



# Annual Report

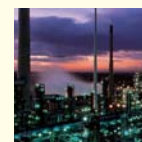
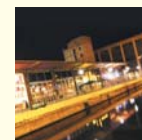
on the health of the people of North East Lincolnshire

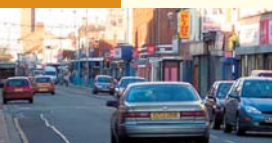
2007

From the Director of Public Health



North East Lincolnshire **NHS**  
Care Trust Plus





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North East Lincolnshire  
Care Trust Plus area

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Since the last Annual Public Health Report, there have been some major organisational changes for Public Health. These include:

- **The appointment of the Joint Executive Director of Public Health – working at top levels in both the Local Authority and the NHS**
- **The appointment of a Portfolio Holder for Healthier Communities in the Council Cabinet and the appointment of that Portfolio Holder as a Non-Executive Director of the Care Trust Plus**
- **The delegation of the Health Improvement responsibilities of the Care Trust Plus to the Council**
- **The secondment of Public Health staff to the Council whilst retaining important responsibilities within the NHS.**

What is the importance of all this? People's health is much more affected by wider factors such as education, housing, employment, environment, leisure and crime, than it is by health services. So, it is really important for public health specialists to be working alongside all these Council services and those delivered by other partners. Nationally, the appointment of joint Directors of Public Health has been seen as the first step in this, but to change Council culture and processes requires close day to day working between staff teams and public health specialists, and these local changes take us much closer to a real and effective public health approach within the Council.

We have agreed some priority areas for this public health involvement. Until April 2009 these priorities will be:

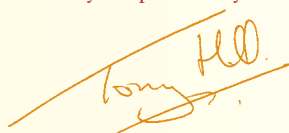
- **strategic housing**
- **teenage pregnancy**
- **sports development and physical activity**
- **tobacco control**
- **Local Enterprise Growth Initiative**
- **A Healthy Workplace-- in the Council**
- **developing Associate Health Trainers.**

In this year's report, we look at some particular pieces of work which have been delivered over the past year. For some years I have been pointing out the high levels of Road Accidents in North East Lincolnshire. I am really pleased that this topic has moved up the agenda and the first chapter gives details on some analysis which has been undertaken jointly between the Care Trust Plus, the Council and the Police. This shows the "hotspots" for road accidents in children and young people. The results of this analysis are already influencing education and engineering responses to accidents.

The **second** chapter reports on the updated Coronary Heart Disease Equity Profile. There are still enormous inequalities in the borough and it is pleasing to see that many of the recommendations we made have already been included in the Health Inequalities Action Plan for 2007-2010.

Childhood Obesity is a major increasing challenge. We have been weighing and measuring children in North East Lincolnshire for two years now and Chapter Three gives information on these results and other work which is taking place. Neighbourhood Renewal is a major part of our plans to reduce health inequalities, partly because it addresses many of the wider determinants of health I referred to earlier, and partly because it is closely targeted to the most deprived areas that we have highlighted in previous years' reports. Chapter Four is a pot-pourri of some of these projects.

Finally, I report each year on progress with previous recommendations, this is given in the table below.



**DR TONY HILL**

**JOINT EXECUTIVE DIRECTOR OF PUBLIC HEALTH**

North East Lincolnshire Council and North East Lincolnshire Care Trust Plus

RECOMMENDATION	PROGRESS
<ul style="list-style-type: none"> <li>• Multi-agency plans for reducing Road Traffic Accidents (RTAs)</li> </ul>	<ul style="list-style-type: none"> <li>• A Strategy has been produced. A small strategic group directs work in this area. An analysis of multi-agency data has been completed and is summarised in Chapter 1.</li> </ul>
<ul style="list-style-type: none"> <li>• Establish a learning disability register (2004).</li> </ul>	<ul style="list-style-type: none"> <li>• This is still not in place.</li> </ul>
<ul style="list-style-type: none"> <li>• CHOICES needs better marketing (2005).</li> </ul>	<ul style="list-style-type: none"> <li>• CHOICES has been re-launched with new marketing resources.</li> </ul>
<ul style="list-style-type: none"> <li>• Additional effort needs to be made to make further progress in reducing health inequalities.</li> </ul>	<ul style="list-style-type: none"> <li>• A Health Inequalities Action Plan for 2007 – 2010 has been agreed. Additional investment has been made. Neighbourhood Renewal Projects and delivery output work is underway to reduce inequalities in access to primary and secondary health care.</li> </ul>
<ul style="list-style-type: none"> <li>• The CAMHs Commissioning Group and service provider need to work together to develop comprehensive CAMH services as soon as possible.</li> </ul>	<ul style="list-style-type: none"> <li>• This work has begun</li> </ul>
<ul style="list-style-type: none"> <li>• Alcohol is given greater priority in local policy and an Alcohol Harm Reduction Strategy is produced.</li> </ul>	<ul style="list-style-type: none"> <li>• An Alcohol Harm Reduction Strategy has been produced and new investment made in Alcohol services.</li> </ul>



## Chapter 1

# Road traffic casualties in North East Lincolnshire

### National context

Britain has one of the best road safety records in the world and the number of people killed or seriously injured on the nation's roads is falling year on year. However, serious road accidents continue to affect a significant number of people in this country. Tragically, an average of nine people are killed every day on Britain's roads, whilst 90 are injured so seriously that they have to be detained in hospital or require medical attention for fractures, concussion, internal injury, severe cuts or shock. An additional 654 people are slightly injured each day in Britain following a collision on the road.

The emotional and social impact on those directly involved in traffic accidents, their family and their friends is incalculable. However, in crude monetary terms the value of preventing all 198,753 injury road accidents that occurred in Britain in 2006 is estimated to be in the region of £12.8 billion. In North East Lincolnshire, the savings associated with preventing all 894 road traffic casualties that occurred during the same 12 month period is equal to £44.2 million, or just over £121,000 a day.

In 2000, the Government introduced a 10 year national road casualty reduction strategy, *'Tomorrow's Roads, Safer for Everyone'*. The most recent review of this national strategy, (2007), identified a number of priority areas in need of specific tailored packages of measures.





These include actions to:

- reduce road deaths, which in comparison with serious casualties have reduced at a much slower rate;
- reduce the number of collisions resulting from poor driving behaviour, such as inappropriate and excessive speed, single vehicle accidents and drink driver deaths;
- renew focus on road user groups which remain at high risk of death and serious injury, namely young drivers, motorcyclists and people driving for work, aimed initially at the growing number of van drivers.

North East Lincolnshire's Road Casualty Reduction Partnership published its local strategy in early 2007. Five main areas of focus were identified in that report, including:

- A continuing focus on locations with a high risk of serious injury or death
- Action to reduce deaths and serious injury amongst young drivers and their passengers, young motorcyclists and other drivers
- Improving the safety of child pedestrians and pedal cyclists.

This chapter summarises the data on overall road casualty trends in North East Lincolnshire and then focuses on two groups of road users at particularly high risk of death and serious injury; namely children and young drivers.

The data that follow are based on national sources as well as local police records of road accidents involving a death or serious injury. Police records, known as Stats 19 data, are the most comprehensive and robust source of information on the circumstances of road collisions and road casualties and are used nationally to inform road safety policy. The local Stats 19 data were supplied by the Humberside Police Collisions Unit in Hessle.

### National targets

In 2000, the Government set a national target to reduce the total number of people killed or seriously injured by 40% by the year 2010, compared with a baseline 1994-8 average. Across Great Britain as a whole, a 33% reduction has already been achieved, in spite of a 15% increase in traffic over the same period. Most of these changes are due to improvements in road infrastructure, within-car technology and speed management. However, the reduction in serious casualties has not been achieved uniformly across the regions, or across individual local authority districts.

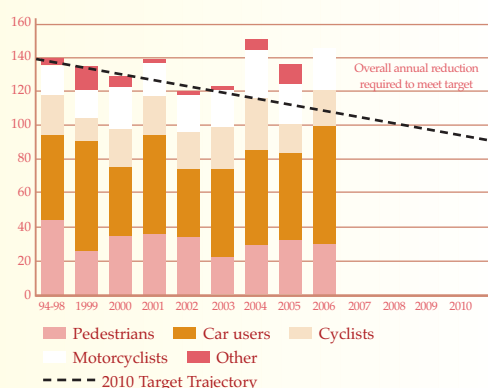
According to national data for the period ending 2005, North East Lincolnshire ranked 4th from the bottom in the region in terms of its progress towards meeting the national road casualty reduction target of 40%, having achieved only a 5% reduction in deaths and serious injuries since 1994-8.

### Trends in North East Lincolnshire

During the 12 month period January to December 2006, eight people were killed and 135 were seriously injured on North East Lincolnshire's roads. This is slightly above the 2005 figure of eight deaths and 125 people seriously injured and compares with a 1994-8 average of 140 people killed or seriously injured (KSI). In other words, little change. In a district the size of North East Lincolnshire, the number of fatalities and serious injuries can fluctuate significantly from one year to the next. However, local trend data for the last 10 years suggest that the Government's 40% target reduction is unlikely to be met locally.

As the graph shows, the only downward trend in KSIs observed over this period was amongst pedestrian casualties, of which most was accounted for by the decline in child (<16) pedestrian casualties in the early part of this monitoring period. Provisional figures for the first half of 2007 are more encouraging and suggest a significant decline in KSIs over this six month period. It remains to be seen whether this downturn has been sustained throughout the calendar year.

**FIGURE 1.1: TRENDS IN ALL ROAD DEATHS AND SERIOUS INJURIES (<16) IN NORTH EAST LINCOLNSHIRE (1994-8 TO 2006)**



SOURCE: HUMBERSIDE POLICE COLLISIONS UNIT, (STATS 19)

### Child casualties

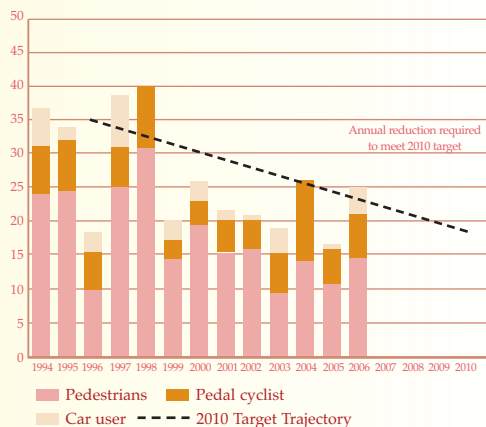
Although Britain has a relatively good road safety record, as a country we do less well at keeping children safe while they are walking, cycling or playing, particularly in our most disadvantaged communities. 'Road Casualties in Great Britain 2005' indicated that in 2004, the UK still had one of the worst child pedestrian fatality rates in Europe, with a rate twice that of the best performing countries, including France, Italy, the Netherlands, Sweden, Denmark and Norway.

Compared with other road users, the number of serious child casualties recorded each year is small, accounting for 16% of recorded deaths and serious injuries on the roads. However, road traffic accidents remain a leading cause of death and serious injury amongst under 16s. In order to tackle this, the government set a challenging target to halve the number of children killed or seriously injured on our roads by 2010 from a 1994-8 baseline, with a particular focus on reducing casualties in the most deprived areas of the country.



In North East Lincolnshire, the number of child road casualties has fallen year on year during the last decade and locally we are on track to meet the 50% target reduction set by national Government for 2010. In 2006, 25 children were seriously injured on North East Lincolnshire roads. This is about 33% below the 1994-8 baseline for serious or fatal child pedestrian casualties, although it reflects little change in serious child pedal cycle casualties since 1994. A further 96 children suffered more minor injuries in road accidents in 2006, bringing the total child road casualty toll in North East Lincolnshire for that year to 121 children; the equivalent of more than 4 average sized school classes.

**FIGURE 1.2: TRENDS IN CHILD ROAD DEATHS AND SERIOUS INJURIES (<16) IN NORTH EAST LINCOLNSHIRE (1994-8 – 2006)**

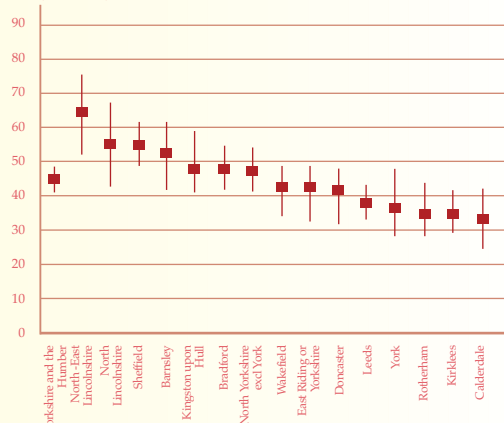


SOURCE: HUMBERSIDE POLICE COLLISIONS UNIT, (STATS 19)

#### How do we compare with other areas?

Whilst the decline in local child casualties is encouraging, children remain a highly vulnerable road user group in our district. The graph below compares the rate of child deaths and serious injuries on the roads per 1000 child population for each local authority district in the Yorkshire and Humber region. Because the number of children killed or seriously injured each year is relatively small, we have pooled data for the five year period 2001-5 for each district, and added confidence intervals around these rates, to make the comparison more robust. As the graph below shows, our average child casualty rate is well above the regional average, and is significantly higher than places like Wakefield, Doncaster, Leeds, Rotherham, Kirklees and Calderdale.

**FIGURE 1.3: FIVE YEAR POOLED DATA FOR CHILD ROAD DEATHS AND SERIOUS INJURIES PER 1000 CHILD POPULATION (2001-5)**



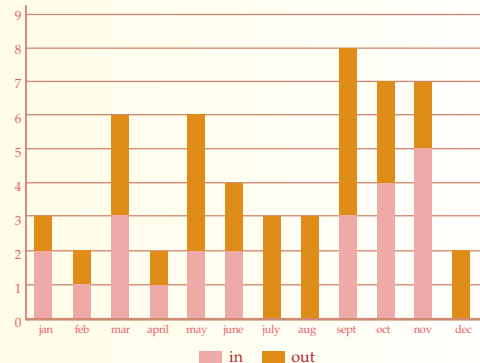
SOURCE: DEPARTMENT FOR TRANSPORT, (STATS 19)

#### Which children are most at risk?

Amongst children, pedestrians and cyclists are at greatest risk of serious injury, with the risk increasing as children get older. Under-twos are at lowest risk, the main reason being the almost universal use of child car restraints amongst the very young. Between the ages of 2-4 years, children are most at risk while walking or playing. Of the 16 under fives killed or seriously injured on the road in North East Lincolnshire in the six year period 2001- 2006, 11 were pedestrians. We do not know how many of these children were accompanied by an adult.

Children of school age are exposed to greater risk than pre-schoolers, with a third of serious child casualties occurring on the journey to and from school. However, the risks are much greater outside the school day, particularly in the lighter, summer months, when children are more likely to be playing outside. The graph below shows the distribution of serious child casualties by month over the last three years. It shows the number of accidents which occurred on a school day between the hours of 7am and 6pm, and those that occurred later on in the day, over the weekend, or out of school term times. As the graph shows, the largest number of casualties occurred outside school travelling times; many of them during the early evening, during the day at weekends or during the school holiday period. Serious child casualties tend to decline in the colder, darker months of December to February, when children are less likely to cycle or to play outside close to traffic.

**FIGURE 1.4: SERIOUS CHILD CASUALTIES BY MONTH, OCCURRING IN OR OUTSIDE THE SCHOOL DAY IN NORTH EAST LINCOLNSHIRE (2004-6)**



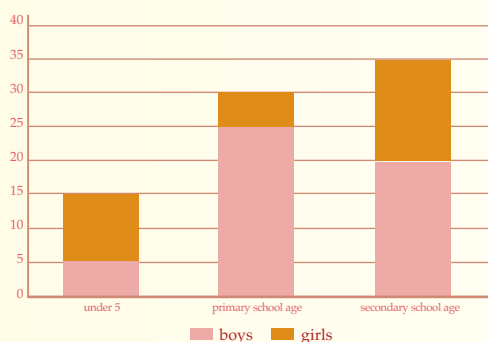
SOURCE: HUMBERSIDE POLICE COLLISIONS UNIT, (STATS 19)

Over the last three years, serious child road casualties associated with school journeys have tended to be higher at the beginning of the school year, suggesting that this might be a good time to raise awareness amongst drivers, parents, and schools, of the risks to children during school travelling times. It is also important to bear in mind that child road accidents commonly occur quite close to home. Considering the whole route to school and not just those areas immediately outside schools, will be important if efforts to reduce child road casualties are to be effective.

Children aged 11-13 years are at particular risk on the school journey. At this age children are more likely to walk or cycle to school on their own or with friends, rather than with their parents.

They are also more likely to cross major roads for the first time and be out and about on the streets on their own. Boys are at particular risk at this age, although boys of any school age are at greater risk of being injured in a road accident than girls. Of the 66 school children killed or seriously injured on the roads since 2001 in North East Lincolnshire, two thirds were boys.

**FIGURE 1.5: NUMBER OF CHILDREN KILLED OR SERIOUSLY INJURED BY SEX IN NORTH EAST LINCOLNSHIRE 2001-6**



SOURCE: HUMBERSIDE POLICE COLLISIONS UNIT, (STATS 19)

Whilst the precise causes of these accidents are difficult to determine from routine administrative data, failure to look properly was the most common contributory factor recorded by attending police officers, both on the part of vehicle drivers and the pedestrian or child pedal cyclist. Many of these children were reportedly injured following attempts to cross a road between parked or stationary vehicles.

## Social inequalities in child casualties

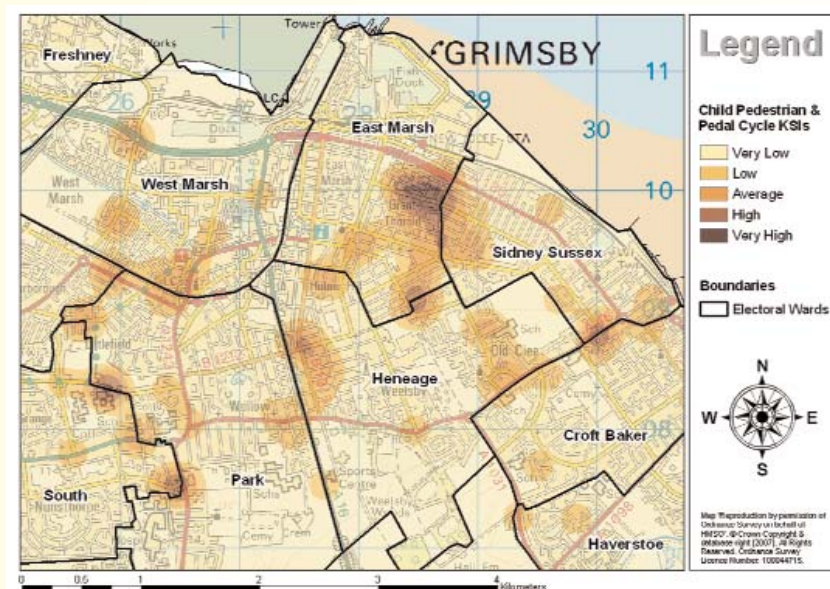
National research suggests that children and young people living in more deprived, densely populated town centre areas are at five times greater risk of death and serious injury on the roads than children living in more affluent neighbourhoods. This is because children living in poorer, more central town centre areas tend to make more journeys on foot, are more likely to play in streets with a high volume of traffic, and have access to fewer safe playing areas. Estimates for adult casualties also reveal a positive and significant association with increasing deprivation, but the size of the effect is smaller than it is for children.

This association is reflected in local data, with child pedestrian casualty rates in our poorest neighbourhoods running at almost twice the district average, and almost five times the rates observed in the more affluent, less congested areas of Haverstoe, Humberston and the Wold villages.

## Under 25s

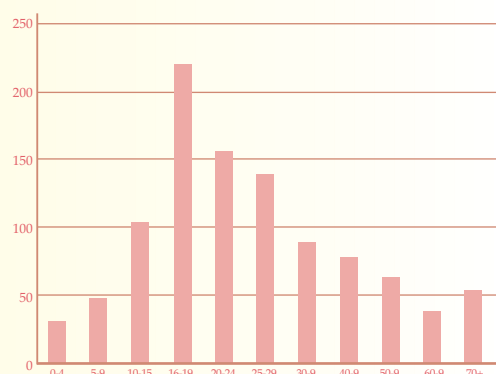
Young people between the ages of 16-24 are another highly vulnerable group of road users. In 2006, two 16-24 year olds were killed in North East Lincolnshire and 30 were seriously injured on our roads, more than half of them in cars. A further 210 under 25s were slightly injured in collisions in that calendar year. This is the highest casualty rate per head of population of any age group in our district.

**FIGURE 1.6 LOCATION OF CHILD PEDESTRIAN AND PEDAL CYCLE KSIs (2002-6)**





**FIGURE 1.7: NO. KILLED OR SERIOUSLY INJURED IN NORTH EAST LINCOLNSHIRE, PER 100,000 IN EACH AGE GROUP (2002-6)**



SOURCE: HUMBERSIDE POLICE COLLISIONS UNIT, (STATS 19)

Currently there is no national or local target to reduce casualties amongst young people. Yet, under 25s account for almost a quarter of all drivers killed or seriously injured on North East Lincolnshire's roads and almost half of all car passengers killed or seriously injured.

#### Young drivers and their passengers

Nationally, we know that young drivers are far more likely to be involved in serious road accidents than other motorists.

- Across the UK more than three young drivers, (<25s) are killed or seriously injured every day;
- One in eight driving licence holders, (13%), is aged under 25, yet one in three drivers who die in a collision are aged under 25; and almost half of those killed at night is under 25 years;
- Almost a quarter of all seriously injured passengers were travelling with a young driver at the time;
- Young drivers tend to drive older vehicles with fewer secondary safety features.

In North East Lincolnshire, we know that,

- Between 7 and 12 young drivers (<25s) are killed or seriously injured on our roads each year;
- A further 60 young drivers are slightly injured;
- This annual figure has changed little over the last 10 years, in spite of a national decline in the number of young people holding a vehicle licence;
- Young drivers are involved in a third of all collisions and between a fifth and a quarter of collisions which result in a death or serious injury;
- The vast majority of these younger drivers are male, the peak age being 17-20 years of age;
- Many of the young people seriously injured as passengers were travelling with young drivers;

**TABLE 1.1: NUMBER OF COLLISIONS IN NORTH EAST LINCOLNSHIRE RESULTING IN DEATH OR SERIOUS INJURY**

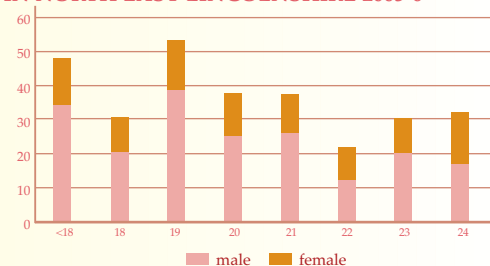
Year	Total no. of fatal/serious collisions	No. involving a young driver	% all fatal/serious collisions
2002	114	21	18%
2003	112	25	22%
2004	134	24	18%
2005	119	24	20%
2006	123	31	25%

SOURCE: HUMBERSIDE POLICE COLLISIONS UNIT, (STATS 19)

#### Which young drivers are most at risk?

National and local data confirm the high risk associated with young male drivers. In North East Lincolnshire, young male drivers outnumber females by more than 2 to 1 in the accident statistics, the peak age of a collision resulting in an injury amongst both sexes, being 19 years.

**FIGURE 1.8: AGE AND SEX OF YOUNG DRIVERS INVOLVED IN INJURY COLLISIONS IN NORTH EAST LINCOLNSHIRE 2005-6**



SOURCE: HUMBERSIDE POLICE COLLISIONS UNIT, (STATS 19)

Local collision data also suggest that young people living in rural areas are at particularly high risk, with the rate of injury in the more rural leafy suburbs of Haverstoe and Wolds being more than twice the rate. Young people living in these areas are more likely to drive than those living in poorer urban areas; they are also more likely to be exposed to greater risk as a result of driving on rural roads. National and local analyses of common contributory factors suggest that young driver collisions can be broadly divided into the following five main categories.

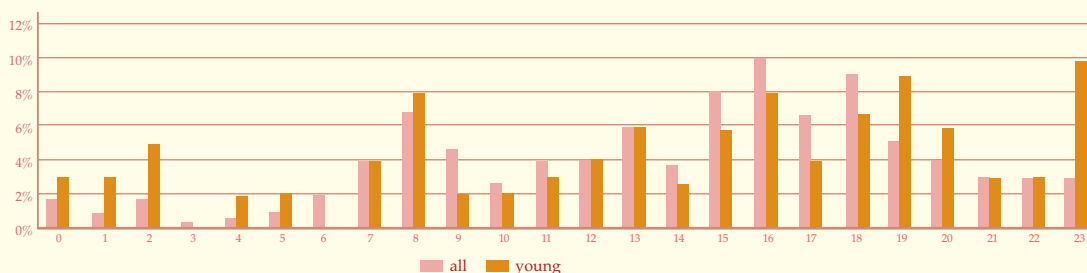
#### Driving at night

Compared with other road users, young drivers are much more likely to have an accident whilst driving late at night. The table below shows the time of day when all serious collisions took place and compares this with those involving young drivers under the age of 25. Clear peaks are evident for both groups during peak rush hour times. However, whilst collisions involving older drivers tend to tail off by 8:00 pm, those involving young drivers tend to peak towards midnight. Overall, 38% of all serious collisions involving young drivers in North East Lincolnshire occurred between 8pm and 4am. This compares with 18% for all drivers. The highest number of serious night-time incidents involving young drivers occurred on Thursday, Friday and Saturday nights.





**FIGURE 1.9: TIME OF COLLISION RESULTING IN DEATH OR SERIOUS INJURY IN NORTH EAST LINCOLNSHIRE 2002 -6**



SOURCE: HUMBERSIDE POLICE COLLISIONS UNIT, (STATS 19)

Driving in the dark requires different skills from driving during daylight hours. According to national data, young drivers double their risk of death or serious injury when driving at night. Between 11pm and 6am over 40% of accidents of male young drivers are fatal or serious, a figure which drops to 20% at other times.

### Alcohol

Drivers are also more likely to be under the influence of drugs or alcohol at night. In the two year period between 2005-6, the proportion of young drivers involved in a collision in North East Lincolnshire who were tested for alcohol increased significantly from 57% to 72%. Of those young drivers tested, 10% tested positive, a figure similar to the previous year. Although we have no information on how this compares with other areas, national data suggest that this positive test rate may be higher than the national average. In 2006, 63% of all British 16-24 year old drivers involved in a collision were tested for alcohol, of which 6% proved positive. This compares with 4% of all drivers, of any age, tested nationally. Figures are given in Table 1.2

### Bends and Speed

Nationally, we know that young drivers have approximately twice the proportion of their accidents whilst negotiating a bend, as drivers aged 30-59 years. Male drivers under 19 years are also 50% more likely than females of the same age to have an accident whilst negotiating a bend. Young drivers are also disproportionately involved in accidents caused by excessive speed.

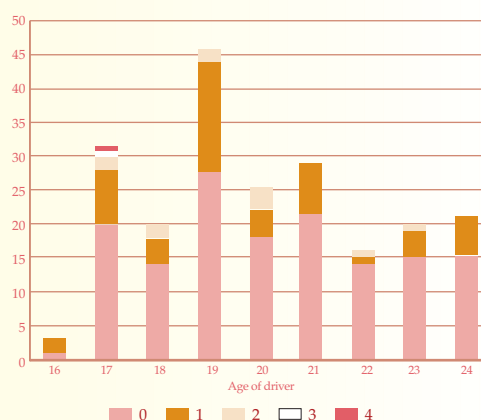
### Adverse driving conditions

More than 40% of male drivers under the age of 20 have their accidents when the roads are wet. This compares with a third of all drivers. It is not clear how much of this is due to inexperience or carelessness.

### Passengers

A large number of passenger casualties occur in young driver accidents – of which the vast majority are themselves young. As Figure 1.10 below shows, drivers under the age of 20 were more likely than others to be carrying at least two passengers at the time of the collision. The presence of friends can distract young drivers and may encourage them to drive in a riskier way. Research undertaken in the USA suggests that the accident risk amongst young drivers increases with every additional passenger carried, and is nearly three times higher when carrying three or more passengers.

**FIGURE 1.10: NO OF PASSENGERS CARRIED BY YOUNG DRIVERS AT THE TIME OF COLLISION IN NORTH EAST LINCOLNSHIRE (2005-6)**



### Seat belt usage

Overall, compliance with seat belt legislation is good in this country, and currently stands at more than 90% for drivers, front seat passengers and child rear seat passengers. However, compliance amongst older rear seat passengers is less good, and is particularly low amongst young adult male rear passengers; 36% amongst 14-29 year olds, compared with more than 70% amongst all rear passengers aged 14 or over.



**TABLE 1.2: ALL INJURY COLLISIONS INVOLVING A YOUNGER DRIVER IN NORTH EAST LINCOLNSHIRE 2005-6**

	Total young drivers involved in a collision	Young drivers tested No (%)	Tested Positive (no)	Percent of all young drivers with a positive breath test	Percent of all those tested, testing positive
2005	141	81(57%)	8	6%	10%
2006	176	128 (72%)	13	7%	10%

SOURCE: HUMBERSIDE POLICE COLLISIONS UNIT, (STATS 19)

### Summary and key issues

- To date, our progress against the Government target of a 40% reduction in all road deaths and serious injuries by 2010 has been poor, with lower than average annual rates of reduction compared with other districts in the region.
- What progress has been made towards this Government target is due largely to reductions in child pedestrian casualties.
- Whilst the number of child casualties in North East Lincolnshire is small and has declined considerably since 1998, the rate per head of population is disproportionately high, compared with other districts in the region.
- In 2006, 25 children were seriously injured on our roads, the equivalent of an average sized classroom of children. A further 96 children, (equivalent to four more average sized classrooms) suffered more minor injuries.
- In spite of good progress on the children's target, low income children living in our most deprived and congested inner urban areas remain at particularly high risk of death and serious injury on the roads. The risk is five times that of their more affluent suburban peers.
- The majority of these child casualties occur out of school hours – many in the lighter summer and autumn months when children are out and about on the streets.
- Boys aged 11-13 years are at greatest risk of injury travelling to or from school, particularly at the start of the secondary school year. Many of these accidents occur close to home.
- Young male drivers are at very high risk of being injured in a collision. Those under the age of 20 are at particular risk with collisions between 11:00pm and 4:00 am being particularly prevalent.

- Young male drivers are also more likely than drivers of other ages to be carrying other (unbelted) passengers at this time, and to test positive for alcohol.

All of these trends present opportunities to local agencies to target their resources more effectively. For example by,

- increasing use of 20mph zones in residential urban areas where children are active, prioritising those deprived areas which have particularly high casualty rates;
- encouraging the use of Kerbcraft training and other similar measures in all local schools;
- ensuring that all schools have a robust School Travel Plan by 2010 that identifies local road safety concerns and includes remedial action;
- improving facilities for walking and cycling in high traffic flow areas;
- improving children's access to safe play spaces, especially in deprived areas with high casualty rates
- raising awareness amongst young people and their parents, of the risks associated with driving at speed and night driving and reinforcing the messages about seat belt usage.





## Chapter 2

# Coronary Heart Disease Equity Profile

People's health is the product of many economic, social, environmental, cultural and personal factors. As a result of the differential impact of these factors, including access to and use of health services, inequalities in health outcome occur according to age, gender, ethnicity, geography and socioeconomic group. Some of these inequalities result from differences of opportunity, such as those between deprived and affluent groups, and it is the unjust inequalities or inequities that are of major concern.

The complex interactions between the different influences may result in inequalities in the prevalence of risk factors for coronary heart disease (CHD), in investigation and treatment and in outcomes such as CHD prevalence and CHD mortality among different sectors of the community. To determine patterns of CHD inequality in North East Lincolnshire (NEL), this year the Public Health Department carried out an equity audit:

- to identify inequalities in risk factors for coronary heart disease
- to identify inequalities in heart health
- to identify inequalities in the use of treatment services

to inform further targeted action to improve heart health and narrow the inequalities gap in life expectancy and age-sex standardised death rates for CHD in North East Lincolnshire. The report<sup>1</sup> and a supporting detailed document<sup>2</sup> are available on the CTP internet site.



## CHD INEQUALITIES

The majority of CHD is potentially preventable. There is a national target to reduce circulatory disease (including heart disease, stroke death and related illnesses) death rates in the under 75s (premature deaths) by 40% by 2010 and an inequalities dimension to achieve a 40% reduction in the inequalities gap between the fifth of areas with the worst health and deprivation indicators and the population as whole. The majority of circulatory disease deaths are due to CHD. Delivering the target will contribute significantly to achieving the national life expectancy inequalities target. Concerted action to tackle risk factors and various developments and improvements in treatment for CHD over recent years, including faster access<sup>3</sup>, have resulted in a halving of CHD mortality rates in Britain since the 1980s<sup>4</sup>. The gap between some geographical areas and socioeconomic groups has also narrowed and both targets will probably be met. However, further intervention will be required to continue to reduce death rates and to close the inequalities gap.

### Outcomes and risk factors: explaining the reduction in CHD mortality

In England and Wales (E&W), mortality from CHD fell by 54% (62% in men and 45% in women) between 1981 and 2000. Unal et al<sup>4</sup> used the IMPACT CHD mortality model and analysed data for the adult E&W population to estimate the proportions of the decline that were attributable to primary and secondary prevention and to treatment. As Table 1 shows, approximately 58% of the mortality decline was attributable to risk factor reductions, mainly smoking, cholesterol and blood pressure and approximately 42% was due to treatments. Around half of the decline was attributable to reductions in these main risk factors among people without CHD, the impact of primary prevention being four times that of secondary prevention. Some risk factors worsened over this period amounting to an increase in CHD mortality of 13%. Since this data is only up to 2000 the increase in obesity and diabetes may be greater. Clearly risk factor reduction should be a central component of CHD mortality reduction and heart health improvement strategies, with action targeted to ensure inequalities are addressed.

### INEQUALITIES IN RISK FACTORS FOR CHD

There are no robust, routinely collected data with which to measure the prevalence of most risk factors and several methods are used to estimate prevalence.

TABLE 2.1: IMPACT CHD MODEL: MORTALITY DECLINE ENGLAND & WALES 1981-2000<sup>4</sup>

	Proportion of decline
<b>Risk factors worse:</b>	+13%
Obesity (increase)	+4%
Diabetes (increase)	+5%
Physical activity (increase)	+4%
<b>Risk factors better:</b>	-71%
Smoking	-35%
Cholesterol	-12%
Population BP fall	-9%
Deprivation	-4%
Other factors	11%
<b>Treatment</b>	-42%
AMI* treatments	-8%
Secondary prevention	-11%
Heart Failure	-13%
Angina: CABG** & PTCA***	-4%
Angina: Aspirin etc	-2%
Hypertension treatment	-3%

\*Acute myocardial infarction

\*\*Coronary Artery Bypass Grafts

\*\*\*Percutaneous Transluminal Coronary Angioplasty

### Smoking

Smoking is the greatest preventable cause of ill health and premature death in this country and is a root cause of inequality in healthy life expectancy.

**Inequalities – Geographical:** Synthetic estimates using data for 2000-2002<sup>5</sup> show prevalence of smoking in the North East Lincolnshire Care Trust Plus (NELCTP) area of 31%, significantly higher than the national average of 26%.

**Inequalities – Age and Gender:** More men than women smoke. Prevalence has declined nationally among male smokers from 29% in 1998 to 25% in 2005 and in the Yorkshire and Humber region from 30% to 27%. Among women the national decline has been from 26% in 1998 to 22% in 2005<sup>6</sup> and regionally from 28% to 23%. Nationally, the prevalence of smoking in adults is highest in those aged 20-34 years and lowest in those aged 60 years and over<sup>6</sup>. In England in 2004, 9% of young people aged 11-15 years regularly smoked. The 2004 North East Lincolnshire Adolescent Lifestyle Survey (ALS)<sup>7</sup> showed that regular smoking in 11-14 year olds rose sharply with age, almost doubling between ages 13 and 14.

**Inequalities – Socioeconomic:** In England in 2005, 29% of manual groups were smokers compared to 19% of non-manual groups<sup>6</sup>. The ALS for NEL revealed the highest prevalence of smoking was in pupils in schools with high rates of Free School Meal (FSM) eligibility<sup>7</sup>. (FSM eligibility is a proxy measure for socioeconomic status).

**Inequalities – Ethnicity:** Smoking rates vary considerably between ethnic groups in England. In the 2005 General Household Survey<sup>6</sup>, the highest prevalence of cigarette smoking (2001-2005) was found in Bangladeshi men (45%). There are no data for CTP or local authority areas.





## Reducing smoking prevalence

### *Inequalities – Geographical:* North East

Lincolnshire Quality and Outcomes Framework data<sup>8</sup> for 2005/06 shows that 96.8% of those on the hypertension prevalence register have a record of smoking status at least once since diagnosis, similar to Yorkshire and Humber (96.8%) and national (97.0%) figures. Also, almost all (96.4%) smokers on the register had been offered smoking cessation advice/referral to the specialist service at least once, 93.0% within the last 15 months, (95.0% nationally and 95.3% regionally).

*Inequalities – Age and Gender:* With the support of the Specialist Stop Smoking Service (SSSS) in the first three quarters of 2006/07, 644 people set a quit date in the NELCTP area, over half (57%) of whom had successfully quit at 4 week follow-up, based on self-report verified by carbon monoxide monitoring. More women than men set a quit date and successfully quit at 4 week follow-up. Those in the 45-59 year age band were more likely to set a quit date and successfully quit than any of the other age groups.

*Inequalities – Ethnicity:* Of the 644 who set a quit date 96% were White and 4% BME, largely reflecting the ethnic mix of the local population.

*Inequalities – Socioeconomic:* In 2005/2006, a quit rate of 38% was achieved in the Neighbourhood Renewal Funding (NRF) areas compared with 62% in the non-Neighbourhood Renewal Funding (non-NRF) areas, suggesting the need for increased intervention in NRF areas.

## Hypertension (high blood pressure)

Hypertension is defined as a systolic blood pressure of 140mmHg or more and a diastolic blood pressure of 90 mmHg or more. The risk of CHD is directly related to both.

*Inequalities – Geographical:* Current estimates<sup>9</sup> suggest that the expected prevalence of high blood pressure in the registered population of NELCTP is greater than that of England as a whole, i.e. 25% (41,782 people) compared with 23.8%. Quality and Outcomes Framework (QOF) data<sup>8</sup> for 2005/2006 indicates that only half of these are identified in primary care and included in the hypertension prevalence register (13.3% of NELCTP registered population, statistically significantly higher than the 12% registered nationally). Both social and demographic characteristics, resulting in higher prevalence and case finding may explain differences. More recent data (QOF, May 2007) suggests 24,201 of a total registered population of 173,735 have been diagnosed with hypertension, i.e. 13.93% (ranging from 5.58% to 20.46% across practices). The proportion of hypertension registered patients with a record of blood pressure in the last 9 months in NEL is 91.9%, not statistically significantly different to the regional and national averages of 92.4% and 92.2%).

*Inequalities – Age and Gender:* In England in 2003<sup>10</sup>, the prevalence of high blood pressure in men was 34% and in women was 30%. High blood pressure also increases with age in both sexes. Less than two percent of women aged 16-24 years were hypertensive, compared to around half aged 55-64 and two thirds aged 65-74.

*Inequalities – Socioeconomic:* Nationally<sup>10</sup>, variations occur in different social groups, with men and women in households with lower supervisory and technical occupations having the highest prevalence of high blood pressure in 2003 (29% and 32% respectively). Prevalence was 25% for men in managerial and professional households and 24% for women.

*Inequalities – Ethnicity:* National data for 2003<sup>10</sup> also show variation by ethnic group. The highest prevalence of high blood pressure was in Black Caribbean men (38%) and women (32%), followed closely by Irish men (36%) and women (29%) and the lowest in Bangladeshi men (16%) compared to a national average of 32%.

There are no local data on variations in hypertension by socioeconomic group or ethnicity; however similar differences observed nationally are expected locally.

## Reducing the prevalence of hypertension – Antihypertensive prescribing in the NELCTP area

Antihypertensive medication to lower blood pressure is generally prescribed for pressures exceeding 140/90. Evidence suggests that a reduction of blood pressure by 5-6 mmHg can decrease the risk of stroke by 40%, of CHD by 15-20%, and reduces the likelihood of mortality from cardiovascular disease<sup>11</sup>. Between June 2006 and May 2007, 175,339 items (may include more than one pack) of antihypertensive drugs were prescribed via general practice at a cost of £1,491,988. This may include prescriptions issued by NELCTP practices to non-NELCTP area residents. In addition, 3,931 items of antihypertensive drugs were prescribed by the Northern Lincolnshire and Goole Hospitals NHS Trust to NELCTP area residents in this period at a cost of £11,881. There are wide variations in costs of the antihypertensives prescribed.

## Cholesterol

Research has highlighted the importance of raised cholesterol as a risk factor for CHD<sup>12</sup>. Physical activity and dietary changes (in particular a reduction in the consumption of saturated fat) and certain prescribed drugs can reduce blood cholesterol levels.

*Inequalities – Geographical:* Data obtained from QOF<sup>8</sup> shows that for NELCTP in 2005/06, 93.9% of people on the CHD prevalence register had a record of total cholesterol in the last 15 months. This figure is not significantly different from the England average of 93.3%. However, the data shows that the proportion of CHD patients in whom the last cholesterol measurement was 5mm/l or less was only 72.9% in NEL, the lowest of the 14 PCTs in the



Yorkshire and Humber region and significantly lower than the England average of 78.5%.

**Inequalities – Age and Gender:** Trend data from the Health Survey for England (HSE) 2003<sup>10</sup> shows that the prevalence of total cholesterol levels remained stable at 5.5mmol/l between 1998 and 2003 in both men and women. About 66% of men and women have blood cholesterol levels of 5.0mmol/l and above. In men, the proportion with cholesterol levels of 5.0mmol/l and above increased from 26% in those aged 16-24 to around 80% in those aged 45-64 with a slight decrease in those aged 65-74. Similarly in women, cholesterol levels of 5.0mmol/l or above increased from 31% in those aged 16-24 to 84% in those aged 55-64, with a slight decrease in those over 65 years.

**Inequalities – Ethnicity:** The HSE 2004 showed that the prevalence of blood cholesterol levels of 5.0mmol/l and above was lower in all ethnic minority groups than in the general population except for the Irish<sup>13</sup>.

**Inequalities – Socioeconomic:** In 2003 there were no socioeconomic differences in mean total cholesterol levels either by social class or household income in either sex<sup>10</sup>.

#### Reducing cholesterol - Statin prescribing in the NELCTP area

Statins are a class of drugs used for lowering the level of cholesterol in the blood by reducing the production of cholesterol by the liver. They help to prevent heart attack, stroke, and related diseases in people at increased risk. Statin therapy has been proved to be both clinically and cost effective from data shown in the Quality and Outcomes Framework. The National Institute for Health and Clinical Excellence (NICE) gave its approval for their use in January 2006 after careful consideration of the evidence available<sup>14</sup>. Between May 2006 and January 2007, the period for which data were available for NEL, statin prescribing cost £1,650,528, of which 98.7% was general practice prescribing. There are wide variations in costs of the statins prescribed.

#### Worsening risk factors (obesity, lack of physical activity)

Overweight and obesity increase the risk of CHD. Obesity is a major risk factor for high blood pressure, raised blood cholesterol, diabetes and impaired glucose tolerance<sup>15</sup>. Both diet (including alcohol consumption) and lack of physical activity influence weight gain. Inequalities are similarly presented in the detailed report<sup>2</sup>.

### INEQUALITIES IN CHD OUTCOMES

#### CHD mortality

Premature CHD death rates have been falling steadily for some time locally, as shown in previous annual public health reports and all indications are that national and local targets for 2010 are likely to be met before 2010. However, there are inequalities. The decline has been at different rates for men and women and slower in the younger age groups and fastest in those aged 55 years and above.

**Inequalities – Geographical:** In the period 2003-05, Yorkshire and the Humber region had the 3rd highest CHD premature death rate of the 9 Government Office Regions (GORs) and North East Lincolnshire was the 10th largest contributor of the 21 local authorities to this. Over the 5 year period 2001-2005, for residents of the NELCTP area, age and sex standardised rates per 100,000 for premature CHD mortality varied across electoral wards from a low of 25.21 in Waltham to a high of 128.25 in West Marsh.

**Inequalities – Age and Gender:** In England in 2004, CHD caused just over 86,170 deaths of which almost a third 27,950 (32%) were premature deaths, almost three quarters (74%) of these in men<sup>16</sup>. For males in the Yorkshire and Humber region, the age and sex standardised premature mortality rate per 100,000 (88.08) was almost three times that for females (29.56). In NEL (2001-2005) age at death from CHD ranged from 29 to 98 years for males and 25 to 102 years for females. Deaths among those aged under 75 years accounted for 564 (34%) of CHD deaths, of which 414 (73%) were male and 150 (27%) were female.

**Inequalities – Socioeconomic:** Geographical differences may be explained in part by levels of deprivation. Over the 5 year period 2001-2005, premature CHD mortality rates among males and females were statistically significantly greater in NRF areas in comparison to non-NRF areas and to the NELCTP area average. The mortality rate for CHD in NRF areas at the time for which the most recent data are available is the same as that for NEL as a whole nearly a decade ago. To further close the gap, increased prevention and treatment is required in these areas. In the deprived electoral wards of West Marsh, East Marsh and Croft Baker, CHD mortality rates were statistically significantly higher than the NELCTP area average. In the affluent wards of Waltham, Wolds and Humberston and New Waltham CHD mortality rates were significantly lower.

**Inequalities – Ethnicity:** Ethnicity is not recorded in death certificates. However, marked differences in mortality have been shown by country of birth, particularly for CHD and stroke. This proxy for ethnicity is a better indicator in older people.

**Inequalities – Commissioning Groups, (CG):** In April 2007, the 33 general practices within NELCTP were grouped into 4 commissioning groups (CGs): Grimsby & Immingham, Grimsby Central & Cleve, Grimsby Double & Cleve, Hainton/Heneage & Cleve North. These reflect clusters of NELCTP practices' registered populations rather than geographical areas. Since practices take patients from anywhere in NEL, they will be heterogeneous groups and hence less likely to show statistically significant differences than, for example, between electoral wards or between NRF/non-NRF areas. Age standardised premature CHD mortality rates ranged from a low of 32.69/100,000 (Grimsby Central & Cleve) to a high of 42.55/100,000 (Grimsby & Immingham) but differences were not statistically significant.



## CHD MORBIDITY

### Prevalence

Although mortality from CHD is rapidly falling, morbidity, particularly in older age groups, appears to be rising<sup>10</sup>. In the NELCTP area the recorded prevalence rate for CHD is 4.5% of the practice registered population<sup>8</sup>, significantly higher than the QOF England average of 3.6%. Rates vary by practice from 2.5% to 6%. Higher rates may be due, for example, to higher deprivation, active case finding and increased likelihood of presentation at general practice among some population groups.

**Inequalities – Age and Gender:** Data from the 2003 Health Survey for England<sup>10</sup> shows that the prevalence of CHD in England is higher in men (7.4%) than in women (4.5%) and that prevalence increases with age in both men and women. National prevalence of CHD has increased between 1998 and 2003 from 7.1% to 7.4% in 2003 in men but decreased slightly from 4.6% to 4.5% in women.

**Inequalities – Ethnicity:** In 2004<sup>13</sup>, prevalence was higher in Indian and Pakistani and lower in Black Caribbean and Chinese men. Chinese women had lower levels of CHD prevalence than women in the general population.

### Primary and secondary care interface

Inequalities in outcome may occur at different stages along the care pathway. QOF data<sup>8</sup> shows the proportion of newly diagnosed angina patients referred for exercise testing and/or specialist assessment in NEL at 70.1% is statistically significantly lower than the England average of 89.4%. NEL has by far the lowest proportion referred of the 14 PCTs in Yorkshire and Humber, the next lowest being Sheffield at 80.3%.

### Hospital activity for CHD - episodes<sup>a</sup> for investigation (coronary angiography)

Hospital activity data provides an indication of morbidity in terms of access to and use of NHS diagnostic and treatment services and permits an exploration of inequalities. Using data for all hospital episodes for CHD between 2001/02 and 2005/06, NRF areas had statistically significantly higher age and sex standardised episode rates than non-NRF areas and the NELCTP area as a whole, as would be expected. Rates for Hainton/Heneage & Clee North commissioning group were significantly higher than for Grimsby Double & Clee and Grimsby Central & Clee. In the NELCTP area in this 5 year period, there were 1,647 FCEs for coronary angiography in the under 75s relating to 1,570 individuals.

**Inequalities – Age and Gender:** Coronary angiography rates increased with increasing age reaching a peak in the 65-74 age group, the increase being more marked in men than in women. 65.5% of coronary angiography episodes were for men and 34.5% for women. The age and sex standardised coronary angiography rate for women is significantly lower than for men.

**Inequalities – Geographical:** Coronary angiography rates per 100,000 varied from a low of 144.94 in Waltham ward to a high of 233.83 in Immingham. However, there were no significant differences from the NELCTP area average rate (191.22). Small numbers of FCEs exacerbate the detection of statistically significant differences. Rates per 100,000 for men ranged from 194.63 in Waltham to 299.95 in Croft Baker, but again differences were not statistically significant between wards or from the area average of 250.78. For women, rates per 100,000 varied from a low of 66.69 in West Marsh to a high of 193.49 in East Marsh. Only East Marsh ward had a significantly higher angiography rate than the NELCTP area as a whole (131.44).

**Inequalities – Socioeconomic:** The person's angiography rate per 100,000 was statistically significantly higher in NRF areas (215.44) than non-NRF areas (182.37) as would be expected. Angiography rates per 100,000 for males and females were highest in NRF areas (264.78, 162.23) compared to non-NRF (244.71, 121.35) and the CTP area as a whole (250.78, 131.44) but only the female rate was significantly higher.

**Inequalities – Commissioning Groups:** None of the commissioning group rates were significantly different from the NELCTP area average for males, females or persons.

### Hospital activity for CHD - episodes for treatment (coronary revascularisation)

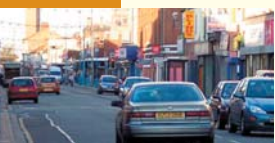
Coronary revascularisation has been shown to be effective in reducing morbidity and prolonging life expectancy in suitable patients with CHD<sup>18</sup>.

**Inequalities – Age and Gender:** Rates for revascularisation vary across age and gender. In the 5-year period 2001/02-2005/06, both crude and standardised all ages rates per 100,000 indicate that women experience statistically significantly lower revascularisation rates (50.22, 40.18) than men (158.98, 142.43). There is also a gradual rise in revascularisation rates (from 29.36 in the 35-44 age group) up to the age of 74 years. The highest rate of revascularisations (422.75) is undertaken in the 65-74 age group.

**Inequalities – Geographical:** The highest revascularisation rate per 100,000 for the under 75s was in Freshney ward followed by South and the lowest was in Scartho followed by Wolds. Revascularisation rates in Freshney and South were statistically significantly higher than in Scartho, Wolds and Park. For males under 75, the highest revascularisation rate was in Freshney and the lowest was in Wolds. Despite an almost 2-fold difference, rates were not statistically significantly different. For females, the highest revascularisation rate was again in Freshney, almost three times that in Scartho.

<sup>a</sup>A Finished Consultant Episodes (FCE) refers to a period of admitted patient care under a consultant. If responsibility for an admitted patient passes from one consultant to another, a separate HES record will be created (HES, 2005). Collectively, an admission or spell refers to a period commencing with admission to hospital and ending on a discharge, which may include one or more FCEs.





**Inequalities – Socioeconomic:** No statistically significant differences in under 75s revascularisation rates per 100,000 were observed for males and females between NRF (136.40, 48.43) and non-NRF areas (136.94, 33.77). The revascularisation rates for the under 75s in NRF areas were higher than the NELCTP area average for persons and females, but slightly lower for males (differences were not statistically significant). In the non-NRF areas, revascularisation rates were lower than the NELCTP area average for persons, males and females but not significantly lower.

**Inequalities – Commissioning Groups:** The revascularisation rate per 100,000 for persons under 75 years was for Hainton/Heneage & Clee North (100.61) and the lowest rate occurred in Grimsby Central & Clee (79.52). None of the commissioning group rates were significantly different from the NELCTP area average for males, females or persons.

#### **Inequities in investigation and treatment according to need**

**Inequalities – Age and Gender:** In the area as a whole, for the under 75s variations were apparent in the proportion of angiography leading to revascularisation between men and women and across age groups. For men, over 50% of angiography undertaken for those aged between 35 and 74 years resulted in revascularisation. For women, the proportion of angiography leading to revascularisation was less and varied from 11% in the 34-44 age group to 36% in the 65-74 age group. Only a fifth of angiography for men and a quarter of angiography for women under the age of 35 years led to revascularisation. (See full report for figures)<sup>1</sup>.

Using premature mortality as an indicator of need (ratio of mortality to angiography) suggests some inequity in access to investigation in the older age group, 65-74s. However, once an angiography has been undertaken in this age group, access to revascularisation appears as equitable as for other age groups. Again, using premature mortality as an indicator of need, for men the ratio of mortality to revascularisation was consistent across most age bands apart from the under 34s and the 65-74s. For women, there was a less consistent picture with higher rates of interventions according to need in the younger age groups (35-54), than seen for the over 55s. The very high ratios of mortality to angiography for women in the 35-54 age group suggests a degree of apparently unnecessary investigations. The gender differences may indicate:

- greater uncertainty of need for revascularisation in women, particularly of younger ages, hence more diagnostic procedures as per the precautionary principle
- more diagnostics undertaken in women to reassure
- women with chest pain presenting at an earlier stage
- inequity.

**Inequalities – Socioeconomic:** Although the younger age group (up to 44 years) experienced more revascularisation according to need in the NRF areas as would be anticipated, in men above 45 years fewer revascularisations were performed in NRF areas compared to non-NRF, despite greater need as indicated by mortality. Women aged 45-54 and 65-74 years in NRF areas received fewer revascularisations according to need (as measured by mortality) than their counterparts living in non-NRF areas. There is more equity in the 55-64 age group.

#### **TACKLING THE INEQUALITIES GAP**

One of the two over-arching national inequalities targets<sup>19</sup> is to close the gap in life expectancy (LE) by 2010, a significant proportion of which is due to CHD. The IMPACT CHD model<sup>4</sup> showed that over half of the improvement in CHD health over recent decades was attributable to risk factor reductions (mainly smoking, plus lowered cholesterol and blood pressure), particularly in those without CHD. To assist in exploring the impact of different interventions to address inequalities, the Association of Public Health Observatories has produced a Health Inequalities Intervention Tool<sup>20</sup> that enables modelling of the impact on the LE gap of a range of targeted and universalist interventions, including smoking cessation, antihypertensive treatment and statin therapy, since these can be influenced by CTP commissioning. Nationally, CVD accounts for 35% of the LE gap in men in England (2003 data) of which 70% is CHD. For women, CVD accounts for 30% of the LE gap, of which 63% is CHD. In North East Lincolnshire, CVD accounts for 16% of the gap in men (of which 69% is CHD) and 20% in women (of which 61% is CHD). In NEL, although a smaller proportion of the LE gap is due to CHD than nationally, CHD is still the main cause of death in both males and females.

Infant mortality (the second national inequalities target) is included in the model. In the coming year,

- by reducing infant mortality in NEL from 13 (2002-04 data) to 10 male deaths and from 12 to 10 female deaths,
- by meeting the smoking 4 week quitters LAA stretch target of 1235,
- by ensuring 25% of people with hypertension but no history of CHD or stroke are treated with an additional or first hypertensive treatment, and
- by ensuring 25% of people with hypertension that have no history of CHD or stroke (people who will be treated with an additional or first antihypertensive) are treated with a statin,

LE is predicted to increase from 75.0 to 75.2 years for men, the LE gap to be narrowed by 13.5% and the all-age all-cause mortality rate to decrease by 14.8. Similarly for women, LE is predicted to increase from 80.5 to 80.7 years, the LE gap to be narrowed by 52.4% and the all-age all-cause

mortality rate to decrease by 11.3. Increasing the proportions treated with statins and antihypertensives to 40% narrows the LE gap by 18.2% in men and 74.3% in women.

Building on the Inequalities Intervention tool, additional work by Yorkshire and Humber Public Health Observatory shows the increase in life expectancy that would be achieved if NELCTP area had the same mortality rate for CHD as England. This equates to 0.24 life expectancy years gained for men and 0.20 life expectancy years gained for women. Life expectancy years gained by men in the most deprived quintile in NEL, if they had the same CHD mortality rate as men in the whole of NEL, would be 0.86 years. For women it would be 0.57 years. For NRF areas, which were selected to reflect natural communities and include more than the most deprived quintile, life expectancy years gained would be 0.75 years for males and 0.48 years for females<sup>21</sup>.

## CONCLUSION AND RECOMMENDATIONS

This CHD equity audit update has shown inequalities in risk factors for CHD, inequalities in heart health and inequalities in the use of treatment services. This list of recommendations is not exhaustive and other suggested proposals may be deemed necessary and will inform subsequent action plans and commissioning.

It is recommended that

### General

- As the implementation of the CHD NSF continues, action to address any gaps in meeting the standards locally should be targeted to addressing CHD inequalities and particularly to NRF areas.
- NICE Public Health Guidance (relevant to CHD) should be implemented, again ensuring implementation does not exacerbate inequalities.

### Prevention – better identification and treatment of risk factors

- Education and awareness raising of risk factors associated with CHD continues to be improved.
- The Health Trainer programme continues to support people motivated to change risky behaviours. The Associate HT role currently being developed should be widely spread in NEL, creating many opportunities for opportunistically raising awareness of risk factors and signposting to further information or specialist support services. Other service providers should consider developing their risk factor identification, intervention and support roles.
- The NHS Choices website is widely promoted in NEL. The work of the NHS Choices Learning Network, piloting the use of a wide range of media to support healthy lifestyle choices, particularly among the most disadvantaged and hard to reach communities, should be supported locally. (The Humber area is a selected pilot site).

- The tobacco control strategy / action plan is reviewed and implemented. Efforts to reduce the supply of tobacco to young people and to reduce tobacco smuggling should be increased.
- Health and allied professionals *proactively* identify smokers, particularly those from NRF communities and refer to SSSS.
- The SSSS strengthens activity to ensure the LAA stretch target is met, particularly improving smoking cessation rates among smokers from NRF areas and among those in the under 44s and over 60s (given that the 45-59s are most likely to set a quit date). A social marketing campaign should include the use of incentives.
- The obesity strategy / action plan is implemented. Additional interventions that help to increase the consumption of fruit and vegetables (to 5-a-day), including school fruit schemes and workplace fruit schemes, and to reduce the consumption of fats, salt and sugars among the population should be commissioned.
- Effective weight management programmes that meet the criteria set out in NICE guidance for tackling obesity<sup>22</sup> are commissioned.
- Additional interventions to promote/increase physical activity are commissioned.
- Obesity data for school children is submitted to the National Child Obesity Database and that local analysis is undertaken and the results used to direct intervention. Supported action should be increased.
- The alcohol harm reduction strategy / action plan is implemented, particularly in relation to screening and brief interventions. Screening and brief interventions via primary care should be targeted to those from NRF areas.
- A strategic and coordinated approach for addressing inequalities in heart health in primary care is developed as part of NSF action plan delivery. Commissioning Groups should produce and implement annual action plans to tackle inequalities in heart health.
- Prevalence and achievement in the Clinical Domain of the QOF for CHD and hypertension is improved, i.e. for diagnosis, initial and ongoing management indicators. This requires active case finding and exploring and addressing reasons for poorer performance across the range of indicators, but particularly among those indicators where performance is statistically significantly lower than nationally, or low in general. Targeting patients from the most deprived communities will be key, but also other groups where inequalities occur, e.g. women. The National Support Team's guidance on the 'Use of population registers to deliver Cardiovascular Disease Secondary Prevention', including the ten high impact changes should be implemented<sup>23</sup>.







- Increased investment in locally enhanced services to ensure 100% of people with hypertension living in NRF areas are prescribed antihypertensives and their hypertension is controlled. Further exploration of costs/use of different antihypertensives may release some funding.
- Increased investment in locally enhanced services to ensure 100% of people with raised cholesterol living in NRF areas are prescribed statins and their cholesterol levels are appropriately reduced. Further investigation of costs/use of different statins may release some funding.

### Improving access and service delivery

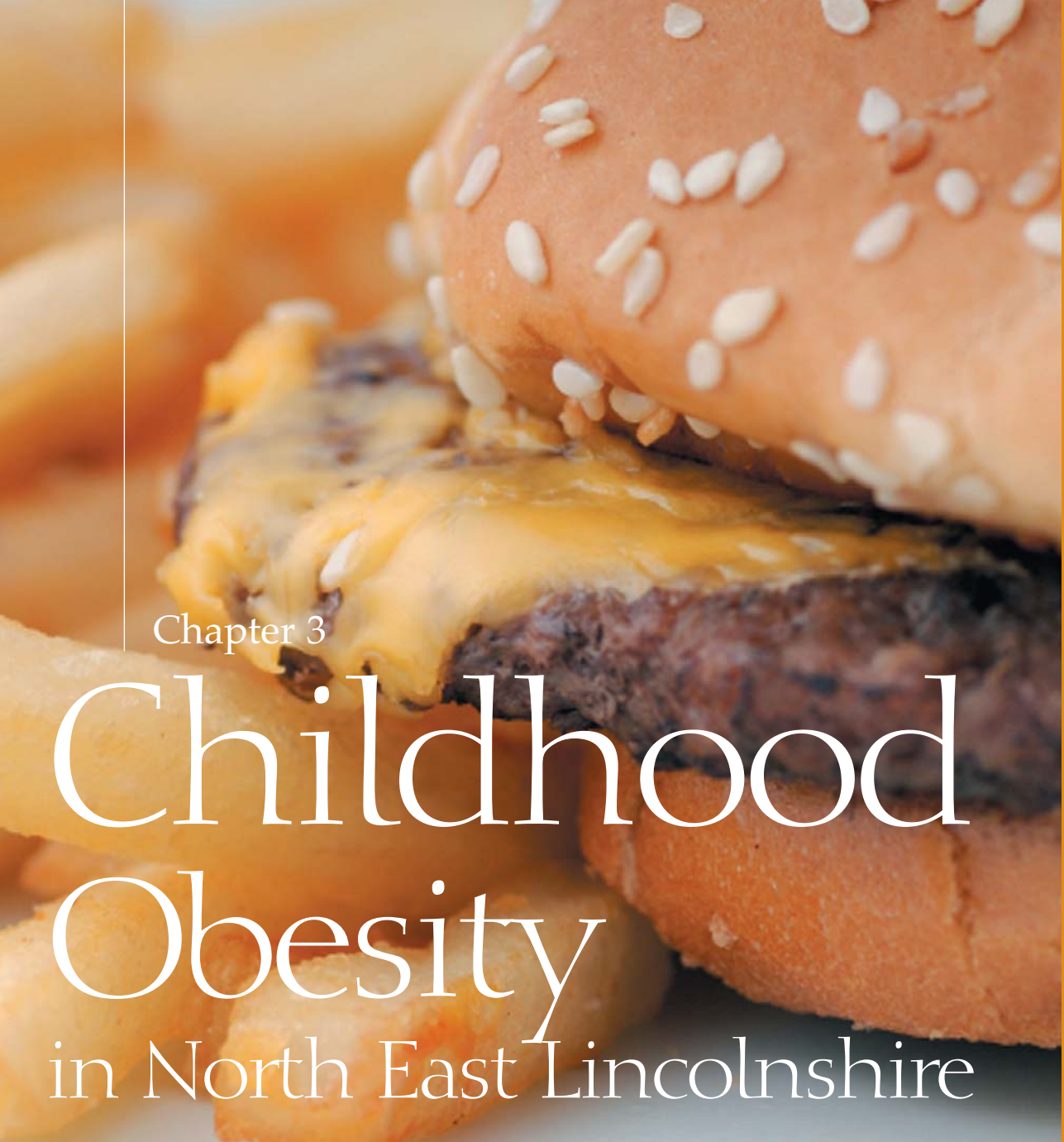
- A Healthier Communities Collaborative promoting early presentation of CHD symptoms is established, similar to the Collaborative working on the early detection of cancers.
- Heart health literacy is improved to promote appropriate access/use of NHS services (i.e. increased knowledge of when to seek help, what questions to ask and what to expect from care pathways). Promotion of the new NHS Choices website will help with this. Primary and secondary care providers should ensure facilities to access this and other electronic information in waiting areas on their premises.
- Reasons for geographical and gender inequalities in utilisation of services (investigation and treatment) are explored and action taken, i.e. to ensure equal access for equal need. Recognising that variations may occur as a result of behaviours at different points along the care pathway, extending the current investigation into inequalities in non-attendance (NRF vs non-NRF areas) at out-patient departments, specifically to explore CHD non-attendance, would be a useful first step.
- Private sector provision data is made routinely available to enable analysis together with NHS data, to improve the equity audit process and to inform decision making and resource allocation

### Monitoring progress

- Death rates, including gender and socioeconomic differences, continue to be monitored and action plans reviewed should the slight decline in overall death rates and the slight increase in death rates for women continue.
- The collection of data for risk factor prevalence is improved.
- The collection of ethnicity data in relevant data sets is improved.

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## Chapter 3

# Childhood Obesity

### in North East Lincolnshire

#### Introduction

Obesity is one of the greatest public health challenges of the 21st century and its prevalence has tripled in many countries in the WHO European Region since the 1980s. The numbers of those affected continue to rise at an alarming rate, particularly among children.<sup>1</sup>

Similarly, in the UK, the prevalence of obesity is a rapidly increasing problem. In the last seven years, between 1995 and 2002, obesity doubled among boys in England from 2.9% of the population to 5.7%, and amongst girls it increased from 4.9% to 7.8%. One in 5 boys and 1 in 4 girls are overweight or obese. Among young men, aged 16 to 24 years, obesity increased from 5.7% to 9.3% and among young women it increased from 7.7% to 11.6%. If current trends continue, a conservative estimate is that at least one third of adults, one fifth of boys and one third of girls will be obese by 2020.<sup>2,3</sup>

Obesity and overweight are defined as an accumulation of excess body fat, to an extent that may impair health. A crude population measure of excess fat is the body mass index (BMI), a person's weight (in kilograms) divided by the square of his or her height (in metres). WHO defines overweight as a BMI of 25 or more, and obesity as a BMI of 30 or more. These cut-off points can provide a reference for individual assessment.<sup>4</sup>



There is evidence that, on a population level, the risk of chronic disease increases progressively as average BMI increases above 21. A high body mass index is a major risk factor for a number of chronic diseases, including type II diabetes, cardiovascular disease, obstructive sleep apnoea, cancer and stroke.<sup>4</sup>

As children grow, their body fat composition changes, so BMI must be applied differently among this population, dependent upon the age of the child. Since boys and girls also differ in their body fat ratio during the growth period, it is necessary to plot BMI-for-age by sex. In general, BMI tends to decrease during the pre-school years, reaching a minimum from ages four to six, and then gradually increases through adolescence into adulthood. The following table shows the cut off points which were established by a committee of experts representing professions that treat obese children and adolescents.<sup>5</sup>

Underweight	BMI-for-age <5th percentile
At risk of overweight	BMI-for-age >or = 85th percentile
Overweight	BMI-for-age > or = 95th percentile

### Causes of Obesity

The causes of childhood obesity are complex. In general terms obesity arises from an imbalance between energy intake and energy expenditure. Genetic influences are only thought to play a minor part in the development of obesity. The World Health Organisation expert group concluded that there was 'convincing' evidence that sedentary lifestyles and high intake of energy dense foods led to an increased risk of obesity.<sup>5</sup>

The rise in obesity is attributed to food consumption and physical activity patterns which have changed significantly over the past few decades, due to environmental, behavioural and lifestyle changes. Palatable energy dense foods are highly marketed and readily available, and at the same time, people spend less time participating in physical activity than in the past. The impact of obesity on both individuals and the NHS is enormous.

Furthermore, there is growing evidence of an association between deprivation and childhood obesity nationally. Obesity and its related diseases are more prevalent among groups with low socioeconomic status. Those on lower incomes tend to consume more fat and sugar, and those on higher incomes, more fruit and vegetables. In addition, poorer groups usually have less access to sport and fitness facilities, which limits the exercise they take.<sup>6</sup>

### The Impact of Obesity on Children's Health

There is increasingly robust research evidence highlighting the impact of obesity on the health of children, including cardiovascular, metabolic and endocrine disease. Cardiovascular risk factors include increased blood pressure, adverse changes in the heart and increased insulin levels in the blood.

In addition, health problems more usually seen in adulthood such as heart disease, obstructive sleep apnoea, diabetes, osteoarthritis, back pain and depression are now affecting children and young people who are obese.<sup>2</sup>

Consideration should also be given to the impact of obesity on the self esteem and emotional wellbeing of the child. Obese children are more likely to show evidence of psychological distress and the effect is greater for girls than for boys. Obesity in children and young people has been linked with poor self esteem, being perceived as unattractive, depression and eating disorders.<sup>4</sup>

### The Impact of Childhood Obesity on Adult Health

Evidence suggests that obesity in childhood, particularly in adolescence, is also a key predictor for obesity in adulthood. Data from a number of studies provide strong evidence that higher levels of body mass index (BMI) during childhood can also predict being overweight later in life. This was recently summarized in a review by Goran<sup>7</sup>, which showed that the probability of being overweight as an adult increased for children with BMI in the 85th to 95th percentiles and increased with age. The prediction for adult weight was most accurate for BMI at 18 years of age with accuracy decreasing for BMI below 13 years of age.

Moreover, morbidity and mortality in the adult population is increased in individuals who were overweight in adolescence, even if they lose the extra weight during adulthood.<sup>5-7</sup>

### Estimated numbers of Children and Young people who are Obese in North East Lincolnshire

The numbers of children and young people in NEL who are overweight or obese was estimated from national prevalence rates (Table 3.1). In all, some 7766 of the 2-16 year old population could be expected to be obese.

TABLE 3.1 NELCTP ESTIMATED\*\* LEVEL OF OBESITY IN CHILD POPULATION 2-16 YEARS\*

	Total population 2-16 years	Estimated % of obesity (from national studies)	Estimated numbers of children in NEL who are obese
Boys	15,904	22%	3499
Girls	15,239	28%	4267
Total	31,143		7766

\*Total numbers of children and young people including age 2 and age16

\*\*Estimates based on Mid 2005 population estimates – ONS

### The National Child Measurement Programme

The National Child Measurement Programme (NCMP) is part of a wider national sequence of work to tackle obesity. The Government has a clear aim to "halt the year on year rise in obesity among children under 11 by 2010 in the context of a broader strategy to tackle obesity as a whole".<sup>8</sup>





This national programme involves all children in Reception and Year 6 having their height and weight recorded and subsequently their Body Mass Index (BMI) calculated. The programme started in 2005/06 and will be repeated annually.

The North East Lincolnshire Care Trust Plus (NELCTP) School Nursing Service coordinated the programme in NEL with the support and cooperation of schools. The programme includes the collection of data and uploading it to a national database. Locally, the analysis of that anonymised data has been used to produce a NEL report, which, along with this chapter will be used to influence the partners of the Change4Childrens Board and Local Strategic Partnership to raise the awareness and establish proactive preventative action plans which are evidence based, supported and resourced by the partnership.

### Results

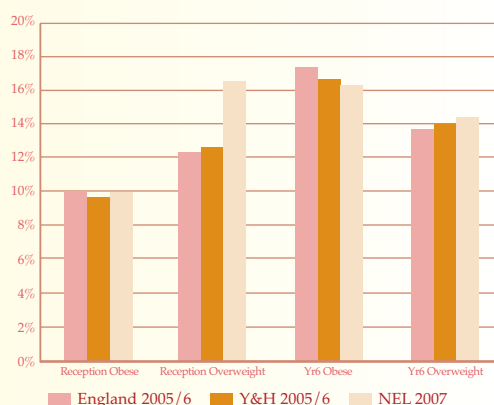
A total of 90.56% of children in Reception Year and 80.25% in Year 6 participated in the survey in 2006/07. This met the minimum requirement of 80% set by the Department of Health. The rate of participation fell from 2005/06 for both year groups. Specific actions need to be identified and undertaken to reverse this trend. The wards with the highest level of participation were Scartho and Wolds with 97.8% whilst the lowest was Immingham with 88%. Obviously drawing conclusions from areas with a lower level of participation is fraught with difficulties and falls short of the true prevalence. The report from National Childhood Obesity Database (NCOD) of 2005/06 suggests that the higher the response rate the higher the apparent level of obesity.

Figure 3.1 below compares the NEL findings with national and regional data. Children entering school reception year in NEL have levels of obesity similar to the national average of 10%, this is slightly higher than Yorkshire and the Humber region (Y&H) at 9.4%. Numbers of reception children who are overweight is significantly higher in NEL at 16.9% than nationally (12.8%) and in Y&H (13%).

Children in Year 6 in NEL present a different picture with levels of obesity (16.4%) less than the national average (17.3%). In contrast, children who are overweight in NEL represent 14.6% of the population which is higher than the national average of 13%.

Unfortunately poor participation rates nationally last year (less than 50%) limits the comparability of the data sets and only when this year's national report has been produced will NEL be able to confidently compare with local and national neighbours.

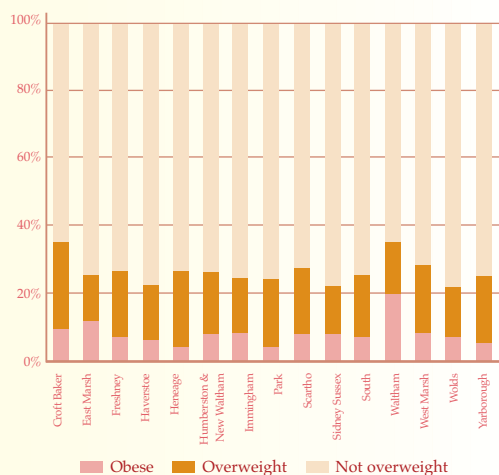
**FIGURE 3.1: NATIONAL/REGIONAL/LOCAL COMPARISON**



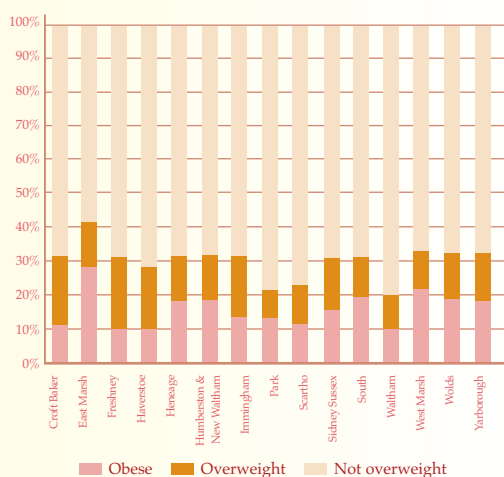
### North East Lincolnshire Ward Specific Information

The inclusion of postcodes to the data collection programme has facilitated the identification of levels of obesity and overweight in different communities in NEL. In the first instance this was carried out by electoral wards and then to identify areas of highest deprivation (where higher rates of obesity and overweight were expected), the data was analysed on Lower Level Super Output areas and Neighbourhood Renewal Fund areas. The latter have been identified locally as having high levels of deprivation and have received investment to improve the health and wellbeing of residents living within them. Baseline information on the obesity levels in children will be used to argue for resources and the development of new schemes to address the issue.

**FIGURE 3.2: NEL CHILDREN'S BODY MASS 2007: RECEPTION CLASS PUPILS**



**FIGURE 3.3: NEL CHILDREN'S BODY MASS 2007: YEAR 6 PUPILS**



### Discussion of the results

In NEL it had been expected that the levels of obesity and overweight would be higher than the national average due to the higher levels of deprivation in the area. This was substantiated in the results of wards such as East Marsh and Immingham. However, the results indicated that there are also higher numbers of children who are overweight in the more affluent areas of NEL. This supposition should be viewed with some caution as the level of non participants could skew the results although, if confirmed, then NEL will need to consider proactive ways to reduce levels of obesity for all local children and young people.

### Special Groups

The Every Child Matters: Change for Children outcomes framework recommends that the health and well being of vulnerable groups are clearly considered in all developments. However the NCOD does not ask for data which could be used to identify specific problems for groups of vulnerable children and young people such as children with disabilities, black and minority ethnic communities, Children in Care, Travellers or immigrants and asylum seekers.

### Preventing Childhood Obesity in NEL

The purpose of the NCMP is not to identify individual children who are overweight or obese but to gather population data to establish the level of the

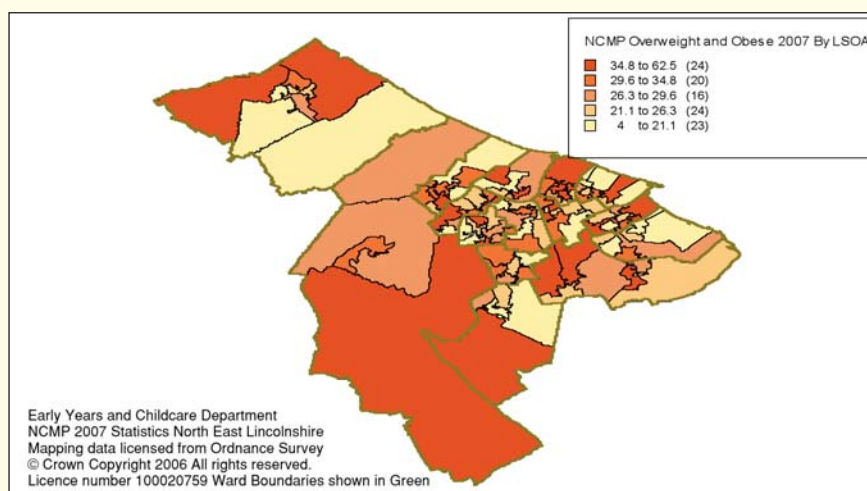
problem. Although asking parents to consent to their children participating in the NCMP and for schools to facilitate the process inadvertently raises awareness of obesity in childhood.

The analysis of the results of this year's NCMP is the first step in identifying the size of the problem in NEL and enables individuals, schools, communities and NEL organisations to develop strategies and interventions to address the issue. As described earlier, becoming obese or overweight is a result of a number of different factors and evidence suggests that a multifaceted approach is required to make a difference. Such an approach would include changes to diet and exercise but also other less obvious factors such as improving the self esteem and emotional well being of children and families. Clear and consistent messages via health, education and social care professionals supported by local media releases are essential.

The development of community safety initiatives which enable children to play out, walk to school or access opportunities for exercise hitherto prohibited by parents because of real or perceived safety issues could significantly reduce sedentary lifestyle as a contributory factors to obesity. Other contributors to a sedentary lifestyle will require different approaches. Suggestions for limiting the amount of time children spend watching television and videos or playing on games modems to a maximum of 2 hours per day has been recommended. The question of how or what alternative activities can be accessed by children and their parents in the different communities in NEL is harder to answer. The NEL Obesity Strategy brings together many of these factors and links with other strategies in an attempt to develop that multifaceted approach described earlier.

The second NEL Adolescent Lifestyle Survey will be published in March of 2008 and will describe the eating habits and exercise patterns for children and young people in NEL in school years 7, 9 and 11. This will build on the information obtained in the 2004 survey and affords the opportunity to identify trends or changes in behaviour and healthy choices made by children and young people. Recommendations will inform the development of new strategies to reduce childhood obesity.

**MAP 3.1: THE PERCENTAGE OF CHILDREN WHO ARE OBESE AND OVERWEIGHT BY LOWER LEVEL SUPER OUTPUT AREA IN NEL(WARD BOUNDARIES SHOWN IN GREEN)**



Access to fresh fruit and vegetables is limited in some communities and could be improved via a range of initiatives including food cooperatives and box schemes. Community workers are ideally placed to explore the concept with communities and encourage the adoption of such schemes in partnership with communities.

### Schools

Schools have an important part to play with opportunities for developing Healthy Schools approaches which:

- promote healthy eating patterns of pupils by offering nutritious snacks, such as vegetables and fruits, low-fat dairy foods, and whole grains
- encourage children's autonomy in self-regulation of food intake and setting appropriate limits on choices; and modelling healthy food choices
- promote regular physical education programs that emphasize and model learning of daily activities for personal fitness

In October 2006 North East Lincolnshire reached the target of 50% of schools engaged in the new Healthy School Status (HSS) programme. All School Partnerships have now prioritised achieving Healthy School Status and are using the audit tool to identify training needs.

Healthy eating is being supported through the Strategic Food Working Group looking at school meal provision. Other initiatives include healthy eating demonstrations within libraries and a pilot scheme with children growing vegetables, also run by the library service.

School nurses are an important resource for schools, children and parents. Additional funding has been identified to increase capacity and enable a proactive approach to primary prevention of obesity and the early identification of children at risk of becoming obese. By offering support, information to parents and referral where appropriate, school nurses will be part of a team working to improve the health outcomes for children.

There is no doubt that NEL schools have a key role in the improvement of health and well being of children and young people in the area. The potential to expand exercise and healthy eating opportunities through 'Extended Schools' and 'Building Schools for the Future' must not be missed.

### NEL Exercise Initiatives

Every child should take at least two hours of school-based physical activity, per week. The child should be given as much choice as possible about the form that physical activity should take; it need not be sport-related and may include walking or cycling to school.

As part of this approach initiatives such as the Key Stage 2, and Key Stage 4 'Fit Bunch' activities which aim to develop and retain an interest in health, fitness and physical activity have been developed via joint funding with Leisure Centres.

Providing a community approach to increasing children's exercise is more challenging although it has the benefits of increasing the opportunities for parents and communities to develop and engage with exercise facilities locally. Using local community workers, (which includes health trainers,) to provide reliable and consistent health and lifestyle information has the advantage of changing lifestyles for the whole family and not just children. In addition, their work can be focused in areas of greater deprivation where reduced life expectancy related to obesity is highest.

Increasingly, the Third Sector and private businesses should be encouraged so they become part of the development of new services and improve access to communities.

### Breastfeeding

There is now research evidence which links the uptake and continuation of breastfeeding and the prevention of childhood obesity. Findings strongly support a dose-dependent association between longer duration of breastfeeding and a decrease in the risk of becoming overweight. That is, the longer an infant is breastfed the lower the risk of becoming obese in later childhood.<sup>9,10</sup>

There is also evidence that breastfeeding reduces the numbers of women who retain body weight gained during pregnancy which reduces the numbers of women at risk of obesity.

It is therefore important that the culture of NEL (which is predominantly a formula feeding culture) is influenced to encourage more women to breastfeed their baby.

### Early Years

In the past few years there has been significant development in the provision of early years service. Included is the development of Children's Centres, Neighbourhood Nurseries and an unprecedented increase in childcare provision through private providers and child minders. It is now quite usual for a child or infant to spend significant amounts of time away from the family home and parents to be cared for by others.

For the future it is important that those who provide child care services are included in initiatives or training programmes on healthy eating and exercise. This will help to ensure that children in their care are provided with fresh healthy foods to meet their nutritional requirements, and are enabled to establish healthy eating patterns along with opportunities for play and exercise, that carers have a good understanding of the causes and prevention of obesity in childhood.

Health visitors have a wealth of information and expertise in working with parents/carers and early years children. Building on new evidence and the possibilities offered by 'Choosing Health', health visitors have the opportunity to focus their work in areas of greatest need and provide greater support to parents and families, especially those in vulnerable groups.







### Key Points and Recommendations

- Childhood obesity is increasing rapidly, even among pre-schoolchildren and is accompanied by significant health problems. Whilst levels of obesity in NEL identified through the NCMP are around the national average for both reception and Year 6 pupils, the incidence of overweight is higher. This information must be used to develop appropriate initiatives both in local communities and at a NEL Strategic level.
- Prevention should be the primary goal and, if successful, will help reduce adult obesity. NEL Change4Children Board should take the strategic lead to successfully reverse the childhood obesity trend by giving it urgent attention and ensuring obesity reduction is a NEL wide priority.
- Joining forces between organisations and disciplines is an essential requirement to achieve success.
- Schools and the School Nursing Service are key partners to support a healthy lifestyle for all children, including a nutritious diet and the opportunity for regular physical activity.
- Clear and consistent messages about obesity, diet and exercise should be given to parents and the general public through a media strategy.
- NEL proactively encourages, supports, and protects breastfeeding.
- The development of community safety initiatives which enable children to play out, walk to school or access opportunities for exercise
- The opportunity to establish food Co-ops and access to fresh fruit and vegetables through LEGI proposals is explored with communities.

Acknowledgement: Marie Smith, Performance Manager Early Years for her contribution to this report

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# Chapter 4

# Neighbourhood Renewal Fund – Health Interventions

North East Lincolnshire has some of the greatest health inequalities in the Yorkshire and Humber region. These health inequalities bear close resemblance to other inequalities in, for example, education, crime, housing and employment.

The Neighbourhood Renewal approach has identified the most deprived areas with the worst health, the highest crime levels, the lowest educational achievement, the least decent housing and the lowest employment rates. Investment of both Neighbourhood Renewal funding and mainstream funding has been made to tackle these issues and give a better quality of life and enhanced wellbeing to people in these neighbourhoods.





The Annual Public Health Report last year highlighted five key points in addressing health improvement targets:

- Very good progress had been made across the borough as a whole for life expectancy, and mortality from coronary heart disease and cancer, meeting local and national targets several years early.
- New targets were set in the Local Area Agreement.
- Targets to reduce inequalities are likely to be met but still leave large gaps between the Neighbourhood Renewal areas and the rest of the borough.
- Mortality rates for coronary heart disease and cancer in Neighbourhood Renewal areas are comparable to those in the borough as a whole ten years ago.
- Additional effort needs to be made to make further progress in reducing these health inequalities.

These targets have been the focus for the Healthier Communities and Older Peoples' Board of the Local Strategic Partnership in commissioning interventions through the Neighbourhood Renewal Fund to address these significant health inequalities in the Neighbourhood Renewal areas. The Board have approved a Floor Target Action Plan which takes the targets and links them to existing strategies and plans. This has provided the focus for a range of interventions to be developed which are part funded through the NRF programme.

A significant number of the interventions have been focused on the key issue of engaging deprived communities with improving their lifestyles; raising aspirations; and importantly encouraging an ownership of their personal health status and making full use of the primary care services that are available. These objectives are underpinned and supported by those contained in the recently agreed Local Area Agreement. They also build on the service infrastructure that is currently in place.

The available data concerning the targets would suggest that the existing range and infrastructure of services is delivering the required performance to achieve the targets in non NRF areas of the borough. The challenge is to achieve the targets in the NRF areas. Given that health services are, in general, uniformly available across the borough the task centres around changing attitudes towards being conscious about health choices and to adopting a healthier lifestyle. It is also about improving engagement of patients with health care services to effect timely treatment, intervention and disease management.

Several of the interventions are building on the success of similar work in other areas. Others are very much of a pioneering nature and include innovative approaches to the issues of engagement

highlighted earlier. Around £1.5m of NRF resources have been invested over a two year period in a range of innovative schemes.

Tackling obesity and lifestyle choices have been at the centre of many of the interventions, such as Food for Fitness; Health Trainers; Active Lifestyle Advisor and the Community Obesity Training Officers all of whom have had this objective as central to their work.

The **Food for Fitness** intervention employs a dietician who recruits, manages and trains foodworkers from within communities to deliver healthy eating messages in the school environment. They also develop knowledge, reinforce positive health attitudes and behaviour and encourage healthier eating changes for school children of all ages within North East Lincolnshire. It has also enhanced knowledge, skills and attitudes with regard to food and health and hygiene for school staff, pupils and parents/carers. The intervention also looks to raise pupils' self confidence and self esteem and help reduce disruptive behaviour through better eating patterns and habits and train staff, including school nurses, to deliver healthier eating messages.

The **"Choosing Health" Health Trainer programme** aims to improve health and well-being by empowering people to make healthy lifestyle choices, supporting people when they want support and fostering environments that make healthy choices easier. NHS accredited trainers provide personal support to people living in our most deprived areas, helping them turn their hopes for their own health into actions and thus contributing to reducing health inequalities.

Every client has one to one sessions over a number of weeks where individual objectives are set. For example a Health Trainer might see someone who is feeling lonely and isolated. They would plan activities which are local, enabling an individual to meet people and gain confidence within the community. The majority of clients have several things which are concerning them, the Health Trainers help them to decide which might be their priority and together they work on this. These skills then help the individual work on other areas of concern. One client wrote "To speak to someone totally unbiased is half the battle. The other half is knowing and facing up to the problem".

**Active Lifestyles** provides a service for people who may not have the confidence, motivation or fitness to join an exercise class, and to support them in becoming more generally active in their everyday life through behaviour change strategies and individual lifestyle changes. The service works with individuals/families registered with one of the GP practices participating in the pilot, where they or a member of their family is obese and may already be suffering from a chronic disease e.g. Diabetes, Coronary Heart Disease and living in one of the most deprived areas of North East Lincolnshire.



Health professionals from the pilot practices involved are able to refer patients from the NRF areas, and their families, to the Active Lifestyle Advisor. The Active Lifestyle Advisor acts as a life coach helping them to become more active, develop healthier lifestyles to gain an overall improvement in their health and well-being. The Advisor works with the patient on a weekly basis over an 8-week period.

Two **Community Obesity Training Officers** have developed and co-ordinated a range of community based activities and personal empowerment programmes to address the underlying causes of obesity in the Neighbourhood Renewal Areas. The Officers work alongside neighbourhood engagement workers to identify training opportunities for community members. They look to develop skills that will enable the community to run their own community based activities e.g. community walks, community cafes, breakfast clubs, physical activity classes, personal development and empowerment programmes. This programme runs in parallel with and complements 'Food for Fitness' – Healthier Schools, Health Trainers and Active Lifestyle Programmes.

The work of the Community Obesity Training Officers was highlighted in an article in the local newspaper.

*The article featured the story of a female resident of the Nunsthorpe estate in Grimsby. She rarely left her home and found it difficult to do what most would consider were everyday tasks.*

*Today, she is a transformed woman, somebody once again enjoying other people's company and having a more active life.*

*The difference was a Route to Midlife course, organised by the Community Obesity Training Officers as part of the Neighbourhood Renewal programme to tackle obesity.*

*Having been on the course the lady said: "The course has completely transformed my life. I'm now getting out and about which I didn't do before. Being overweight makes things difficult. I used to find it hard walking into a room. It is a confidence thing. Now I've even taken part in a DVD which I'd have never have done before."*

*She completed the Route to Midlife course at Second Avenue Resource Centre on the Nunsthorpe estate and went on to take part in the filming of the Fit Lincs DVD.*

*"There's another course starting soon and I shall definitely be on it," she added. Another DVD, has been produced which includes easy-to-follow steps on leading a healthier lifestyle through physical activity.*

*She is one example of the positive impact the course has had but there are others. Her inspiring story illustrates how people can change their lives for the better.*

Other Neighbourhood Renewal Fund interventions commissioned by the Healthier Communities Board have focussed on other aspects of lifestyle and engagement of the individual with their health status and with health care services:

The **Young Peoples Information, Advice and Stop Smoking Service** employs a Community Programme Co-ordinator whose job it is to facilitate the training, development and maintenance of a network of community based Young Persons Stop Smoking Advisors. The advisors will be drawn from a variety of backgrounds, eg school nurses, Choices and youth services and will offer two tiers of intervention: general advice and information on smoking related issues and offering stop smoking support programmes to adolescent smokers.

The enhanced **Sexual Health Outreach** service supplies a range of resources aimed at limiting the spread of HIV and other sexually transmitted infections and unplanned pregnancy. The intervention provides an enhanced 2-strand approach addressing the needs of Sex Workers and those of the Gay and Bi-sexual community. Two workers target sex workers in a variety of settings and a specialist worker targets the gay/bi sexual community and other at risk groups in a variety of settings such as clubs, pubs, schools, lay-bys and public toilets. The team works closely with other outreach healthcare professionals and ensures access to a range of health services including health screening, immunisation, referral and signposting to other relevant agencies.

The **Mental Health Employment Service** has involved two Individual Placement Support workers in delivering support to people living in Neighbourhood Renewal areas with severe and enduring mental health problems to find and retain jobs. The aim of the scheme is to increase the rate of employment in this group from 14% to 60% over the next 5 years.

Neighbourhood Renewal Funding has allowed the recruitment of a Project Manager to lead on the development and implementation of a "virtual healthcare practice" – now known as **Open Door**. Open Door is located at 13, Hainton Avenue in Grimsby and since its opening in July 2007 over 200 patients have registered with the practice.

This new and innovative service will continue to develop and looks to meet the needs of all of the diverse groups within neighbourhood renewal areas who traditionally do not access mainstream health care services and as a result suffer worsening health outcomes. A combination of new and existing personnel will deliver care from a variety of care backgrounds including health visiting, frontline nursing, family support, drug and alcohol support work, carers support etc.

Given the critical role of engagement in improving health inequalities, two of the interventions have taken the form of **Healthier Communities Collaboratives**. The collaborative model revolves around a locally based focus group that includes all stakeholders around the subject in a geographical area such as community members, GPs and the voluntary sector along with specialist health workers.





A Co-ordinator works to draw together and support and sustain the group over the proposed timescale. Each partnership shares its learning on a monthly basis. Four elements of the collaborative include:

- **An expert Reference Group** which develops “change principles” that when followed will secure the greatest gain in the chosen topic.
- **Learning Workshops** during which the teams learn of best practice on the topic and are supported to understand this in a local context.
- **Action Phases** when the group meet regularly and use the Plan, Do, Study, Act methodology to test ideas for change and improvement.
- **Tracking improvement** with data collected monthly.

A **Healthier Communities Cancer Collaborative** is focussing on developing methods to promote the earlier recognition of cancer symptoms and the presentation of cancer resulting in better treatment outcomes and reduce the mortality and morbidity. This takes forward the finding in last year’s Annual Public Health Report on the inequalities in cancer deaths.

The **Healthier Communities Older Persons Collaborative** is focussing on what older people in our community see as things that need improving to allow them to stay well and active. The collaborative is looking to ensure effective engagement with interested parties to focus on implementing changes and finding simple and innovative solutions that result in meaningful outcomes.

Finally, an intervention to enhance the existing **Pulmonary Rehabilitation Service** for people with Chronic Obstructive Pulmonary Disease (COPD) has been developed.

COPD is a condition that particularly affects those in communities with higher levels of deprivation. It not only has huge health care costs in terms of hospital admissions and medication but also has a significant impact on all aspects of a person’s quality of life. COPD is a debilitating progressive condition which results in people becoming not only physically disabled but also socially and psychologically isolated. The programme has demonstrated significant improvements in reducing healthcare costs but more importantly in re-establishing people’s independence and role within society. The project will contribute to reducing health inequalities in the 12 Neighbourhood Renewal areas and is likely to result in an increase in life expectancy.



## Chapter 5

# Health Protection

Health protection includes the prevention and control of communicable diseases and environmental hazards, and aspects of emergency planning and response. The health protection function is not provided by any one agency, although the Health Protection Agency leads on this area. The Health Protection Partnership Board oversees the collaborative working of organisations with a health protection role; the Health Protection Partnership Plan sets out the joint priorities of all agencies with a health protection role for the period 2007 to 2009. The Humber Health Protection Unit will be producing a more detailed Annual Report later in the year.

### COMMUNICABLE DISEASES

A summary of the main surveillance information for notifiable diseases and gastrointestinal illnesses for 2006 is shown in tables 5.1 and 5.2 respectively.

There were eleven confirmed cases of mumps during 2006, a similar number to the previous year. These have largely been in young adults, which reflects incomplete protection against mumps in this age group. There have again been no confirmed cases of measles or rubella in the area this year. However, elsewhere in the country there have been cases and clusters of measles and all efforts should be made to ensure children and young people are fully protected by MMR. The Department of Health and Health Protection Agency have urged that children should have received a total of two doses of MMR before returning to school this autumn, if not immunised fully previously.



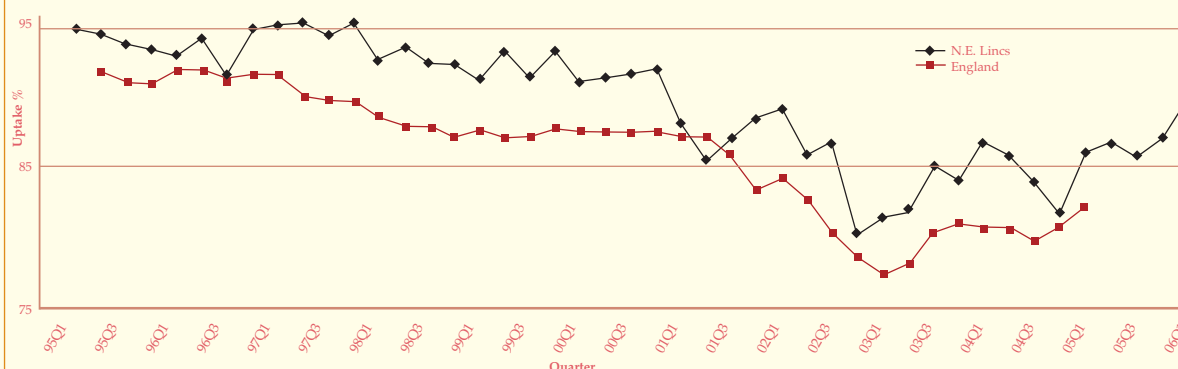
There were 47 positive laboratory reports for hepatitis C antibodies reported during 2006, compared to 51 in the previous year. Eleven of these also had positive PCR results, indicating current infection. During the year the CTP agreed a local strategy and action plan based on the national strategy for hepatitis C. Most hepatitis C cases continue to be associated with current or former injecting drug use and, as there is no vaccine available, control relies on achieving behaviour change in those at risk of infection and identifying and offering treatment to those who may be infected.

There were a total of 4 cases of hepatitis B reported in 2006, all with chronic carriage. There was just one case of Hepatitis A confirmed during the year. There were 2 laboratory confirmed cases of meningococcal infection (meningitis or septicaemia) during 2006, although six other cases were regarded as having probable invasive meningococcal disease, with contacts being offered prophylaxis accordingly. There were five other cases of confirmed bacterial meningitis, two due to *Haemophilus influenzae* and three due to pneumococcal infection. There were 5 new cases of tuberculosis during the year which reflects a continuing low incidence in the local population.

### IMMUNISATION

During 2006 uptake for the first dose of MMR rose to over 90% for the first time in several years, although it has dropped below this figure for the last two quarters. Thus, whilst progress has been made, we need to continue efforts to increase uptake, especially in view of outbreaks and cases elsewhere in the country. The CTP will be looking at new ways of targeting those children who might otherwise miss out on vaccination.

FIGURE 5.1. QUARTERLY UPTAKE OF FIRST DOSE OF MMR VACCINE (MMR1) IN NORTH EAST LINCOLNSHIRE AND ENGLAND AT 24 MONTHS, 1995-2006



(DATA FOR ENGLAND INCOMPLETE OWING TO PROBLEMS WITH CHILD HEALTH SYSTEMS IN SOME AREAS)

TABLE 5.1. NOTIFIABLE DISEASES, NORTH EAST LINCOLNSHIRE, 2006

Disease	Notified confirmed	Laboratory
Diphtheria	0	0
Dysentery	4	4
Food Poisoning	250	245
Leptospirosis	1	1
Malaria	0	0
Measles	6	0
Meningitis Meningococcal	6	2
Pneumococcal	3	3
Viral	0	0
Haemophilus influenzae	2	2
Meningococcal septicaemia	2	0
Mumps	32	11
Ophthalmia neonatorum	1	1
Rubella	2	0
Scarlet Fever	8	0
Tuberculosis	5	5
Typhoid Fever	0	0
Viral Hepatitis Hepatitis A	1	1
Hepatitis B – acute	0	0
Hepatitis B – chronic/unknown	4	4
Hepatitis C antibody positive	47	47
Hepatitis C pcr positive	11	11
Whooping cough	2	0

SOURCE: HUMBER HEALTH PROTECTION UNIT

### FOOD POISONING AND GASTROINTESTINAL INFECTIONS

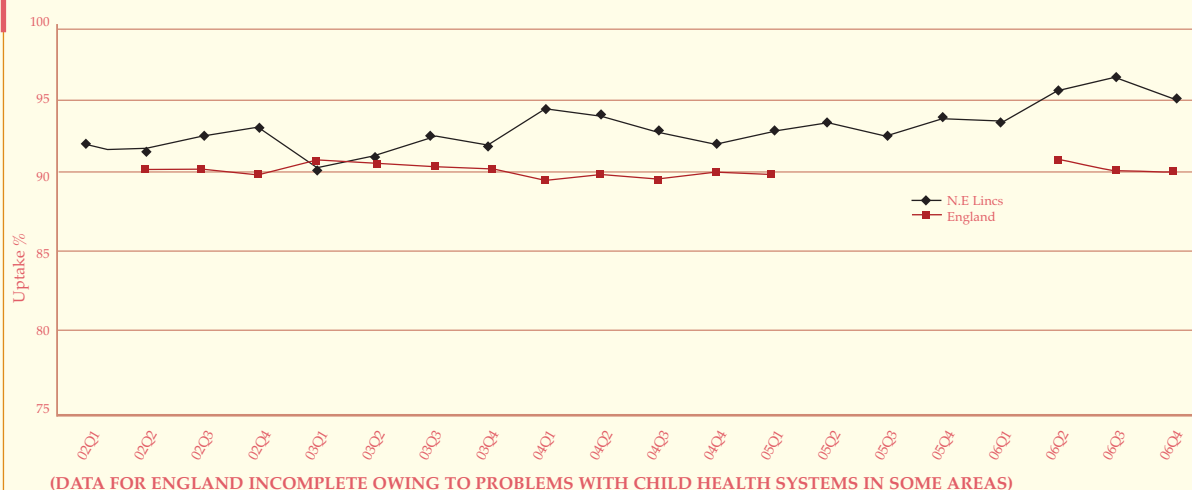
The commonest gastrointestinal organism was *Campylobacter*, with 201 cases. The number of *Salmonella* infections identified again fell to just 28 cases.

TABLE 5.2. GASTROINTESTINAL ORGANISMS REPORTED FROM LABORATORIES 2006

Organism	
<i>Salmonellae</i>	28
<i>Campylobacter</i>	201
<i>E.coli</i> 0157	0
<i>Shigella sonnei</i>	3
<i>Shigella flexneri</i>	1
<i>Giardia lamblia</i>	7
<i>Cryptosporidiosis</i>	11

SOURCE: HUMBER HEALTH PROTECTION UNIT

**FIGURE 5.2. QUARTERLY UPTAKE OF COMPLETED PRIMARY COURSES OF DTPo13 IN NORTH EAST LINCOLNSHIRE AND ENGLAND AT 12 MONTHS, 2002-2006**



Major changes to the childhood vaccination programme were introduced in September 2006. These included the introduction of pneumococcal conjugate vaccine for all infants, and booster doses of the other conjugate vaccines for meningococcal group C disease and Hib. This schedule ensures that all children are protected against invasive pneumococcal disease and also receive better protection against serogroup C meningococcal disease and Hib. It is expected that pneumococcal disease will also decline in all other age groups through the effect of herd immunity.

Figure 5.2 shows national and CTP uptake of completed primary courses of diphtheria, tetanus and polio vaccines (DTPo13) at age 12 months, which continues to compare very favourably with average uptake in England.

### HIV AND AIDS

During 2006, a total of 32 people from North East Lincolnshire accessed treatment and care services for HIV/ AIDS (seven more than last year), nine female and 23 male. 21 of these 32 patients were being treated within North East Lincolnshire. 21 patients are known to be receiving various combinations of anti-retroviral drugs, ranging from dual to quadruple therapy; this is three more than last year. There were no deaths recorded during the year.

All 9 female cases and 8 of the 23 male cases were acquired heterosexually. 13 of the male cases were acquired through sex between men. Only one case was associated with injecting drug use. In terms of ethnic group, overall 23 are white and 6 of black African origin, and the remaining three from other ethnic groups.

### EMERGENCY PLANNING

The CTP and local health organisations have continued to be active in meeting their obligations as category 1 responders under the Civil Contingencies Act. The CTP contributed to the national pandemic influenza exercise Winter Willow, which used the Humber health community as the regional focus for exercise play. CTP staff have also been involved with the wider emergency planning community, for example in the COMAH exercise programme, which focuses on major industrial sites. CTP staff, supported by the Health Protection Agency, played a key role in responding to the recent floods affecting the area and collaborated with the local authority and others to ensure that health needs of vulnerable and displaced people were met.

### KEY POINTS

- The CTP and partner agencies have developed a new 3 year Health Protection Partnership Plan
- There has been an increase in numbers of HIV positive patients accessing care in N E Lincolnshire
- The CTP played a key role in the recent floods



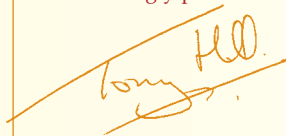
## Chapter 6

# Conclusions & Recommendations

The next year presents us with a unique and hugely exciting opportunity to improve health and wellbeing and reduce health inequalities in North East Lincolnshire. This requires commitment and effort from everyone – you all have a part to play – and we must seize this opportunity. We need commitment – personal, corporate and financial – to make this happen. It is important to maintain momentum in the areas we are already working on.

My recommendations this year are:

1. We need to establish an effective learning disability register as originally recommended 3 years ago.
2. Actions need to be developed and implemented urgently to tackle the hotspots for road accidents identified in Chapter 1.
3. The recommendations on reducing heart disease inequalities which have been included in the Health Inequalities Action Plan, and the more detailed CHD Inequalities Action Plan, need to be taken forward by the Care Trust Plus in the agreed time frame.
4. Urgent attention needs to be given to reducing Childhood Obesity across the borough using schools, school nurses, public messages and LEGI proposals.
5. Successful projects funded through Neighbourhood Renewal funding need to have secure continuation funding agreed by the Council and the Care Trust Plus.
6. Continuing effort is needed to increase childhood immunisation rates. Health professionals need to be increasingly proactive in recommending immunisation.



**DR TONY HILL**  
**JOINT EXECUTIVE DIRECTOR OF PUBLIC HEALTH**





## Chapter 7

# Epidemiological Overview

This chapter traditionally provides demographic and health status information for the population covered by North East Lincolnshire Care Trust Plus. Regional data included are those for the government office region of Yorkshire and the Humber, and national data are for England. Where data are not available for North East Lincolnshire CTP area, data for the North East Lincolnshire Unitary Authority area are included for information. The data source is the Compendium of Clinical and Health Indicators (<http://www.nchod.nhs.uk>) as of November 2007, unless otherwise stated. Numbers and rates that are based on a count of less than five have not been disclosed, as advised by the Department of Health and the Office for National Statistics.

Although the Care Trust Plus was not established until 1st September 2007 and these data apply to time periods prior to this, for consistency the terminology North East Lincolnshire CTP area has been used in this section.

## POPULATION OF NORTH EAST LINCOLNSHIRE CTP

Table 7.1 2006 Mid-year Resident Population Estimates (2001 Census Based)

Table A1. 2000-1990 year Resident Population Estimates (2001 Census Data)										
Ages		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44
Males		4,653	4,931	5,534	6,141	5,039	3,904	4,484	5,543	6,041
Females		4,415	4,779	5,252	5,855	4,720	4,373	4,648	5,842	6,402
Persons		9,068	9,710	10,786	11,996	9,759	8,277	9,132	11,385	12,443
Ages	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	All Ages
Males	5,512	5,006	5,399	4,332	3,705	3,192	2,410	1,507	969	78,302
Females	5,499	4,867	5,248	4,359	4,049	3,649	3,056	2,471	2,405	81,889
Persons	11,011	9,873	10,647	8,691	7,754	6,841	5,466	3,978	3,374	160,191

## FERTILITY, ABORTION AND BIRTH DATA

Table 7.2 General Fertility Rate\* 2006

England	60.34
Yorkshire and the Humber	59.38
North East Lincolnshire CTP	61.37

\*Live births per 1,000 women aged 15-44

Table 7.3 Abortions 2006 – NHS/Non-NHS

	NHS	NHS agency*	Non-NHS
England	38.0%	48.5%	13.5%
Yorkshire and the Humber	56.5%	30.7%	12.8%
North East Lincolnshire CTP	94.6%	NA <sup>+</sup>	NA <sup>+</sup>

\*Operations carried out in the private sector on NHS patients

<sup>+</sup>Data not available

Table 7.4 Abortion Rates by Maternal Age (per 1,000 women) 2006

	11-17 years	18-19 years	20-24 years*	25-29 years	30-34 years	35-49 years
England	7.6	32.1	32.1	23.5	14.9	4.8
Yorkshire and the Humber	7.4	26.5	25.2	18.7	11.5	3.5
North East Lincolnshire CTP	11.6	40.1	34.5	24.9	13.5	2.8

\*Includes age unknown

Table 7.5 Number of Abortions by Maternal Age 2006

	<18 years	18-19 years	20-24 years*	25-29 years	30-34 years	35+ years
England	18.3	33.1	32.0	23.7	15.8	7.0
Yorkshire and the Humber	19.1	29.6	26.1	18.9	13.0	5.3
North East Lincolnshire CTP	23.6	33.6	44.1	25.6	14.4	4.8

\* Includes age unknown

Table 7.6 Percentage of Abortions by Gestational Age (in weeks) 2006

	Under 10 weeks	10-12 weeks	13+ weeks
England	68.0%	21.3%	10.7%
Yorkshire and the Humber	59.1%	28.9%	12.1%
North East Lincolnshire CTP	70.3%	21.1%	8.6%

Table 7.7 Percentage of births under 1500 grams and under 2500 grams, 2006

	<1500 gms	<2500 gms
England	1.5%	7.9%
Yorkshire & the Humber	1.5%	8.3%
North East Lincolnshire CTP	1.3%	7.7%

Table 7.8 Number of Live and Still Births by Maternal Age 2006

		11-15 years	16-19 years	20-24 years	25-34 years	35-39 years	40 years+	Total
England	Live births	1,154	41,264	120,221	344,642	105,701	22,766	635,748
	Still births	13	238	638	1,722	610	197	3,418
North East Lincs.	Live Births	10	255	548	909	190	42	1,954
CTP	Still births	<5	<5	<5	6	<5	<5	9



## MORTALITY DATA

Table 7.9 Numbers and SMRs of Deaths from causes considered amenable to health care 2003 – 2005\*

Area	Persons			Males			Females		
	No.	SMR	(95% CI)	No.	SMR	(95% CI)	No.	SMR	(95% CI)
North East Lincolnshire CTP	657	105	(97-114)	388	105	(95-116)	269	105	(93-118)

Table 7.10 Numbers and SMRs of Deaths other than those considered amenable to health care 2003-2005\*

Area	Persons			Males			Females		
	No.	SMR	(95% CI)	No.	SMR	(95% CI)	No.	SMR	(95% CI)
North East Lincolnshire CTP	1,229	118	(111-124)	782	124	(115-133)	447	109	(99-119)

\*Tables 7.9 and 7.10 replace the Deaths due to Avoidable Causes indicator and together equal All Cause Mortality in the under 75s.

Table 7.11 Numbers (2005, ages 1yr+) and SMRs (2003 - 2005, all ages) for Selected Causes of Death

Condition	Persons			Males			Females		
	No.	SMR	(95% CI)	No.	SMR	(95% CI)	No.	SMR	(95% CI)
All Cancers	445	106	(101-112)	231	110	(102-119)	214	102	(94-111)
- Lung Cancer	86	104	(92-117)	54	113	(97-130)	32	91	(74-111)
- Colorectal Cancer	44	103	(87-122)	27	104	(81-130)	17	103	(79-131)
- Bladder Cancer	14	134	(100-175)	>5	142	(100-196)	<5	117	(67-190)
- Melanoma	6	75	(38-135)	<5	76	(28-166)	<5	74	(24-173)
All Circulatory Diseases	588	105	(100-110)	271	106	(99-113)	317	105	(98-111)
Accidents	36	104	(85-126)	25	121	(93-154)	11	84	(60-115)
- Land Transport Accidents	8	130	(90-182)	8	129	(84-191)	0	133	(61-252)
Suicide and undetermined injury	11	112	(82-149)	>5	120	(84-166)	<5	90	(43-166)

Table 7.12 Numbers (2005) and SMRs (2003 - 2005) for All Causes of Death by Age Range

All causes	Persons			Males			Females		
	No.	SMR	(95% CI)	No.	SMR	(95% CI)	No.	SMR	(95% CI)
Ages under 1	10	105	(76-141)	>5	101	(64-151)	<5	111	(68-171)
Ages 1-14	5			<5			<5		
Ages 15-64	291	116	(108-124)	178	122	(112-132)	113	107	(95-120)
Ages 65-74	323	111	(104-118)	196	113	(104-123)	127	107	(97-118)
Ages 75+	1,007	*	*	422	*	*	585	*	*
All ages	1,636	107	(104-110)	806	111	(107-116)	830	102	(99-106)

\*Data not available

Table 7.13 Perinatal Mortality (stillbirths and deaths under 7 days – rate per 1,000 total births) and Infant Mortality (deaths under 1 year – rate per 1,000 live births), Numbers and Rates, 2006

Area	England			Yorkshire & the Humber			North East Lincolnshire PCT		
	No.	Rate	(95% CI)	No.	Rate	(95% CI)	No.	Rate	(95% CI)
Perinatal mortality	5,107	8.0	(7.8-8.2)	536	8.5	(7.8-9.2)	16	8.2	(5.0-13.3)
Infant mortality	3,192	5.0	(4.9-5.2)	360	5.7	(5.2-6.3)	10	5.1	(2.8-9.5)

Table 7.14 Life Expectancy (EOL), Number of Years and Rank, 2002-2004, by Gender

	Males				Females			
	England	Y&H	NELUA	NELUA RANK	England	Y&H	NELUA	NELUA RANK
EOL	76.92	NA	75.3	299	81.14	NA	80.8	239

\*Rank out of 352 LAs



**Table 7.15 Age-standardised Mortality Rates per 100,000 population, by Gender, 2002-2005.**  
**Selected Indicators, Saving Lives: Our Healthier Nation.**

	Males				Females			
	2002	2003	2004	2005	2002	2003	2004	2005
All circulatory diseases,								
ages under 65	66.50	73.43	66.33	67.27	19.68	16.26	38.49	30.05
ages 65-74	1,034.54	1,073.73	967.01	853.82	607.75	497.92	502.29	500.36
ages under 75	137.09	146.37	132.00	124.63	62.56	51.38	72.30	64.34
all ages	328.58	302.97	299.31	264.64	190.12	188.81	185.09	179.56
Coronary heart disease,								
ages under 65	46.45	47.72	41.49	42.05	4.28	8.13	17.95	12.86
ages 65-74	686.07	783.72	595.62	589.68	264.46	257.10	237.35	284.90
Stroke,								
ages under 65	10.08	10.94	10.03	17.42	9.71	8.13	7.98	5.59
ages 65-74	259.80	86.31	242.52	96.49	189.79	124.27	151.39	148.09
All malignant neoplasms								
(All Cancers)								
ages under 65	75.54	83.62	97.76	72.51	72.57	74.86	55.11	78.34
ages 65-74	1,305.24	1,146.23	971.06	1,103.01	563.96	753.74	591.97	684.47
ages under 75	165.20	161.10	161.43	147.65	108.40	124.36	94.26	122.54
all ages	253.13	252.71	250.02	228.29	159.11	173.18	135.42	168.95
Breast cancer ages 50-69	-	-	-	-	55.79	63.23	61.62	50.31
Lung cancer ages under 75	48.84	43.78	44.26	40.29	19.51	23.64	13.91	24.76
Suicide and undetermined								
injury all ages	23.81	10.40	23.37	13.14	3.16	3.82	5.75	1.17
Suicide all ages	15.91	7.81	11.67	7.74	1.78	0.00	4.61	1.17
Accidents,								
ages under 15	5.85	0.00	0.00	11.82	7.80	17.19	6.37	0.00
ages 15-24	8.90	21.00	11.67	32.61	11.87	23.45	8.80	0.00
ages 65-84	35.22	31.44	33.00	72.84	54.90	24.85	13.69	19.63
ages 65 and over	112.78	40.48	30.00	76.27	77.99	43.20	29.02	41.71
All causes, all ages	921.21	895.49	853.85	809.17	564.46	568.60	540.24	532.87

	Persons			
	2002	2003	2004	2005
All circulatory diseases,				
ages under 65	43.11	44.87	52.50	48.74
ages 65-74	808.52	768.72	720.06	666.19
ages under 75	98.92	97.65	101.17	93.77
all ages	246.43	243.93	234.97	219.56
Coronary heart disease,				
ages under 65	25.35	27.99	29.77	27.48
ages 65-74	462.67	504.58	405.51	428.40
Stroke,				
ages under 65	9.92	9.53	9.07	11.51
ages 65-74	222.52	106.65	193.87	123.77
All malignant neoplasms				
(All Cancers)				
ages under 65	74.04	79.25	76.32	75.35
ages 65-74	911.47	937.55	770.20	881.08
ages under 75	135.10	141.84	126.92	134.11
all ages	199.26	203.75	184.48	192.94
Breast cancer ages 50-64	-	-	-	-
Lung cancer ages under 75	33.36	33.30	28.75	32.15
Suicide and undetermined				
injury all ages	13.32	7.15	14.31	6.81
Suicide all ages	8.79	3.78	7.99	4.40
Accidents,				
ages under 15	6.82	8.44	3.11	6.04
ages 15-24	10.88	22.54	9.99	16.30
ages 65-84	46.03	28.02	21.92	43.86
ages 65 and over	83.52	43.84	32.06	59.82
All causes, all ages	711.90	712.59	678.73	656.46





## SELECTED CHRONIC DISEASE MANAGEMENT INDICATORS

Table 7.16 Indicators relating to the management of diabetes

Area	England			Yorkshire & the Humber			North East Lincolnshire PCT		
	No.	Rate	(95% CI)	No.	Rate	(95% CI)	No.	Rate	(95% CI)
Indirectly standardised mortality ratios (SMRs) from diabetes mellitus, 2003 – 2005.	16,518	100	(98-102)	1,673	101	(96-106)	76	141	(111-176)

Table 7.17 Indicators relating to the management of asthma

Area	England			Yorkshire & the Humber			North East Lincolnshire PCT		
	No.	SMR	(95% CI)	No.	SMR	(95% CI)	No.	SMR	(95% CI)
Indirectly standardised mortality ratios (SMRs) from asthma, 2003 – 2005.	3,440	100	(97-103)	421	121	(110-134)	21	187	(116-287)

## CANCERS

Table 7.18 Age-standardised Incidence Rates per 100,000 Population for Selected Cancers, by Gender, 1996-2005

Males										
Cancer/Site	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
C67 Bladder	21.5	29.4	30.7	20.2	20.7	24.7	19.6	17.0	20.9	26.9
C18-C20 Colorectal	55.8	49.0	48.8	51.5	51.5	48.1	61.2	51.1	49.1	52.9
C00-C14, C30-C32 Head and Neck	17.7	18.9	16.2	20.1	27.1	16.4	17.4	17.9	22.2	13.6
C64 Kidney	8.0	8.3	7.4	9.8	16.6	8.3	14.0	8.5	8.5	7.6
C91-C95 Leukaemias	13.5	15.2	17.0	12.3	16.1	10.6	12.5	10.1	13.0	14.2
C34 Lung	92.3	59.2	74.6	76.6	80.6	57.5	71.7	65.9	70.9	57.1
C82-C85 Non-Hodgkins Lymphomas	16.2	16.7	15.6	10.8	12.1	17.6	12.3	21.2	11.4	15.9
C15 Oesophagus	12.8	17.7	17.5	15.9	12.6	9.5	9.0	29.8	10.3	17.4
C25 Pancreas	9.1	11.3	12.0	13.0	8.8	8.3	9.7	1.3	5.0	9.6
C61 Prostate	49.8	62.8	56.9	60.4	74.8	107.9	116.2	99.7	75.2	96.2
C44 Non-Melanoma Skin	94.5	101.1	109.6	109.4	130.4	122.9	121.7	124.8	121.7	121.4
C16 Stomach	22.3	24.7	14.4	20.2	24.5	14.9	18.3	21.4	11.5	28.1
C50 Breast	1.0	1.0	1.3	0.0	1.0	0.0	0.0	0.7	0.9	1.3
C53 Cervix Uteri	-	-	-	-	-	-	-	-	-	-
C56 Ovary	-	-	-	-	-	-	-	-	-	-
C00-C97 Excl. C44 All Sites Excl. NM Skin	383.4	397.0	384.3	386.5	416.6	423.2	436.6	404.6	374.7	418.2
All Tumour Behaviours	519.7	532.1	526.7	539.6	586.1	597.2	596.4	572.0	528.5	573.6

Females										
Cancer/Site	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
C67 Bladder	9.3	9.1	7.9	8.5	5.2	2.4	6.3	6.1	7.1	7.7
C18-C20 Colorectal	36.5	38.9	37.6	34.2	35.2	28.4	30.6	26.3	32.0	37.6
C00-C14, C30-C32 Head and Neck	7.8	10.2	5.6	5.2	10.3	5.3	10.1	8.2	9.6	7.2
C64 Kidney	5.1	5.8	6.7	10.4	9.6	6.1	1.7	2.5	3.3	5.3
C91-C95 Leukaemias	5.8	3.2	6.6	4.4	6.8	7.3	9.6	6.3	3.1	6.4
C34 Lung	36.6	28.7	32.3	37.3	29.9	39.6	29.1	31.0	37.1	25.7
C82-C85 Non-Hodgkins Lymphomas	8.4	3.7	9.3	7.5	8.2	9.5	7.9	7.9	11.4	14.7
C15 Oesophagus	2.1	6.1	8.2	7.0	5.3	4.3	5.3	2.3	8.5	6.4
C25 Pancreas	4.6	16.0	6.6	8.4	8.6	3.2	9.2	7.8	6.9	5.4
C61 Prostate	-	-	-	-	-	-	-	-	-	-
C44 Non-Melanoma Skin	83.6	68.9	84.4	77.5	77.1	86.1	82.3	100.0	106.4	79.1
C16 Stomach	9.6	4.7	6.2	3.0	6.2	9.2	8.9	7.1	5.4	8.0
C50 Breast	101.5	108.6	113.2	104.8	118.4	127.9	128.2	106.1	102.8	130.1
C53 Cervix Uteri	11.6	10.5	12.5	18.3	10.9	26.8	17.5	12.6	15.6	18.0
C56 Ovary	11.4	22.5	28.2	14.3	16.8	19.2	13.5	10.6	11.9	15.6
C00-C97 Excl. C44 All Sites Excl. NM Skin	314.7	329.5	340.2	330.2	342.9	368.1	350.8	311.1	330.6	378.8
All Tumour Behaviours	555.9	537.4	592.4	594.6	641.4	637.6	576.5	557.3	612.7	625.2



# Persons

Cancer/Site	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
C67 Bladder	15.4	19.3	19.3	14.4	13.0	13.5	12.9	11.5	14.0	17.3
C18-C20 Colorectal	46.2	43.9	43.2	42.8	43.3	38.2	45.9	38.7	40.5	45.3
C00-C14, C30-C32 Head and Neck	12.7	14.5	10.9	12.6	18.7	10.9	13.8	13.1	15.9	10.4
C64 Kidney	6.6	7.1	7.1	10.1	13.1	7.2	7.8	5.5	5.9	6.4
C91-C95 Leukaemias	9.6	9.2	11.8	8.3	11.5	8.9	11.1	8.2	8.1	10.3
C34 Lung	64.4	44.0	53.4	57.0	55.2	48.6	50.4	48.5	54.0	41.4
C82-C85 Non-Hodgkins Lymphomas	12.3	10.2	12.5	9.1	10.1	13.5	10.1	14.5	11.4	15.3
C15 Oesophagus	7.4	11.9	12.8	11.4	8.9	6.9	7.2	16.1	9.4	11.9
C25 Pancreas	6.9	13.6	9.3	10.7	8.7	5.8	9.5	4.5	5.9	7.5
C61 Prostate	-	-	-	-	-	-	-	-	-	-
C44 Non-Melanoma Skin	89.1	85.0	97.0	93.4	103.7	104.5	102.0	112.4	114.0	100.2
C16 Stomach	15.9	14.7	10.3	11.6	15.4	12.0	13.6	14.2	8.4	18.0
C50 Breast	51.2	54.8	57.2	52.4	59.7	63.9	64.1	53.4	51.8	65.7
C53 Cervix Uteri	-	-	-	-	-	-	-	-	-	-
C56 Ovary	-	-	-	-	-	-	-	-	-	-
C00-C97 Excl. C44 All Sites Excl. NM Skin	349.1	363.3	362.3	358.3	379.7	395.6	393.7	357.9	352.7	398.5
All Tumour Behaviours	537.8	534.7	559.5	567.1	613.7	617.4	586.5	564.6	570.6	599.4

\*Data source: Northern and Yorkshire Cancer Registry & Information Service (NYCRIS)



# Notes







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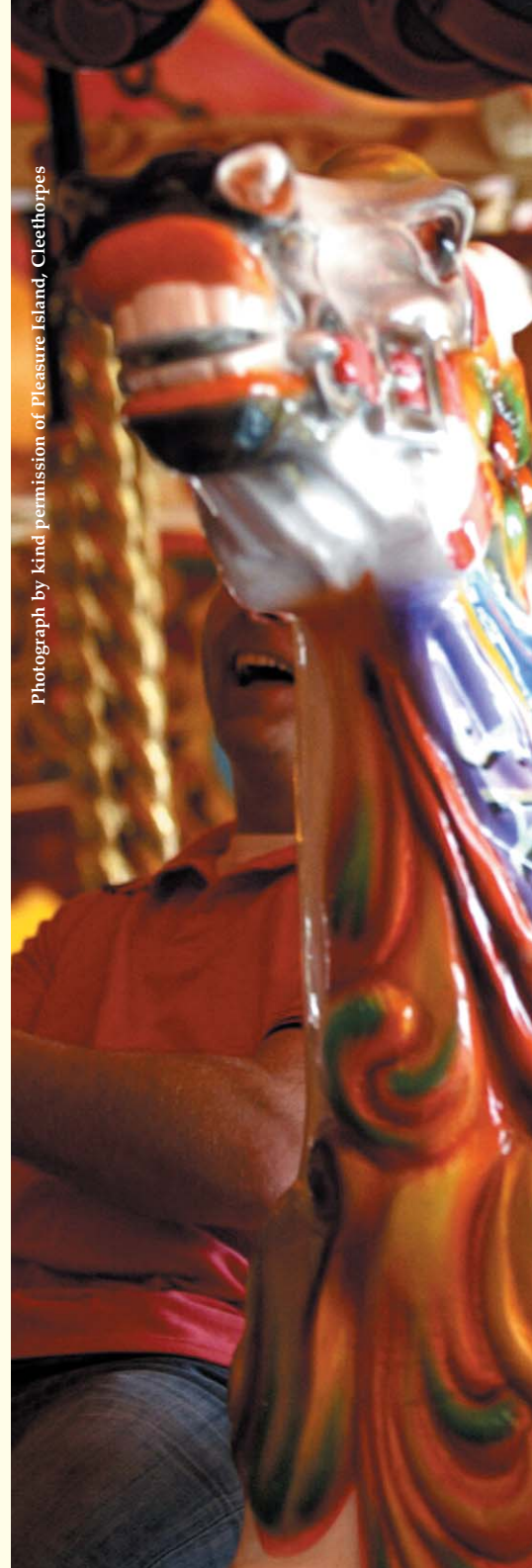
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