

Infant Mortality

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|------------------------|--|
| General details | Data are collected from registrations of births and deaths |
| Area output | ONS provide data for Local Authority Areas, postcoded data is available to health researchers |
| Time period | Annual |
| Source | Office for National Statistics with some analysis taken from the Locality Based Health Needs Assessment 2003/2004 by The Calderdale and Huddersfield Health Informatics Team |
| Provider | ONS |
| Comments | |

1 Introduction

1.1 Definitions:

- Stillbirth: a baby born dead after 24 weeks gestation (changed from 28 weeks from 1993)
- Perinatal mortality: deaths of babies under 7 days plus stillbirths per 1,000 live and stillbirths
- Neonatal mortality: deaths of babies under between 7 and 28 days per 1,000 live births
- Postneonatal mortality: deaths of babies between 28 days and 1 year per 1,000 live births
- Infant mortality: deaths of babies under 1 year per 1000 live births.

1.2 The following factors increase the risk of infant death:

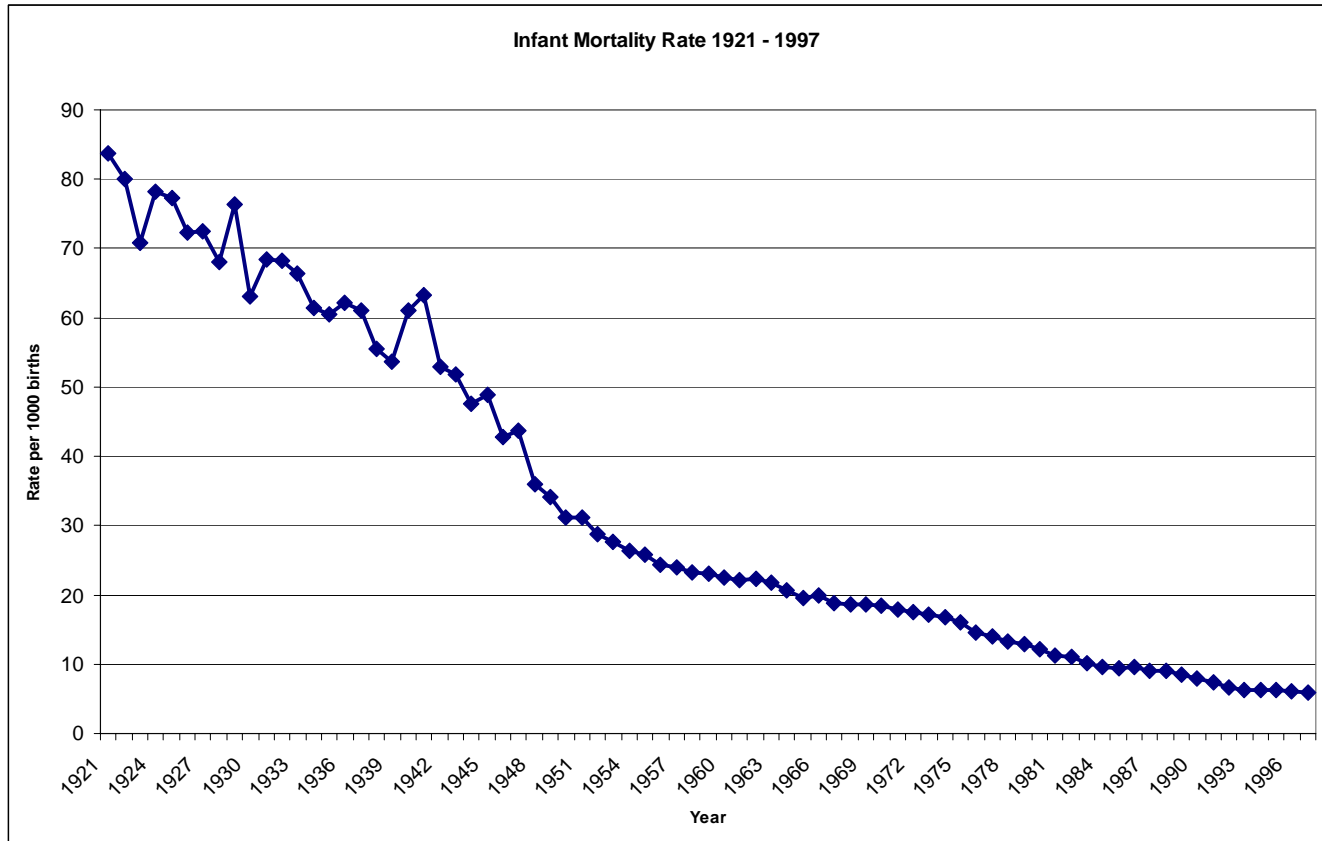
- Age of mother: highest rates for mothers aged under 18 years and lowest for mothers aged 30 to 34 years. The risk increases as the age of the mother increases after 34 years, however, even for mothers over the age of 40 years, the rate is lower than for mothers aged under 18 years.
- Multiple births: the mortality rate of babies from multiple births is higher than that for singletons.
- Social class of the baby's father, mortality rates are lowest for babies of fathers in higher social classes.
- Low birthweight, particularly for babies with a birthweight of less than 1,500g

2 National and Regional Figures

2.1 The infant mortality rate in England and Wales is currently at an all time low level nationally. Figure 1 shows that the current rate of under 6 per 1000 live births is half the rate of the early 1980s and one quarter the rate of the mid 1950s.

2.2 In 2004, there were 639,721 live births in England and Wales and 3272 babies under 1 year died. The Infant Mortality rate was 5.1 deaths per 1000 live births. This is the lowest rate ever recorded.

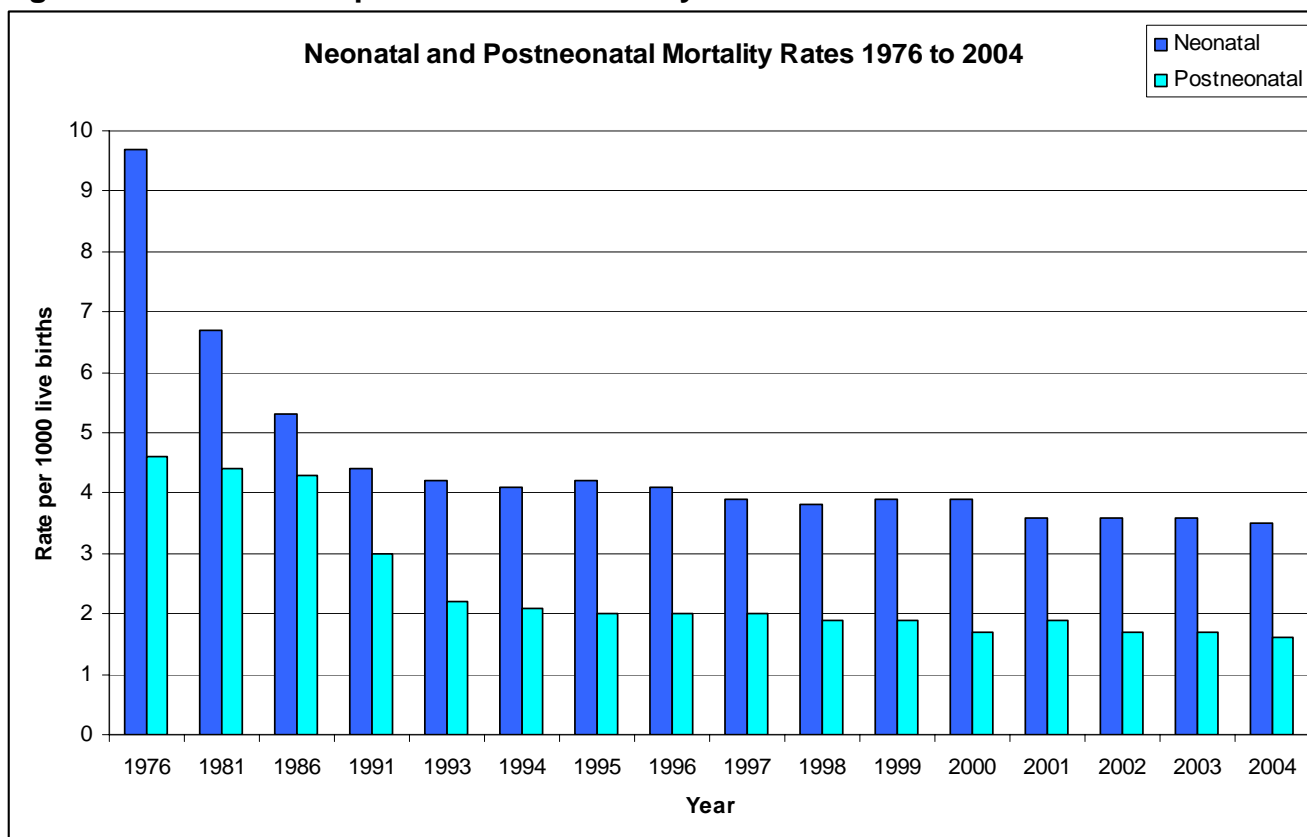
Figure 1: United Kingdom Infant Mortality 1921 to 1997



Source: ONS

2.3 The survival rate for vulnerable babies improves as the child grows older. Figure 2 shows that the mortality rate for very young babies (neonatal deaths occur between birth and 4 weeks) is double the rate for older babies (postneonatal deaths occur between 4 weeks and 1 year). Figure 2 also shows that current neonatal and postneonatal mortality rates are one third of the 1976 rate.

Figure 2: Neonatal and postneonatal mortality rates



Source: ONS

Table 1: Infant deaths 1998 to 2003

| Infant deaths | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| England and Wales | 3625 | 3,621 | 3,377 | 3,240 | 3,497 | 3686 |
| West Yorks | 204 | 178 | 213 | 166 | 181 | 184 |
| Bradford | 64 | 59 | 72 | 63 | 67 | 65 |
| Calderdale | 22 | 20 | 17 | 13 | 12 | 16 |
| Kirklees | 29 | 34 | 38 | 30 | 45 | 42 |
| Leeds | 66 | 49 | 55 | 39 | 38 | 44 |
| Wakefield | 23 | 16 | 31 | 21 | 19 | 17 |

Source: ONS

2.4 Fortunately, infant deaths are relatively rare occurrences. The annual average for the last 6 years is that around 3,500 babies under 1 year have died in England and Wales. In Kirklees the average is about 36 but with a high of 45 in 2002 and a low of 29 in 1998.

Table 2: Infant Mortality Rates 1998 to 2003

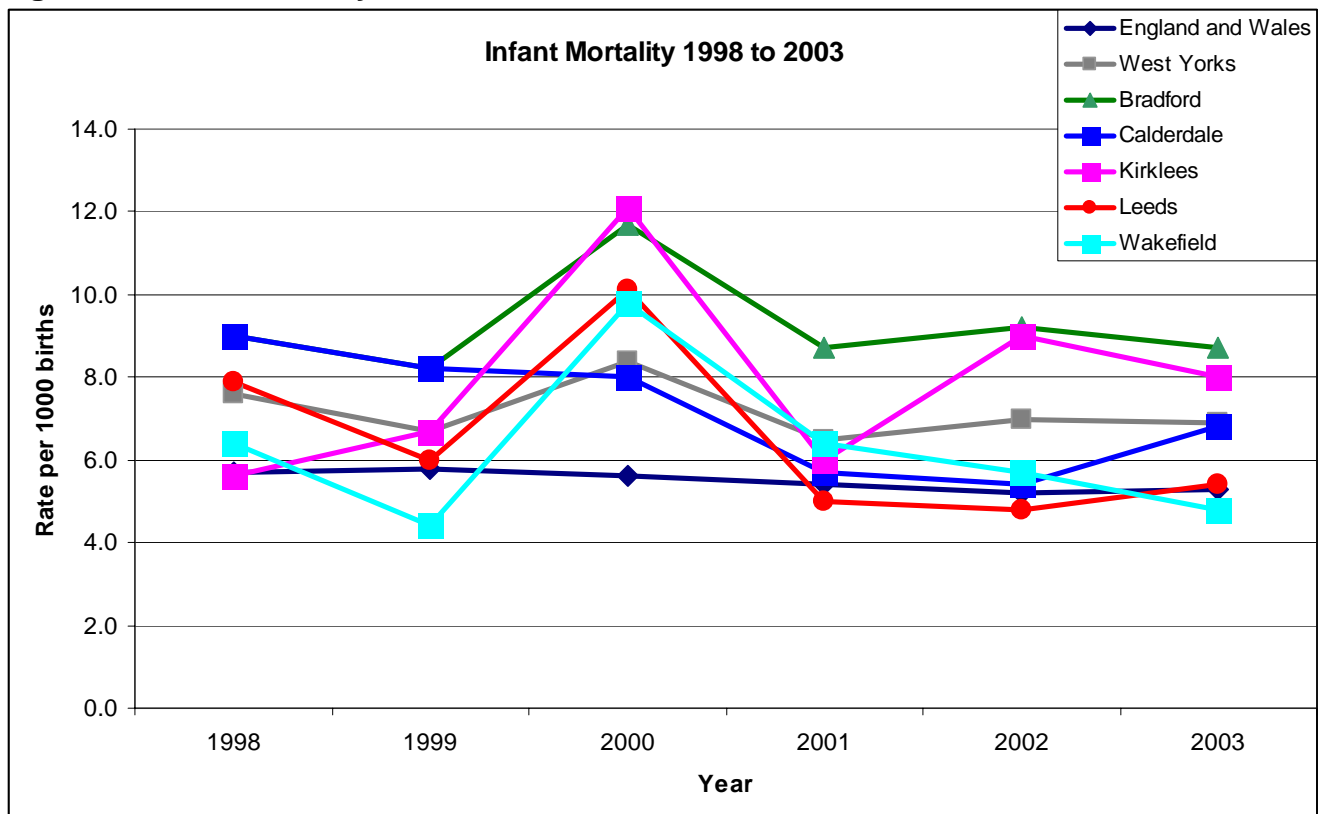
| Infant Mortality Rate | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|-----------------------|------------|------------|-------------|------------|------------|------------|
| England and Wales | 5.7 | 5.8 | 5.6 | 5.4 | 5.2 | 5.3 |
| West Yorks | 7.6 | 6.7 | 8.4 | 6.5 | 7.0 | 6.9 |
| Bradford | 9.0 | 8.2 | 11.7 | 8.7 | 9.2 | 8.7 |
| Calderdale | 9.0 | 8.2 | 8.0 | 5.7 | 5.4 | 6.8 |
| Kirklees | 5.6 | 6.7 | 12.1 | 6.0 | 9.0 | 8.0 |
| Leeds | 7.9 | 6.0 | 10.1 | 5.0 | 4.8 | 5.4 |
| Wakefield | 6.4 | 4.4 | 9.8 | 6.4 | 5.7 | 4.8 |

Source: ONS

2.5 Because the number of infant deaths is relatively small, we would expect infant mortality rates for areas as small as districts to fluctuate quite a lot.

2.6 Figure 3 graphs the data in Table 2. Whilst the national figure for infant mortality is a fairly straight line, the figures for the districts rise and fall. Kirklees data for the last six years has a high of over 12 and a low of below 6. Nationally, the infant mortality rate for most local authority districts lies within the range of double and about half the national average (e.g. in 2003 only 10 local authorities had rates above 10.2 and 32 local authorities had rates below 2).

Figure 3: Infant Mortality 1998 to 2003



Source: ONS

2.7 Annual fluctuation in infant mortality rates can be smoothed by combining data from several years. The Calderdale and Huddersfield Health Informatics Team has published rolling five year averages for Kirklees in the Locality Based Health Needs Assessment series.

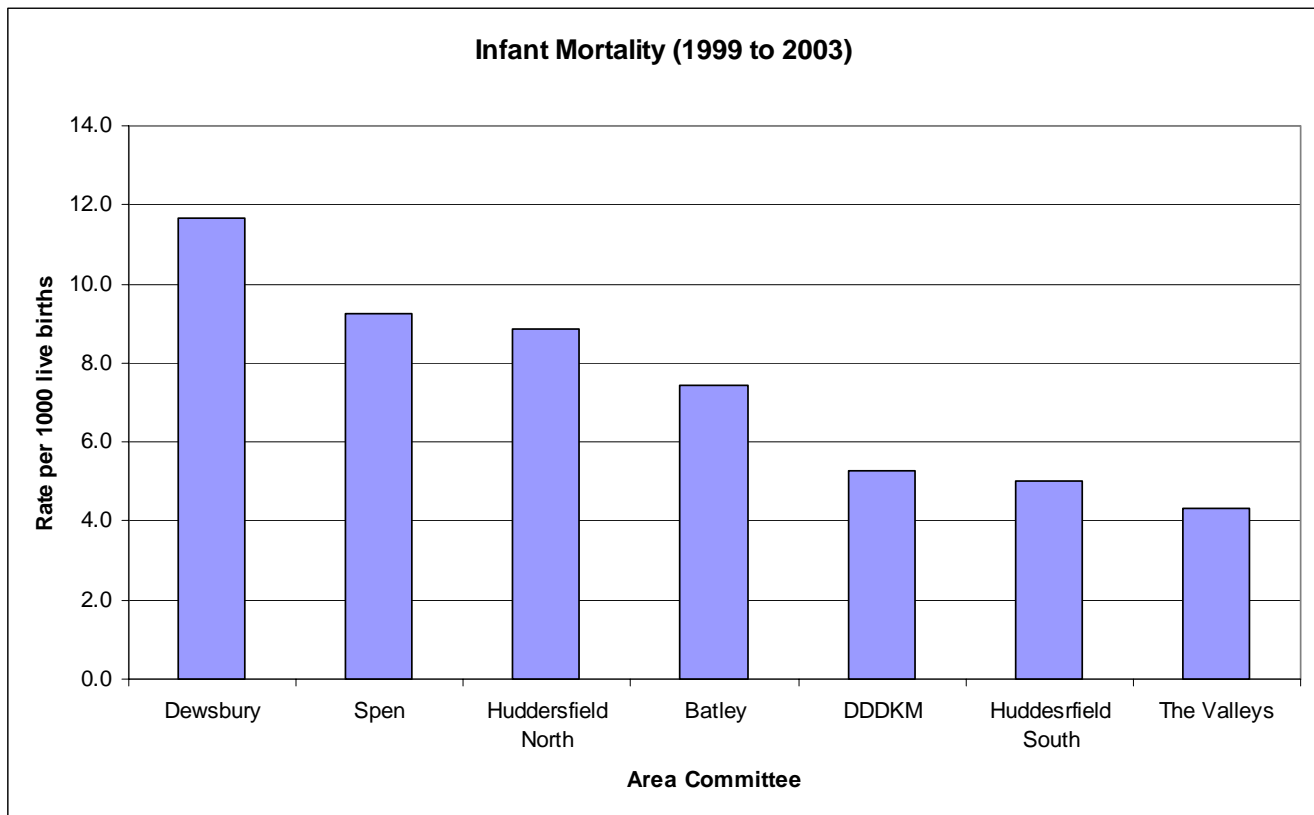
These show a slightly rising trend of infant mortality over the last 5 years for Kirklees from slightly below 7 per 1,000 live births to about 7.6 in 1999 to 2003.

3 Kirklees Figures

3.1 The Calderdale and Huddersfield Health Informatics Team have also published rolling five year averages for Kirklees wards in the Locality Based Health Needs Assessment series.

3.2 Ward figures of infant deaths are mostly very small even when a number of years' data are aggregated. The data are accurate but are subject to relatively large fluctuation.

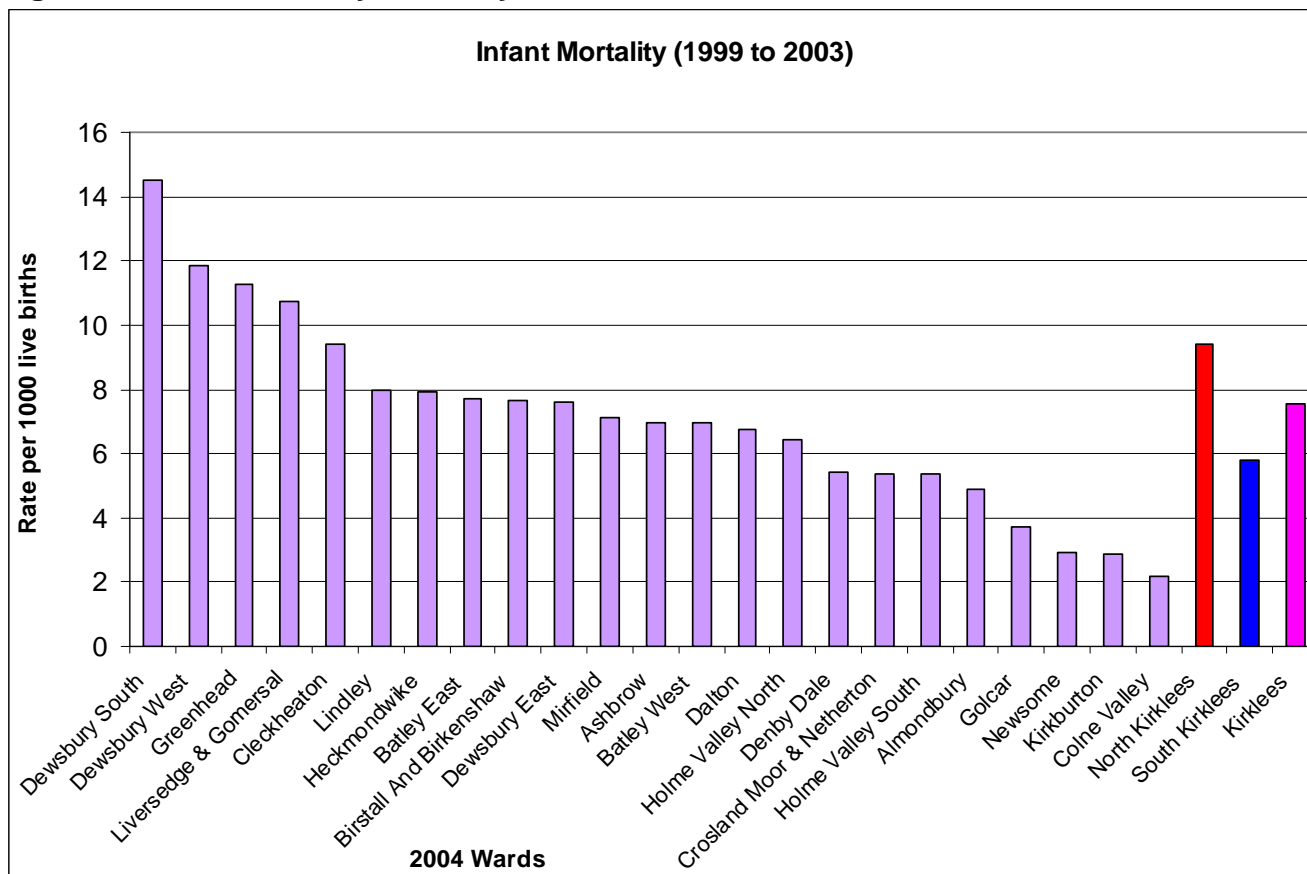
Figure 4: Infant Mortality Rates by Area Committee Areas



Source: Calderdale and Huddersfield Health Informatics Team: Locality Based Health Needs Assessment

3.3 Figure 4 shows ward data aggregated to Local Area Committee areas. In the Dewsbury area, there have been 54 infant deaths in the last 5 years which translates to an infant mortality rate of 11.7. In the Valleys, there were 16 infant deaths and a mortality rate of 4.3.

Figure 5: Infant Mortality Rates by Kirklees 2004 wards



Source: Calderdale and Huddersfield Health Informatics Team: Locality Based Health Needs Assessment

3.4 Figure 5 and Table 3 show the ward figures for infant deaths. Almost a quarter of all infant deaths over the last five years occurred to families who live in the 2 wards of Dewsbury South and Dewsbury West. There is a big difference between the infant mortality rates in North and South Kirklees and eight of the ten highest ward rates are in North Kirklees.

Table 3: Infant Mortality Rates (aggregated data from 1999 to 2003) by Kirklees 2004 wards

| | Live Births | Infant Deaths | Infant Mortality |
|---------------------------|-------------|---------------|------------------|
| Almondbury | 821 | 4 | 4.9 |
| Ashbrow | 1291 | 9 | 7.0 |
| Batley East | 1691 | 13 | 7.7 |
| Batley West | 1438 | 10 | 7.0 |
| Birstall And Birkenshaw | 915 | 7 | 7.7 |
| Cleckheaton | 850 | 8 | 9.4 |
| Colne Valley | 928 | 2 | 2.2 |
| Crosland Moor & Netherton | 1298 | 7 | 5.4 |
| Dalton | 1038 | 7 | 6.7 |
| Denby Dale | 738 | 4 | 5.4 |
| Dewsbury East | 1182 | 9 | 7.6 |
| Dewsbury South | 1585 | 23 | 14.5 |
| Dewsbury West | 1858 | 22 | 11.8 |
| Golcar | 1071 | 4 | 3.7 |
| Greenhead | 1329 | 15 | 11.3 |
| Heckmondwike | 1134 | 9 | 7.9 |
| Holme Valley North | 775 | 5 | 6.5 |
| Holme Valley South | 930 | 5 | 5.4 |
| Kirkburton | 701 | 2 | 2.9 |
| Lindley | 876 | 7 | 8.0 |
| Liversedge & Gomersal | 930 | 10 | 10.8 |
| Mirfield | 844 | 6 | 7.1 |
| Newsome | 1023 | 3 | 2.9 |
| | | | |
| North Kirklees | 12427 | 117 | 9.4 |
| South Kirklees | 12819 | 74 | 5.8 |
| | | | |
| Kirklees | 25246 | 191 | 7.6 |

Source: Calderdale and Huddersfield Health Informatics Team: Locality Based Health Needs Assessment

4 Links and further information

Office for National Statistics

<http://www.statistics.gov.uk/default.asp>

2003 Key Population and Vital Statistics (KPVS)

<http://www.nationalstatistics.gov.uk/StatBase/Product.asp?vlnk=539&Pos=&ColRank=1&Rank=144>

Locality Based Health Needs Assessment 2003/2004: The Calderdale and Huddersfield Health Informatics Team

5 Indicator archive

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|--------------------------------|---|
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