

## 4.4.01 Long Term Conditions

### Context

The World Health Organisation defines long term conditions as health problems that require ongoing management over a period of years or decades. Long term conditions (LTCs) can also be defined as conditions that cannot currently be cured but can be controlled with the use of medication and/or other therapies (WHO 2002).

This includes a very broad range of conditions which can be classified as:

- Cerebral conditions
- Respiratory conditions, of which asthma is the most common in children
- Cardiac conditions
- Metabolic conditions, including diabetes
- Neurological conditions, including epilepsy
- Haematological conditions
- Gastrointestinal conditions
- Genito-urinary conditions
- Structural impairments, including hearing or sight impairments, bone and joint disorders
- Communicable diseases, including HIV/AIDS
- Neoplasia, including benign and malignant tumours and conditions such as leukaemia

Long term conditions have become a priority because of the increasing prevalence of conditions such as asthma, diabetes, cancer and epilepsy which account for a significant and growing proportion of our health and social care resources (DH 2008).

Bradford has a much higher proportion of children that are disabled and have complex health needs than the national average. There are also significantly higher rates of some specific and complex long term conditions in the district compared to the national rates; examples include neurodegenerative conditions, neuromuscular conditions, primary ciliary dyskinesia and cerebral palsy. For some of these long term conditions there is an over representation of children from the South Asian community (Childs et al 2008, Devereux et al 2004, O'Callaghan et al 2010, Sinha et al 1997).

### National and local targets

- NHS Outcomes Framework 1.6: Reducing deaths in children and young people –
  - iii Five year survival from all cancers in children
- NHS Outcomes Framework 2 (Overarching indicator) : Health related quality of life for people with long term conditions
- NHS Outcomes Framework 2.3.ii Unplanned hospitalisation for asthma, diabetes and epilepsy in under 19s

### Relevant strategies and local documents

- National Service Framework for Children, Young People and Maternity Services: Children and Young People who are Ill, Standard 6, 2004 (DoH)
- Health Equity Audit of Children and Young People in Bradford District 2009
- Bradford Children and Young Peoples Plan (2011 – 14)



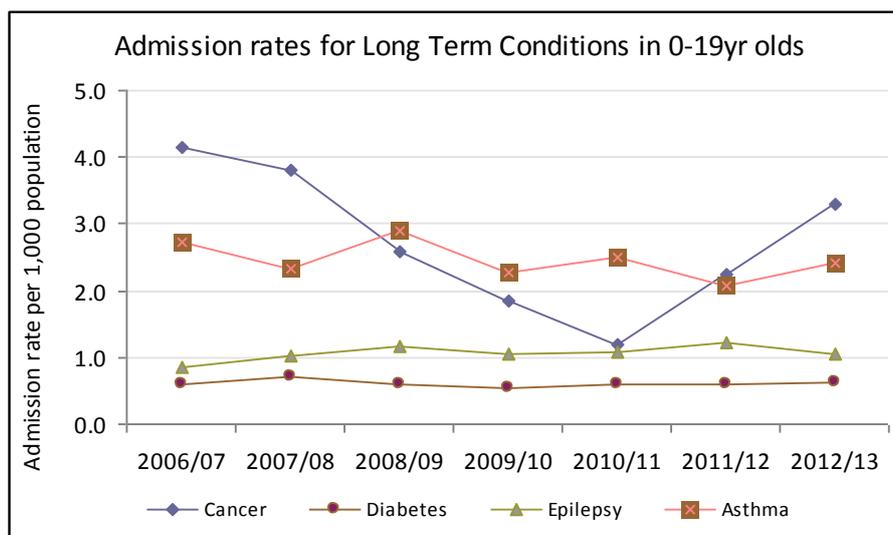
- Children and Young People's Health and Lifestyle Survey 2013 (BMDC)
- Bradford District Children's Needs Analysis 2010 – 2011
- Achieving Equity and Excellence for Children 2010 (DoH).
- NHS Outcomes Framework 2014 – 2015
- Getting it right for children and young people: Overcoming cultural barriers in the NHS so as to meet their needs. Kennedy Report (DoH 2010)
- Bradford SEND Review 2013
- Bradford Integrated Strategy for Disabled Children and Young People 2010
- Bradford Disabled Children and Young People's Needs Analysis 2010
- NHS Operating Framework 2014/5

## What do the data tell us?

### Overall admissions for asthma, diabetes and epilepsy in under 19s

Figure 1 shows overall trends in admissions for asthma, diabetes and epilepsy in under 19s. The figure shows both emergency and elective admissions, although the majority of admissions are likely to be unplanned.

**Figure 1: Emergency and elective admissions for asthma, diabetes, epilepsy and cancer in under 19s**

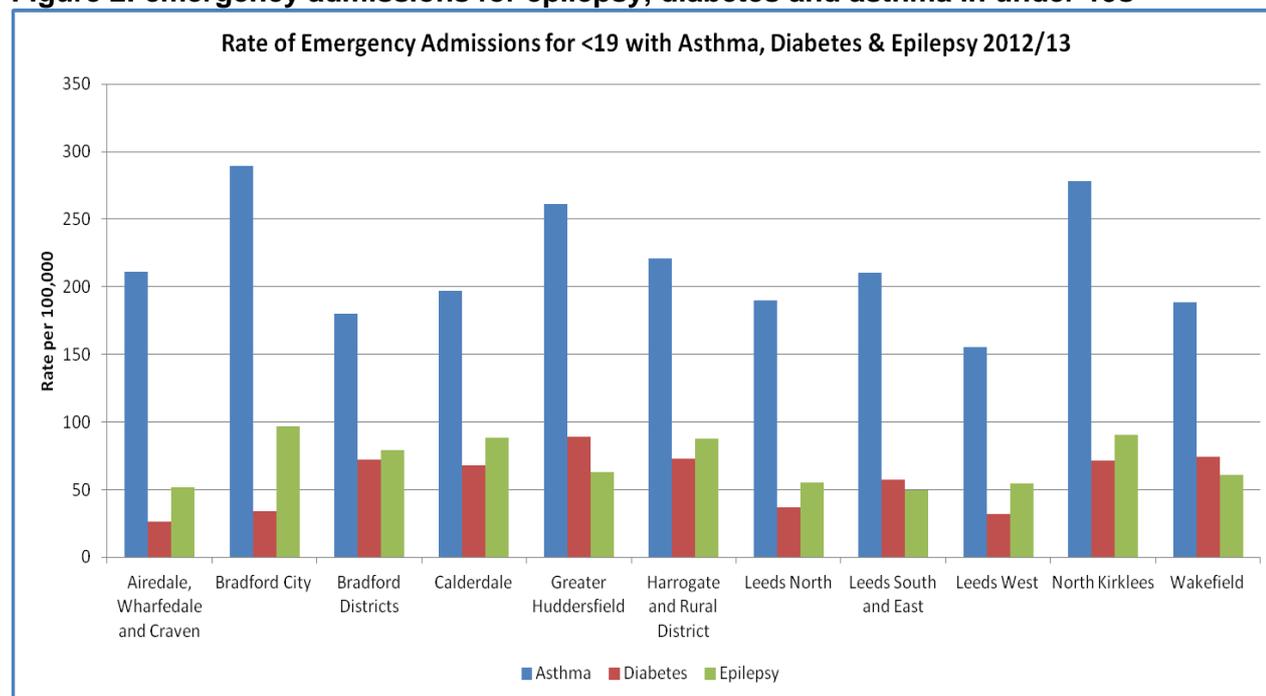


Source: Public Health Analysis Team, City of Bradford Metropolitan District Council

Admission rates for diabetes and epilepsy have remained very stable between 2006/7 and 2012/3, and have lower admission rates than cancer and asthma. Cancer currently has the highest rate of admissions, although this is likely to be accounted for by frequent elective admissions for individual children and young people (for example, for chemo- or radiotherapy). Rates of admission for cancer have been very variable, falling consistently until 2010/11 and then rising over the last two years. It is likely that rates of cancer admission are heavily influenced by the course of individual patients' treatment. Although we lack the most recent data, up until 2008 the incidence of childhood cancer in Bradford has not varied significantly from the national or regional norm.

Rates of admission for asthma have varied slightly, but have consistently shown the highest levels of admission.

Figure 2 shows information on epilepsy, diabetes and asthma admissions for under 19s, by CCGs in the West Yorkshire Area Team.

**Figure 2: emergency admissions for epilepsy, diabetes and asthma in under 19s**

Source: Public Health England Disease Management Information Tool

Figure 2 suggests that rates of diabetes and epilepsy admissions for under-19s in Bradford are comparable to those in other CCGs in the region. Bradford City CCG, however, has the highest rate of emergency admission for asthma in under-19s in the region, comparable only to North Kirklees and Greater Huddersfield CCGs. Asthma admissions are further discussed in the section below.

## Asthma

National evidence suggests that people from ethnic minorities have a higher risk of emergency admissions with asthma. Amongst South Asian populations nationally, the risk of emergency admission is twice as high as in the Black population and three times higher than that in the White population (Netuveli et al 2005).

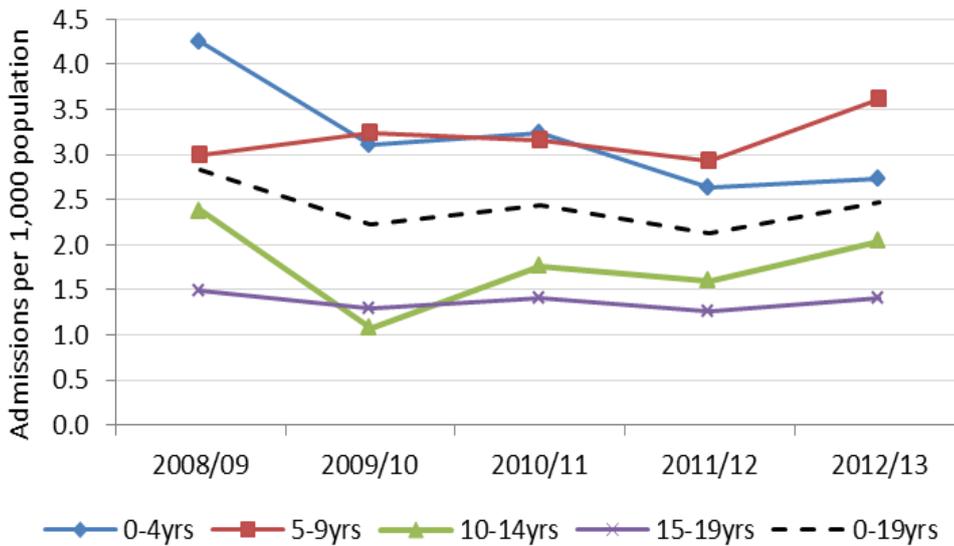
In 2012, hospital admissions for asthma in Bradford and Airedale were higher than both the national and regional average, with 0-4 year olds contributing the highest proportions of admissions.

More recent data shows effectively static admission rates for 0-19 year olds overall between 2006/7, with the rate of admissions for asthma at 2.4 per 1,000 population. National benchmarking data from PHE shows unplanned hospitalisations for asthma in 0-19 year olds to be similar to the regional and national average.

Local data shows a large drop in emergency admissions for asthma in 0-4 year olds as shown in Figure 3 below. In contrast, there is a noticeable rise in admissions among 5-10 year old children, of primary school age. The highest rates of admission are now among 5-10 year olds, and the lowest in 15-19 year olds.

**Figure 3: Rates of emergency admission for asthma by age band**

Asthma admissions in 0-19yr olds, 2008/09 - 2012/13

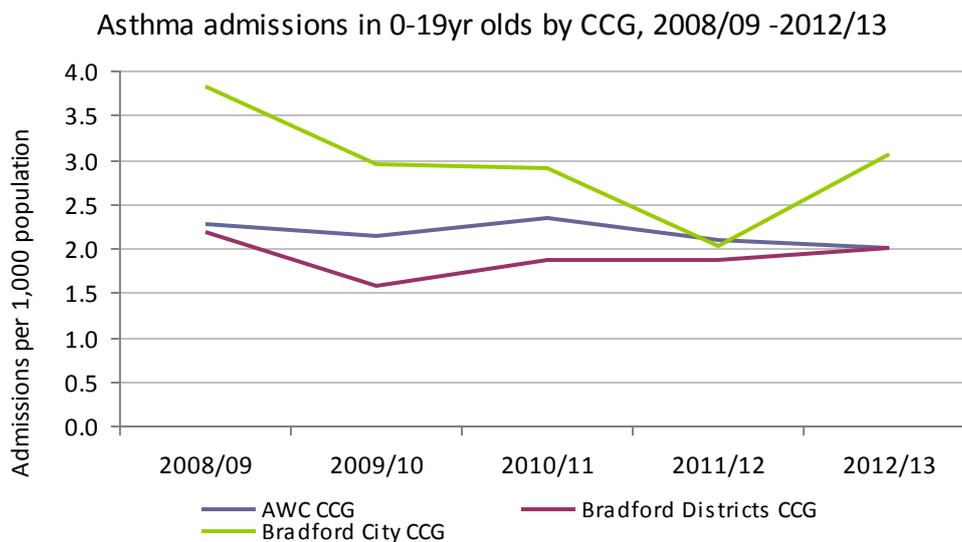


Source: Public Health Analysis Team, City of Bradford Metropolitan District Council

Figure 4 shows rates by CCG. Bradford City has the highest rates of emergency admissions, but has nevertheless seen a substantial fall from a higher rate in 2008/9. In 2011/12 the rate of admissions for asthma was similar to the other two CCGs and to the England average, but in 2012/13 rates rose again. It will be important to monitor the direction of this trend.

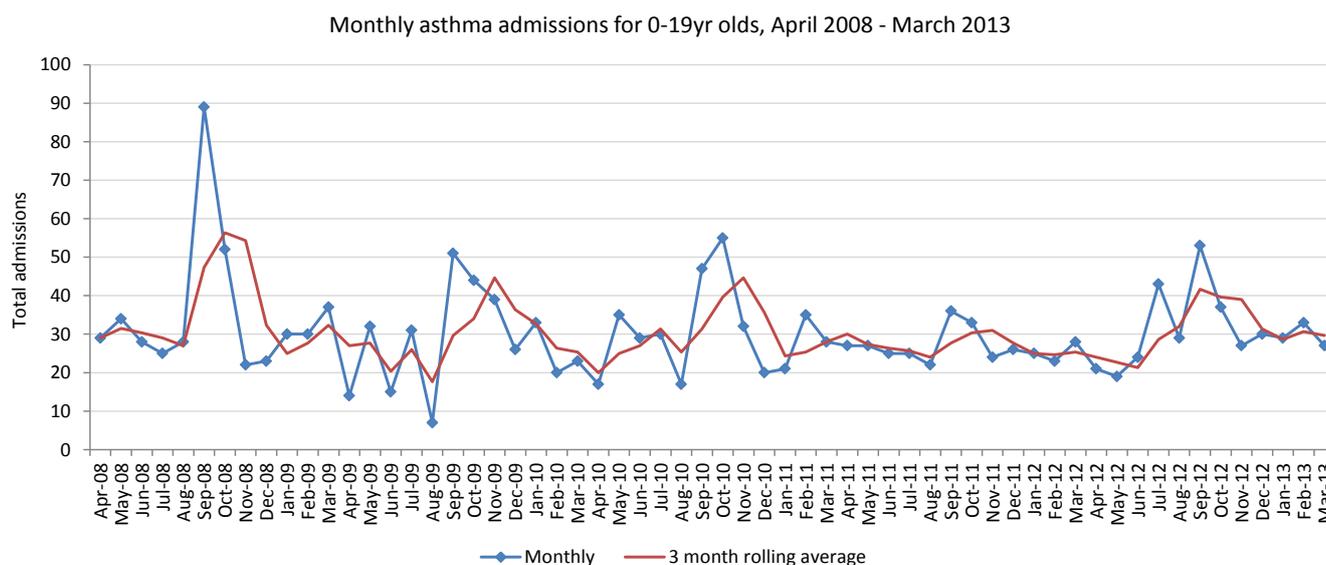
Airedale, Wharfedale and Craven CCG and Bradford Districts CCG both have admission rates which have remained stable and are close to the England average.

**Figure 4: Rates of emergency admission for asthma in 0- 19 year olds, 2008/9 – 2012/13**



Source: Public Health Analysis Team, City of Bradford Metropolitan District Council

Figure 5 shows monthly variation in asthma admissions. This continues to show a peak of emergency admissions in September, coinciding with children's return to school. Although the size of the peak has reduced, it remains of concern given the increase in admissions of children in the 5-10 year old age band. Ongoing work is planned to address this including a specific Seasonal Variation campaign.

**Figure 5: Monthly variation in asthma admissions, 2008/9 – 2012/13**

Source: Public Health Analysis Team, City of Bradford Metropolitan District Council

## Epilepsy

Nationally, approximately 112,000, children and young people under the age of 25 years have some form of epilepsy (Young Epilepsy UK 2011). The prevalence of epilepsy is 25% higher in the most socially deprived areas of the UK compared to the least socially deprived areas (Purcell 2002). A number of types of epilepsy are specific to childhood and are a significant cause of morbidity and mortality amongst children.

Figure 6 shows the prevalence of epilepsy in children and young people in Bradford district in 2009/10. **This data will be updated during 2014 when more recent figures are available.**

Precise national estimates of prevalence are difficult to determine but the report of the Joint Council for Epilepsy (2011) estimates an overall national prevalence of 0.97% for all age groups and 0.45% for children under 18. Bradford's prevalence figures thus appear broadly comparable to national estimates.

**Figure 6: Prevalence of epilepsy in children and young people aged 0-19 years in Bradford district, 2009-2010**

Age Range	Prevalence	Percentage
0 – 1 years	28	0.2%
2 – 4 years	91	0.4%
5 – 10 years	222	0.5%
10 – 14 years	263	0.9%
15 – 19 years	325	1.2%
<b>0-19 years</b>	<b>929</b>	<b>0.7%</b>

Source: Public Health Analysis Team, NHS Bradford and Airedale (SystmOne)

Between 2006/07 and 2012/13 there were an average of 160 (ranging between 130 and 185) emergency and elective admissions per year where a primary diagnosis of epilepsy is recorded. Admission rates for epilepsy in 0-19 year olds have risen slightly between 2006/07 and 2012/13. In 2012/13 admission rates for epilepsy were 1.0 per 1,000 population.

Bradford City CCG and Bradford Districts CCG both have rates of emergency admissions for epilepsy which do not differ significantly from the England or regional average.

## Diabetes

A report by Diabetes UK (2012) estimates there to be slightly over 22,000 children under 17 with diabetes in the UK, 97% of whom will have Type 1 diabetes. Around 1 in 12 children with diabetes experience acute complications every year, whilst only 1 in 6 achieve good levels of glucose control. Poor glucose control increases the risk of potentially avoidable complications in early and mid adult life (NHS IC 2010).

The current estimate of prevalence of Type 1 diabetes in children is between 1 in 700 and 1 in 1,000 children. South Asian and non South Asian children appear to have similar rates of Type 1 diabetes.

Although Type 2 diabetes is typically a condition acquired in adulthood, small but increasing numbers of children are being diagnosed with Type 2. Estimates of national prevalence vary but a major national survey (RCPCH, 2009), estimated there to be 328 children in the UK with Type 2 diabetes. The estimated prevalence in the Yorkshire and Humber region is 1.9 per 100,000 children aged 0-17.

However, as with adults, ethnicity is a recognised risk factor for the development of Type 2. A 2004 study (Ehtisham et al) estimated that children of South Asian origin were 13 times more likely to be diagnosed with Type 2 diabetes than non-South Asian children. Over 26,000 adults aged over 16 years were diagnosed with diabetes in 2009 and this is increasing every year in Bradford district. Thus, although at present the numbers of children and young people with Type 2 diabetes are minimal, it is likely that we can expect these numbers to increase in the future, especially among young people of South Asian origin. Continuing support for weight management and physical activity programmes in children will be an important factor in controlling this increase.

Figure 7 shows diabetes prevalence in the district in 2010. More recent prevalence data will be uploaded as it becomes available.

In Bradford district there were 229 children registered as having Type 1 diabetes and 18 with Type 2 diabetes under 19 years of age in 2010 (Fig 7).

**Figure 7: Diabetes prevalence by age and type 2010**

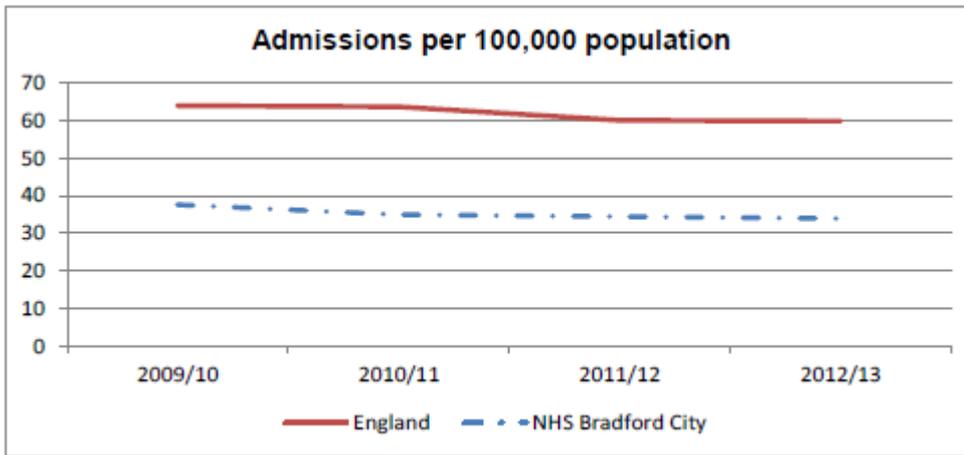
Age Range	Type of Diabetes	Number of cases
0 - 9 years	Type I diabetes	50
10 –19 years	Type I diabetes	179
0 – 19 years	Type II diabetes	18

*Source: Public Health Analysis Team, NHS Bradford and Airedale*

Between 2006/07 and 2012/13 there were an average of 91 (ranging between 80 and 105) admissions per year where a primary diagnosis of diabetes is recorded. Overall admission rates for diabetes in 0-19 year olds have generally remained the same between 2006/07 and 2012/13

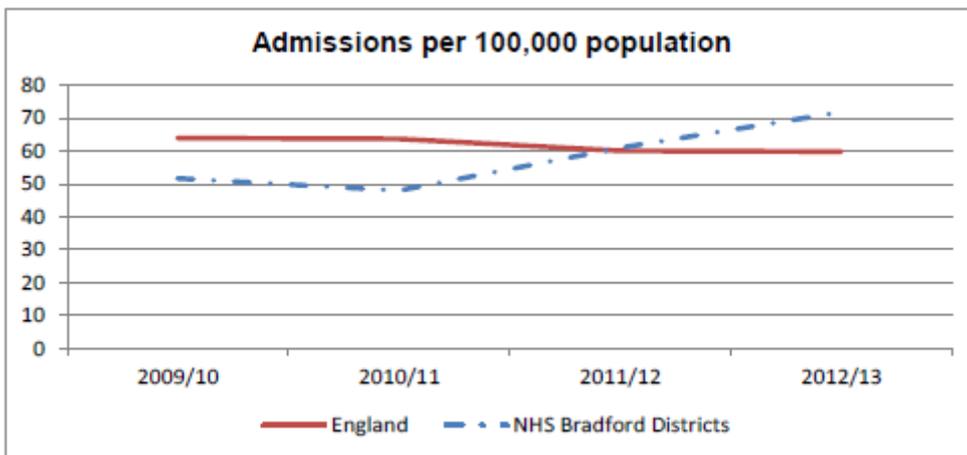
Bradford City has lower rates of emergency admission for diabetes in children than the England average (Figure 8). Bradford Districts' rates of emergency admission are similar but there is some sign of a rise in the last two years (Figure 9).

**Figure 8: Rates of emergency admission for diabetes, Bradford City CCG**



Source: Disease Management Information Tool, Child and Maternal Health Observatory

**Figure 9: Rates of emergency admission for diabetes, Bradford Districts CCG**



Source: Disease Management Information Tool, Child and Maternal Health Observatory

## Cancer

Cancer is relatively rare in children. However, deaths due to cancer are still an important cause of mortality amongst this age group. The risk for an individual child in Britain of being diagnosed with cancer before the age of 15 years is about 1 in 500. For the majority of childhood cancers, boys are at higher risk than girls nationally (Cancer Research UK 2010).

The risk is:

- 1 in 1600 for leukaemia
- 1 in 2200 for a brain or spinal tumour
- 1 in 1100 for all other cancers combined

In Bradford district, the number of children who are diagnosed with cancer each year has ranged from 14 to 29 per annum between 2004 and 2008. The overall cancer incidence rates and mortality rates in Bradford district are not statistically different to regional or national rates. **The most recent information will be updated during 2014 when it becomes available.**

Year	Male		Female		Total	
	No.	Rate	No.	Rate	No.	Rate
2004	17	24.3	12	17.7	29	21.1
2005	7	9.9	7	10.3	14	10.1
2006	16	22.5	10	14.6	26	18.6
2007	10	14.1	9	13.1	19	13.6
2008	10	14.0	9	13.0	19	13.5

Source: National Cancer Information Service - [www.ncis.nhs.uk](http://www.ncis.nhs.uk)

For nearly all cancers, deaths are more common among boys nationally with about a third more occurring in boys than in girls. Improvements in survival rates have resulted in a large increase in the number of young people who have had cancer reaching adulthood. These adults are at increased risk of premature mortality compared with the general population (Reulen et al 2010, Armstrong et al 2009, Martens et al 2007).

### Complex health needs and disabilities

In 2010 a comprehensive needs assessment of children with special educational needs and disabilities was undertaken, combining data from education, children's centres, the Aiming High short breaks service, and the Disabled Children's information service. This identified just over 9,000 children across the district who had a special educational need or disability.

56% of all disabled children had a learning disability, making up 4% of all the district's children. The next largest proportion of disabled children was those with an autistic spectrum condition or with communication disorders. White British children were disproportionately represented among children with autistic spectrum conditions or communication disorders, while South Asian children were over-represented among children with visual, hearing or physical impairments.

335 children are currently receiving support through the Children with Complex Health and Disabilities Team (CCHDT). 83 new assessments were completed in the year 2012/13.

The Bradford District Child Development Centre review (2010-11) identified evidence of a higher prevalence of complex health needs requiring long term care in Bradford compared to the national average and particularly within the South Asian population (Fielding 2011).

Specifically it found:

- Higher prevalence of childhood deafness in Asian children compared to non-Asian children in Bradford (2.6 per 1000 versus 0.7 per 1000),
- High proportion of children of Pakistani origin diagnosed with visual impairment,
- One hundred and sixty five different autosomal recessive disorders in the region suggesting high prevalence and diversity of inherited disorders within the Bradford population

Demographic projections indicate there will be large increases in the number of children and particularly children of South Asian origin in the Bradford District over the next two decades. The number of children with long term conditions in Bradford District is likely to remain high.

The section on 'Children with disabilities, learning disabilities and complex health needs' presents this information in greater detail.

### Future needs and gaps in provision

- Monitoring of potential increase in numbers of children and young people with Type 2 diabetes
- Continued support for weight management and physical activity programmes for children and young people
- Continued implementation of the wheezy child pathway

- Continued work on management of asthma in school age children
- Monitoring of trends in emergency asthma admissions, particularly in City CCG and among 5-10 year olds
- Monitoring of numbers of children with complex health needs and disabilities
- A multi-agency team approach centred on the needs of the child to ensure continuity of care.
- Providing parents with the tools to support their children to make a positive contribution.
- Ensuring that all parents and families have equitable access to health care that supports them to live well.

## Summary of priorities

- Ensuring that parents and carers are able to access services for their children.
- Support families and children with long term conditions so that they are able to enjoy and to achieve fully in their lives and to make a positive contribution.
- Continued health and social care support for children with complex health needs and disabilities, and their families
- Continued work on management of asthma in school age children and reduction in avoidable emergency admissions
- Continue to promote access to services that support children, young people and their families to become 'expert patients'.
- Improved data and intelligence for key long term conditions; asthma, diabetes, epilepsy, neurological and congenital conditions to support delivery of high quality services
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