based on individual categories of deprivation which are identified and measured separately. These are then combined into a single overall measure. The Index is made up of seven distinct dimensions of deprivation called Domain Indices.

Lower Super Output areas are divided into quintiles, depending upon their IMD Score. Each quintile represents 20% of the population. Quintile One represents the most deprived areas, while Quintile Five represents the least deprived areas.
Data at the Lower Super Output Area level can be aggregated to give an overall deprivation score at electoral ward level. Figure 7 shows the IMD scores for the electoral wards within Carlisle and District Local Authority, and illustrates the deprivation quintile for each ward.

Figure 7: IMD Scores by Electoral Ward



When comparing the data from Figure 7 with the life expectancy of residents within the wards (Figure 3), the correlation between deprivation and life expectancy is apparent. Most notably the wards of Castle, Botcherby and Upperby are identified as experiencing the highest levels of deprivation and the lowest years of life expectancy.

5. Mortality and Morbidity.

Standardised Mortality ratios (SMRs) compare the number of deaths occurring in a population with the number expected by means of a ratio. A ratio greater than 100 means there are more deaths than expected and a ratio less than 100 means fewer deaths than expected.

Major Causes of Death in Carlisle.

6.1 Circulatory Diseases.

The Department of Health Public Service Agreement has set a performance indicator to substantially reduce mortality rates from heart disease and stroke by at least 40% in people under the age of 75 by 2010. The target includes at least a 40% reduction in the inequalities gap between the fifth of areas with the worst health and deprivation indicators i.e. the Spearhead areas, and the population as a whole.
The overall mortality rate in Carlisle for circulatory diseases in the under 75 age group is 125. This represents a mortality rate 25% higher than the national average.

Table 3 shows standardised mortality rates for circulatory diseases in people under the age of 75 within each of the electoral wards in Carlisle.
The data linked to the happy faces mean that the SMR is statistically significantly better than the national average, while data linked to the sad faces indicate that the SMR is significantly worse than the national average.
The data indicate that eight of the twenty two wards in Carlisle have a significantly higher rate than the national average for deaths from circulatory diseases. Castle ward most notably has a rate almost twice the national average for circulatory disease in the under 75 age group.
Only Great Corby and Geltsdale ward has a significantly lower rate than nationally.

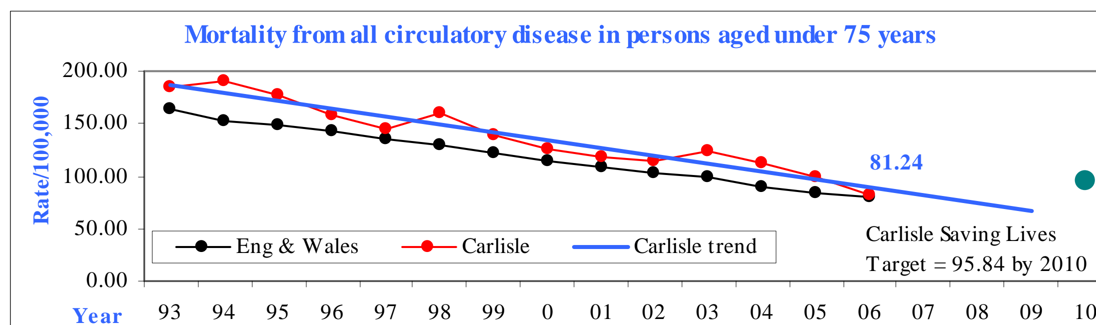
Table 3: Standardised Mortality Ratios for Circulatory Disease in the Under 75 Age Group 2001-2005.

ward name	**expected deaths**	**observed deaths**	**SMR**		**Rank** (1 = best, 22 = worst)
Great Corby and Geltsdale	13.16	6	46	☺	1
Burgh	11.64	8	69		2
Irthing	12.47	9	72		3
Stanwix Urban	36.48	28	77		4
Hayton	13.74	11	80		5
Lyne	13.65	11	81		6
Wetheral	29.39	25	85		7
Stanwix Rural	27.95	25	89		8
Belah	36.91	37	100		9
Yewdale	37.13	38	102		10
Dalston	40.12	44	110		11
Brampton	29.15	37	127		12
St Aidans	27.13	36	133		13
Morton	48.29	65	135	☹	14
Longtown & Rockcliffe	25.48	35	137		15
Harraby	35.10	50	142	☹	16
Currock	26.36	42	159	☹	17
Denton Holme	25.20	41	163	☹	18
Botcherby	30.79	52	169	☹	19
Belle Vue	30.07	53	176	☹	20
Upperby	30.94	55	178	☹	21
Castle	25.66	51	199	☹	22

Directly standardised rates (DSRs) give an indication of the number of events that would occur in a standard population, if the population had the same age-specific rates of the local area. The rates are calculated per 100,000 and because rates are applied to the same population, rates across areas can be compared.

Figure 8 shows directly standardised rates in deaths in under 75s from circulatory diseases for the period 1993 to 2006. We can see that the rate was 184 per 100,000 of the population in 1993, reducing to 81 in 2006. This is a relatively steady decreasing trend. The PSA target is 96 deaths by 2010. Therefore if we continue to maintain the current mortality rate from circulatory diseases in this age group we should meet this target.

Figure 8: DSRs for Circulatory Disease in Under 75s



6.2 Cancer.

In relation to cancer, the standardised mortality ratio for all malignant neoplasms in Carlisle is 102, i.e. 2% above the national average.
Table 4 illustrates SMRs for malignant neoplasms at electoral ward level. Only three wards, those of Morton, Currock and Denton Holme have rates significantly higher than nationally. Most notably, residents of Denton Holme have a mortality rate for cancers around 52% higher than nationally.

Table 4: Standardised Mortality ratios for all Malignant Neoplasms in the Under 75 age Group 2001- 2005

ward name	expected deaths	observed deaths	SMR		Rank (1 = best, 22 = worst)
Irthing	15.60	10	64		1
Great Corby and Geltsdale	16.40	11	67		2
Wetheral	35.97	26	72		3
Stanwix Rural	34.19	26	76		4
Hayton	17.08	13	76		5
Lyne	17.04	13	76		6
Dalston	48.92	38	78		7
Yewdale	46.21	39	84		8
Burgh	14.69	13	89		9
Harraby	42.51	38	89		10
Longtown & Rockcliffe	31.45	29	92		11
Brampton	35.16	34	97		12
Belah	45.17	44	97		13
Stanwix Urban	44.18	45	102		14
Belle Vue	37.48	40	107		15
Castle	31.76	34	107		16
St Aidans	33.30	38	114		17
Botcherby	37.76	47	124		18
Upperby	37.72	48	127		19
Morton	56.35	76	135	☹	20
Currock	32.54	48	148	☹	21
Denton Holme	31.58	48	152	☹	22

The Department of Health has set a PSA target to reduce mortality rates from cancer by at least 20% in the under 75 age group with a reduction in the inequalities gap of at least 6% between the Spearhead areas and the population as a whole.

Figure 9: Mortality from all cancers in persons under age 75.

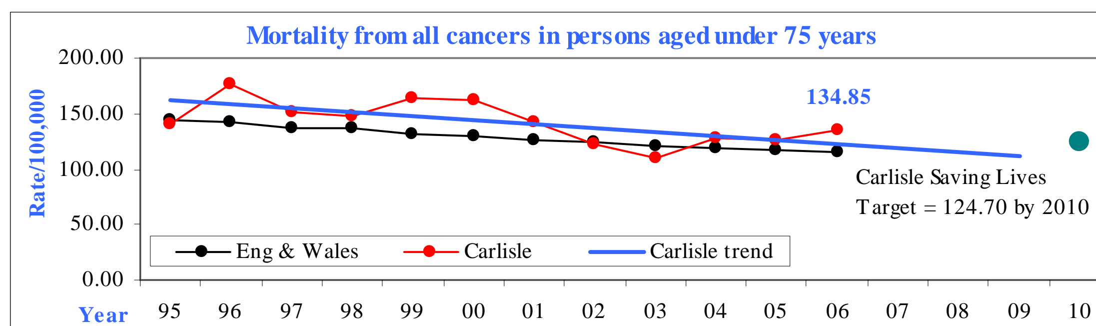


Figure 9 shows a steady decrease in premature deaths from cancer between the years 1999 and 2003.
However more recently the trend appears to be increasing. In 2006 the death rate was 135 per 100,000 of the population compared to 110 in 2003. If this trend continues we will not reach the target of 124.7 premature deaths from cancer by 2010.

6.3 Respiratory Diseases.

Carlisle has an overall mortality rate lower than the national average for respiratory diseases in the under 75 age group.
Table 5 illustrates standardised Mortality Ratios for respiratory diseases in the under 75 age group.
Lyne, Belah and Yewdale all have significantly lower rates than nationally. However, Morton, Currock and Upperby have significantly higher rates. Upperby in particular has a mortality rate more than twice the national average for these conditions.

Table 5: Standardised Mortality Ratios for Respiratory Diseases in the Under 75 Age Group 2001-2005

ward name	expected deaths	observed deaths	SMR		Rank (1= best, 22= worst)
Lyne	3.80	..	0.00	☺	1
Hayton	3.85	..	26		2
Burgh	3.21	..	31		3
Wetheral	8.28	..	36		4
Belah	10.45	..	38	☺	5
Yewdale	10.39	..	39	☺	6
Stanwix Rural	7.90	..	51		7
Great Corby and Geltsdale	3.67	..	55		8
Brampton	8.32	..	60		9
Dalston	11.38	7	62		10
Irthing	3.47	..	86		11
Stanwix Urban	10.37	9	87		12
St Aidans	7.64	8	105		13

Denton Holme	7.03	8	114	14
Belle Vue	8.45	10	118	15
Castle	7.23	9	125	16
Longtown & Rockcliffe	7.17	9	126	17
Botcherby	8.75	12	137	18
Harraby	10.02	17	170	19
Morton	14.07	24	171	☹ 20
Currock	7.44	14	188	☹ 21
Upperby	8.83	18	204	☹ 22

6. Under 18 Conceptions.

The National Teenage Pregnancy strategy was launched by the government in 1999. There are two national target areas:

- Halve the under 18 conception rate in England by 2010
- Increase the participation of teenage mothers in education, training or work to 60% by 2010 to reduce the risk of social exclusion.

Table 6: Under 18 Conceptions

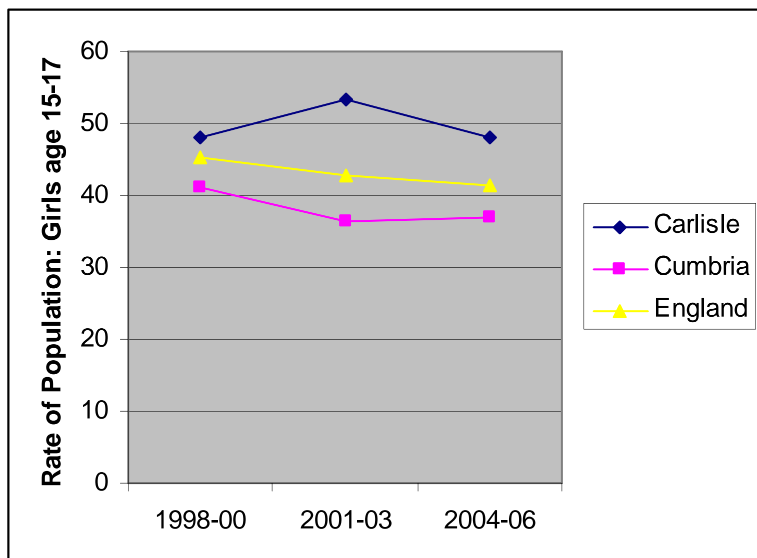
	1998-00	**2001-03**	**2004-06**	**% change in rate 98/00-04/06**
Carlisle	48	53.3	48.1	0.2%
Cumbria	41.9	36.5	37.0	-9.7%
England and Wales	45.4	42.7	41.3	-9%

The baseline conception rate in Carlisle during 1998 - 2000 was 48 per 1,000 girls aged 15 to 17 years (268 conceptions). Therefore a reduction of 50% would give a rate of 24 per 1,000 (134 conceptions).

While overall rates of teenage pregnancy in Cumbria are lower than the national average and there is a general downward trend of almost 10% on the baseline, this is not the case for Carlisle. Table 6 shows that teenage conceptions remain well above the national average at a rate of 48.1 per 1,000 of the population of girls age 15-17 years (272 pregnancies), an increase of 0.2% on the baseline, and more than twice the target set to be achieved by 2010. Of these 272 conceptions122 will lead to abortion.

Figure 10 shows the trend in teenage conceptions in Carlisle, in Cumbria and in England as a whole.

Figure 10: Conceptions: Girls Age 15-17



7. Abortions.

Data relating to abortions are not available at Local Authority level, but are available at Primary Care Organisation level. Table 7 compares the rate of abortions per 1,000 women aged 15 – 44 in Cumbria with rates for England as a whole. It relates to the year 2006.

Table 7: Comparison of abortion rates per 1,000 women resident 2006

	Total	<18	18 – 19	20 – 24	25 – 29	30 – 34	35+
Cumbria	**14**	**16**	**26**	**28**	**17**	**10**	**5**
England	**18.5**	**18.3**	**33.5**	**32.8**	**24.5**	**15.3**	**7**

The data illustrate that for all age groups, Cumbria has a lower rate of women undergoing abortion than nationally.

8. Lifestyles.

In 2003 North Cumbria Primary Care Trusts undertook a health and lifestyle survey of ten per cent of the adult population who were registered with a doctor and resident in North Cumbria. The sample size for Carlisle and District was 8994 with 6299 questionnaires returned completed. This gave an overall response rate of 70%. The survey provided a wealth of information relating to people's health, their perceptions of their own health, their use of health services and the social factors associated with health.

Body Mass Index.

Adults.
Body Mass Index was calculated using height and weight. The following categories were used:

- Underweight: Less than 20 kg/m^2
- Healthy: Equal to or greater than 20 kg/m^2 but less than 25kg/m^2
- Overweight: Equal to or greater than 25kg/m^2 but less than 30kg/m^2
- Obese: Greater than or equal to 30kg/m^2

Rates of obesity have dramatically increased in England over the past decade.
With obesity being responsible for more than 9,000 premature deaths per year.
Obesity is an important risk factor for a number of chronic diseases such as heart disease, stroke, some cancers, and type 2 diabetes.
Obese people are more likely to suffer from a number of psychological problems such as low self-image and confidence, social stigma, reduced mobility and a poorer quality of life.
Table 8 illustrates the proportion of adults in Carlisle who were underweight, healthy, overweight and obese. Less than half the population were a healthy weight while more than half the population were classed as being overweight or obese. Overall, a considerably higher proportion of men than women were overweight (42% of men compared to 29% of women), while the rates of obesity were similar between the sexes.
The highest proportion of overweight men is in the 45 – 64 age group

Table 8: Body mass Index for Carlisle residents (2003)

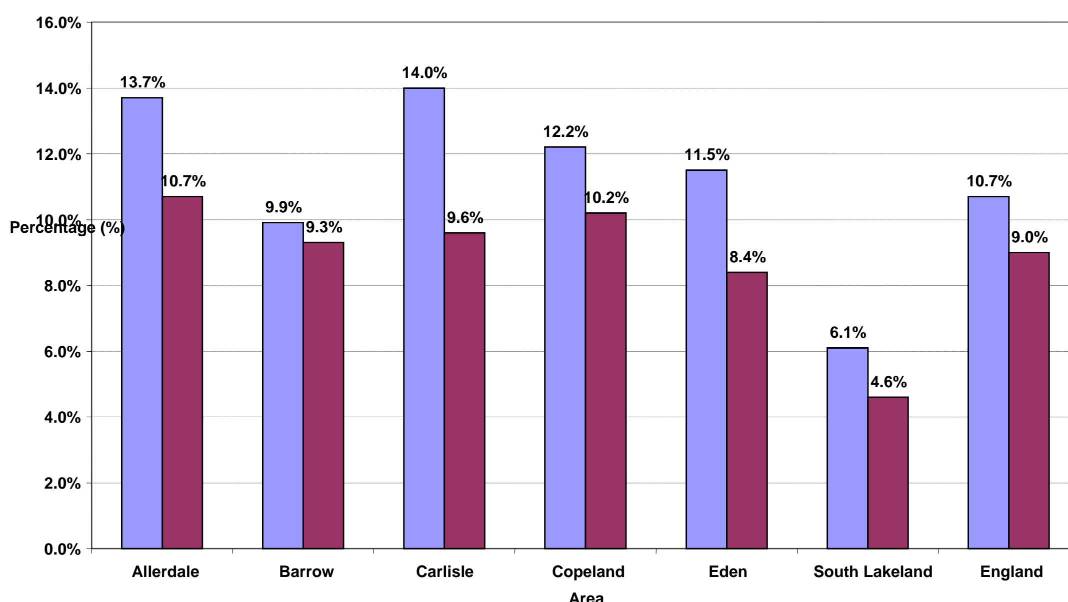
Underweight	Healthy	Overweight	Obese
5.3%	42.2%	36%	16.3%

Childhood Obesity

A major health target is to tackle the underlying determinants of ill health and health inequalities by halting the year-on-year rise in obesity among children. As a result the Department of Health has introduced a national process to weigh and measure the heights and weights of reception age (4-5 year olds) and Year 6 (10-11 year olds) school children.

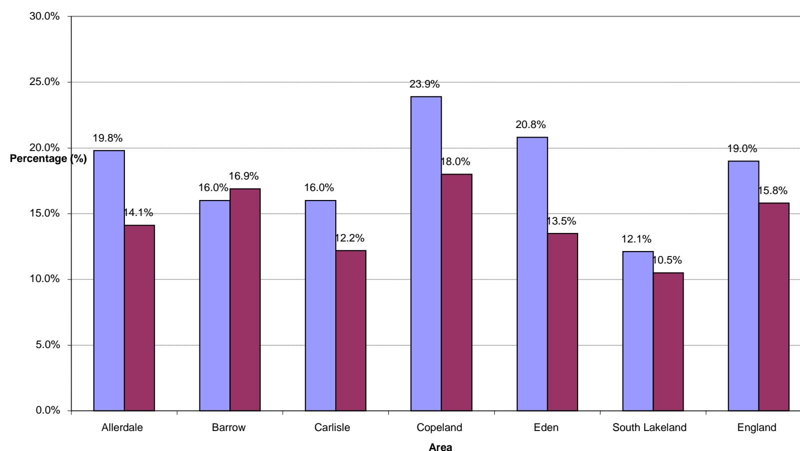
The results of the audit show that in England 9.9% of **reception age** children were recorded as being obese compared to 10.1% in Cumbria. Carlisle appears to have higher levels of Male obese (14.0%) children and Allerdale has the highest levels of female obese (10.7%) children. The obesity data for **reception year pupils** is shown in Figure 11.

Figure 11: Childhood Obesity – Male and Female Reception Pupils: (2006/07)(Source: North West Public Health Observatory / Information



The results of the audit show that in England 17.5% of **Year 6 age** children were recorded as being obese compared to 15.5% in Cumbria. In Carlisle 16% of year 6 boys were recorded as being obese and 12.2% of girls. This compares with the average of 19% of boys in England being classed as obese and 15.8% of girls. The obesity data for **Year 6 pupils** is shown in Figure 12.

Figure 12: Childhood Obesity. Male ~~and~~ Female Year 6 Pupils: 2006/07 (NWPHO)

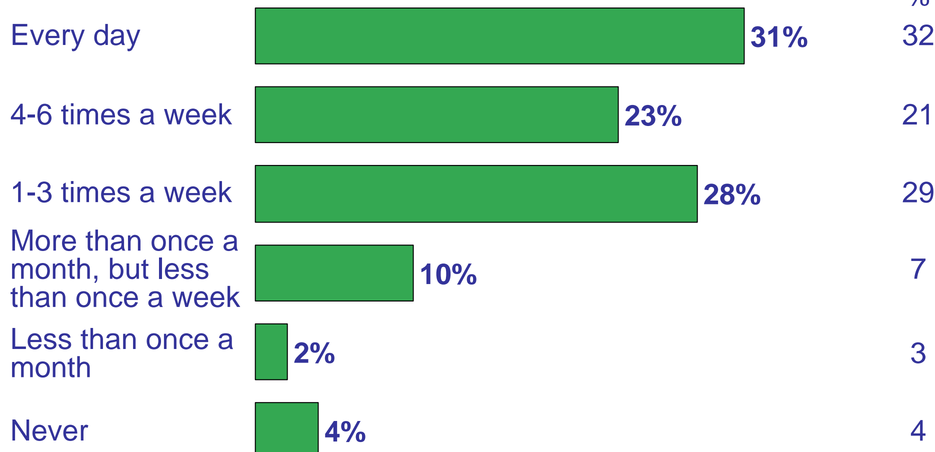


9.2 Physical Activity.

Regular exercise and activity reduces the incidence of obesity, and is a preventive measure for a number of long term conditions. Inadequate access to opportunities for exercise can be an important factor in health inequalities. Current recommendations are that adults should take a minimum of 30 minutes of moderate activity at least five times a week. For children and young people the recommendation is for one hour of moderate level activity each day (Department of Health 1996).

The 2006 Cumbria Quality of Life Survey (Cumbria County Council 2006) found that 31% of Carlisle residents exercised daily, while 23% exercised between four and six times a week (Figure 13). This indicates that less than 54% of Carlisle residents are taking the recommended amount of exercise.

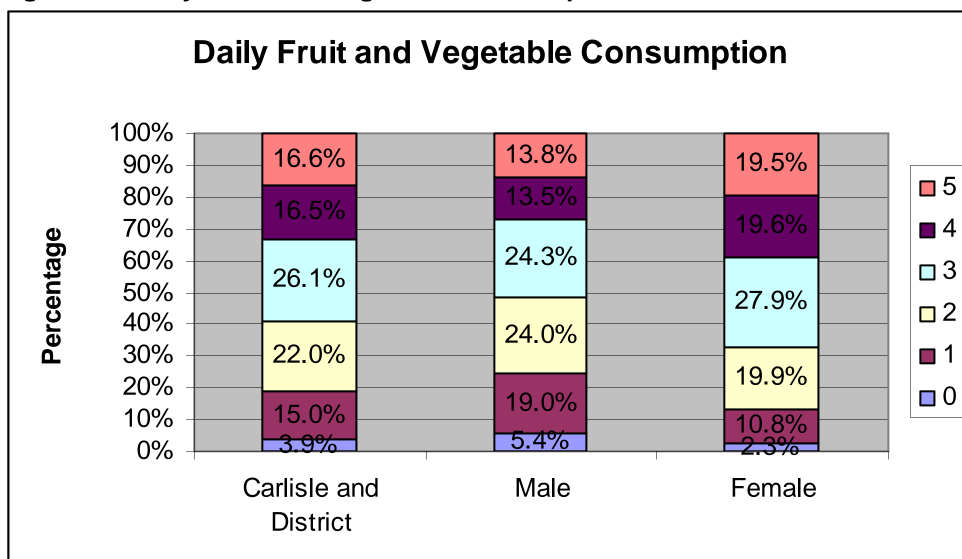
Figure 13 Exercise Levels Carlisle Residents



9.3 Balanced Eating.

Eating a minimum of five portions of fruit and vegetables each day has been shown to significantly reduce the risk of heart disease, stroke and some cancers by up to 20%. Figure 14 illustrates the daily fruit and vegetable consumption by residents of Carlisle during 2003.
Only 16.6% of Carlisle residents ate at least five portions of fruit and vegetables each day. Women were inclined to eat more fruit and vegetables than men, while 5.4% of men ate no fruit and vegetables compared to 2.3% of women.

Figure 14: Daily Fruit and Vegetable Consumption.



9.4 Fried Food.

Eating foods which are high in saturated fats is associated with raised blood cholesterol levels, which in turn is linked to an increased risk of developing coronary heart disease.
Fried foods are high in saturated fats and should be avoided.

The North Cumbria Health and Lifestyle Survey (2003) found that 55% of Carlisle residents did not eat fried food. However more than a third of residents said they ate fried food once or twice a week while 8% stated that they ate it between three and six times a week. Figure 15 shows how regularly people ate fried food on a weekly basis while Figure 16 compares the difference between the genders in the consumption of fried food. More men reported eating fried food than women with three times as many men as women reporting eating it three to six times a week and twice as many men as women reported eating fried food on a daily basis.

Figure 15: Fried Food Consumption.

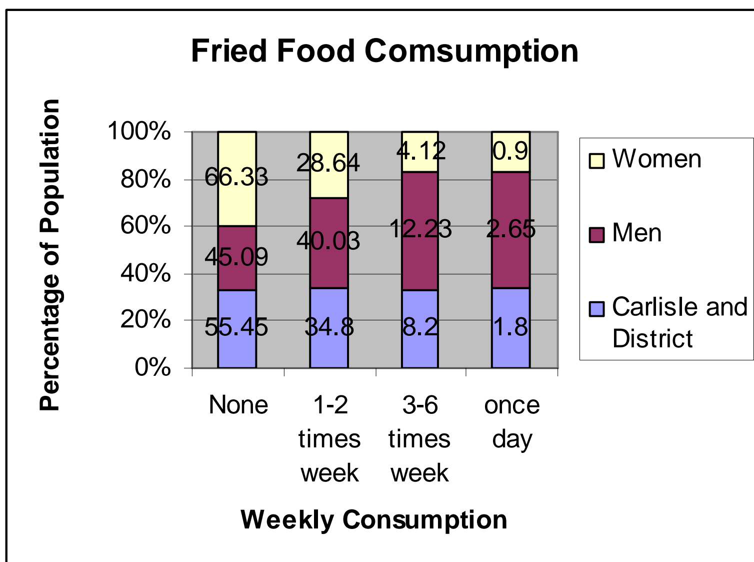
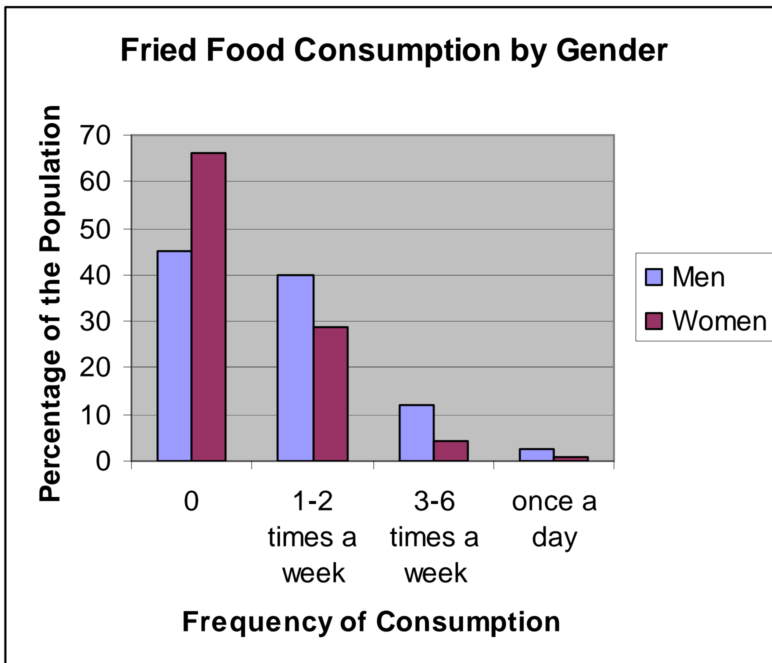


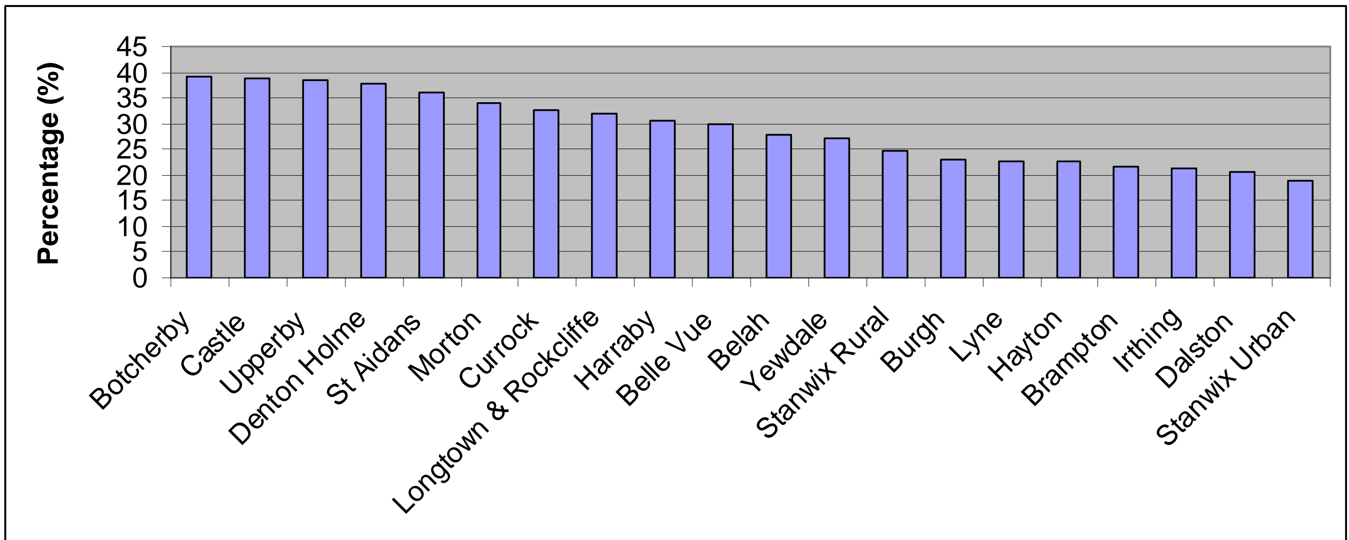
Figure 16: Fried Food Consumption by Gender



9.5 Smoking.

Smoking kills around 112,000 people in the UK each year, about six times more people than are killed by road traffic accidents and represents one fifth of all UK deaths. About half of all regular smokers will eventually be killed by their habit, with most smoking related deaths being due to three main diseases: cancer, chronic obstructive lung disease and coronary heart disease.
Each year 17,000 children under the age of five are admitted to hospital with illnesses caused by passive smoking.
There is a disparity in smoking rates between the socio-economic groups with around 16% of men in higher managerial occupations smoking, compared to 38% of men in routine occupations.
Currently there are no accurate local figures for the number of people who smoke in Carlisle.
Such data that are available relate to national statistics for smokers which have been applied to the population of Carlisle to provide an approximation of the actual local figures.
Current national smoking prevalence is reported as being 22% (Ash 2008). In Carlisle in 2006 this represents 10,400 men and 9,900 women. A total of 20,300 smokers living in the city.
Research evidence shows that around half of all regular smokers will eventually die as a direct result of their smoking addiction. In Carlisle this represents 10,150 people. However, those smokers who choose to stop will significantly reduce their risk of developing a fatal disease.
Figure 17 illustrates the variation in levels of smoking in Carlisle with 39% of people smoking in Botcherby ward compared to only 19% in Stanwix Urban ward.

Figure 17: Percentage of Smokers by Electoral Ward in Carlisle

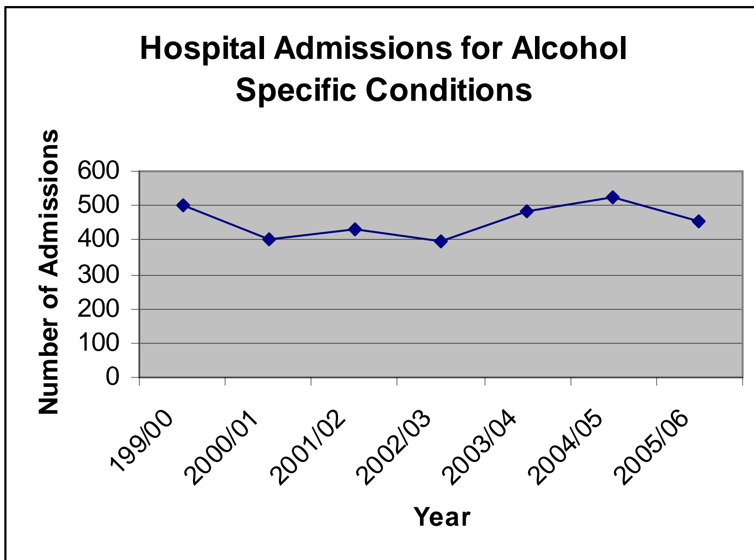


Cumbria Primary Care Trust's NHS Stop Smoking Service operates twenty three clinics each week in Carlisle, with three Specialist Stop Smoking Advisors providing advice and support as well as pharmacotherapies for smokers wishing to quit.
For the six month period 01.04.2007 to 30.09.2007 in Carlisle, 186 people who had set a quit date through the Stop Smoking Service were successful at the four-week follow-up.

9.6 Alcohol.

Drinking excessive amounts of alcohol is associated with both physical and mental health problems.
The risks associated with heavy drinking include liver disease, nutritional problems, pancreatitis, and heart disease as well as depression, dementia and memory loss.
The maximum recommended number of units of alcohol each day is 2 - 3 for women and 3 – 4 for men. Research evidence suggests that people drinking within these limits should not suffer alcohol related adverse health effects.
The 2003 Health and Lifestyle Survey identified that 27.2% of men and 17.8% of women in Carlisle were drinking over the recommended units of alcohol weekly.
In the period 2005 / 2006, data relating to hospital admissions indicate that there were 454 people admitted for alcohol specific conditions. This was a nine per cent decrease from the baseline year of 1999 / 2000. However this does not reflect a downward trend as the data indicate a general annual variation. (Figure18).

Figure 18: Hospital Admissions for Alcohol Specific Conditions



9. Income.

It is well recognised that higher mortality and worse health status occur in societies with higher income inequality. The relationship between income inequality and health appears to be determined both by relative access to resources for health gain and to comparative social position. (Massey 2007).
Figure 19 compares the mean income of households in the six Cumbrian local authorities. We can see that the average annual household income in Cumbria is £30,676. while the average for Carlisle is slightly above this figure at £31,117.

Figure 19: Comparison of Mean Income

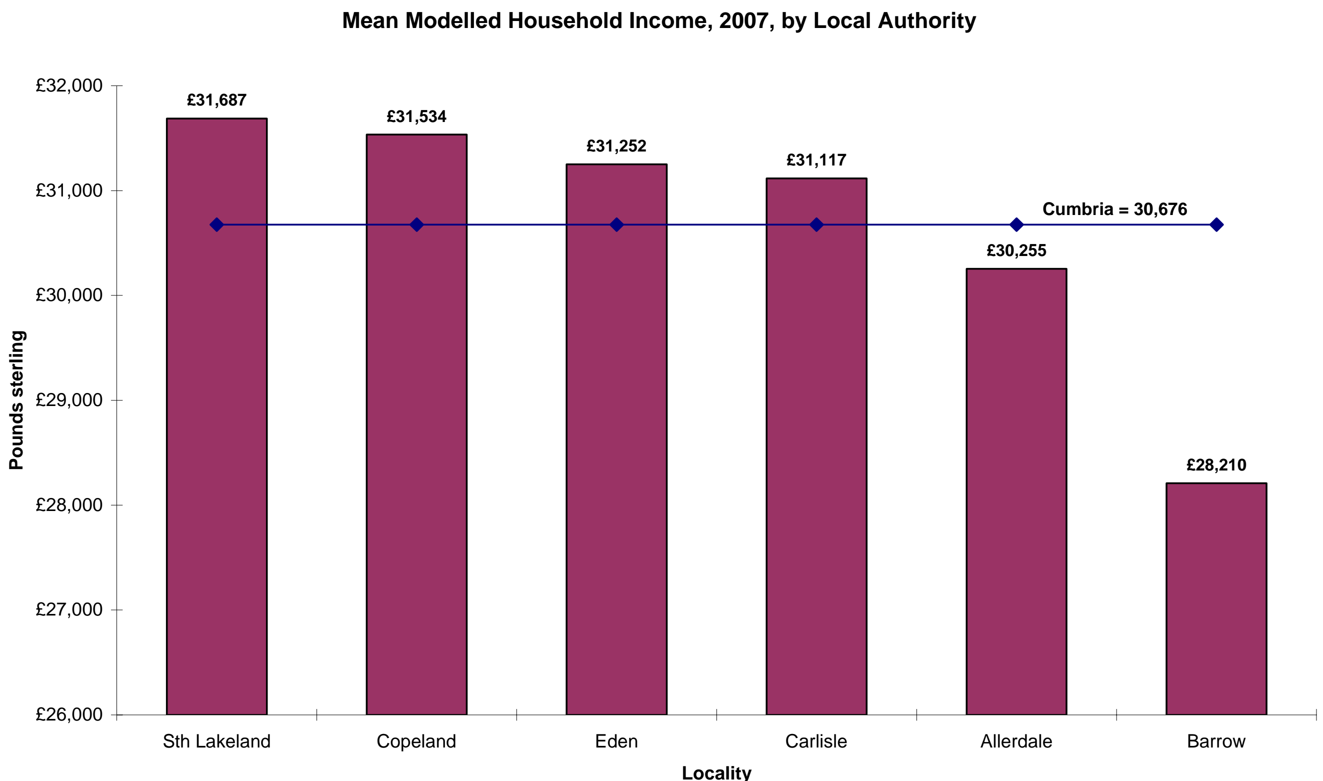
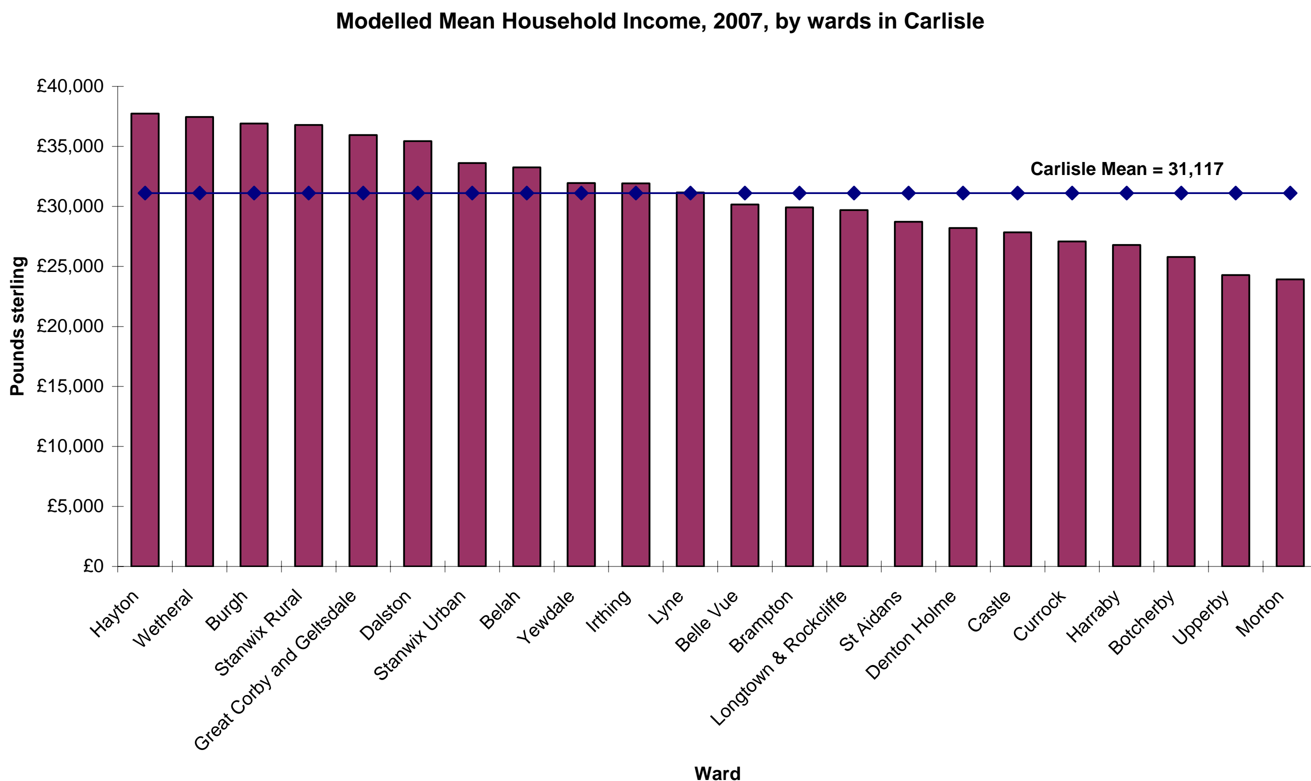


Figure 20 compares the annual mean household income in Carlisle by ward. We can see that in Hayton ward the average household income is £37,735, while in Morton it is just £23,924.
This represents a difference of almost £14,000.

Figure 20: Annual Mean Household Income by Ward.



In relation to the correlation between mortality and income we can see that the average life expectancy in Hayton is 82.1 years. This is 3.5 years above the Cumbria average. However, life expectancy is just 76 years in Morton ward. This is 2.6 years below the average for Cumbria.
A further correlation is demonstrated between income and health.
While residents of Hayton have a healthy life expectancy of 76.5 years, residents of Morton can expect to remain healthy for 67.9 years. Therefore people in Hayton are likely to remain healthy for more than eight years longer than the residents of Morton.

11. Employment.

Research evidence strongly supports an association between unemployment and a greater risk of both physical and mental illness at both the individual and the population levels. Unemployment is also associated with a greater risk of mortality at the population level (Jin et al 1995).
Carlisle has a slightly lower rate of unemployment than the rest of the North West region and England, being 4.5 compared to 5.4 for the North West and 5.5 for England.
Figure 21 shows unemployment in Carlisle during the Month of December 2007.
When compared with Figure 17 we can see that there appears to be an association between levels of unemployment and levels of smoking, with higher concentrations of smokers in the wards with the highest rates of unemployment. This reflects the national picture of the greatest rates of smoking being found in the most deprived areas.

Figure 21: Unemployment by Ward

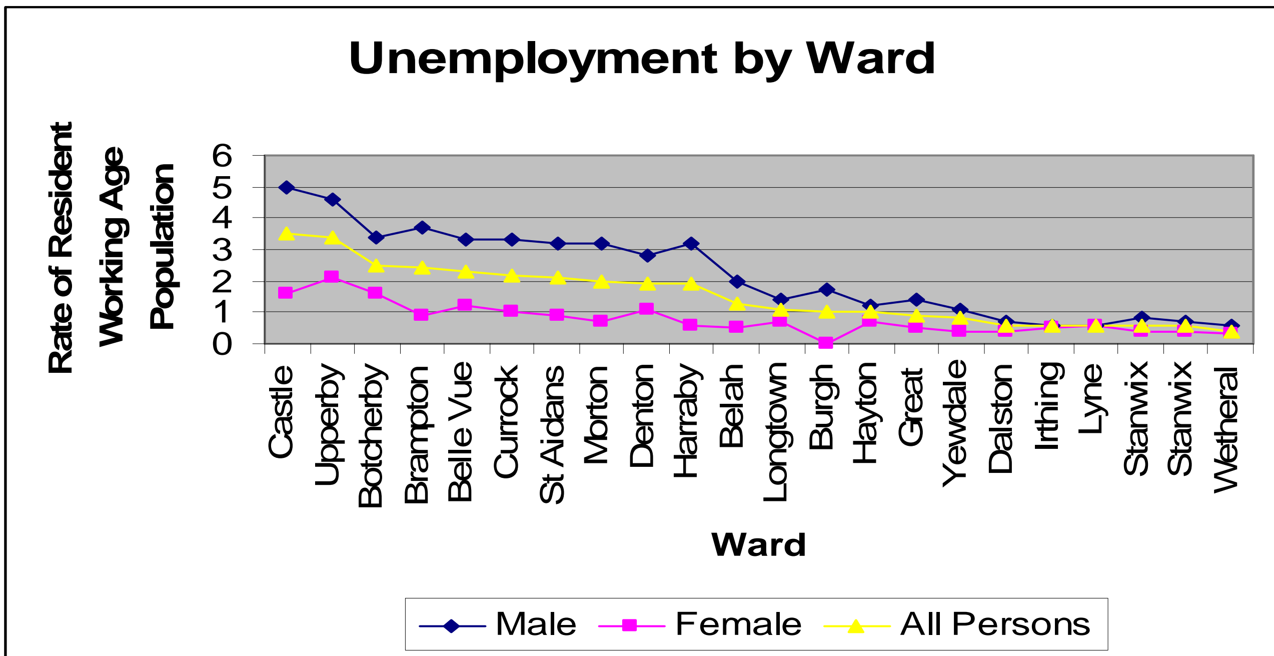
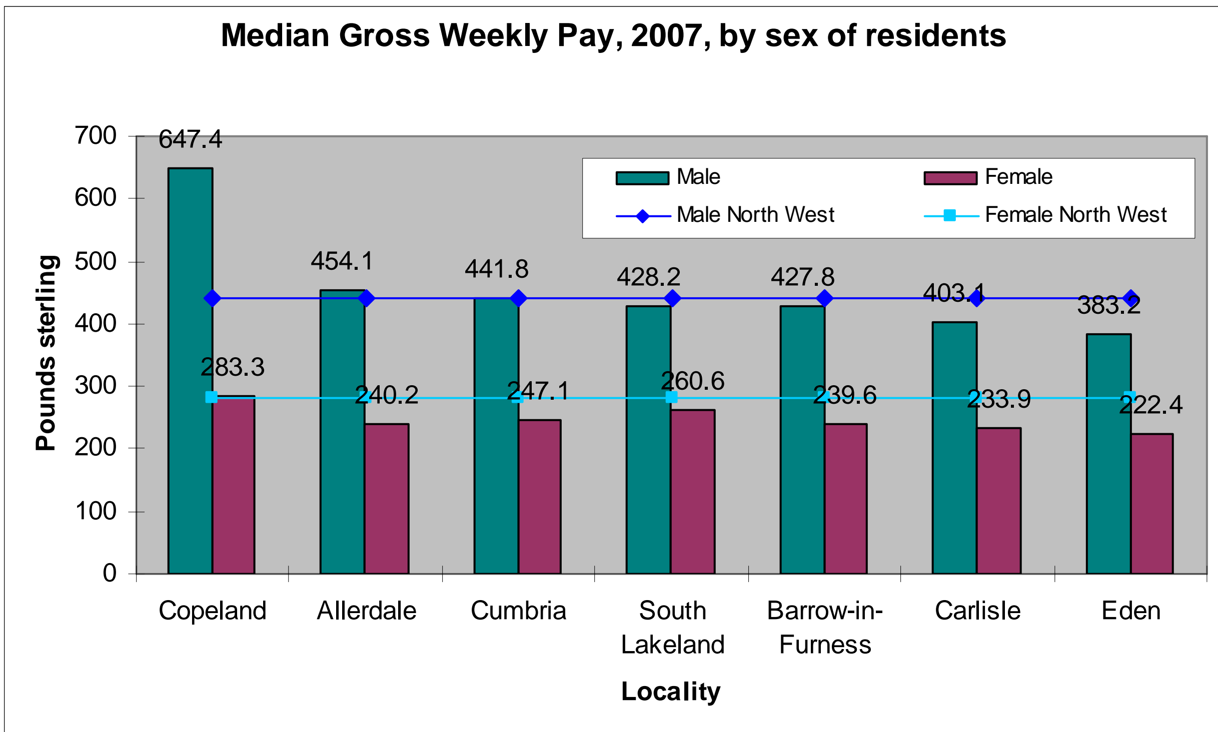


Figure 22 illustrates the average gross weekly pay of Carlisle residents. Both men and women within Carlisle are on average earning less than all other Cumbrian local authorities with the exception of Eden District. They are also earning considerably less than men and women in the North West Region.

Figure 22: Median Gross Weekly Pay of Carlisle Residents.



12. People Claiming Benefits.

Carlisle has a slightly higher than the average proportion of people of working age claiming a key benefit than the rest of England, but a considerably lower proportion than Cumbria as a whole.

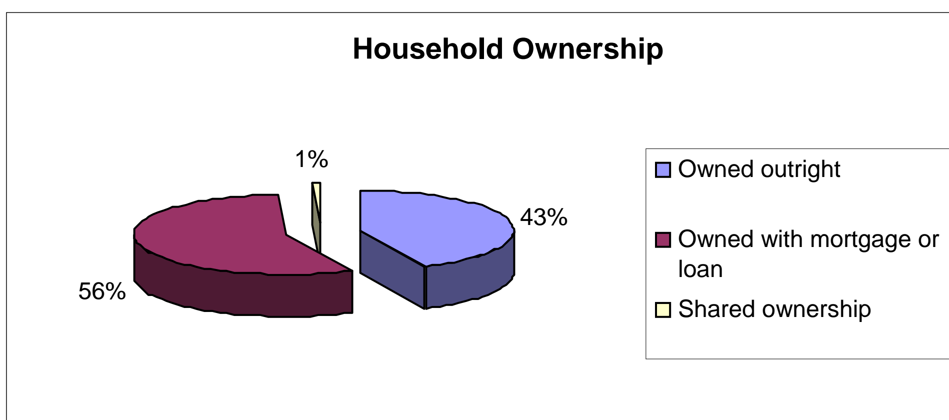
In relation to Job Seekers Allowance claimants, Carlisle reflects the same picture as the national average and slightly lower than the North West.
For Incapacity Benefit, Carlisle has a slightly higher than the national average of claimants but is lower than the average for the North West (Table9).

Table 9: Percentage of People Claiming a Key Benefit

Persons August 2005		Carlisle	North West	England
All people of working age claiming a key benefit	%	15	18	14
Job Seekers	%	2	3	2
Incapacity Benefit	%	8	10	7

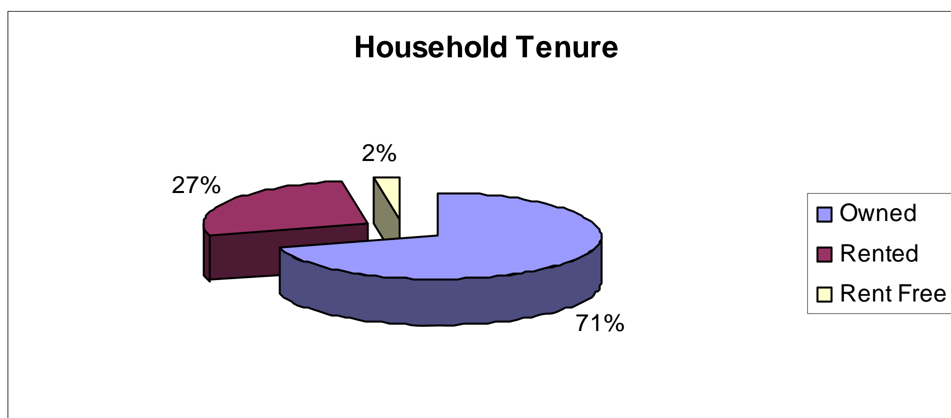
13. Housing.

Figure 23: Household Ownership



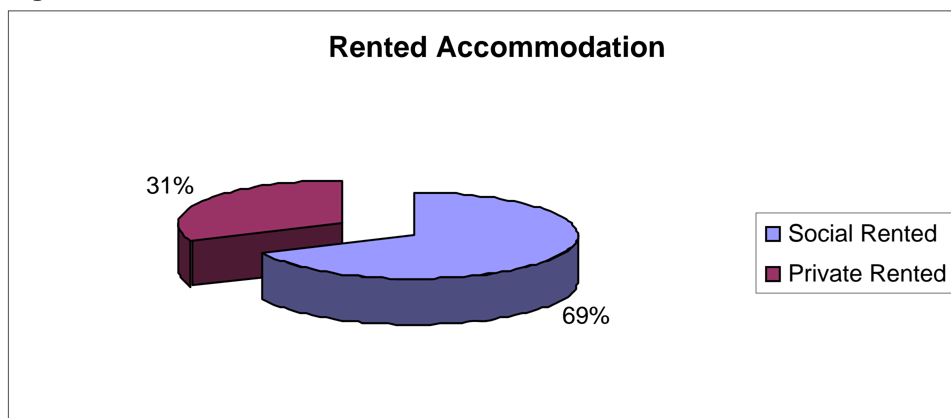
71% of people in Carlisle own their own house either outright or with a mortgage or loan. 2% of people are classed as living rent free and this appears to largely represent those in the hospitality trade who live in staff quarters, although some occupations will include tied accommodation.

Figure 24: Household Tenure.



Of those living in rented accommodation, 69% live in social rented properties either through the local authority or a housing association, while 31% are rented from a private landlord.

Figure 25: Rented Accommodation



12% of households in Carlisle have no central heating. This compares to 8% for England.
While 4% of Carlisle households are classed as being overcrowded compared to 7% in England.

14. Homelessness.

On 31st March 2005 there were 285 households in Carlisle which were defined as eligible, unintentionally homeless and in priority need, for which the Local Authority accepts responsibility for securing accommodation (ODPM 2005). This represents 9.3% of the total households on the Carlisle Housing Register.

15. Excess Winter Deaths.

Mortality in England and Wales increases more than other European countries with colder climates. Studies find that regions with warm winters such as England have cooler homes and take fewer protective measures against the cold. The number of extra deaths occurring in winter varies depending upon the temperature and level of disease (particularly ‘flu) in the population as well as other factors. The elderly (age 75+) experience the greatest increase in deaths each winter.
Excess winter deaths are defined as the difference between the number of deaths during the four winter months (December – March) and the average number of deaths during the preceding autumn (August – November) and the following summer (April – July). In Carlisle during 2005 / 06 there were a total of 60 excess winter deaths. This gives an excess winter deaths index of 17%. This compares to Cumbria as a whole where the excess winter deaths index for 2005 / 06 was 14%.

16. Deaths From Suicide.

The Government’s White Paper “Saving Lives: Our Healthier Nation” (1999) set a target to reduce the death rate from suicide and undetermined injury by at least a fifth by the year 2010.
The likelihood of a person committing suicide is related to a number of factors. These include physically disabling or painful illnesses, mental illness, alcohol and drug misuse and level of support. Stressful life events such as the loss of a job, imprisonment, a death or divorce can also play a part. For many people it is a combination of factors which is important, rather than a single factor.
Official suicides are those in which the coroner or official recorder has decided that there is clear evidence that the injury was self-inflicted and the deceased intended to take their own life. Open verdicts or undetermined injury are those where there may be doubt about the

deceased's intentions. Research studies show that most open verdicts are in fact suicides. For the purpose of measuring overall suicides, official suicides and open verdicts are combined.
Men are more likely to commit suicide than women. The majority of suicides occur in young male adults under the age of 40.
In Carlisle during the period 2003 – 05 there were 23 male suicides compared to 10 females, a directly standardised rate of 23.4 men to 6.2 women. Therefore in Carlisle, men are almost four times more likely to commit suicide than women. This compares with almost three to one nationally. Carlisle has a male suicide rate that is almost twice the national average and a female suicide rate above the national average.
There is an association between deprivation and suicide with rates being highest in the most deprived areas. Overall in Cumbria the rate of suicide in the most deprived areas is 18 per 100,000 population compared to 7.1 in the least deprived.

Figure 26: Mortality from Suicide

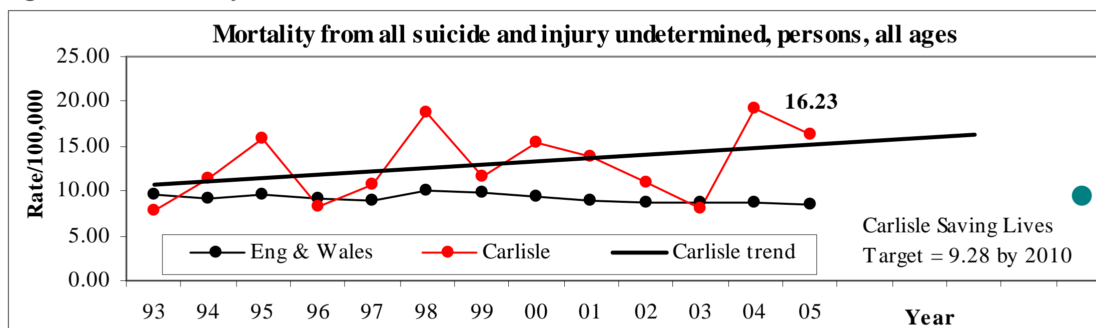


Figure 26 shows the suicide trend for Carlisle and District. From a rate of 7.9 per 100,000 of the population in 1993, suicides peaked in 2004 at a level of 19.2. 2005 has seen a fall to a rate of 16.2; however this is almost twice the national average. If the current trend continues Carlisle will fail to reach its target rate of 9.3 by 2010 as clearly shown by the trend data.

17. Problem Drug Use.

The Drug Strategy

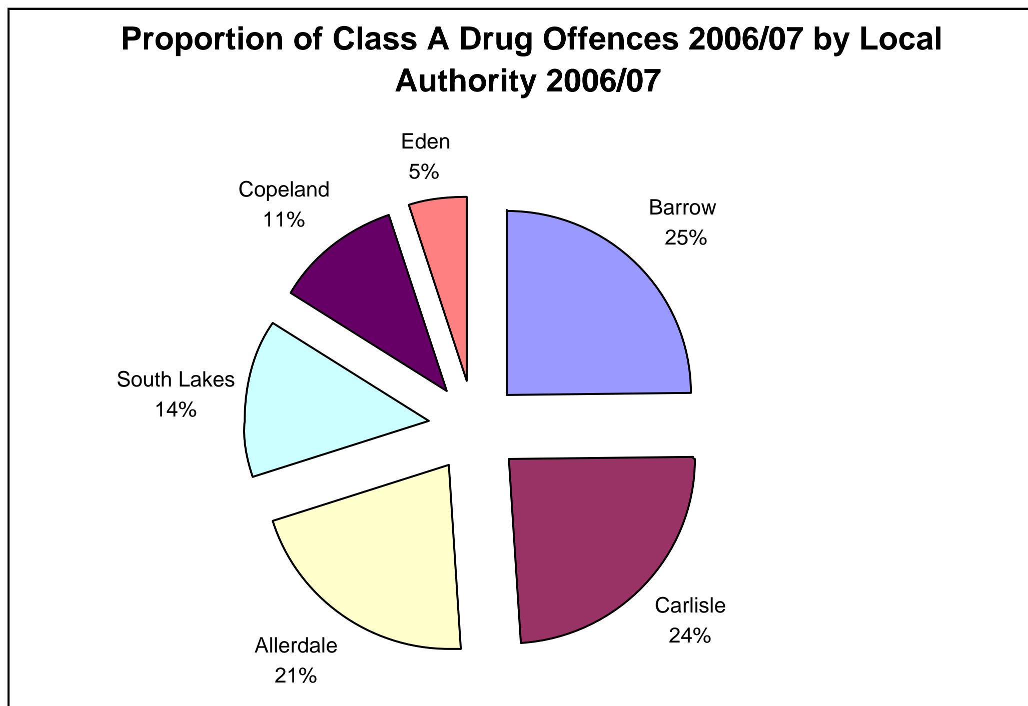
The Drug Strategy is a cross-Government programme of policies and interventions that concentrate on the most dangerous drugs, the most damaged communities and problematic drug users. The strategy comprises four strands of work

- preventing young people from becoming drug misusers
- reducing the supply of illegal drugs
- increasing the number of individuals accessing effective drug treatment
- and reducing drug-related crime

Drug action teams (DATs) are the partnerships responsible for delivering the drug strategy at a local level.

During the period 2006 /07 there were 114 offenders whose offence was attributed to Class A Drug offences in Carlisle. This represents 24% of the total 474 drug offenders in the county, just behind Barrow which was 25%.
Figure 27 illustrates the proportion of drug offences by local authority in Cumbria.

Figure 27: Proportion of Class A drug offences by local authority.



During this time period the great proportion of illegal substance use in East Cumbria was Heroin (75%) with only small proportions of other substances being identified (Figure 28).

Figure 28: Substance Misuse by Type

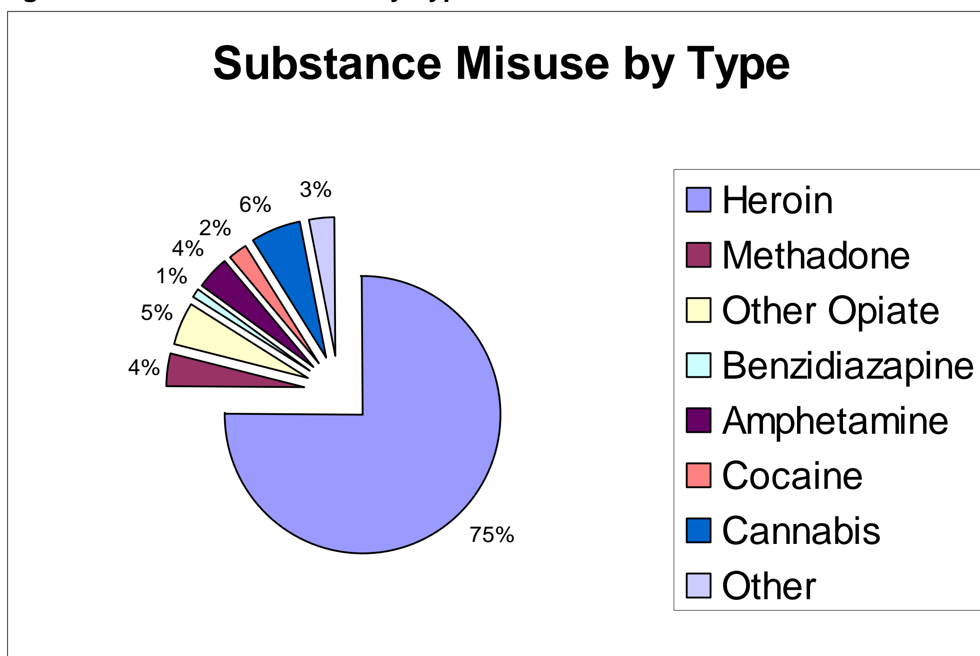
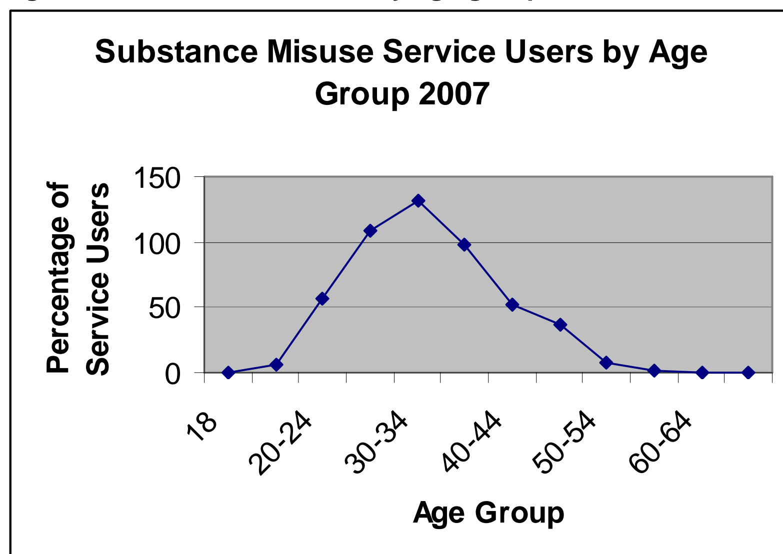


Figure 29 shows the age profile of drug users accessing dependency services in East Cumbria. The chart shows that the age of people most frequently accessing dependency services rises steadily from the age of 20, peaking at around age 34 after which there is a steady decline in the older age groups accessing treatment services.

Figure 29: Substance Misuse by age group.



18. Screening Programmes.

18.1 Cervical Cancer.

The national cervical screening programme enables early detection and treatment of changes in the cervix before these changes become malignant. In the UK each year around 3,000 new cases of cervical cancer are diagnosed, and there are around 900 deaths in England due to this condition. Many women who develop cervical cancer have not been screened regularly. (Department of Health 2006)
The Department of Health has set a target for Primary Care organisations to achieve 80% of women between the ages of 25 and 64 receiving cervical cancer screening.
Data to March 2006 indicate that Cumbria Primary Care Trust as a whole has exceeded the national average for cervical screening by achieving 82.4% of all women within the target age group attending for screening. This compares to the national figure of 79.5%.
For the same period, Carlisle Local Authority has achieved 82.5% of coverage for the target group. However four of the fifteen General practices in Carlisle did not achieve the target of 80% coverage of the eligible population.

18.2 Breast Screening.

In England one in nine women will develop breast cancer at some time in their life. (Department of Health 2006). Breast screening in the form of mammography can detect breast cancer at an early stage. Between 1988 and 1991 the National Breast Programme was introduced. During the first phase all women aged between 50 and 64 years were invited to attend for mammography. During 2005 the programme was extended to include women aged between 65 and 70 years. After the age of 70, women are still eligible for breast screening however they are not invited to attend, and must request mammography.
The Department of Health has set a target for primary care organisations to achieve a minimum of 70% of the eligible population to attend breast screening and a desirable target of 80% of the eligible population. The programme is estimated to save around 1,400 lives each year in England. For every 400 women screened regularly by the NHS Breast Screening Programme over a ten year period, one woman fewer will die from breast cancer (Advisory Committee on Breast Cancer Screening 2006).
In Cumbria over the past 3 years 68.3% of women who are eligible have attended for breast screening. This falls short of the minimum target of 70%.

18.3 Chlamydia.

Chlamydia is the most common sexually transmitted infection in the UK and it affects both men and women. The condition is easy to treat once detected, bur the majority of cases are asymptomatic. Untreated Chlamydia can lead to long term problems such as infertility and ectopic pregnancy.
Chlamydia is most common in the under 25 age group with 1 in ten people in this cohort testing positive for the condition.
In March 2007 the National Chlamydia screening programme was launched. The programme aims to prevent and control Chlamydia infection through early detection and treatment of the asymptomatic condition.
The programme involves the implementation of a multi-faceted, evidence-based and cost – effective national prevention and control programme.

19. Childhood Immunisation.

Immunisation programmes provide protection against serious diseases.
The NHS advises that all children are immunised against the following infectious diseases:

- Diphtheria
- Tetanus
- Pertussis
- Polio
- Haemophilus Influenzae Type b (Hib)
- Pneumococcal Infection
- Meningitis C
- Measles
- Mumps
- Rubella

The Department of Health has set a target rate of 95% for the uptake of all routine childhood vaccinations with an overall rate of 96% to be achieved for the period 2010 -11.
Table 10 illustrates the percentage of children under the age of two who received routine childhood immunisations in Carlisle and compares them to children in Cumbria as a whole.
While there are currently no data available relating to pneumococcal immunisation, we can see that we are currently hitting the immunisation target for the majority of identified diseases.
However we are below the target for measles, Mumps and Rubella vaccination.

Table 10: Immunisation Statistics for Children Under the Age of Two – 2006-07

Diseases Protected Against	% Protected Carlisle	% Protected Cumbria
Diphtheria Pertussis Tetanus Polio Hib	98%	97.5%
Meningitis C	97%	97%
Measles Mumps Rubella	91%	91.2%
Pneumococcal Infection	Data Unavailable	Data Unavailable

20. Influenza Vaccine.

Influenza - flu - is a highly infectious acute viral infection, which affects people of all ages, mainly during the winter months.

While most people recover without complications in 1-2 weeks, flu can cause serious illness and death, especially in the very young and the elderly.

Flu epidemics result in widespread illness and disruption to health and other services.

A vaccine is produced every year based on the strains of virus expected to be circulating.

The national policy is for 'flu vaccine to be offered to the following groups:

- chronic respiratory disease, including asthma;

- chronic heart disease;

- chronic renal disease;

- chronic liver disease;

- diabetes;

- immunosuppression due to disease or treatment; and those living in long stay residential care homes or other long stay care facilities.

The target set by the world Health Organisation is by 2006, 75% of people over the age of 65 should receive annual 'flu vaccination. The flu jab is effective for up to 12 months and the flu virus constantly mutates, so it is necessary to have a new jab each year. Table 11 shows that during the 2006 / 07 'flu vaccination programme Carlisle reached its target of 75% of residents over the age of 65 received 'flu vaccine.

Table 11: Over 65 Rates for Influenza by PBC as at 31/01/2007

Area	Patients Registered	Number Vaccinated	*% Uptake*
Allerdale	18,928	14,739	*78%*
Barrow	10,952	8,691	*79%*
Carlisle	18,866	14,138	*75%*
Copeland	12,639	9,140	*72%*
Eden	10,107	7,668	*76%*
South Lakeland	24,178	18,238	*75%*
Cumbria PCT	103,572	78,899	*76%*

21. Dental Health in Children.

The 1994 Oral Health Strategy outlined objectives for oral health for the year 2003 which concentrated on the prevalence of tooth decay, specifically in children.

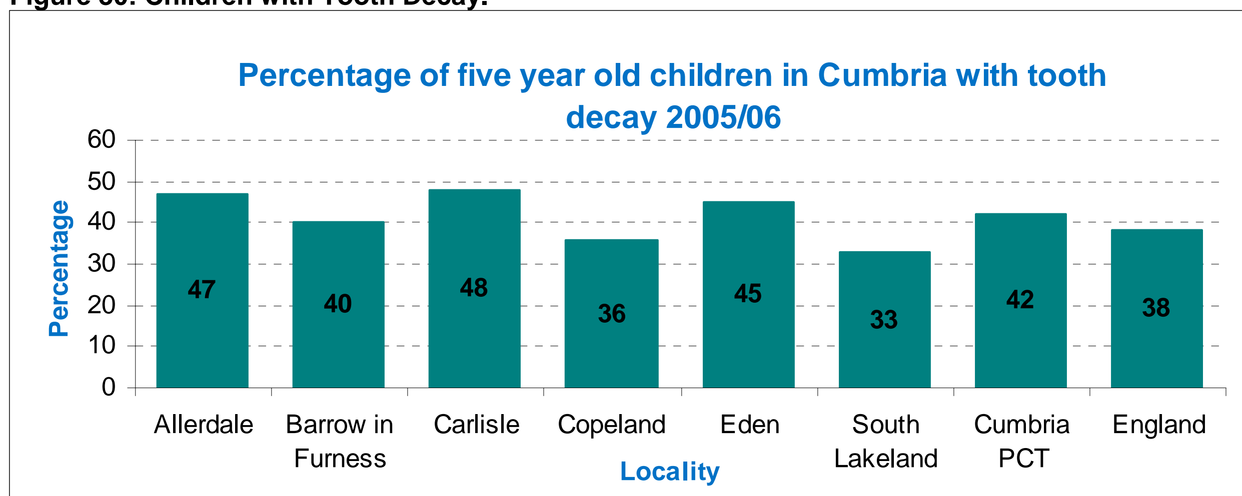
The targets were:

- 70% of five year old children should not have experienced decay

- On average, five year old children should have no more than one decayed, missing due to decay or filled primary tooth
- On average, twelve year old children should have no more than one decayed, missing due to decay or filled tooth (DMFT)

Figure 30 shows that during 2005/06, 48% of children aged five years in Carlisle were experiencing decay. This is higher than any of the local authorities in Cumbria and 10% higher than the average for England and means that only 52% had no decay. This is well below the target set for 2003.

Figure 30: Children with Tooth Decay.



22. Air Quality.

Clean air is an important feature of the local environment and is essential in ensuring a good quality of life. The National Air Quality Strategy (1997) aims to minimise the risk of poor air quality to human health. The Strategy identifies seven common air pollutants that occur widely throughout the UK and which can cause harm to human health. These pollutants are largely the result of industry and motor vehicles. They are identified as Benzene, Butadiene, Carbon Monoxide, Lead, Nitrogen dioxide, Particles (PM10) and Sulphur Dioxide. The Strategy sets out acceptable standards for concentrations of these pollutants along with dates for which these standards should be achieved. All of these dates are now timed out with the exception of Benzene where the target date is December 2010.
All local authorities have a legal duty to periodically review and assess the current and likely future air quality in their area against these air quality standards.
There are thirteen air quality monitoring locations across the city of Carlisle.
Where an air quality objective is not likely to be met, the Local Authority must declare an Air Quality Management Area (AQMA) and produce an action plan outlining how the Authority intends to improve air quality within the AQMA.
Table 12 illustrates the National Air Quality Standards and dates by which they should be achieved.

Table 12: National Air Quality Targets.

Pollutant	**Concentration**	**Date to be Achieved By**
Benzene (All authorities)	16.25mg/m3	31.12.2003
Benzene (England and Wales)	5.00mg/m3	31.12.2010
Butadiene	2.25mg/m3	31.12.2003
Carbon Monoxide	10.0mg/m3	31.12.2003
Lead	0.5mg/m3	31.12.2004

Nitrogen Dioxide	200mg/m3 not to be exceeded more than 18 times a year	31.12.2005
Particles (PM10)	50mg/m3 not to be exceeded more than 35 times a year	31.12.2004
Sulphur Dioxide	266mg/m3 not to be exceeded more than 35 times a year	31.12.2005

The Local Authority is now only required to report a detailed assessment specifically on levels of Nitrogen Dioxide (NO_2) and Particles (PM10). This is because none of the other pollutants hit any of the trigger levels which would lead to the possibility of them exceeding the limits.
During the last round of review and assessment which was published in 2006 it was identified that exceedences of the annual mean NO_2 objective were likely to occur along sections of the A7 in Carlisle. The area between Junction 44 of the M6 to Hardwick Circus was therefore declared an Air Quality Management Area.
Carlisle City Council is now in the process of undertaking the third round of review and assessment. The first stage (a scoping report) has been completed and concludes that there are several other areas within the City which are at risk of exceeding the annual mean air quality objective for nitrogen dioxide. They conclude that there was sufficient monitoring data to show that the annual mean air quality objective for nitrogen dioxide was being exceeded at locations alongside Currock Street. This location has now been declared a second Air Quality Management Area.
Overall Carlisle is 86th out of 354 districts in England for CO2 emissions per head of population. This is in the worst 25%.
Carlisle City Council is currently drawing up an Action Plan specifying the measures it intends to take in pursuit of reducing nitrogen dioxide concentrations within the Air Quality Management Areas.
The following are headings under which Action Plan measures are being considered to improve air quality in the production of the Air Quality Action Plan.

- Reducing the need to travel
- Encouraging walking and cycling
- Encouraging use of public transport
- Reducing the number and distance of trips within the AQMA
- Encouraging the use of alternative fuels and smaller more efficient vehicles
- Improving traffic management and congestion
- Reducing emissions from heavy goods vehicles and buses
- Reducing emissions from non transport related sources.

In relation to Particulate Matter monitoring a summary of PM_{10} concentrations monitored between January and December 2006 were well below the objective levels for 2004.

23. Mental Health.

Evidence suggests that the places where people live have an important effect on their mental health (Fone and Dunstan 2006), there is also a well recognised link between inequalities, employment and mental health.
Figure 31 shows the percentage of those people who are claiming incapacity benefit for each of the wards in Carlisle whose claim is due to a mental health problem.
We can see that twelve of the Carlisle wards have higher than the average figure for Cumbria whose claim is due to mental health issues. However those wards that are in the higher socio economic bracket generally have lower levels of mental health problems than the more disadvantaged wards.

Figure 31: Incapacity Claimants by Ward

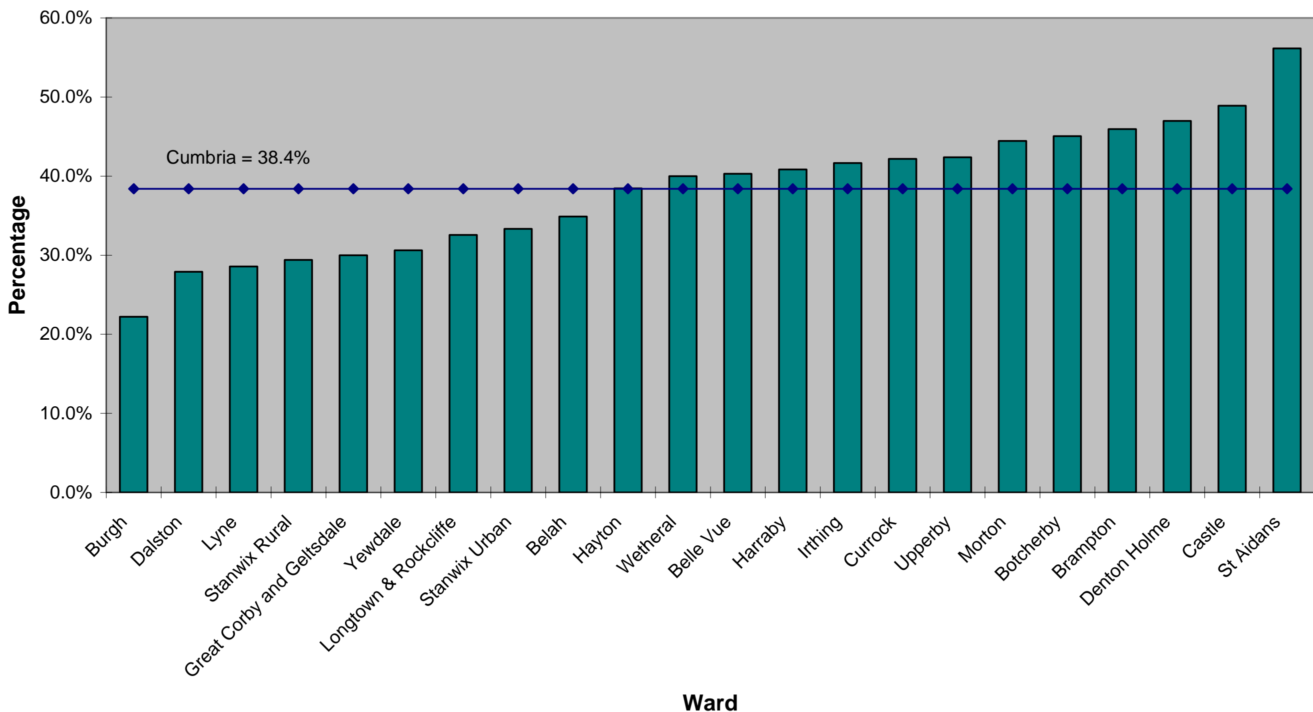


Figure 32 shows the number of hospital admissions due to self harm for the period 2003 - 2008. We can again see that such incidents are concentrated in the most disadvantaged wards. Botcherby in particular has a notably high incidence of self harm. However it should be noted that the data represent incidences and not individuals, therefore it is possible that one individual may be responsible for a number of hospital admissions during the timescale.

Figure 32: Hospital admissions due to self-harm

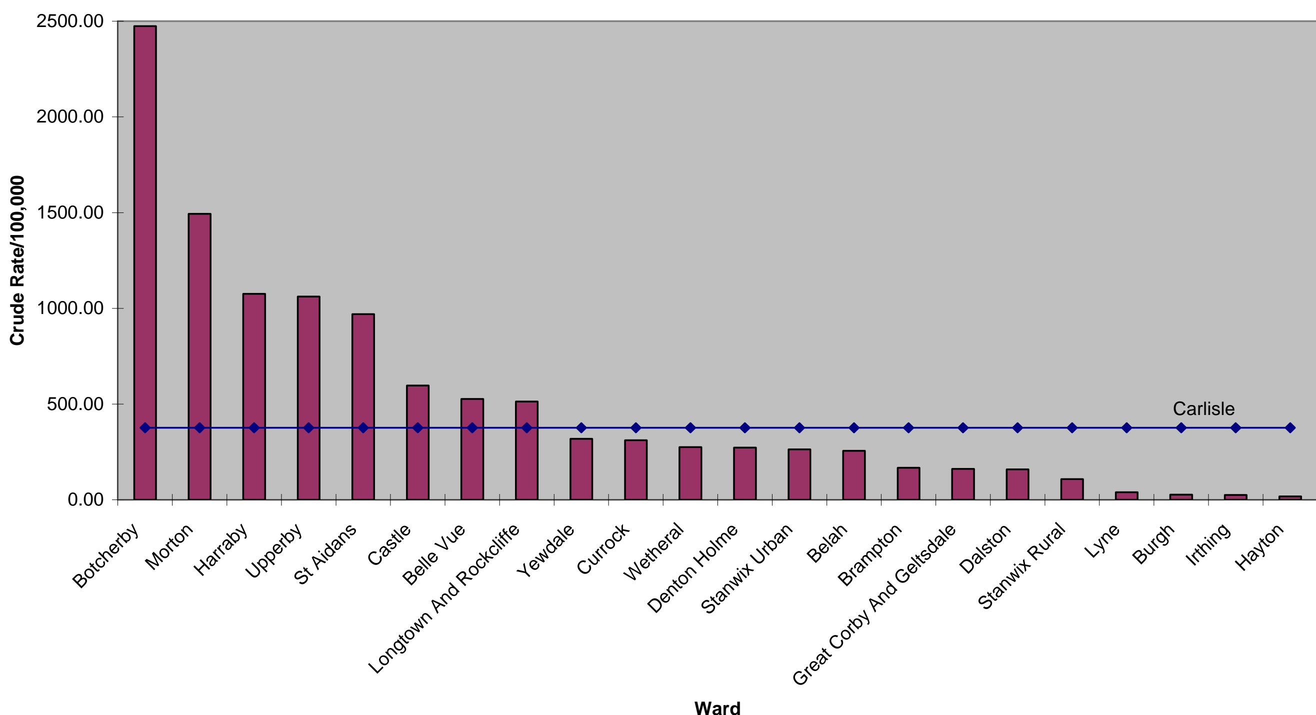
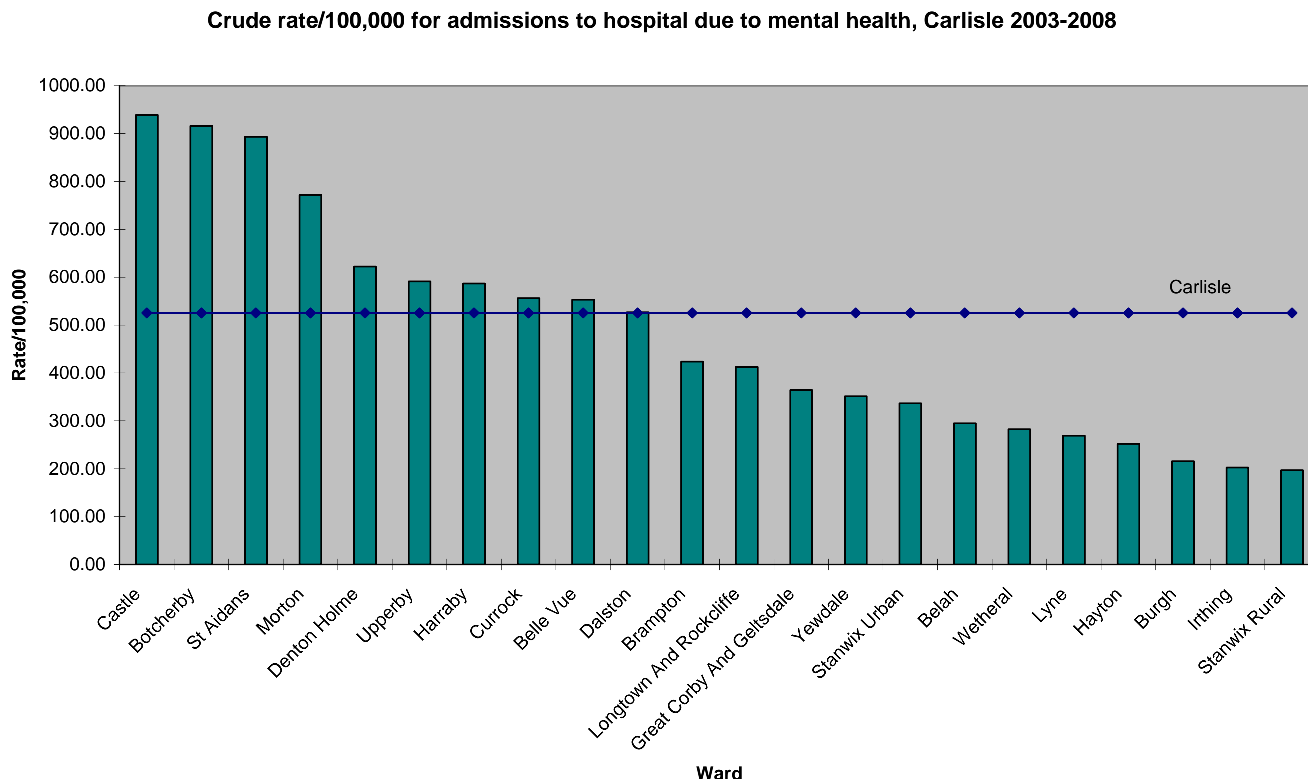


Figure 33 shows hospital admissions for a mental health condition. Again the data clearly demonstrate that those wards with the greatest level of socio-economic disadvantage have the highest rates of mental poor health, while the more affluent wards all have rates noticeably lower than the Carlisle average.

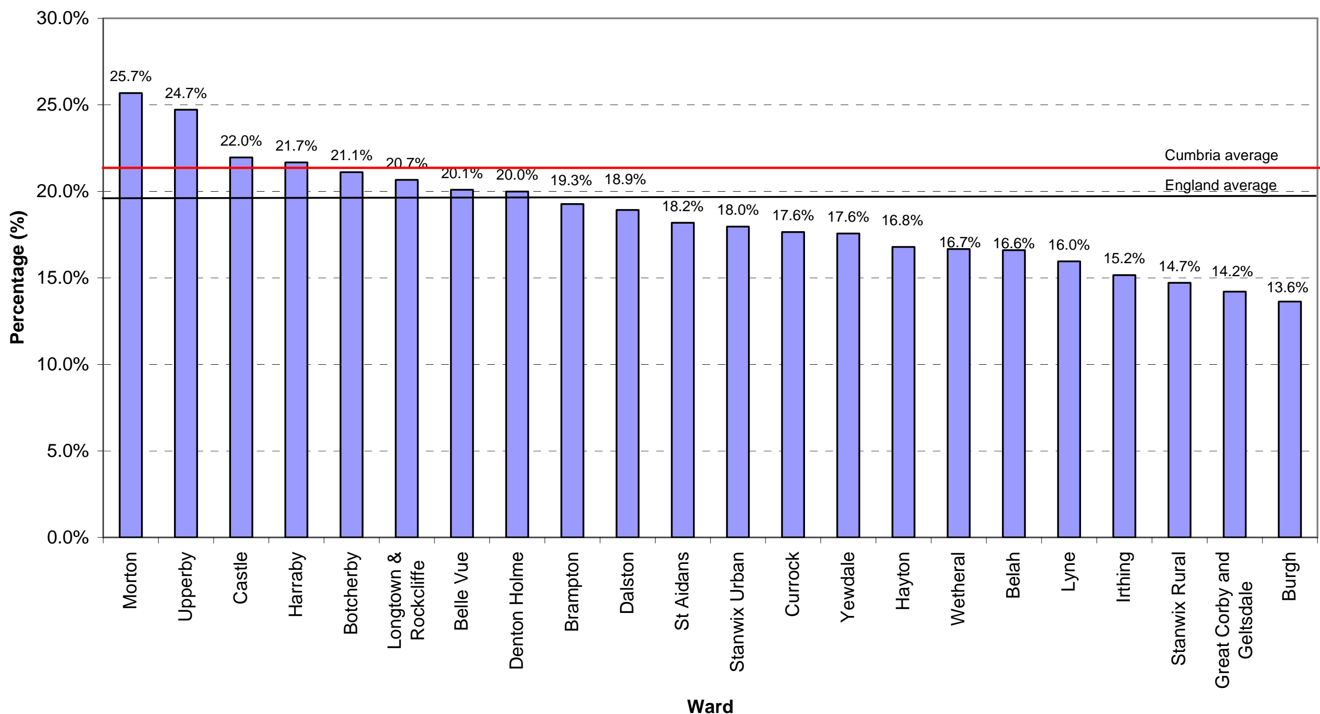
Figure 33: Hospital admissions – Mental Health



23. Long Term Limiting Illness.

Figure 34 represents the percentage of people reporting that they have a long term limiting illness (LTLI) by ward.
The data show that Morton is ranked the highest of the 22 Carlisle wards for people living with LTLI, this represents 25.7% of the ward population. However, these data are not standardised for age and it should be noted that 29% of people living in Morton ward are over the age of 65. Overall, 19.7% of the Carlisle population are living with a long term limiting illness. This compares to the average for England which is 17.9%. Carlisle has a similar proportion of residents over the age of 65 to the rest of England. However the data indicate that Carlisle has a prevalence of long term limiting illness almost 2% higher than the national average.

Figure 34: Long Term Limiting Illness



24. Quality of Life.

The Cumbria Quality of Life Survey was conducted in 2006 by the Ipsos MORI Social Research Council. The research covered the following issues:

- Satisfaction with Cumbria as a place to live
- Views of council participation, volunteering and social cohesion
- Perceptions of community and safety in the local area
- Attitudes towards the local environment
- Satisfaction with service provision
- Transport and mobility
- Perceptions of health and wellbeing.

The key findings in relation to Carlisle City Council residents are summarised as follows.

Levels of satisfaction with the local area are relatively high in Carlisle with 84% of residents saying they are satisfied. However, people living in Carlisle are less satisfied with their local area than those in Cumbria overall and are more likely to say the area has got worse in recent years.

Concern about crime is more widespread in Carlisle than it is in Cumbria overall.

Carlisle residents are more worried about being a victim of crime and less likely to feel safe outdoors after dark than are Cumbria residents generally (33% in Carlisle compared to 21% in Cumbria) and also the population nationally.

Anti-social behaviour is a key concern for Carlisle residents, and most do not feel well informed about what is being done about it.

A strong sense of community cohesion is evident in Carlisle with more than half of residents saying they feel they belong to their community

Half of residents in Carlisle believe people in their neighbourhood are able to influence local decision making by working together. However, many Carlisle residents are keen to have more of a say in Council decisions.

Carlisle residents' top priorities for improvement in their local area are activities for teenagers, traffic congestion and road and pavement repairs.
Broadly speaking, residents think service delivery in the local area is good. However satisfaction with a number of local services and facilities - children's playgrounds and play areas, libraries, hospitals, train services and social services is lower among users of these services resident in Carlisle than in Cumbria overall.

25. Crime.

Carlisle and Eden local authorities have an established Crime and Disorder Reduction Partnership (CDRP) which includes the Police, Primary Care Trust, Probation Service, Local residents and the Voluntary Sector.
The CDRP produces an annual strategic assessment of local priorities in relation to crime and a tactical plan is devised to address the identified priorities.
Current priorities relate to anti-social behaviour, violent crime and criminal damage. Targets are set in order to measure performance.
Figure 35 shows the rate of offences per 1,000 of the population during the period 2005 /06. The chart demonstrates that the chosen area (Carlisle) has higher than the national average rates of offences for each of the three month periods.

Figure 35: Comparison of Rates of Offences in Carlisle Local Authority Compared to the National Average.

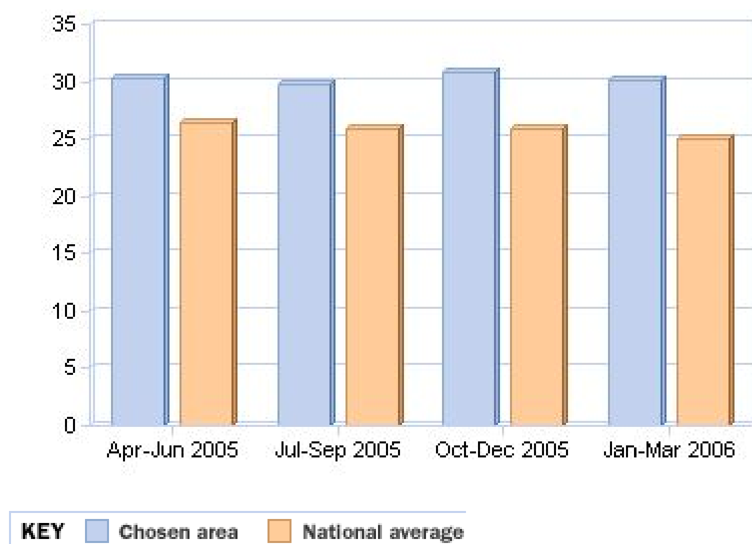


Figure 36 illustrates trends in offences in each of the local authorities in Cumbria 0ver a five year period (2003 /08). The trend data show that trends are fairly similar across the local authorities. From 2003 to 2006 there was a rise in the number of crimes, however this trend has reversed and in the period to 2008 there has been a general downward trend in offences.
It should be noted that these figures relate to actual numbers of offences rather than rates per population. Carlisle has the greatest population of all the local authorities in Cumbria and this is reflected in the number of offences reported.

Figure 36: trends in Offences by Local Authority 2003 - 08

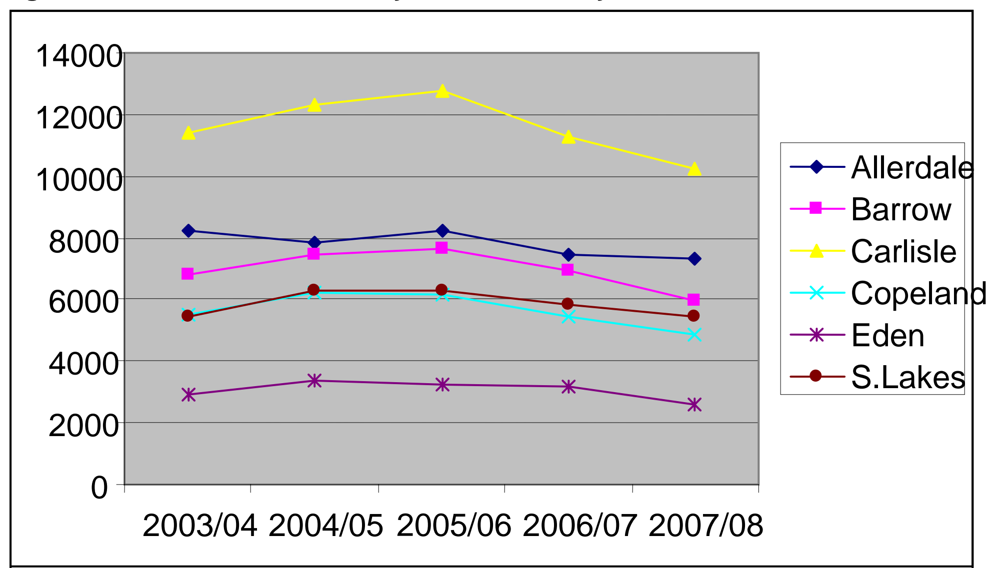


Table 13 illustrates the type of offences reported within the Local Authority over the five year period from 2003 to 2008. We can see that the commonest types of offences are criminal damage, theft and offences against the person which includes assault, actual and grievous bodily harm, as well as murder.

Table 13: Types of Offence 2003-08

Offence Type	Carlisle
Burglary Dwelling	1923
Burglary Other	3826
Criminal Damage	16913
Drugs	1666
Fraud & Forgery	1762
Offences Against the Person	11006
Other	767
Robbery	175
Sexual Offences	494
Theft	14288
Theft from a Motor Vehicle	3388
Theft of a Motor Vehicle	1746
TOTAL	57954

26. Education.

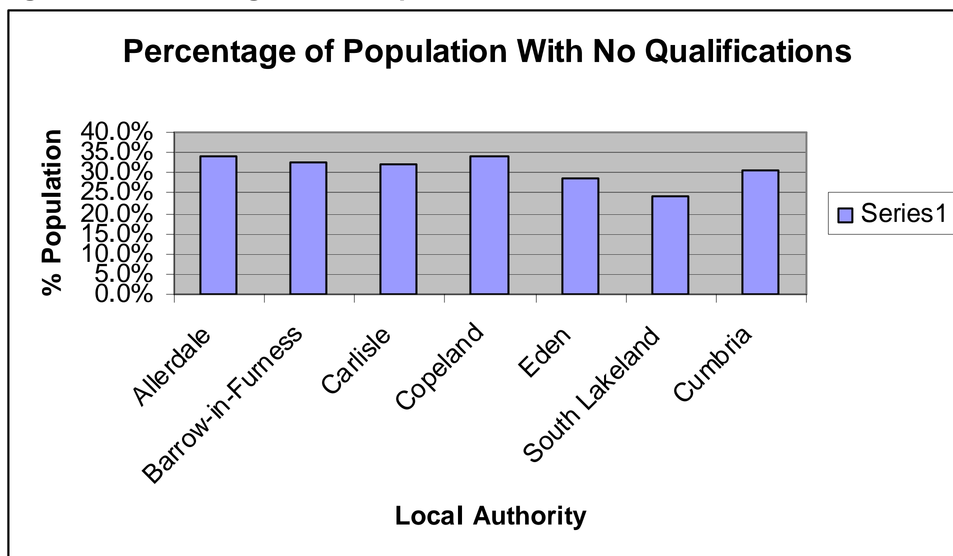
Table 14 shows the percentage of children aged 15 who have achieved five or more GCSE passes at grade A* to C. We can see that Carlisle is ranked lowest of all the local authorities in Cumbria with just 47.7% of children achieving this standard. Carlisle also falls considerably below the average for the North West region which is 56.5% and is improving less rapidly than Cumbria, the North West Region and England.
Carlisle local authority has the highest proportion of children in Cumbria who have received no passes at GCSE level with 5.6% of all pupils aged 15 not achieving this standard. This compares to the percentage of pupils in the North West region which is 3.4%.
Fewer 16 year olds stay on in education in Carlisle than in the rest of Cumbria and England.

Table14: Percentage of children achieving 5 or more GCSE passes.

	All 15 Year Old Pupils	% All 15 Year Old Pupils Achieving 5+ A* - C	% All 15 Year Old Pupils with No Passes
Allerdale	1237	63.3	3.6
Barrow-in-Furness	927	50.7	5.1
Carlisle	1207	47.7	5.6
Copeland	904	56.1	5
Eden	622	62.5	3.4
South Lakeland	1096	65.8	1.6
North West	87244	56.5	3.4

Figure 37 illustrates the percentage of people with no qualifications. We can see that 32% of Carlisle residents have no qualifications compared to the average for Cumbria of 21%.

Figure 37: Percentage of the Population with No Qualifications



27. Accidents.

27.1 Road Traffic Accidents.

Road traffic accidents are a major cause of accidental deaths in young people and are a public health priority in the UK.
In Cumbria during 2007 the target set to reduce the number of people killed or seriously injured on our roads was set at a 14.5% reduction on the previous year. In real figures this means 20 fewer individuals with a target of 144 casualties. The target was achieved with an overall figure of 130 casualties for the year.

Figure 38: Road Traffic Collisions by ward.

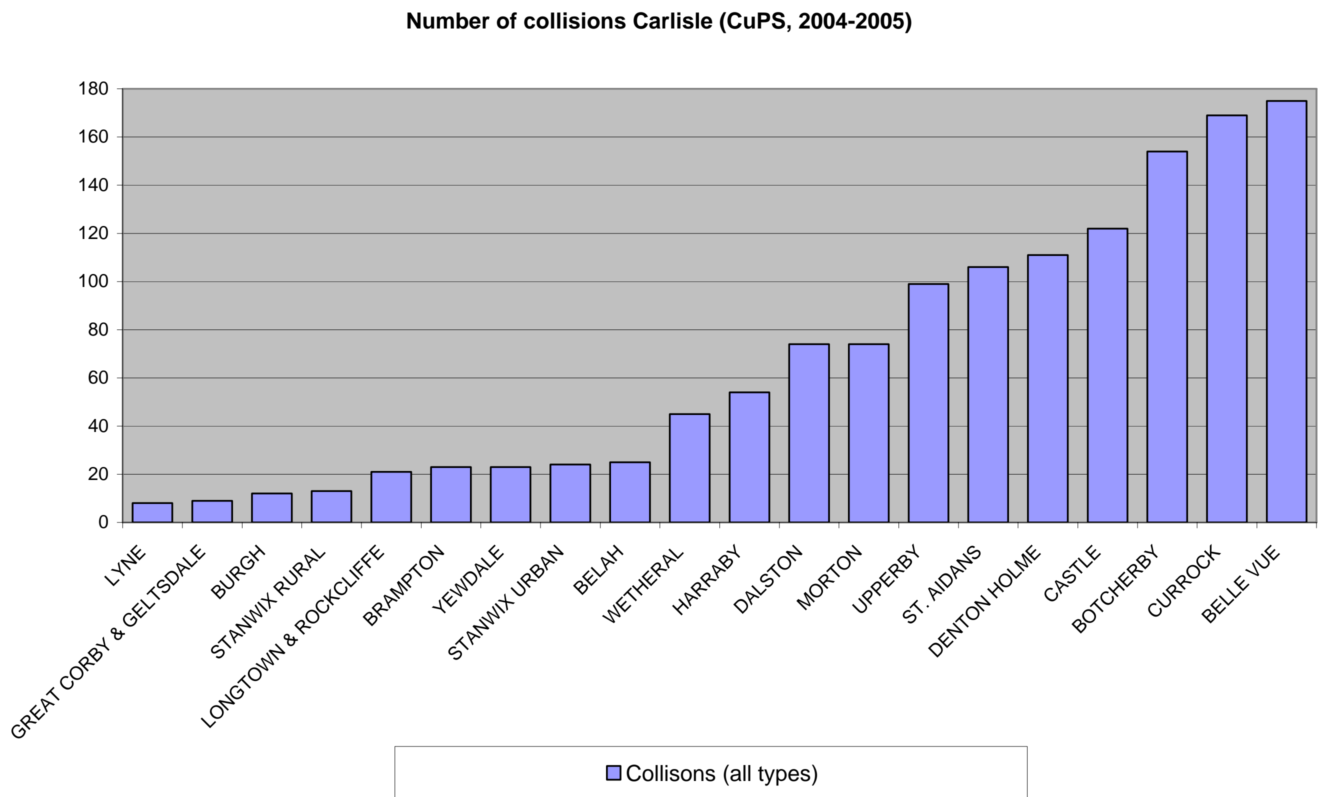
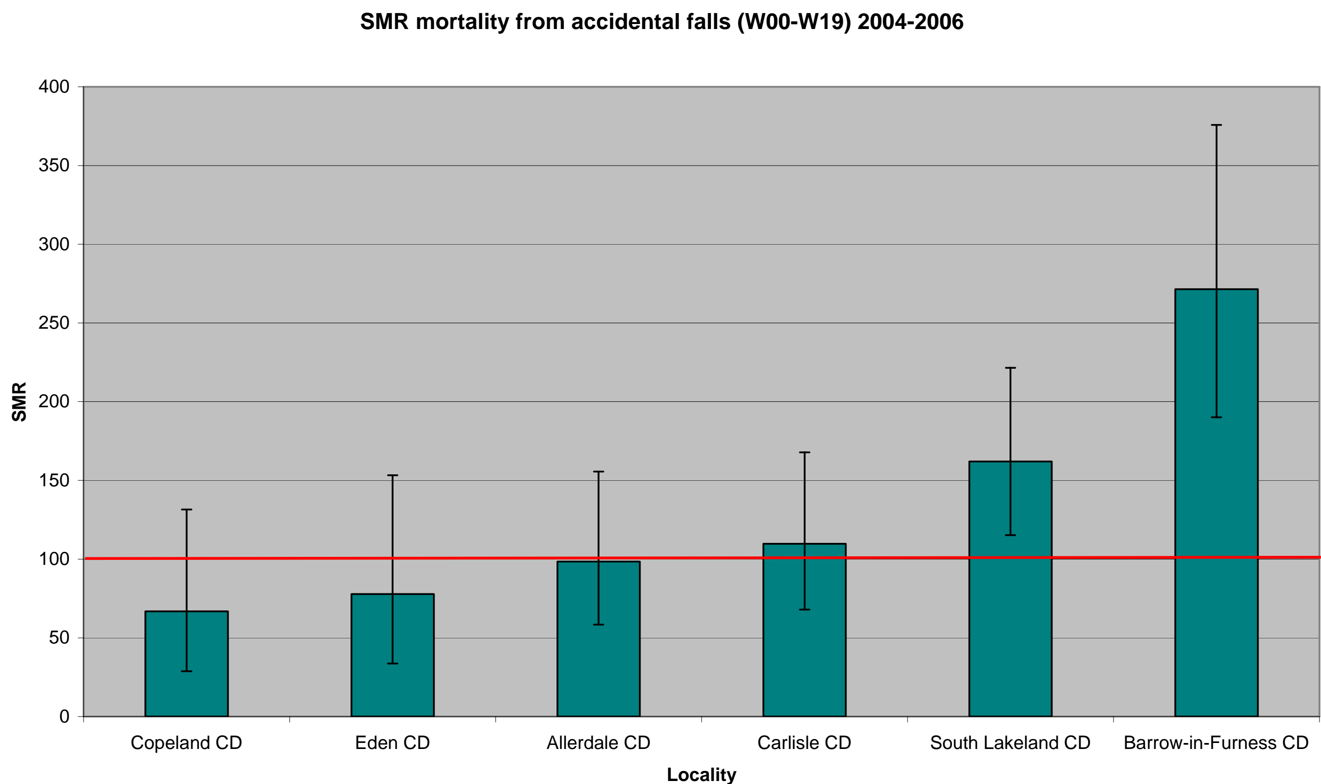


Figure 36 shows the number of road traffic collisions by ward, and demonstrates that the wards with the highest number of accidents are in those suffering from the higher levels of deprivation.

27.2 Falls.

The National Service Framework for Older People Standard Six, (DoH 2001) aims to reduce the number of falls which result in serious injury, and ensure effective treatment and rehabilitation for those who have fallen. A dedicated falls Prevention and Management Service is based within the Acute Hospital Trust in Carlisle.
Figure 39 shows standardised mortality ratios from accidental falls for each of the Cumbria local authorities. We can see that while the Carlisle rate is slightly above the national average, this is not statistically significant.

Figure 39: SMRs from Accidental Falls.



Accidental and Non- Accidental Injury in Children.

Accidents are the leading cause of injury to children and disproportionately affect children from the lower socio-economic groups.

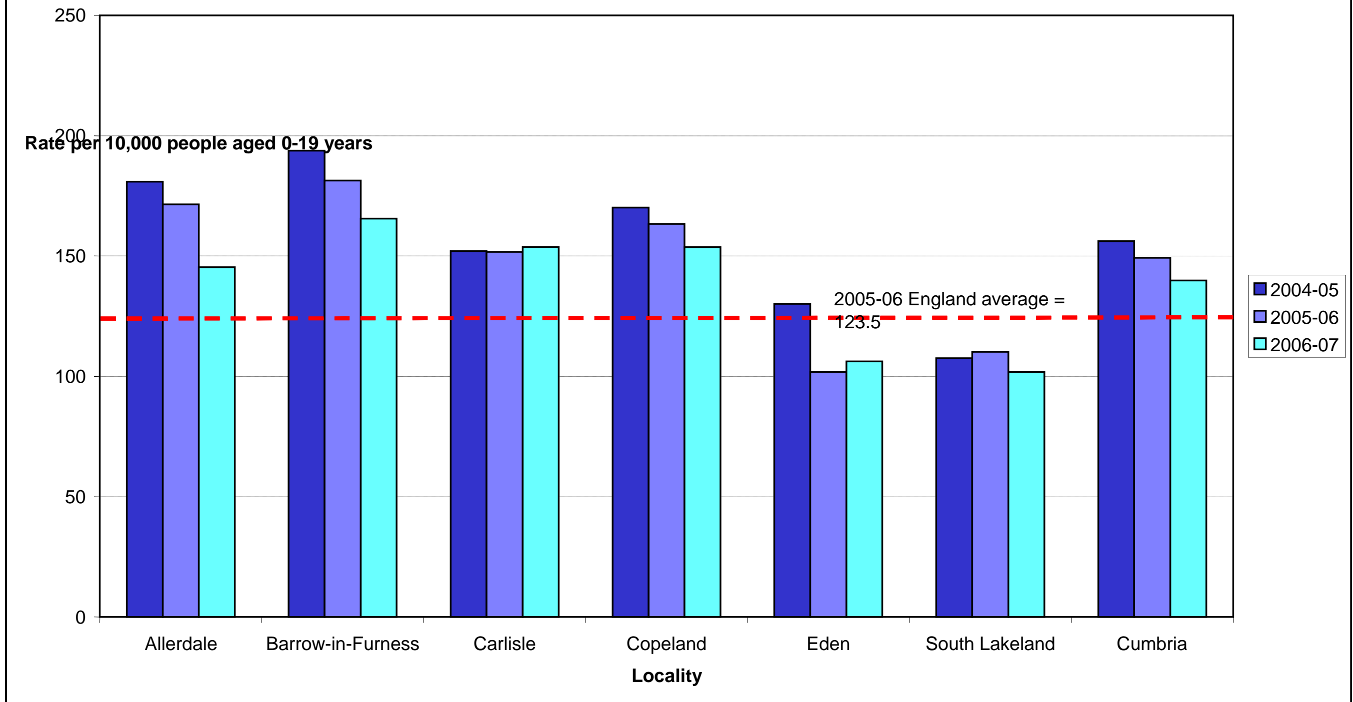
National indicators for Local authorities and Local Authority Partnerships identify the reduction in emergency hospital admission caused by unintentional and deliberate injuries to children and young people as a national priority. Reporting on national indicators commenced from April 2008.

Performance is measured by dividing the total number of finished in-year admissions of children and young people to hospital as a result of accidental and non-accidental injury.

Good performance relating to this indicator is typified by local authorities demonstrating a decreased rate.

Figure 40 illustrates the rate of emergency admissions with an external cause per 10,000 people aged 0 – 19 years of age for each local authority in Cumbria. Only Eden and South Lakeland show rates below the average for England. The remaining local authorities show a decreasing trend over the three year period 2003 – 2007 for injuries resulting from an external cause.

The exception is Carlisle which has shown no such decrease, and in fact shows a slight increase for 2006 / 07. This indicates that performance needs to improve if we are to demonstrate a reduction in injuries to our children and young people.



28. Sport and Leisure.

Urban parks and green spaces are recognised as making a positive contribution to health. Trees and vegetation help to reduce the effects of pollution, while regular exposure to outdoor green environments reduces stress and accelerates recovery (Maller et al 2006).
There are four green space open parks within Carlisle, they are located at Denton Holme, Upperby, Hardwick Circus and Rickerby.
Carlisle City Council own a number of sports and leisure facilities across the district. These include The Sands events centre which provides arts, entertainment, exhibitions and meetings as well as health and fitness facilities.
There is a swimming pool complex which comprises three swimming pools, Victorian Turkish Baths, fitness room, and fitness studio.

There are two municipal golf courses and a driving range within the city.
Bitts Park features synthetic and grass tennis courts and bowling green.
As well as the above facilities there are a number of dedicated sports clubs for private members, for example tennis, golf and bowling as well as several private members gymnasiums.

The Sheepmount Stadium features a six lane synthetic track and field event facilities and a 300-seater grandstand. The Stadium is home to the Border Harriers and Athletic Club and the Carlisle & Aspatria Club. The site is also home to Carlisle's Municipal pitches with eight soccer pitches, two cricket pitches and a 330-metre grass cycle track. The Homes of Carlisle City FC and the Cumberland News Rifle Club also occupy the site. The Sheepmount together with The Sands Centre have been given the status of an accredited training venue for the 2012 Olympic Games.

The next stage of this process is for venues to work on promoting their facilities to attract international athletes. This has led to representatives from Carlisle Leisure Ltd – the company managing Carlisle City council's sport and leisure facilities - being involved with the Cumbria 2012 steering group and the creation of a 6 year strategy leading to the London 2012 Games and beyond to the Glasgow Commonwealth games in 2014.

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