

Bishops Cleeve Neighbourhood Health Profile October 2005

In response to the concerns raised by local people about the impact on their health of a local hazardous waste landfill site, Cheltenham & Tewkesbury Primary Care Trust (PCT) has undertaken a review of the evidence of the health experience of local people compared with elsewhere in the county.

In this profile we have addressed in more detail two areas which have been of continuing local concern; cancers and congenital malformations. However it should be noted that studies from elsewhere do not currently suggest a link between landfill and cancers and the evidence on the association between landfill and congenital malformations is inconsistent and inconclusive. Locally we have looked for both statistically significant clusters and trends over time.

The Bishops Cleeve Neighbourhood Health Profile presents a series of data items and compares them with results for larger areas for example Cheltenham & Tewkesbury PCT, Tewkesbury LA or Gloucestershire as a whole. This analysis is available to the public and may be quoted, re-used and freely published on websites.

For the purposes of the profile we looked at the population living in the urban area of Bishop's Cleeve (including Woodmancote) as mapped by Ordnance Survey. The postcodes for this area were captured by GIS technique and compared with the Exeter database of people registered with a General Practice. Where this wasn't possible an approximation of electoral ward based data to the urban area was used.

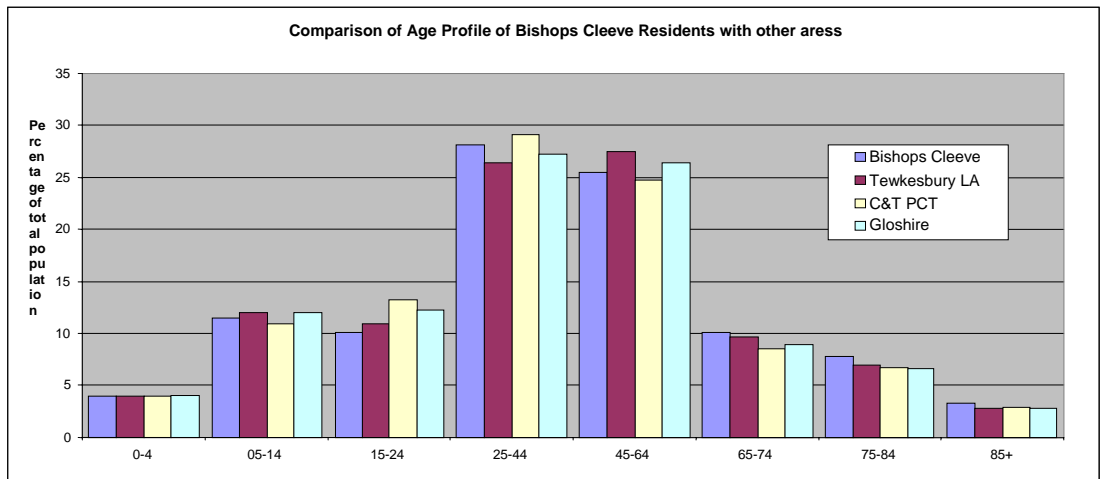
Population Profile

In December 2004 there were 12 996 residents of the urban area of Bishops Cleeve. The structure of the population was similar to the rest of the PCT and county. Analysis of the data shows that there are fewer young people in their late teens and early twenties but higher proportions of those in their thirties and forties and also of those aged 70 years and over. There is no evidence for a higher prevalence of infants and young children in the area.

Population Structure	Bishops Cleeve	Tewkesbury LA	C&T PCT	Glo'shire
0-4 yrs	3.88	3.97	3.91	3.99
05-14 yrs	11.44	11.95	10.89	11.96
15-24 yrs	10.05	10.91	13.23	12.19
25-44 yrs	28.09	26.36	29.18	27.23
45-64 yrs	25.42	27.47	24.75	26.36
65-74 yrs	10.06	9.69	8.49	8.92
75-84 yrs	7.78	6.85	6.66	6.62
85+ yrs	3.27	2.79	2.88	2.73
All ages	100.00	100.00	100.00	100.00

Source: Exeter database extract - January 2005

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Housing , Economic and Deprivation Indicators

The Gloucestershire MAIDeN database records the key characteristics of social, economic and service data (including health) for each electoral ward in Gloucestershire using nearly two hundred local indicators. By combining data and information relating to wards, wide-ranging community profiles can be produced. A review of indices of deprivation in 2004 suggests that Bishops Cleeve is situated in one of the least deprived areas of the PCT and county particularly in regard to health deprivation and disability.

Births, Pregnancy and Life Expectancy

The number of live births per 1,000 women in Tewkesbury is the same as Gloucestershire as a whole (source: ONS). Life expectancy of a woman at birth is 81 years, the same as the county average. Life expectancy for men is 77 years which slightly exceeds the county average of 76 years.

	Tewkesbury	Glo'shire
Birth rate: per 1000 women aged 15-44 resident in the area	56	56

Source: Government Actuary Department

Data on births in the profile area are difficult to interpret due to the small numbers (31 babies were born with low birth weight in both 1995 - 1999 and 2000 - 2003) which makes the results difficult to interpret. However the local rate for low birth weight babies was less than the PCT or County rates in both periods.

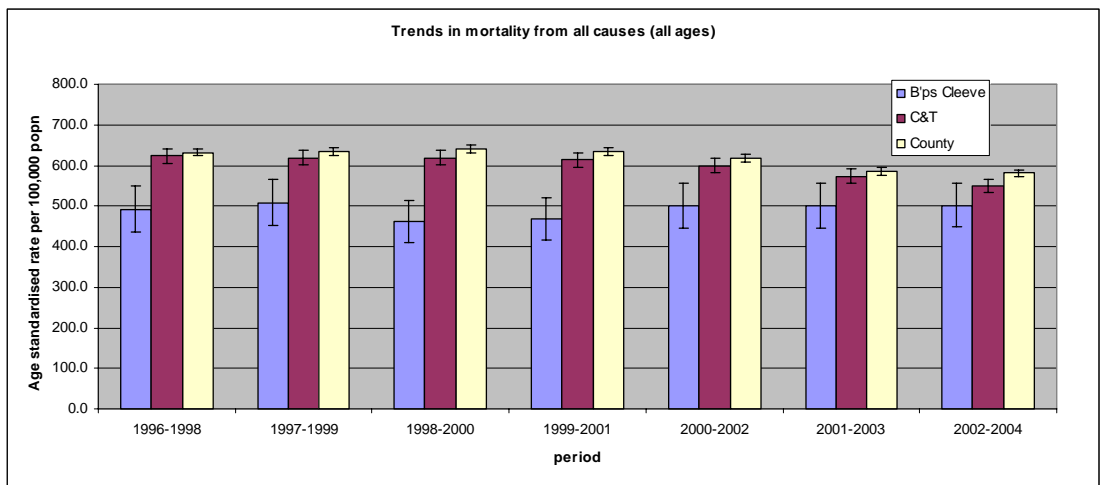
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Low Birth Weight Rate per 1000 live births	1995 - 1999	2000 - 2003
C&T PCT	64.2	67.4
W Glos PCT	74.8	74.0
Cots Vale PCT	61.1	57.8
Gloucestershire	67.7	67.2
Bishops Cleeve	45.1	62.4

Source: ONS

Mortality Rates

All causes: The all causes mortality rate for local residents has been markedly lower than that for residents of the PCT and the county since 1996 and has changed little over time. The wide confidence intervals for the Bishops Cleeve data indicated by the vertical black lines with arms on the bar charts are an indication of the uncertainty arising from the use of small numbers for these analyses. There is a 95% chance that the true value lies between the arms of the black line.

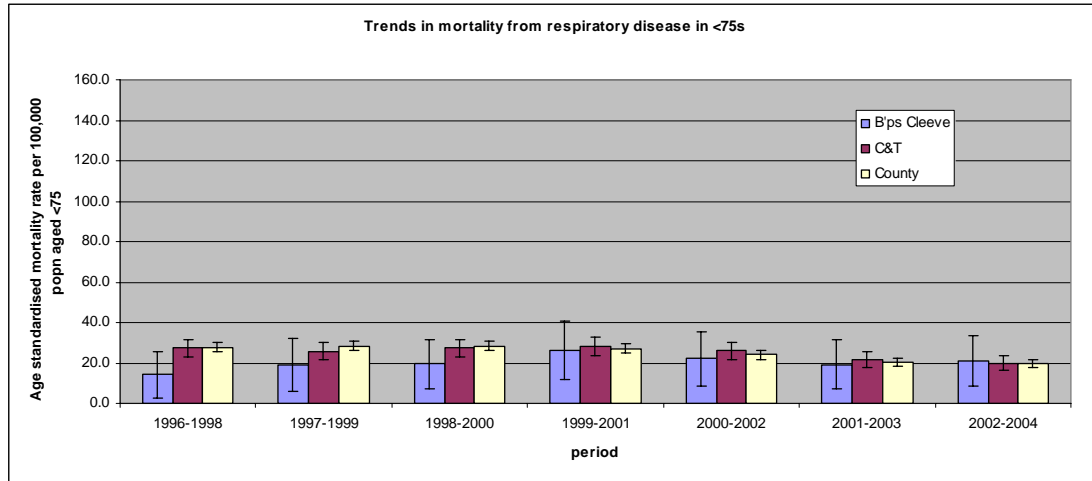


Source: ONS

The dataset data was analysed in more detail for particular groups of diseases where studies have suggested a potential link or residents had raised a particular concern.

Respiratory disease: The rates of respiratory disease from all causes (excluding cancer) reflect the pattern and level seen overall in the PCT and county. Although there is a small excess in the last period 2002 - 2004, the wide and overlapping confidence interval suggests that this is unlikely to be a significant finding.

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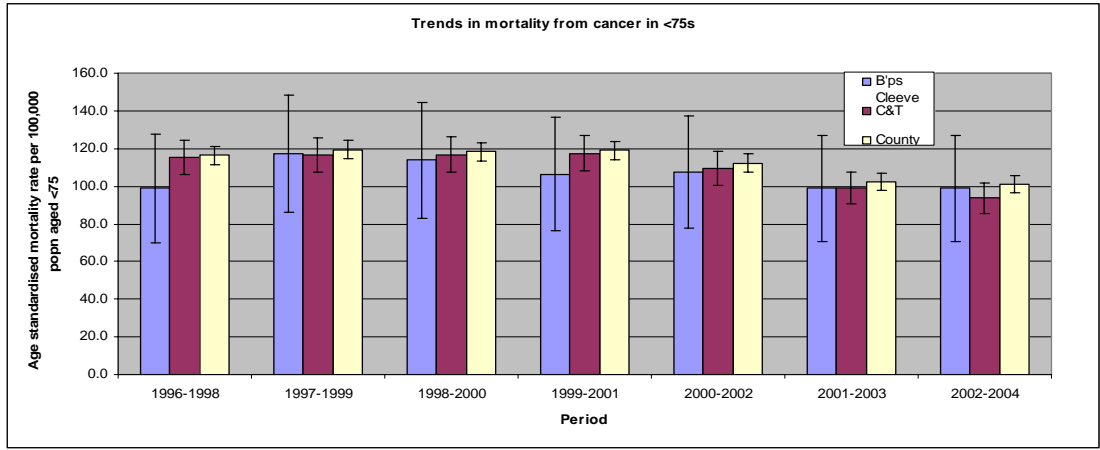


Source: ONS

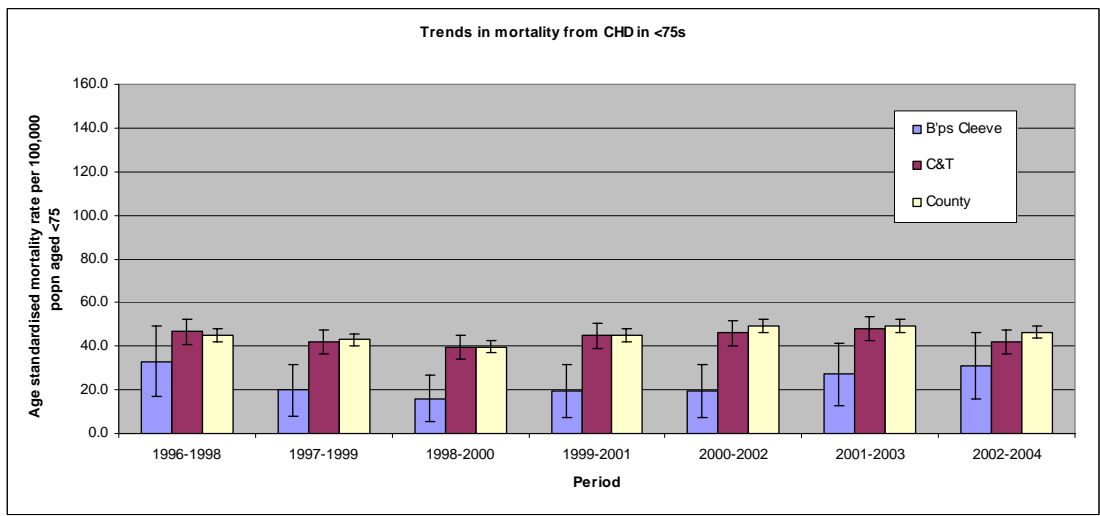
Cancer: The South West Public Health Observatory (SWPHO) was asked for expert advice in analysing cancer registration data to assess whether local people have experienced higher rates of cancer than would be expected. They were able to look at data from 1987 to 2002. There are many different types of cancer with a variety of risk factors. Some such as breast cancer are linked with more affluent lifestyles, some are linked with smoking and less affluent lifestyles others with age, family history, diet or occupation. Comparisons were made with the population of Tewkesbury, the PCT, the County and national rates of disease. The incidence of cancer was not higher or lower than would be expected based on national rates and was not statistically different from the other areas. There were no significant changes over the time period. Residents of Bishops Cleeve were not found to experience a higher risk of cancer than Gloucestershire as a whole.

Mortality from cancers approached PCT and County norms. Although the mortality rate for 2002 - 2004 exceeded the rate for the PCT the actual number of deaths recorded in this period declined by 7 to 99. Further analysis by specific types of cancer was not undertaken due to small numbers. No deaths from cancer were recorded for children or young people up to the age of 24 for the period 1994 - 2004.

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Coronary Heart Disease: Deaths from coronary heart disease have not been linked with landfill sites but have been included as a general indicator of health in the community. Local rates including the upper confidence intervals are generally below both PCT and County rates.



Source: ONS

Infant mortality: The number of deaths of infants up to 1 year old per 1000 live births exceeded the PCT and County rates in 1995-1999 but was less than or equal to them in 2000-2003. This represents a decrease of 3 in the actual number of deaths between the two periods from 1995 -1999 to 2000 - 2003.

Infant mortality rate (deaths <1 year per 1000 live births)

	1995- 1999	2000 - 2003
Bishops Cleeve	7.3	4.0
C&T PCT	4.7	5.7
County	5.5	4.0

Source: ONS

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Stillbirths: The stillbirth rate for Bishops Cleeve is also based on very small numbers but does not exceed the rates in other PCTs or the County as a whole.

Stillbirth rate (per 1000 total births)

PCT	1995-1999	2000-2003
Cheltenham & Tewkesbury	5.6	4.4
West Glo'shire	5.1	5.3
Cotswold Vale	5.1	3.5
Bishops Cleeve	2.9	0.0
County	5.2	4.5

Source: ONS

Hospital Admission Rates

We looked at hospital admission rates for all respiratory illnesses. These were lower in the profile area when compared with the PCT and the County with the exception of under 75s in 2002-2004, however this comparison was affected by the very low rates experienced by residents of Cotswold and Vale PCT at that time. The experience of profile area residents experience was still better than both residents of Cheltenham & Tewkesbury PCT and West Gloucestershire PCTs for the same period. Analysing the data further by elective or emergency admissions did not alter the findings.

Direct Age standardised hospital admission rates: all admissions
(Confidence intervals)

	Bishops Cleeve	C&T	C&V	WG	County
Respiratory disease: all ages 2000-2002	755.6 (686.6 - 847.4)	1006.0 (982.9 - 1035.8)	932.4 (912.2 - 957.8)	1124.5 (1103.9- 1150.9)	1027.1 (1014.9- 1042.6)
Respiratory disease: all ages 2002-2004	1000.5 (730.6 - 1117.5)	1077.7 (828.8 - 1109.0)	965.6 (707.7- 991.9)	1134.3 869.6 - 1160.7 0	1064.6 807.1- 1080.7 0

Source: ONS

Other Health Indicators

We looked at other areas of concern for local residents where the level of evidence is less robust.

Congenital Abnormalities: As this is an area of particular concern to local residents the South West Congenital Abnormality Register was also asked for expert advice in

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interpreting the data available. In 1998 - 2002 less than 5 congenital abnormalities were recorded in the 5-year period in the GL52 postcode area compared with 193 in the county as a whole. Analysis of data from 2002 - 2004 does not indicate any unusual cluster formation. Voluntary registers are under reported but the very low numbers and the types of abnormality recorded do not suggest a need for further investigation.

Asthma: Asthma was reported as a particular concern of local residents. However this is an illness which can be difficult to define and record with certainty resulting in errors in data collection. We have obtained some initial anonymised data from local General Practices and also looked at Quality Management Analysis System data which was routinely collected for the first time for 2003/4.

Asthma prevalence has not been linked with landfill sites in particular but has been implicated in issues around air pollution e.g. from traffic. The quality of the data obtained for 2003 - 2004 are not sufficient to draw robust conclusions at present but practices with a high proportion of profile area residents provided data on prevalence which was comparable with that of other practices in the PCT. The quality of these data is likely to improve in the next collection round and could represent a useful source for monitoring in the future.

Air Quality: Air Quality data was obtained from Tewkesbury Local Authority. Monthly Nitrogen Dioxide level monitoring adjacent to Stoke Road in the vicinity of Wingmoor Farm since December 2003 has been unremarkable and has not exceeded levels which would trigger further monitoring.

Conclusion

People living in the Bishops Cleeve area generally experience levels of ill health which do not differ markedly from people living in other areas of Gloucestershire when a range of established health indicators and other less robust sources of evidence are compared.

The PCT is committed to responding to the public's concerns regarding the health impact on the community of the local hazardous waste landfill site. It is apparent from the evidence available on landfill sites and expert advice from the HPA that well managed and regulated landfill sites should not represent a public health hazard, however it is important that the public is reassured. Consequently the PCT intends to participate fully in a national programme of surveillance involving all hazardous waste landfill sites which is being developed by the HPA in conjunction with the Universities of Birmingham and Cardiff.

In addition, the PCT will focus on working with the Environment Agency, the Operators and others in the Liaison Group to ensure that emissions from the site are monitored and kept to a minimum. In the absence of conclusive evidence on the risk from such hazardous waste landfill sites the PCT considers that this is the best way to protect the Public Health.

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Glossary

C&T - Cheltenham and Tewkesbury
C&V - Cotswold and Vale
WGlos - West Gloucestershire
Glo'shire - Gloucestershire

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