

A Health Equity Audit

of Children and Young People in Bradford District

March 2009

Authors

Anna Middlemiss, *Specialty Registrar in Public Health, Bradford and Airedale tPCT.*

Nick Leigh-Hunt, *Public Health Training Fellow, Bradford and Airedale tPCT.*

Duncan Cooper, *Public Health Specialist, Bradford and Airedale tPCT.*

Teresa Keegan, *Public Health Information Analyst, Bradford and Airedale tPCT.*

Shirley Brierley, *Consultant in Public Health Medicine, Bradford and Airedale tPCT.*

Acknowledgements

This document draws heavily on or takes directly from a number of other local documents and data sources. We are very grateful to the following:

- Bradford and Airedale tPCT Intelligence and Analysis Team.
- Bradford Children's Needs Analysis, 2008 (Bradford Metropolitan District Council).
- Child Injury Prevention Strategy for the Bradford District 2008-11 (Bradford Safeguarding Children's Board).
- Joint Director of Public Health's Annual Report, 2008 (Bradford and Airedale tPCT).
- Bradford Joint Strategic Needs Assessment, 2008 (Bradford Metropolitan District Council and Bradford and Airedale tPCT).
- Working Together for a Warmer Future; Bradford's Affordable Warmth Strategy (Bradford Metropolitan District Council and National Energy Action).
- Bradford's Children and Young People- A Health Profile 2007 (Draft) (Dr. Liz Kernohan, Bradford and Airedale tPCT).
- Child Poverty in the Bradford District, 2008 (Bradford Metropolitan District Council).

Contents

| | |
|--|----|
| Authors | 3 |
| Acknowledgements | 3 |
| Contents | 4 |
| Foreword | 7 |
| 1 Executive Summary | 9 |
| 2 Introduction | 13 |
| 2.1. What is Health Equity Audit? | 13 |
| 2.2. Bradford's Health Equity Audit Process Rationale | 14 |
| 2.2.1 Partners | 14 |
| 2.2.2 Health Inequalities | 14 |
| 2.2.3 National Policy Context for Children and Young People | 17 |
| 2.2.4 Local policy | 18 |
| 2.2.5 The Role of Child Public Health | 21 |
| 2.2.6 Data collection and analysis | 21 |
| 3 Population Health Status | 23 |
| 3.1. Background Information | 23 |
| 3.2 Births | 29 |
| 3.2.1 Low Birth Weight (LBW) | 29 |
| 3.2.2 Premature Births | 32 |
| 3.2.3 General Fertility Rate | 33 |
| 3.2.4 Congenital Anomalies | 34 |
| 3.3 Teenage Conceptions | 36 |
| 3.4 Deaths | 41 |
| 3.4.1 Infant Mortality | 41 |
| 3.4.2 Infant Mortality Commission | 45 |
| 3.4.3 Other Deaths 0-19 years | 47 |
| 3.5 Life Expectancy | 50 |

| | | |
|-------------|---|-----|
| 3.6 | Morbidity | 51 |
| 3.6.1 | Infectious Disease & Immunisation | 51 |
| 3.6.2 | Sexually Transmitted Infections and HIV | 55 |
| 3.6.3 | Mental Health | 58 |
| 3.7 | Disability | 62 |
| 3.8 | Hospital Admissions | 66 |
| 3.9 | Accidents | 71 |
| 3.10 | Oral Health | 78 |
| <hr/> | | |
| 4 | Determinants of Health | 87 |
| 4.1.1 | Obesity | 87 |
| 4.1.2 | Food and Nutrition | 93 |
| 4.1.3 | Physical Activity | 94 |
| 4.1.4 | Breastfeeding | 95 |
| 4.1.5 | Maternal Smoking | 98 |
| 4.1.6 | Tobacco smoking, substance misuse and alcohol | 99 |
| 4.1.7 | Healthy Schools | 103 |
| 4.1.8 | Sexual Behaviour | 103 |
| 4.2 | Social and community influences | 105 |
| 4.2.1 | Family Status | 105 |
| 4.2.2 | Child Protection | 108 |
| 4.3 | Living and working conditions | 109 |
| 4.3.1 | Education | 109 |
| 4.3.2 | Child Poverty | 113 |
| 4.3.3 | Housing | 118 |
| <hr/> | | |
| Conclusion | | 121 |
| References | | 122 |

Foreword

Health of all children and young people overall is improving but there remain many health challenges; in particular health inequalities continue to persist between children and young people in Bradford district and nationally and within the district. This Health Equity Audit (HEA) for Children and Young People provides a detailed and up to date analysis of the health information currently available with a particular focus on areas of existing health inequalities.

This HEA will feed into the Needs Analysis which influences the Children and Young People's Plan and the Joint Strategic Needs Assessment, both of which inform future plans and commissioning for children and young people. The Children and Young People's Plan is currently being reviewed for 2009-2011 and this plan complements the principles and objectives set out in the Department for Children Schools and Families National Children's Plan. This HEA will be presented in all key strategic arenas of Bradford and Airedale Teaching Primary Care Trust and Bradford Metropolitan District Council, including the Children and Young People's Partnership Board and other relevant forums. We want to ensure that the health of all children and young people continues to improve over the coming years and where differences exist in the health of children and young people, ensure that effective interventions are in place to reduce the health inequalities identified.

The Children and Young People of this district are our future and we need to continue to ensure that their health and well being is as good as it can be across all communities.

Anita Sims
Joint Director of Public Health,
Bradford and Airedale TPCT and Bradford Council.

1. Executive Summary

Introduction

- Health Equity Audit is a systematic process which aims to reduce health inequalities by redistributing resources according to need. In order to do this it carries out a number of steps including identifying the health needs of a population, describing how resources are currently distributed, analysing how equitable this is and implementing actions to demonstrably reduce these health inequalities. The Health Equity Audit process is only completed when focused action results in measurable change.
- Improving the health of children and young people is essential if we are to ensure a population who achieve their full potential. During the last century, the health of children and young people in the UK has improved overall due to advances in immunisation, sanitation and access to healthcare. However, there has also been a sharp rise in lifestyle factors associated with poor health such as obesity and lack of physical activity which has led to a corresponding increase in diseases such as diabetes. In addition, although key indicators for health such as life expectancy at birth and rates of infant mortality have demonstrated considerable health improvement across the population, health inequalities have widened. In the UK, children and young people from lower socio-economic classes, certain minority ethnic backgrounds and deprived geographical areas experience poorer health outcomes. There remain major health challenges in reducing inequalities in child health and improving the access of the most vulnerable children and young people to health resources.
- Partnership working is a key component of a Health Equity Audit. Stubborn health problems are strongly influenced by a number of social and economic factors such as poverty, low educational attainment and social exclusion. These factors may appear intractable but can be modified with long term, strategic action agreed on and implemented by all partners. In addition, partnership work harnesses a variety of key skills and areas of expertise that are unlikely to be represented within any single agency.
- This Health Equity Profile does not constitute a Health Equity Audit in itself but rather forms part of the audit process. It aims to present key information, relevant to a number of agencies, on a range of health inequalities for children and young people. It is the first Health Equity Profile of its kind to be published for Bradford district.
- For the purposes of this document 'children and young people' includes all those aged 0-19 years of age.

Key Findings

Demographics

- Bradford has a higher proportion of children and young people than the national average.
- The population is expected to steadily increase over the next 25 years so that Bradford will be the fastest growing metropolitan area outside London.
- The population has a high proportion of ethnic minority communities, particularly those of Pakistani origin.

Deprivation

- Bradford is the most deprived local authority area in West Yorkshire and the 32nd most deprived in the country. In 2004, 43% of the population lived in the most deprived 20% of wards in England.
- There are wide variations in levels of deprivation within the district (Ilkley in Wharfedale falls within the least deprived 10% of wards in the country).

Births

- In the past ten years there has been a gradual fall in the teenage pregnancy rate within Bradford district however, there are still areas where teenage pregnancy is double the national average.
- Three quarters of teenage pregnancies occur in the most deprived 40% of the community and rates are generally higher in deprived wards with majority white populations.

Mortality

- Bradford's infant mortality rate is one of the highest in the country and is higher than other areas of similar deprivation.
- 60% of all deaths in children and young people aged 0-19 years occur under one year of age.
- The greatest cause of death for children and young people aged 1 year -19 years in Bradford is injury and poisoning.

Life Expectancy

- Life expectancy in Bradford is just below the national average for men (74 years compared to 77 years) and women (79 years compared to 81 years).
- However, men from the most deprived areas of the district have over eight years shorter life expectancy than those in the least deprived areas (70.4 years compared to 78.7 years) and women have a five year gap (76.2 years compared to 81.6 years).

Morbidity

- Infectious diseases are a major cause of morbidity in children and young people. Immunisation can prevent infectious disease and take up is high across the district but increased work needs to be done in areas of high deprivation to ensure coverage.
- There are higher than expected rates of disability with complex health needs in the region.
- Inequalities exist with a higher prevalence of disabilities in children and young people from areas of socio-economic deprivation and South Asian ethnic groups. There is therefore a need to ensure that parents and carers of disabled children and young people within the district are informed of sources of support and offered effective inter-agency interventions.

Accidents

- Children and young people in Bradford district are 20% more likely to be admitted to hospital due to serious injury than the national average and 80% more likely to die.
- Injuries and external causes were the most common causes of death in Bradford children and young people between 2002-6.
- The majority of serious injuries are caused by falls or are transport related.

Oral Health

- Bradford has higher levels of dental disease in children and young people compared to other areas in the region and the worst levels in five year olds regionally, although there has been some improvement in recent years.
- There are marked inequalities in oral health according to socio-economic status and ethnicity, especially in younger children and young people.
- There are access problems for dental and orthodontic care, which are greater for children and young people residing in more deprived areas and those coming from vulnerable groups.
- There are inequalities in the proportion of decay restored in young children between wards in Bradford.

Lifestyle Factors

- The limited information available suggests that under nutrition and over nutrition are significant problems in the Bradford district.
- More data are needed to build an accurate picture of how much physical activity children and young people in the Bradford district are undertaking. Based on known risk factors it is expected that the level of physical activity will be below the national average.
- Bradford children and young people have 1% higher overall rates of obesity at Reception than Yorkshire and Humber and England as a whole and 2% higher at Year 6.

Education

- Educational attainment is behind the national average at all stages.
- Key stage One rates have fallen over the last three years.
- Unauthorised absences at primary and secondary schools are twice the national average.

Housing

- Fuel poverty is a significant problem for Bradford due to the combination of older, less efficient homes, lower incomes and rising fuel prices. This may have a greater impact on young children and young people and those who are disabled or ill due to their greater consumption of heat and hot water. To tackle this problem homes need to have their energy efficiency improved.

2. Introduction

2.1. What is Health Equity Audit?

The purpose of a Health Equity Audit (HEA) is to reduce health inequalities within a population in a measurable way. This is done by the redistribution of resources in relation to a population's needs; not distributing resources equally but rather distributing resources where they are most needed and can have the most impact on inequality. HEA is a tool to ensure that health inequalities become a mainstream priority. Evidence from the HEA can be used to inform decisions on commissioning, service planning and investment and due to the cyclical nature of a HEA this process can then be used to assess how effective changes to service delivery have been in reducing inequalities.

The process uses the following six steps¹:

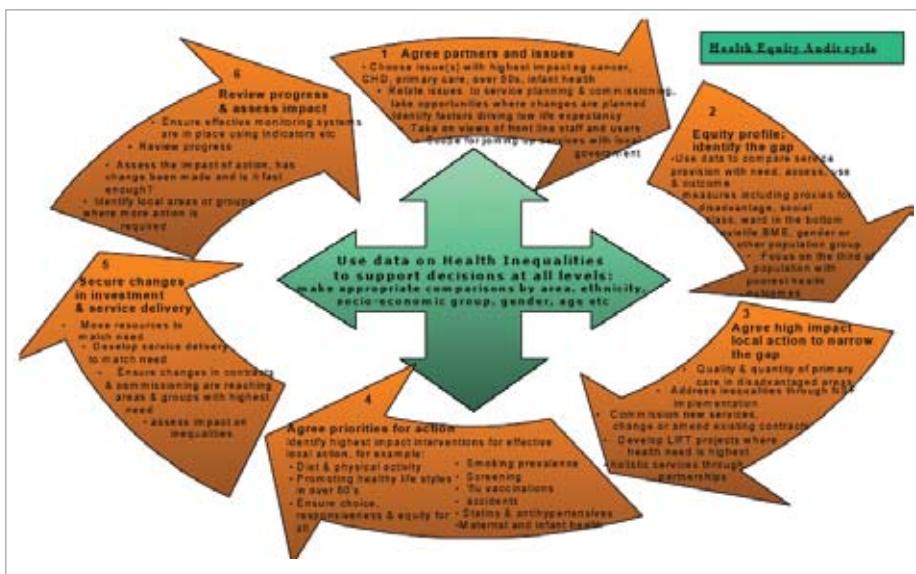


Figure 1
Health Equity Audit Cycle.

The HEA process will be most effective if it takes into account the following factors:

- Issues which will have a rapid impact.
- Issues which will help to prevent disease.
- Local issues (the HEA can then be used to compare Bradford district with other similar areas).
- Opportunities for the HEA to influence other service developments.

This Child Health Equity Profile forms part of the second step of the HEA 'identifying the gap', and aims to achieve the following:

- To provide an up-to-date overview of children's health in Bradford and Airedale that measures population health status and determinants of health.

- To identify health trends for children and young people across Bradford district.
 - To identify areas of health inequality and provide a baseline by which to measure progress in tackling health inequalities.
 - To provide NHS and partner agencies with good quality, comprehensive information to influence commissioning and service provision.
 - To identify areas where data are lacking or not fit for purpose.
 - To provide data and other information for a number of related documents both within the NHS and for partner agencies, for example, the Children and Young People's Plan.
-

2.2. Bradford's Health Equity Audit Process Rationale

2.2.1. Partners

A partnership approach is essential to implement a Health Equity Audit. This reflects the fact that health inequalities are due to a number of social and economic factors which can only be reduced by key agencies working together. In addition, the variety of expertise and skills brought by different agencies is invaluable.

This Health Equity Profile was commissioned by the Director of Public Health and the Consultant in Public Health with the lead for children and young people, who is also the Chair of the 'Be Healthy' Partnership, one of the five Every Child Matters Outcome Groups in Bradford district. The 'Be Healthy' Partnership has a particular role in the areas of added value due to partnership work and performance management. The five outcome groups report to the Bradford Children and Young People's partnership, which in turn reports to the Champion for Children's Board. Key partners represented in the 'Be Healthy' partnership are the Local Authority, health services, Education Bradford and the Voluntary and Community Sector.

In addition to the 'Be Healthy' group there are a number of other key partnerships in Bradford district that lead and influence services for children and young people.

2.2.2. Health Inequalities

It is widely recognised that there are differences in the level of good health experienced by individual groups compared to the population as a whole. These groups may includeⁱⁱ:

- Different social classes (for example manual workers compared to professionals)
- Geographical areas
- Men and Women
- Black and minority ethnic groups
- Age groups

- Vulnerable groups such as those children and young people who are looked after, with learning disabilities, homeless or vulnerably housed, refugees or asylum seekers, travellers, with mental health problems, with parents who are in prison, young carers, missing from home, have parents who are misusing drugs and alcohol, care leavers, experiencing domestic violence, have teenage parents or are young offenders.

Where health differences are unnecessary and avoidable and considered unfair and unjust they are described as health inequalities. Broadly speaking, there are three types of inequality in health:

- Inequalities in access to, or the provision of, determinants of health
- Inequalities in access to health care (for example, some groups of young people describe difficulties in accessing appropriate health care services)
- Inequalities in health experience or health outcomes (for example, there are six years difference in average life expectancy at birth between the best and worst boroughs in London).

The crucial test of whether the gaps in health between people are health inequalities is the extent to which people have control over factors that prevent their ill health and opportunities to control such factors.

Research has repeatedly shown that good health relates to a range of factors as shown in the Rainbow Model below:

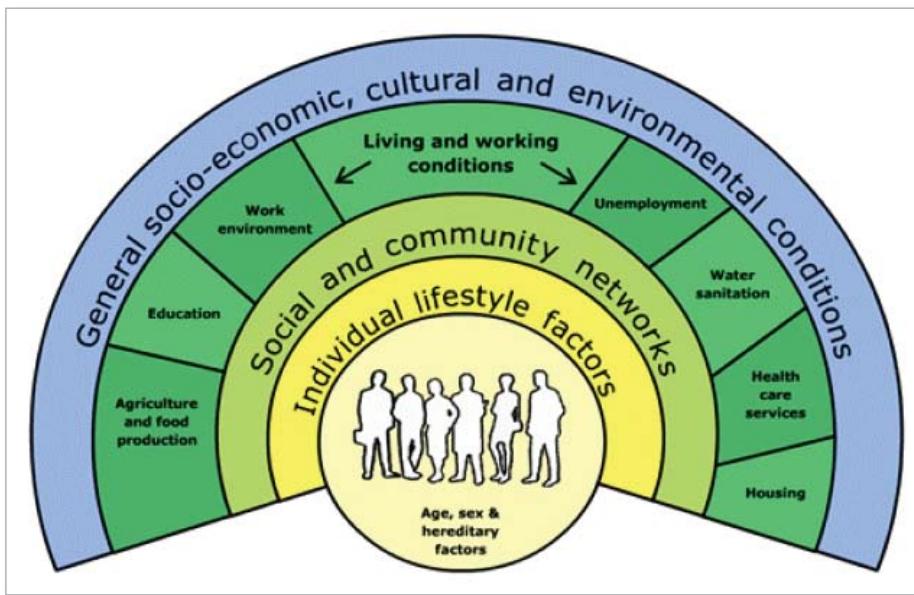


Figure 2
The Main Determinants of Health - Source: Dahlgren and Whitehead 1991.

This model shows the main determinants of health as layers of influence, one over another. At the centre are individuals, endowed with age, sex, genetic and constitutional factors which undoubtedly influence their health potential, but which are fixed. Surrounding the individuals are layers of influence that, in theory, could be modified.

The innermost layer represents the personal behaviour and way of life adopted by individuals, containing factors such as smoking habits and physical activity, with the potential to promote or damage health. Individuals interact with friends, relatives and their immediate community, and come under the social and community influences represented in the next layer. This is particularly relevant for children and young people whose choices may be dictated by their carers and may be more heavily influenced by their peers than adults. Mutual support within a community can sustain the health of its members in otherwise unfavourable conditions. The wider influences on a person's ability to maintain health (shown in the third layer) include their living and working conditions, food supplies and access to essential goods and services.

Overall there are the economic, cultural and environmental conditions in society as a whole. These are out of the control of the individual and represented in the outermost layer. In order to influence an individual's health all of these layers must be considered both in terms of their impact and in how they can be altered.

National Policy Context of Health Inequalities

A key national priority is to tackle health inequalities and this has been expressed through a range of plans:

Independent inquiry into inequalities in health: The Acheson Report (1998)

This reviewed the causes of health inequalities and set out thirty-nine recommendations for tackling them, with four main priorities. It stated that all policies likely to have a direct or indirect effect on health should be looked at and be formulated to favour less well-off people. Priority should be given to the health of women of childbearing age, expectant mothers and young children. Further steps should be taken to reduce income inequalities and improve the living standards of poor households.

Our Healthier Nation: A Contract for Health (1998)

Saving Lives: Our Healthier Nation (1999).

A Green Paper pledged to increase 'the length of people's lives and the number of years people spend free from illness' and to 'improve the health of the worst off in society and to narrow the health gap'. Targets to reduce premature deaths from cancer, coronary heart disease and stroke, accidents and mental health would be met though a 'contract' between individuals, local communities and national government, working in three settings - healthy workplaces, healthy schools and healthy neighbourhoods. A White Paper presented a strategy of NHS-related measures intended to meet the four targets set out in the earlier Green Paper, with numbers of deaths to be avoided and specific dates.

Tackling Health Inequalities: A Programme of Action (2003)

This set out plans to achieve targets to reduce inequalities in health outcomes by 10 per cent by 2010, measured by infant mortality and life expectancy at birth. It identified a range of initiatives on education, welfare-to-work, housing, neighbourhoods, transport and the environment that will help improve health.

Securing Good Health for the Whole Population (2004)

The second of two reviews commissioned by the Treasury from former banker Derek Wanless, explored evidence-based ways of realising a 'fully engaged scenario' in which priority is given to preventing illness and individuals are committed to safeguarding their own health. In his first review, Wanless had calculated that failure to shift towards this scenario would cost some £20 billion extra in annual healthcare costs by 2020.

Choosing Health? The Public Health White Paper (2004)

Choosing Health signalled the Government's intention to refocus the NHS into a service for improving health as well as one that treats sickness. Health improvement and tackling health inequalities became an integral part of NHS, mainstream planning and performance systems and are now at the core of its day-to-day business. Choosing Health highlights action over six key priorities for delivery which are based upon more people making healthy choices:

1. Tackling health inequalities
2. Reducing the numbers of people who smoke
3. Tackling obesity
4. Improving sexual health
5. Improving mental health and well-being
6. Reducing harm and encouraging sensible drinking

The NHS Next Stage Review (2008)

The Next Stage Review, led nationally by Lord Darzi, was intended to involve clinicians and the public in determining the future shape of the NHS. This review has been unprecedented in scale. The interim report written by Lord Darzi reaffirmed the core principles of an NHS that should be Fair, Personalised, Effective, Safe and Locally Accountable. Regional reviews have been carried out - in the case of Yorkshire and Humber, this is known as Healthy Ambitions. Healthy Ambitions has now been published. It reaffirms the overall direction of travel for health care - moving from secondary care to primary care, delivering care as close to the patients home as practicable, and shifting the focus of the NHS from cure to prevention.

Health Inequalities: Progress and Next Steps, (2008)

Equality Impact Assessment- Health Inequalities: Progress and Next Steps, (2008)

The above two documents describe how far the priorities in Tackling Health Inequalities: A Programme for Action 2003 have been met, specifically the targets relating to infant mortality and life expectancy. The major challenge is that the health of the population is improving but the health of the most disadvantaged has not improved as quickly as the better off. Inequalities in health persist and in some areas have widened. However, there have also been significant improvements in health, for example, life expectancy for men living in areas of high deprivation has increased by over two and a half years since 1997.

2.2.3. National Policy Context for Children and Young People

A number of national documents are relevant to children and young people's health and wellbeing. These include *The Children Act 2004*, which provides the legislative basis for the *Every Child Matters* programme and the reform of children and young people's services. *Every Child Matters* (ECM) sets out a framework for radical change in the system of children and young people's services to improve outcomes for all children and young people under five outcomes groups (Be Healthy, Stay Safe, Enjoy and Achieve, Make a Positive Contribution and Achieve Economic Well-being). These outcomes are the basis for a framework of performance targets to be delivered through an integrated approach to children and young people's services, including health, education, social care, housing and regeneration and the voluntary and community sector. Measures to improve health and reduce child health inequalities not only contribute directly to the 'be healthy' and 'stay safe' outcomes, but indirectly to the others: poor health is a significant barrier to educational achievement, enjoyment and economic well-being. Improving the health of children and young people is therefore a key objective of all organisations involved in local strategic partnerships for children and young people.

Children's Trusts aim to achieve joined-up services that place the needs of children and young people and families at the centre of their approach to planning, commissioning and, ultimately, delivering better outcomes. This provides opportunities for different sectors to work together, thus forming stronger and more co-ordinated services for children and young people in an area, underpinned by the *Children Act 2004* duty to cooperate.

The National Service Framework (NSF) for Children, Young People and Maternity Services is an integral part of the **Change for Children** programme. The NSF is composed of eleven sets of standards which comprehensively cover children and young people and maternity services. In addition there are four underlying themes which emphasise early prevention and reducing inequalities.

The Children's Plan (2007) puts the needs of children and young people first - 'regardless of traditional institutional and professional structures'. It promotes a new leadership role for Children's Trusts in every area, a new role for schools as the centre of their communities, and more effective links between schools, the NHS and other children and young people's services so that together they can engage parents and tackle all the barriers to addressing the needs of every child. A significant emphasis is placed on a joint approach to narrowing the gap between those who do well and those who do not.

Child Health Promotion Programme (2008) This recently updated version builds on the children's National Service Framework and is intended to provide preventative services tailored to the individual needs of children and young people and families, acting as a best practice guide for children and young people's services. It provides greater emphasis on promoting the health and well-being of children and young people in the early stages (pregnancy and the first five years of life), encourages partnership working and focuses services on changing public health priorities - obesity, breast feeding, social and emotional development. The CHPP is a valuable tool for supporting commissioners to meet obligations on breast-feeding, obesity prevention, infant mortality and the 12-week antenatal assessment.

2.2.4. Local Policy

There are a number of local policies in Bradford that have an impact on the health of children and young people.

The Sustainable Community Strategy (The 'Big Plan')

The development of the Sustainable Community Strategy for Bradford - to become known as 'The Big Plan' - began in March 2007, and the Plan was formally adopted by the Council in June 2008.

The Big Plan re-affirms the 2020 vision for Bradford, which is that:

"The Bradford District will be a vibrant, prosperous, creative, peaceful, diverse, inclusive place where people are proud of their shared values and identity, and work together to secure this vision for future generations".

Children and young people are one of the key themes of the Big Plan, which also includes:

- Prosperity and Regeneration
- Safer Communities
- Health and Wellbeing for All
- Improving the Environment
- Strong and Cohesive Communities

The Children and Young People theme contains the following priorities:

- Help every child feel happy and resilient, feel good about themselves and have someone to talk to they can trust.
- All children and young people feel safe at home and in their community.
- Create opportunities for every child and young person to enjoy school life and achieve their full potential.
- Children and young people feel that their efforts and contribution are recognised and appreciated by people.
- Create a highly motivated and well educated young workforce to support successful regeneration.

In addition, the health and wellbeing chapter specifically identifies a number of critical issues for children and young people including:

- Reduce obesity and improve healthy eating and diets for children, young people and older people
- Reduce the number of sexually transmitted disease cases for all residents and reduce teenage pregnancy
- Reduce the damage to health caused by the use and misuse of alcohol, tobacco and illegal drugs
- Improve people's mental health and wellbeing
- Reduce infant mortality
- Enabling informed choices throughout life to remain healthy and well

A number of key plans relevant to configuring children and young people's services have been developed in ways that prioritise partnerships and joint working. Significantly, this has meant that commissioning of services to children and young people and their families needs to be based on a clear identification of local needs.

Local Area Agreement (2008-2011)

The Local Area Agreement (LAA) is a delivery mechanism for the Community Strategy. LAAs set out the priorities for a local area agreed between central government, the local authority and the Local Strategic Partnership. LAAs simplify some central funding, help join up public services more effectively and allow greater flexibility for local solutions to local circumstances. Bradford's LAA acknowledges the needs of children and young people to reach their potential and covers a number of indicators linked to the above priorities.

Bradford District Joint Strategic Needs Assessment (2008)

This is the first Joint Strategic Needs Assessment and aims to help planning over the next three to five year period, by reducing inequalities and considering the impact of well-being to maximise the potential for health and well-being across Bradford district. It has a section on children and young people which provides a snap-shot of the challenges needed to tackle their strategic health needs. The priorities for action from the data analysis suggest a focus on:

- reducing levels of infant mortality,
- teenage pregnancy
- obesity
- to close the performance gap against national levels.

Bradford and District Children and Young People Needs Analysis (2008)

The Needs Analysis has been created to provide a quantitative description of how the children and young people of the Bradford district experience their lives and underpin the Children and Young People's Plan. It seeks to provide a comprehensive picture of the needs of the children and young people of the district. Its purpose is to define clearly the things that will make a difference for children and young people, and make a contribution to planning, commissioning and service provision across the district. The Plan identifies a number of key issues for the district including that deprivation underpins many of the most significant inequalities. The Needs Analysis highlights that those communities where children and young people under-achieve the most, where their health is poorest and their outcomes at 19 are lowest are those communities where levels of deprivation are highest. Key issues identified in the 'Be Healthy' section are teenage conception, infant mortality and childhood obesity rates. This Health Equity Profile will provide further information on the health and wellbeing needs in the district.

The Bradford and District Children's and Young People's Plan (2008)

This is the Children and Young People's Plan for Bradford and is a single overarching plan for the Council and its partners to work together on improving outcomes for children and young people. It complements the priorities in Bradford's Sustainable Community Strategy and follows the Every Child Matters five key areas; Be Healthy, Stay Safe, Enjoy and Achieve, Make a Positive Contribution and Achieve Economic Wellbeing. The Plan also sets out a vision of children and young people services being child centred (including listening to children and young people and empowering children and young people to shape services) and being focused on prevention.

Born in Bradford

"Born in Bradford Study", is an innovative research programme that will follow the lives of more than 10,000 Bradford babies over the next 20 years. From October 2006, all babies born in Bradford are being recruited into the research project. Their health will be tracked from pregnancy through childhood and into adult life.

Factors recorded by Born in Bradford researchers in pregnancy or early life may prove to be related to illnesses or other problems later on. This information will help us to understand why children and young people become ill, and might open up exciting ways of treating and preventing illness. This information can then be shared regionally, nationally and internationally.

Bradford Children's Trust

This provides governance for redesigning children and young people's services to improve outcomes. It is led by Bradford District Council and aims to provide leadership, engagement of partners, accountability and a shared vision to improve outcomes for children and young people. There is an infrastructure made up of the Champions for Children Board, a Children and Young People's Partnership Board and a Children's Trust Network. Four Every Child Matters (ECM) Outcome groups report to the Partnership Board and they are Be Healthy, Enjoy and Achieve, Make a Positive Contribution and Achieve Economic Well being. Staying Safe the fifth ECM outcome group reports directly to the local Safeguarding Children's Board.

Champions for Children Board

The role of the Board is to provide the strategic direction for joint working, through the Children and Young People's Plan. This includes setting broad funding levels and objectives for partnership working, agreeing project plans and monitoring overall performance. The membership of the Champions for Children's Board comprises elected members of the Council and non-executive directors of Bradford and Airedale tPCT, youth justice and police bodies. It also includes young people, parents, school governors and members of the voluntary and community sector.

2.2.5. The Role of Child Public Health

'Public Health is the science and the art of preventing disease, prolonging life and promoting health through the organised efforts of society' (Acheson Report, 1998)

Public Health is concerned with improving the health of children and young people in Bradford and Airedale as a whole rather than treating individual patients.

There are a number of strands to Public Health:

- Health protection and prevention, e.g. child immunisation campaigns
- Health promotion/ health improvement, for example, promoting 5-A-Day messages and Healthy Schools
- Maintaining or restoring health supporting, high quality social care and health services.

For all this to happen Public Health needs to operate at many levels, from a local neighbourhood, to GP practices, at Primary Care Trusts and Local Authority level and at national or even international level. It also needs to involve a wide range of people and organisations. For some people it will be a large part of their role, and for some it will be a small part of their role, for others it will just be a case of their role benefiting from an awareness of Public Health. It is important to remember that it is not just people within health that have a role in Public Health but also organisations such as housing, education, transport, local business and the voluntary sector.

2.2.6. Data collection and analysis

- Data and information were drawn from a wide range of documents and sources across a number of partner agencies.
- Data collection was co-ordinated by the tPCT Public Health analysis function.
- The Health Equity Profile also aimed to identify areas where more up to date and detailed data are required to complete the audit cycle.
- The data are displayed, where possible, by ward and by tPCT alliances (Box 1). The data may also be displayed in locality areas; these are used by the local authority and are co-terminus with constituencies. This enables the Health Equity Profile (HEP) to be relevant to all partner agencies.
- Comparator areas also known as 'statistical neighbours' are used to compare Bradford district with areas which share similar demographics and with Yorkshire and England as a whole. This helps pinpoint areas of inequality specific to Bradford district as well as providing baseline comparisons to measure the success of future interventions.

Locality (Constituency) Areas

- Bradford North (Bolton & Undercliffe, Bowling & Barkerend, Bradford Moor, Eccleshill, Idle, Thackley and Manningham)
- Bradford South (Great Horton, Queensbury, Royds, Tong, Wibsey and Wyke)
- Bradford West (City, Clayton & Fairweather, Heaton, Little Horton, Thornton& Allerton and Toller)
- Keighley (Craven, Ilkley, Keighley Central, Keighley East, Keighley West and Worth Valley)
- Shipley (Baildon, Bingley, Bingley Rural, Shipley, Wharfedale and Windhill & Wrose)

INTRODUCTION

Box 1 - configuration of the new PCT alliances from the 4 former PCTs.

Bradford and Airedale tPCT was formed by a merger of four former PCTs in October 2006 (Airedale, Bradford North, Bradford City and Bradford South and West).

The organisation of the new tPCT is based around four alliances which cover roughly the same area as the former PCTs. These alliances are Airedale Alliance, Yorkshire Primary Care Alliance (YPCA), CityCare Alliance, and South and West Alliance. There are also two independent practices based in Ilkley and Burley in Wharfedale.

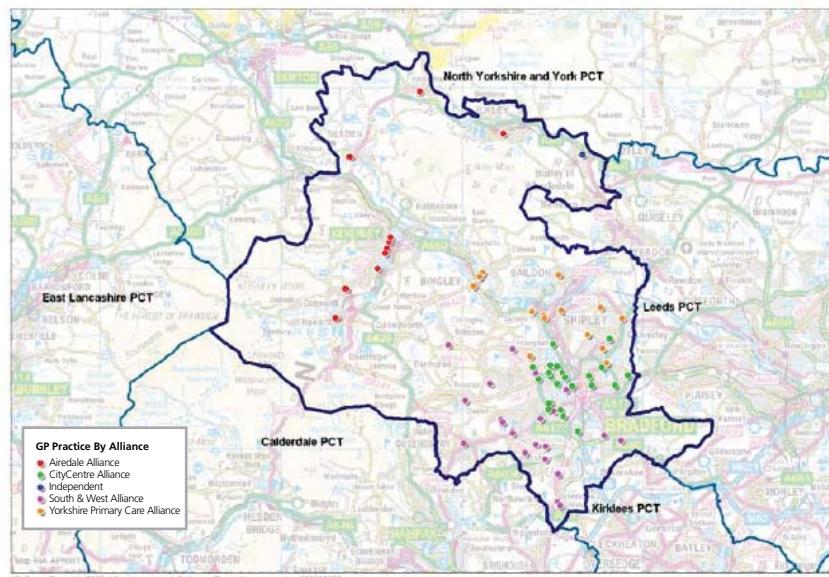


Figure 3

tPCT Alliances -

Source: Bradford and Airedale tPCT Intelligence and Analysis Team.



Figure 4

Bradford District Wards.

3. Population Health Status

3.1. Bradford Demographic

Bradford Population

At the time of the 2001 Census the population of Bradford was approximately 470,000, although it is now likely to be closer to 500,000. Ethnic minority communities comprise 24% of the total population, approximately 70% of whom live in the area covered by the former Bradford City PCT and now the City Care Alliance. There have been an estimated 500,000 migrants from Eastern European countries to the UK since 2004, over half of whom are Polish. The majority of these migrant workers are between the ages of 18 and 34 and have no dependents living with them in the UK. Local information tells us that recent migrant communities predominantly originate from Poland, the Czech Republic and East Slovakia and have settled in areas of abundant and cheap housing in Bradford, for example Toler and Manningham wards.

Bradford has a higher proportion of children and young people than the UK average. Within South Asian communities there are higher birth rates and therefore higher proportions of children and young people within the Pakistani and Bangladeshi community (43% and 48% respectively compared to 27% for Bradford as a whole). 28% of the total population of the district is aged below 20 as compared with 24% nationally. The latest estimate is that there are 139,800 young people aged under 20 in the district (ONS, 2007).

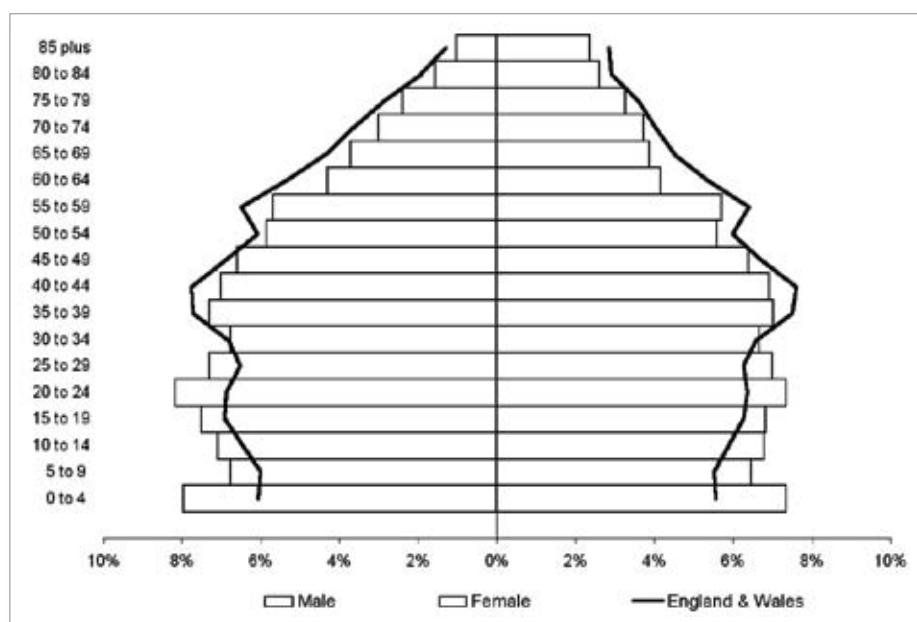


Figure 5
Bradford district
population age structure
compared to England and
Wales, 2006

Bradford district has a higher percentage of young people in all age groups than the average for England and Wales, especially in the under 5 age group.

Table 1

Number of young people in Bradford (mid 2006) - Source Office for National Statistics, 2007.

| | All ages | 0 - 1 | 1 - 4 | 5 - 9 | 10 - 14 | 15 - 19 | All under 20 |
|-------------------|----------|-------|--------|--------|---------|---------|--------------|
| Bradford District | 493,100 | 8,100 | 29,600 | 32,600 | 34,200 | 35,300 | 139,800 |

Table 2

Numbers and Young People England and Wales, Bradford and proposed constituencies: (mid 2005 population estimates): - Source Office for National Statistics, 2008.

| Area | All People | No. aged <20 | Percentage of all age populations with different age groups (years) | | | | |
|-------------------|------------|--------------|---|----|-------|---------|---------|
| | | | <20 | <5 | 5 - 9 | 10 - 14 | 15 - 19 |
| England and Wales | 53,419,200 | 13,079,300 | 25% | 6% | 6% | 6% | 7% |
| Bradford District | 488,000 | 139,000 | 29% | 7% | 7% | 7% | 7% |
| Bradford North | 96,186 | 29,669 | 31% | 8% | 7% | 8% | 8% |
| Bradford South | 97,432 | 27,495 | 28% | 7% | 7% | 7% | 7% |
| Bradford West | 109,702 | 35,561 | 33% | 9% | 9% | 8% | 8% |
| Shipley | 93,184 | 24,112 | 26% | 7% | 6% | 7% | 6% |
| Keighley | 91,471 | 22,079 | 24% | 6% | 6% | 7% | 6% |

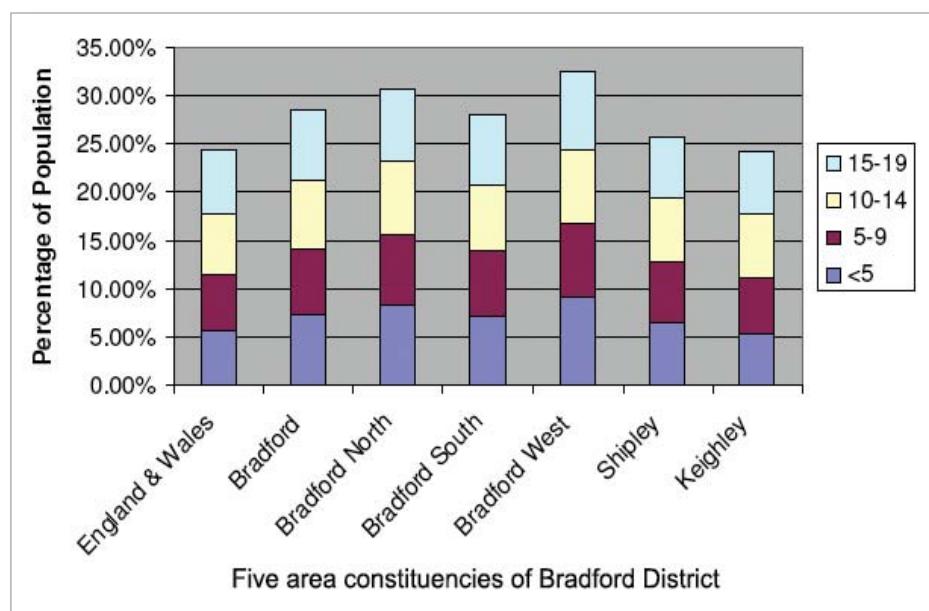


Figure 6
Percentage of estimated populations under 20 at mid-2005
- Source: Office for National Statistics 2008.

There are significant differences between areas within the district; with the proportion of the total population under 20 years of age varying from 24.1% in Keighley to 32.5% in Bradford West.

Population Growth

The district's rapid population growth of recent years generated by natural increases, for example, more births than deaths in the District and by international immigration, is anticipated to continue, so that Bradford will be the fastest growing metropolitan area outside London. The population of Bradford District is expected, according to the sub national population projections, to steadily increase over the next 25 years at a rate starting at approximately 1.1% per year and gradually dropping until the growth is approximately 0.6% per year between years 2028 & 2029.

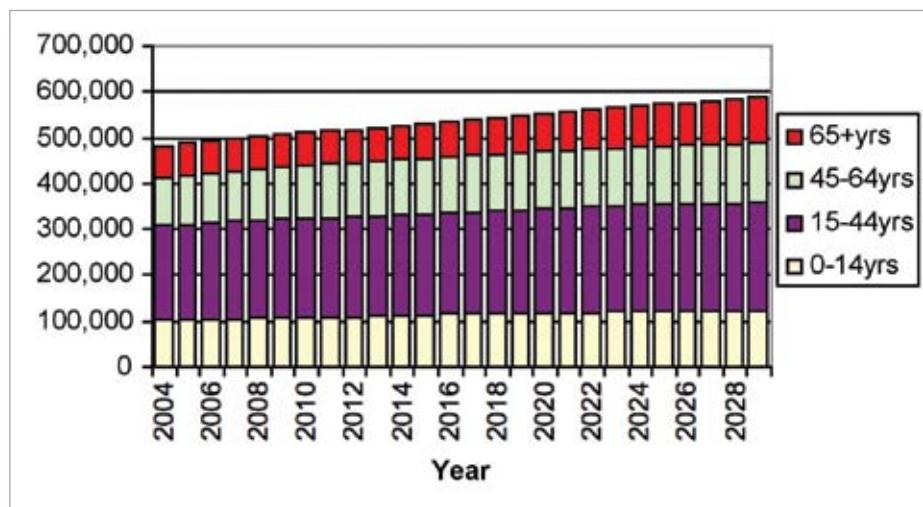


Figure 7
Projected population growth of Bradford District (2004-2028).
- Source: ONS Population Projections (2005).

Bradford's population, like that of Britain as a whole, is also ageing. We are forecast to have a total of over 80,000 residents aged 65+ by 2020 (from a figure of 68,600 today).

In addition, population growth is likely to continue to be highest in the existing deprived parts of the district. The population of 0-19 year olds is set to grow by 22,200 to 162,000 in 2030, an increase of 16%. At the turn of the century there was a reduction in birth rate and therefore the cohort born at this time is proportionately less than previous and following cohorts. However, despite this dip in numbers for this cohort absolute numbers are growing.

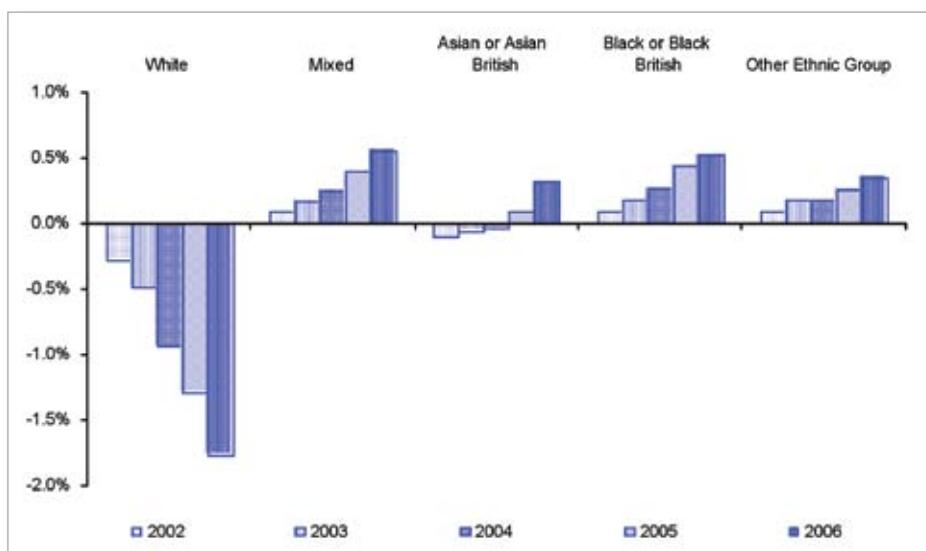


Figure 8
Change in percentage share of population by ethnic group (ages 0-15) 2002-2006 in Bradford District -
Source: Intelligence and Analysis, Bradford tPCT.

Bradford district's population will contain larger proportions of younger people, and also those from Black and Minority Ethnic groups. In recent years there has been a decrease in the proportion of children and young people from white ethnic groups and increases in the proportion of all other major ethnic groups as shown in the figure above.

Ethnicity

34% of children and young people under 19 in Bradford are from an ethnic minority background other than White British (2001 Census). The largest ethnic minority group is that of Pakistani origin (24%) the next largest Indian. Other ethnic groups include Chinese, Black African.

Table 3
Population of Bradford District by Ethnic Group.

| 2001 Census 'ethnic' classification | 0 - 17 | 18 - 64 | 65+ | Total |
|-------------------------------------|----------------|----------------|---------------|----------------|
| White Irish | 184 | 2,063 | 1,033 | 3,200 |
| Chinese | 170 | 681 | 34 | 885 |
| Black Caribbean | 567 | 1,964 | 397 | 2,928 |
| Blck African | 207 | 724 | 35 | 966 |
| White UK | 80,650 | 205,830 | 60,191 | 346,671 |
| Other | 248 | 787 | 20 | 1,055 |
| Indian | 3,679 | 7,814 | 782 | 12,275 |
| Other Asian | 1,062 | 1,714 | 129 | 2,905 |
| Pakistani | 28,923 | 35,682 | 2,690 | 67,295 |
| Bangladeshi | 2,359 | 2,395 | 171 | 4,925 |
| Mixed | 4,597 | 3,111 | 131 | 7,839 |
| Total | 123,080 | 266,318 | 67,655 | 457,053 |

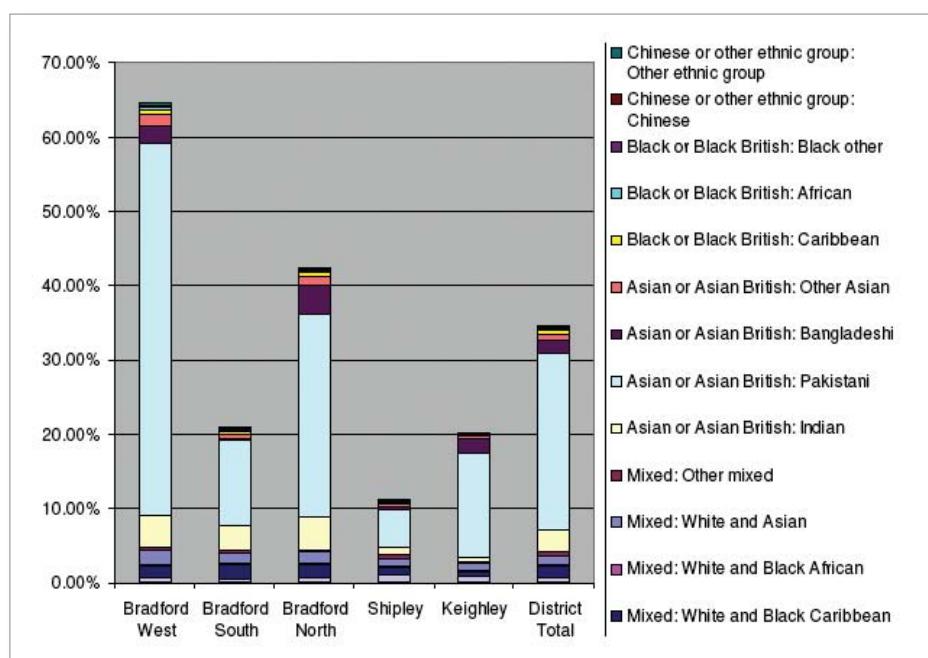


Figure 9
Percentages of dependent children and young people of ethnic origin other than White British by area -
Source: 2001 Census.

The above chart shows how there is considerable variation in the proportion of ethnic minority groups between localities. The highest proportion of ethnic minority children and young people lives in Bradford West (65%) and Bradford North (42%). However, in Shipley just over 10% of children and young people are from a minority ethnic group.

Deprivation

According to the Index of Multiple Deprivation 2007, Bradford district is the most deprived local authority area in West Yorkshire and the 32nd most deprived in the country.

Table 4
Rank of Average IMD Score by LA (West Yorkshire) - Source: Neighbourhood Statistics.

| LS Name | Rank of Average Score (ID 2007) |
|------------|---------------------------------|
| Bradford | 32 |
| Wakefield | 66 |
| Kirklees | 82 |
| Leeds | 85 |
| Calderdale | 107 |

In 2004, 43% of the population of the Bradford district lived in the most deprived 20% of wards in England (with 30% living in the most deprived 10% of wards). There are also large differences in deprivation between areas in the district; Bradford's City Care Alliance Area (with a population of 140,000) is the most deprived area of Yorkshire and Humber region, whereas Ilkley ward in Wharfedale is within the 10% least deprived wards in the country. There are also localised pockets of deprivation which exist in many parts of Bradford and also in Keighley.

Indices of Multiple Deprivation

The Index of Multiple Deprivation measures seven dimensions of deprivation relating to income, health and disability, education, skills and training, barriers to housing and services, living environment and crime. It combines all these measures into a single deprivation score for each small area in England (Lower Super Output Area). This allows each area to be ranked according to their level of deprivation. The Indices are used to pinpoint pockets of deprivation and identify communities that may benefit from special initiatives or programmes. They are also designed to be used as a tool to help determine eligibility for specific funding streams.

It is important to note that not all deprived people live in deprived areas. Conversely, not everyone living in a deprived area is deprived. The index, therefore, is an average measure of local deprivation.

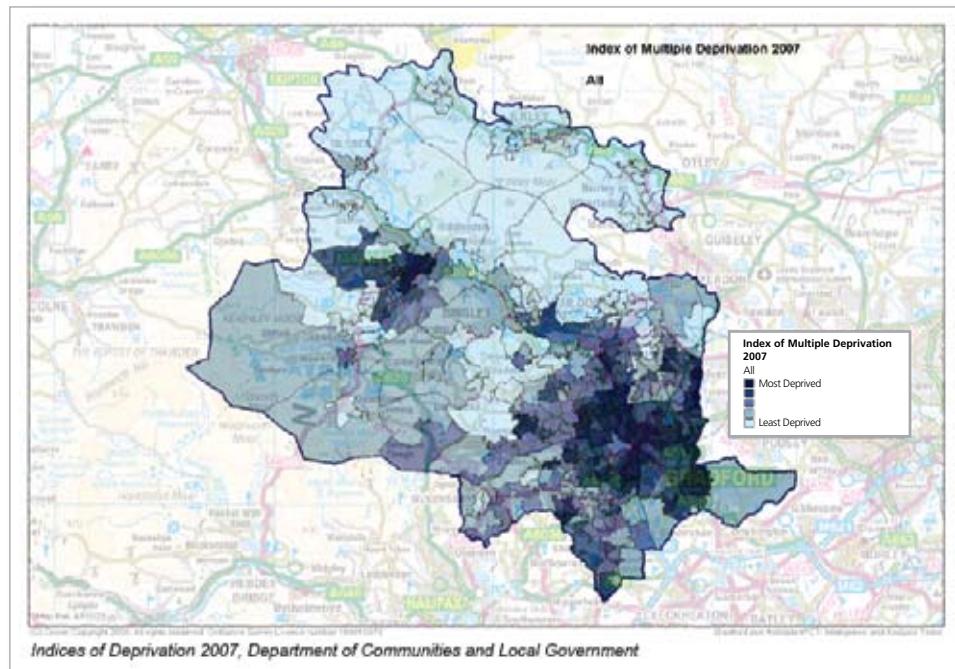


Figure 10
Multiple deprivation in Bradford (2007 indices of multiple deprivation scores).

Table 5

Bradford LSOAs in the most deprived 1% in England - Source: IMD 2007 (DCLG).

| LSOA name | Ward name | Rank of IMD (where 1 is most deprived) |
|---------------|----------------|---|
| Bradford 039A | Bowling | 38 |
| Bradford 039C | Bowling | 65 |
| Bradford 039D | Undercliffe | 72 |
| Bradford 045C | Little Horton | 101 |
| Bradford 051A | Little Horton | 130 |
| Bradford 034B | Heaton | 148 |
| Bradford 052D | Tong | 185 |
| Bradford 034C | Undercliffe | 190 |
| Bradford 008G | Keighley South | 199 |
| Bradford 011A | Keighley South | 205 |
| Bradford 052B | Tong | 210 |
| Bradford 051C | Little Horton | 250 |
| Bradford 038C | Bradford Moor | 257 |
| Bradford 039E | University | 270 |
| Bradford 041D | University | 279 |

3.2. Births

3.2.1. Low Birth Weight (LBW)

Context

- Low birth weight (LBW) is defined as weighing less than 2,500g/ 5.5 lbs at birth and very low birth weight as 500g/ 3.4 lbs.
- LBW and very LBW are very important risk factors for infant deaths (under 1 year) and for disability.
- LBW babies experience an increase in death and illness throughout childhood and into adulthood.
- The strongest influence on LBW is gestational length and premature birth.
- Factors associated with LBW include multiple births, lower socio-economic status, psycho-social factors such as stress and low levels of social support, maternal smoking, ethnicity (Black and Asian women's babies have a lower mean birth weight than that for white mothers) and poor maternal dietⁱⁱⁱ.

National and local targets

LA Target: Reduce infant mortality

Health Inequalities PSA Target: By 2010 to reduce inequalities in health outcomes by 10 per cent as measured by infant mortality and life expectancy at birth (the target is underpinned by a more detailed objective: Starting with children under one year, by 2010 to reduce by at least 10 per cent the gap in mortality between routine and manual groups and the population as a whole).

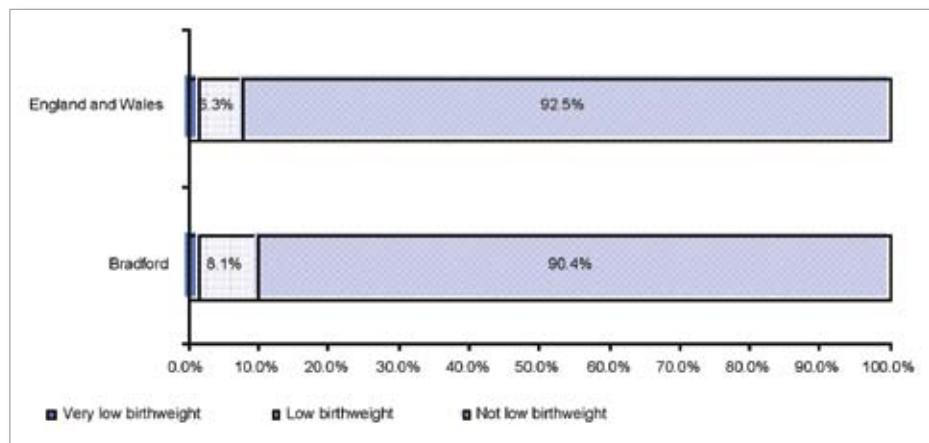
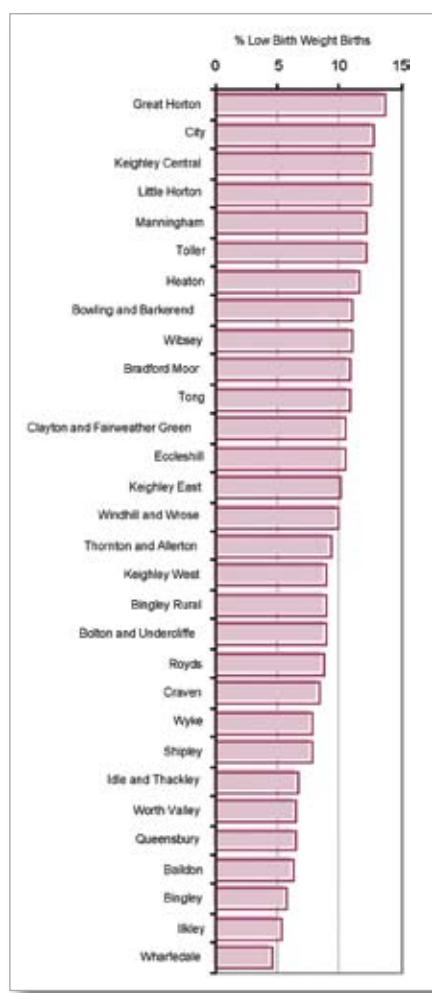


Figure 11

Birthweight 1996 - 2005

- Source: *Intelligence & Analysis, Bradford tPCT*.



The proportion of births weighing less than 2500g is consistently higher in Bradford than in England and Wales from 1996-2005.

Figure 12

Low Birth Weight Births as a Percentage of Total Births - 2006.

- Source: *Intelligence & Analysis, Bradford tPCT*.

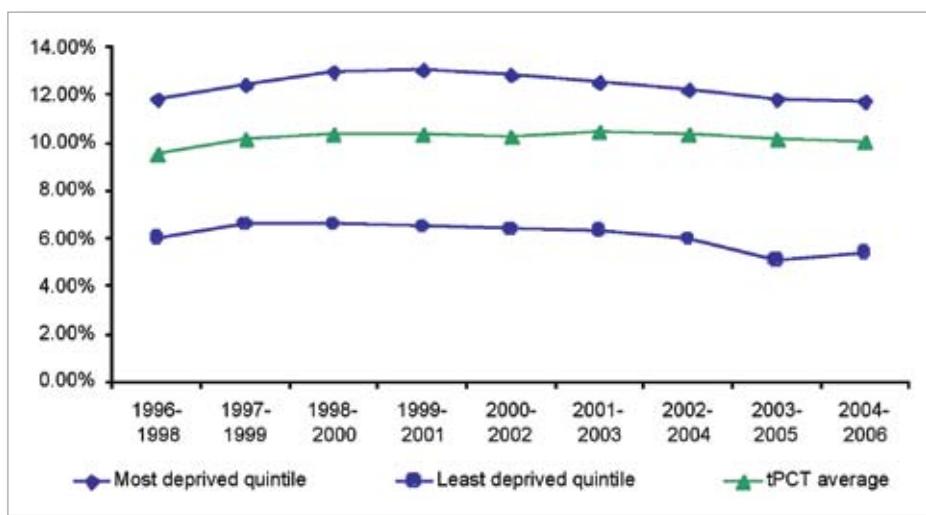


Figure 13
Low Birthweight by Quintile, 1996 - 2006 -
Source: *Intelligence & Analysis, Bradford tPCT.*

The proportion of LBW births differ considerably between wards in the Bradford district from 13% of all births in Great Horton to less than 5% of all births in Wharfedale. There is a positive association between deprivation and low birth weight demonstrated by the difference in the proportions of LBW babies between most deprived and least deprived quintile in Bradford.

Summary

- LBW has an impact on children and young people's health which continues throughout adulthood. This includes both mortality and morbidity.
- LBW has a number of modifiable factors associated with it such as maternal smoking and maternal diet.
- Bradford data demonstrate a positive association between deprivation and LBW, with babies born in deprived wards three times more likely to be LBW when compare to affluent wards.

3.2.2. Premature Birth

Context

- Pre-term delivery is defined by the World Health Organisation as less than 37 weeks gestation compared to an expected 40 weeks.
- It is the leading cause of neo-natal death and infant mortality. Children and young people who survive are also at high risk of disability.
- About 30% of premature births are unexplained but known risk factors for 50% include multiple pregnancies, infections and problems with the cervix. An additional 20% of cases are caused by elective premature delivery due to disorders such as high blood pressure, fetal growth restriction and congenital anomalies^{iv}.

National and Local Targets

LA Target: Reduce infant mortality

Health Inequalities PSA Target: By 2010 to reduce inequalities in health outcomes by 10 per cent as measured by infant mortality and life expectancy at birth (the target is underpinned by a more detailed objective: Starting with children under one year, by 2010 to reduce by at least 10 per cent the gap in mortality between routine and manual groups and the population as a whole).

Local Analysis

Table 6

Pre-term birth rates in Bradford district between 1996-2005 (per 100 births).

| | 1996 - 1998 | 1997 - 1999 | 1998 - 2000 | 1999 - 2001 | 2000 - 2002 | 2001 - 2003 | 2002 - 2004 | 2003 - 2005 |
|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| All | 5.7 | 5.9 | 6.1 | 6.3 | 6.9 | 7.6 | 8.3 | 8.3 |

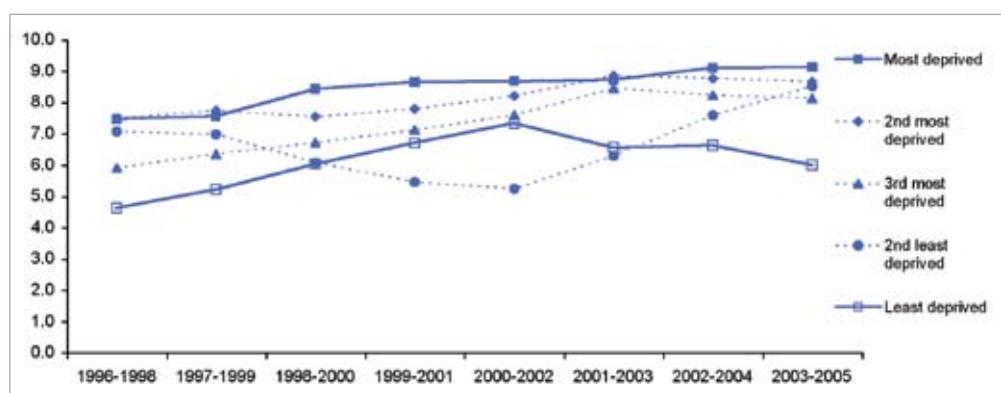
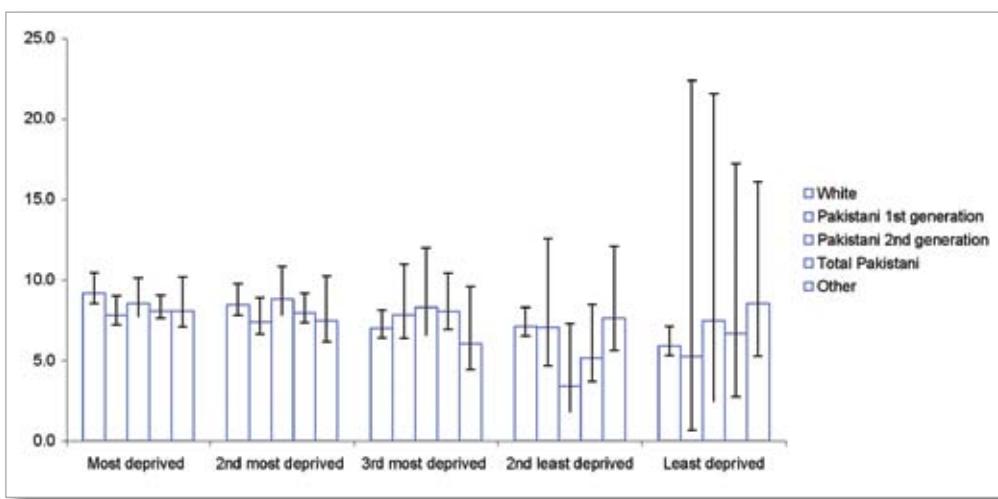


Figure 14
Premature birth rates by quintile of deprivation between 1996-2005
- Source: Intelligence & Analysis, Bradford tPCT.

From 1996-2005, 8.4% babies born to mothers in most deprived areas were pre-term compared to 6.1% born to mothers in least deprived areas.



**Figure 15
Premature Birth Rates by deprivation quintile and ethnicity, 1996-2005**
- Source: *Intelligence & Analysis, Bradford tPCT.*

There was no clear difference by ethnic group within deprivation quintiles for preterm births.

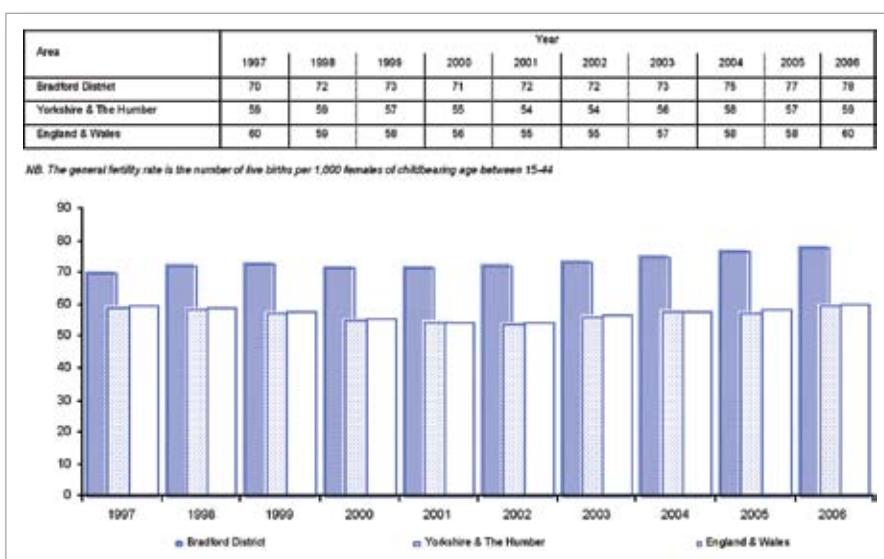
Summary

- Premature birth is the leading cause of infant mortality and has increased in Bradford over the last ten years.
- No significant differences have been found in the rates of premature birth between different ethnic groups but babies born in the most deprived areas in Bradford are more likely to be premature than those born in the least deprived areas.

3.2.3. General Fertility Rate

Context

The General Fertility Rate (GFR) is the number of live births per 1,000 females aged between 15-44 years. It describes the reproductive behaviour of a population.



**Figure 16
Number of live births per 1000 females of childbearing age (between 15-44yrs)**
- Source: *Intelligence & Analysis, Bradford tPCT.*

The GFR in Bradford is consistently 15-16% higher than Yorkshire and the Humber and England and Wales and increasing over time. There are more than double the live births for South Asian women than there are for non-South Asian origin women. The proportion of babies born to South Asian origin mothers is expected to grow due to the demographic changes. If present trends continue, there will be approximately 8,300 births in Bradford by 2010, half to non-South Asian origin and half to South Asian origin women.

Summary

- The GFR in Bradford district is considerably higher than that of the regional or national rate.
- The GFR for South Asian women is nearly double that of non-South Asian women in Bradford District.
- This may have an impact on services, particularly the development of services tailored for the South Asian community.

3.2.4. Congenital Anomalies

Context

- Congenital anomalies are a major cause of infant mortality and morbidity in the UK. They include cleft palate or lip, Down's Syndrome and malformations of the respiratory, cardiovascular and nervous systems.
- Some of the underlying causal factors are low birth weight, poverty and autosomal recessive genetic disorders.
- Recent research has identified that Pakistani children and young people are twelve times more likely to suffer from genetic disorders^v.

National and local targets

LA Target: Reduce infant mortality

Health Inequalities PSA Target: By 2010 to reduce inequalities in health outcomes by 10% as measured by infant mortality and life expectancy at birth (the target is underpinned by a more detailed objective: Starting with children under one year, by 2010 to reduce by at least 10% the gap in mortality between routine and manual groups and the population as a whole).

Two of the Bradford District's Infant Mortality Commission's Findings relate to congenital anomalies:

Recommendation 7:

To increase community understanding of the role of genetic inheritance in causing infant death

Recommendation 10:

Future research to understand both the underlying and immediate causes of death (further study is conducted in conjunction with the congenital anomalies register to determine the association between consanguinity, late fetal loss, infant mortality and disability).

Local Analysis

The Bradford District Infant Mortality Commission Report is a comprehensive piece of research onto the causes of infant mortality in Bradford. It can be accessed at: <http://www.bradford.nhs.uk/ebm/BDIMC/Pages/TheReport.aspx>

Table 7

Cause of Infant Deaths in the Bradford District and England and Wales, 1996-2005 -Source: *Intelligence & Analysis, Bradford tPCT*.

| | Numbers | | Rate per 100 Live Births | | Relative Risk Bradford vs England & Wales (95% Confidence Intervals) |
|---------------------------------|----------|--------------------|--------------------------|--------------------|--|
| | Bradford | England & Wales | Bradford | England & Wales | |
| Congenital Anomalies | 118 | 9,007 | 2.3 | 1.4 | 1.57 (1.32 - 1.89) |

The table above shows that children born in Bradford district are over one and a half times more likely to die from a congenital anomaly than children born in England and Wales as a whole. Bradford children have a high prevalence of inborn errors of metabolism, primary microcephaly, neuromuscular conditions, coagulation and platelet disorders, hearing impairment and visual impairment^{vi}. Congenital anomalies are over represented in the Bradford population, for example, there are 902 UK children with neurodegenerative disorders and 72 of them are from Bradford^{vii}. Congenital anomalies are linked to Pakistani-origin infants and are on the increase^{viii}. Congenital anomalies, particularly autosomal recessive disorders, are significantly more likely to be the cause of death for Pakistani-origin infants than for white infants.

Summary

- Congenital anomalies are considerably more common in the Bradford population than in the UK as a whole. They are also on the increase.
- Although individual conditions may be uncommon they represent a major source of distress and need of additional care for both families and services involved. In addition, there is an impact on the level of health and social care provision required for these children and their families, which is not directly resourced through the current funding mechanisms. This has an impact on all services from conception to child health services.
- Work is being done through the Bradford Infant Mortality Commission to reduce preventable congenital anomalies.
- There is currently no regional register of congenital anomalies. This has been raised as a need both nationally (Chief Medical Officer's (CMO) Annual Report 2004 and CMO's Annual Report 2005) and locally (Bradford District Infant Mortality Commission Report) and in response to this it has been agreed that Bradford and Airedale tPCT will lead on the commissioning of a register for the Yorkshire Region. This will have a number of advantages including enabling comparisons to be made between different regions and ensuring a platform for further research.

3.3. Teenage Conceptions

Context

Teenage pregnancy is a key public health issue of inequality and social exclusion. In England there are approximately 40,000 pregnancies a year in girls aged 15 to 17 years, the highest rate in Western Europe. Although teenage pregnancy can be a positive and informed choice teenage parents are more likely to:

- have low birth weight babies
- experience 60% higher infant mortality rates
- smoke during pregnancy
- not breastfeed
- have children born into poverty
- have children who experience higher accident rates and increased incidence of behavioural problems
- have children who have an increased risk of gastrointestinal illness.

In addition these parents are also more likely than their peers to:

- have low incomes
- have fewer qualifications both now and in the future
- have poorer physical, psychological and social wellbeing^{ix}.

Young people's decision-making opportunities are affected by their religion, culture, family, peer group and local expectations as well as educational and work opportunities. In addition to a higher conception rate teenagers in deprived areas are less likely to have abortions. In the least deprived areas, 71% of pregnancies in under-18s end in abortion, compared with 39% in the most deprived. Among girls under 16, the proportions were 77% and 50%.

Higher rates of teenage pregnancy are associated with high deprivation. Children born to teenage parents are more likely to experience poverty and poor health outcomes creating a negative cycle whereby each generation suffer increasingly poor health outcomes.

National and local targets

National:

- To halve the under 18 conception rate by 2010 from the 1998 baseline.
- To increase to 60% the proportion of teenage parents aged 16-19 in education, employment or training in 2010 (Teenage Pregnancy Strategy, 1999).

Local:

- To halve teenage conception rates by 2010 from the baseline data in 1998 is a joint target shared by the council and the tPCT.
- Under 18 conception rate per 1,000 females aged 15-17 is a Vital Sign under the NHS Operating Framework.
- To provide termination of pregnancy (TOP) before ten weeks gestation in 70% of cases (tPCT target).
- To achieve a 50/50 ratio of medical to surgical terminations (tPCT target).

Local Analysis

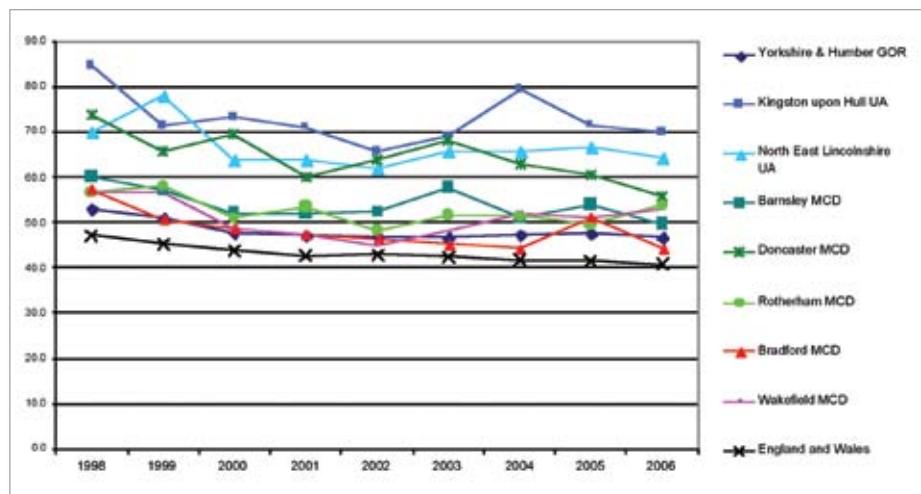


Figure 17
**Trends in Under 18 conceptions.
Spearhead LA in
Yorkshire / Humber
1998 - 2006.** - Source:
Bradford tPCT Sexual
Health Needs Analysis.

In the last 10 years there has been a gradual fall in the teenage pregnancy rate within Bradford district from 57 to 44 per 1000, a 23% drop compared to 13% nationally. The current rate is below other areas in Yorkshire and the Humber with similar levels of deprivation representing considerable progress in meeting government targets to halve teenage pregnancy by 2010. However, despite this progress, trajectories suggest that if current trends continue the 2010 target will not be met either nationally or in Bradford. Bradford District still has over 300 teenage pregnancies a year and in order to meet the 2010 target, there would need to be 286 fewer conceptions in 2010 than there were in 1998, and 242 fewer conceptions than the 2005 figure. The Chair of the Sexual Health Network for Bradford and Airedale tPCT has recently completed a sexual health needs assessment which includes teenage pregnancy and provides ongoing monitoring of teenage conception rates. The Bradford Young Person's Sexual Health and Teenage Pregnancy Partnership Board, a multi-agency partnership, is committed to achieving the 2010 target but acknowledges that the probable impact of deprivation, social disadvantage, cultural and social norms need addressing at a societal level (Bradford tPCT, Sexual Health Needs Assessment, 2008).

POPULATION HEALTH STATUS

Table 8

2003-2005 Conceptions for Wards - based on 2001 Census Ward Boundaries - Source: ONS Data.

| | Under 18 Conceptions | Estimated female population 15 - 17 | Annual rate per 1,000 |
|--------------------------|----------------------|-------------------------------------|-----------------------|
| Shipley East | 64 | 270 | 79.0 |
| Eccleshill | 78 | 335 | 77.6 |
| Wyke | 83 | 366 | 75.6 |
| Tong | 79 | 373 | 70.6 |
| Little Horton | 92 | 447 | 68.6 |
| Thornton | 64 | 313 | 68.2 |
| Keighley South | 62 | 327 | 63.2 |
| Keighley West | 76 | 402 | 63.0 |
| Great Horton | 67 | 396 | 56.4 |
| Wibsey | 53 | 320 | 55.2 |
| Bowling | 74 | 490 | 50.3 |
| Undercliffe | 54 | 359 | 50.1 |
| Bolton | 41 | 288 | 47.5 |
| Odsal | 51 | 371 | 45.8 |
| Queensbury | 47 | 396 | 39.6 |
| Keighley North | 38 | 324 | 39.1 |
| University | 60 | 522 | 38.3 |
| Bradford Moor | 57 | 511 | 37.2 |
| Idle | 32 | 315 | 33.9 |
| Bingley | 24 | 253 | 31.6 |
| Worth Valley | 25 | 291 | 28.6 |
| Toller | 43 | 503 | 28.5 |
| Clayton | 39 | 462 | 28.1 |
| Shipley West | 25 | 316 | 26.4 |
| Heaton | 32 | 437 | 24.4 |
| Bingley Rural | 23 | 316 | 24.3 |
| Baildon | 18 | 290 | 20.7 |
| Craven | 18 | 291 | 20.6 |
| Rombalds | 17 | 314 | 17.5 |
| Ilkley | 11 | 258 | 14.2 |
| Bradford District | 1,447 | 3,034 | 45.4 |
| England | 39,553 | | 41.7 |

Significantly higher than the Bradford District average.

Higher than the Bradford District average.

Significantly lower than the Bradford District average.

Table 8, on the previous page, shows conception rates between 2003-5 using Bradford district old ward boundaries. Table 8 shows that five wards have rates significantly higher than the Bradford district average. These are Shipley East, Tong, Wyke, Little Horton and Eccleshill.

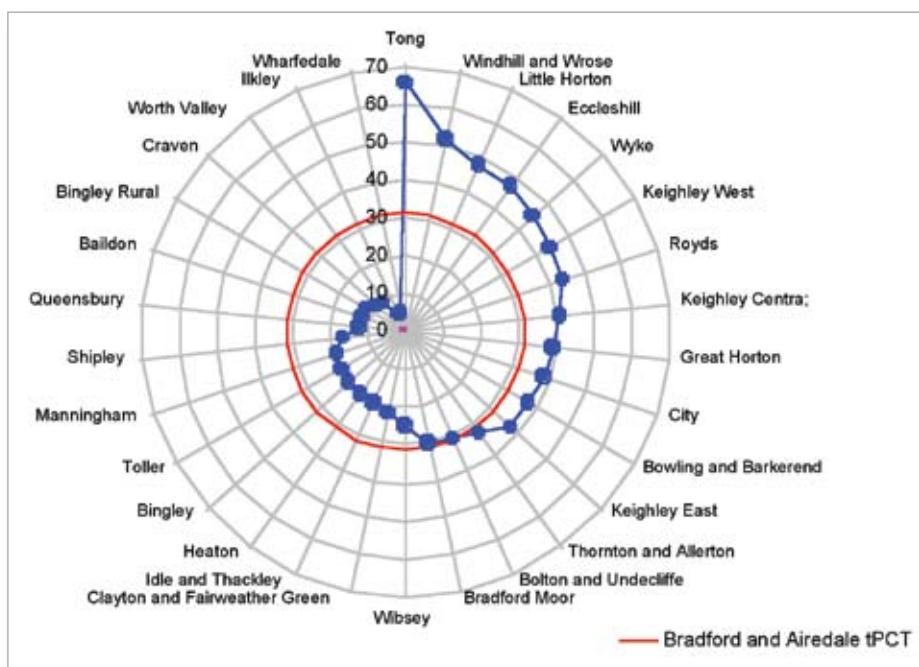


Figure 18
Births to Women Conceived under 18 years by individual ward compared to Bradford and Airedale District average , 2004-6 - Source: Bradford Health Needs Analysis.

The figure above shows conceptions estimated by births to teenage mothers between 2004-6, using new ward boundaries. This results in slightly different wards being highlighted as having particularly high rates; Tong, Windhill & Wrose, Little Horton, Eccleshill and Wyke. Both of these data sources demonstrate that there are clearly a number of 'hotspot' areas where ward conception rates are notably higher than in other wards. These require targeting, not only to affect the overall figure but also to address health inequalities.

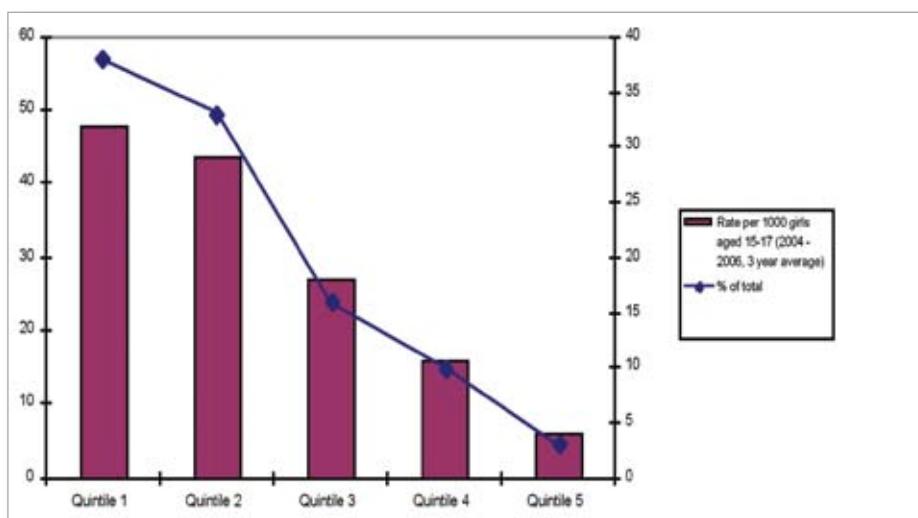


Figure 19
Teenage Pregnancy Rate per 1000 females aged 15 - 17 (2004-2006, 3 year average). Quintile 1 is the most deprived, quintile 5 the least deprived -
Source: Bradford tPCT, Sexual Health Needs Assessment, 2008.

In Bradford district teenage pregnancy rates increase with increasing deprivation (reflecting the national picture). 38% of all teenage pregnancies are in the most deprived quintile (fifth) and 72% are in the two most deprived quintiles.

Terminations

Table 9

Teenage conception rates and % abortions in Bradford compared to West Yorkshire and England - Source: Teenage Conception Data, ONS.

| Area of usual residence | 2001 - 2003 | | 2004- 2006 | |
|-------------------------|-------------|-----------------------|------------|-----------------------|
| | Rate | % leading to abortion | Rate | % leading to abortion |
| England | 42.5 | 46 | 41.1 | 47 |
| West Yorkshire | 45.4 | 37 | 47.3 | 40 |
| Bradford | 46.4 | 33 | 46.5 | 36 |

The above table indicates that Bradford has a lower % of pregnancies leading to abortion than West Yorkshire or England. The proportion of teenage pregnancies in Bradford leading to a termination has increased slightly (from 33% to 36%). This may be seen as a sign of increasing aspirations and perceived opportunities for these young people. It may also be due to a more streamlined referral process via family planning clinics and GP practices.

There is a higher proportion of repeat conceptions and terminations for under 19s (10.6%) than the national average. However, 67% of patients (all ages) are now leaving local Termination of Pregnancy Services (TOP) with long acting reversible contraception which will equate to less repeat conceptions. In 2007, 53.6% of terminations happened before ten weeks compared to a regional average of 61.4% and an England average of 68.3% (Department of Health performance data).

Summary

- Teenage pregnancy generally has adverse health consequences for both mothers and children. In Bradford district this is more apparent in the White population and may be associated with poverty, smoking and diet.
- Bradford is making a steady impact on reducing teenage pregnancy and has made considerable progress towards the 2010 national and local targets. Teenage conceptions have fallen more in Bradford than in other populations with comparable age-structure and deprivation. However, there is more to do particularly regarding equity. Currently 72% of all teenage conceptions are in the poorest two fifths of the population.
- Some young people chose to become pregnant and they need to be given support.

3.4. Deaths

3.4.1. Infant Mortality

Context

Infant mortality is defined as the number of deaths in the first year of life per thousand live births. It is a good proxy indicator of the overall level of a population's health. There are a number of categories of infant mortality recorded according to age (see Fig.16).

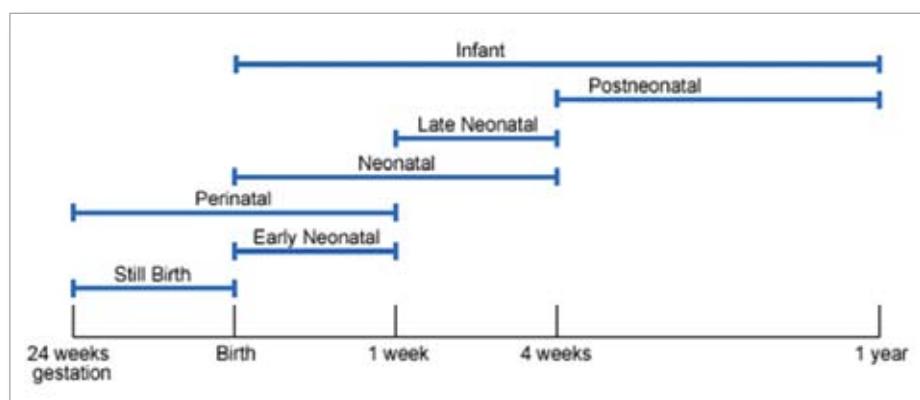


Figure 20
Categories of infant mortality recorded according to age of baby - Source:
Intelligence & Analysis, Bradford tPCT.

Recent research^{xi} has highlighted several groups that had significantly higher infant mortality rates compared with the whole population. These included mothers:

- born in Pakistan - 10.2 per 1000 live births for 2002-4 was double the overall infant mortality ratio.
- born in the Caribbean - 8.3 per 1000 live births was 63% higher than the national average.
- aged under 20 - 7.9 per 1000 live births was 60% higher than for older mothers aged 20-39.
- who were the sole parent to register the birth - 6.7 per 1000 live births was 36% higher than among all births inside or outside marriage that were registered by both parents.

National and local targets

LA Target: Reduce infant mortality

Health Inequalities PSA Target: By 2010 to reduce inequalities in health outcomes by 10% as measured by infant mortality and life expectancy at birth (the target is underpinned by a more detailed objective: Starting with children under one year, by 2010 to reduce by at least 10% the gap in mortality between routine and manual groups and the population as a whole).

Local Analysis

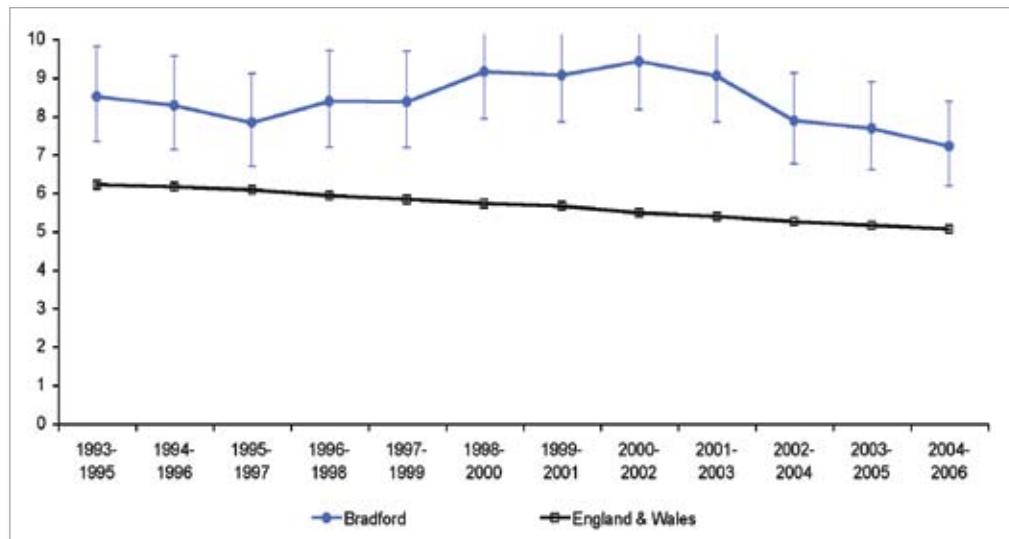


Figure 21
Infant Mortality Rate - three year rolling average. -
 Source: *Intelligence and Analysis, Bradford tPCT.*

| | 1996 - 1998 | 1997 - 1999 | 1998 - 2000 | 1999 - 2001 | 2000 - 2002 | 2001 - 2003 | 2002 - 2004 | 2003 - 2005 | 2004 - 2006 |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Bradford Rate | 8.4 | 8.4 | 9.2 | 9.1 | 9.4 | 9.0 | 7.9 | 7.6 | 7.2 |
| England and Wales Rate | 5.9 | 5.8 | 5.7 | 5.7 | 5.5 | 5.4 | 5.2 | 5.2 | 5.1 |

The infant mortality rate for Bradford district (7.2 per 1000) remains above the England average (5 per 1000). The district's rate is one of the highest in the country and is higher than other areas with similar levels of deprivation.

Table 10

Bradford Constituencies: Infant Mortality Rate per 1000 births (2004-2006) -

Source: Bradford and Airedale tPCT Health Intelligence and Analysis.

| Constituency | Infant Mortality Rate |
|-----------------|-----------------------|
| Bradford West | 9.3 |
| Bradford North | 7.1 |
| Bradford South | 6.7 |
| Shipley | 6.5 |
| Keighley | 5 |
| Bradford | 7.2 |

The above table shows infant mortality rates by constituency between 2004-6. The rates range between 5 deaths per 1000 and 9.3 deaths per 1000. However, as these are very small numbers there is no statistically significant differences between them. Any difference may have arisen by chance. However, Little Horton and City wards do have rates of infant mortality that are statistically significantly higher than the rest of the district.

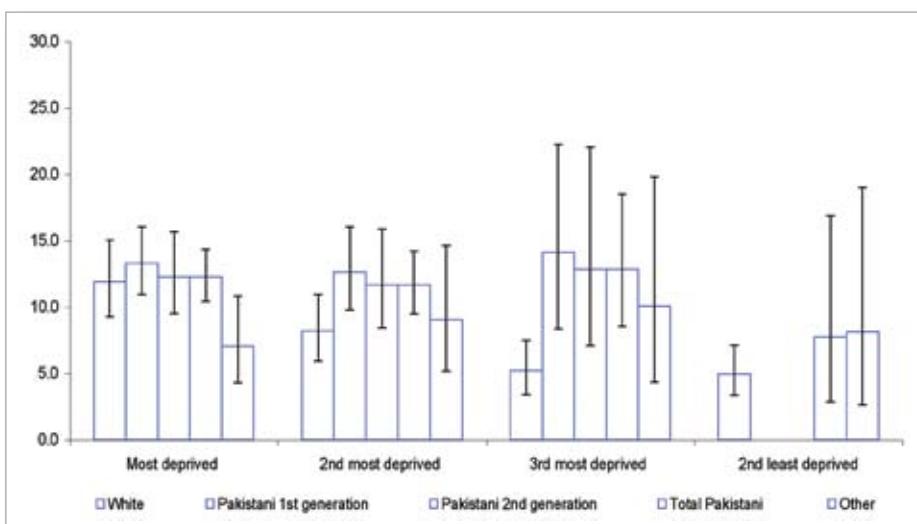


Figure 22
Infant mortality rate by deprivation quintile and ethnicity, 1996 - 2005 - Source:
Intelligence and Analysis, Bradford tPCT.

Data about infant mortality are difficult to interpret as there are on average fewer than 70 infant deaths per annum in the district but the numbers fluctuate widely from year to year. Even allowing for this fluctuation, the data tell us that infant mortality has been consistently higher in the most deprived fifth of the population compared to the least.

If the survival of babies born in the most deprived fifth of the population was the same as those born in the least deprived, infant mortality would drop by nearly 80% (Infant Mortality Commission, 2005).

Table 11
Infant mortality rates by ethnicity per 1000 births (1996 - 2005) -
Source: Intelligence and Analysis, Bradford tPCT.

| | White | Pakistani origin | Pakistani origin (1st generation) | Pakistani origin (2nd generation) |
|--|-------|------------------|-----------------------------------|-----------------------------------|
| Infant Mortality Rate (<1 year) | 6.7 | 12.0 | 13.0 | 10.2 |
| Neonatal Mortality Rate (<1 month) | 3.6 | 7.1 | 7.7 | 5.9 |
| Postnatal Mortality Rate (between 1 month and 1 year) | 3.1 | 4.9 | 5.3 | 4.2 |

There are large differences in infant mortality between ethnic groups with the rate in the Pakistani population almost double that of the white population. However, there are signs that infant mortality for the Pakistani population are beginning to decrease. Mortality rates for babies born to second generation mothers are generally lower than for first generation^{xii}.

Summary

- Infant mortality rates are higher than the national average in Bradford and impact on All Age All Cause mortality.
- Higher rates of infant mortality area associated with ethnicity and deprivation.
- Measures to tackle infant mortality must focus on the underlying factors identified
- The Infant Mortality Commission has made a number of recommendations to reduce rates of infant mortality (see next section).

3.4.2. Infant Mortality Commission

Over 99% of the babies born each year in Bradford District survive and live beyond their first year. The report focuses on the remaining 1% (60-70 babies), who are born alive each year, but who die before their first birthday.

For nearly two years, the Independent Commission, chaired by a lawyer and made up of bereaved mothers, politicians, members of voluntary organisations, health and other public service professionals took evidence, commissioned an extensive analysis of local data and analysed information. Their aim was to address these questions:

- Why do proportionately more babies die in their first year of life in Bradford District than the average for England?
- What action are we already taking and what more needs to be done?
- What recommendations should the Commission make to individuals, communities, organisations and services so that we can reduce even further the number of such deaths in Bradford?

The work of the Commission confirms that if we are going to make significant improvements in the current health of the infants born in Bradford District, then it is a task for everyone.

Factors that need to be addressed for babies to thrive include:

- The mental and physical health of the mother;
- the quality of the housing to which the new-born baby is taken from hospital;
- the income of the new family;
- and the support provided to them by their families, communities and public services.

Summary of Conclusions

The report of the 2004-06 Commission is the latest in a line of studies that have been carried out over the years into Bradford district's higher than average infant mortality rates. The first was produced in 1915 and the majority of the others, from the 1960s to the present day.

As the number of women of Pakistani-origin grew in the 1960s it has been possible since then to study two populations, as the Commission has done in this report, i.e. the white population and the Pakistani-origin population. The numbers of women from other ethnic minority communities are too small to study at whole population level.

A constant pattern of findings has emerged through all the studies:

- Bradford (now Bradford district) has had a consistently higher than average infant mortality rate throughout its history whatever the population mix. Socio-economic status is strongly associated with that rate for all mothers.
- Babies born to Pakistani-origin mothers are twice as likely to die in their first year of life compared with babies born to white mothers as a whole. This pattern is confirmed again by the work of the 2004-06 Commission.

The Commission concluded that:

- Poverty and disadvantage remain strongly associated with infant mortality for both populations. If all babies born into the most deprived fifth of neighbourhoods did as well as those born into the least deprived fifth, infant mortality in Bradford district would drop by 78%.

- 88% of Pakistani-origin babies and 41% of white babies are born into the most deprived two fifths of neighbourhoods. Babies born to all mothers living in the most deprived fifth of neighbourhoods are five times more likely to die in their first year of life compared to babies born to mothers in the least deprived fifth.
- In order to lower the number of infant deaths, deprivation has to be tackled across all the seven factors which are accepted by central government as playing a part in multiple deprivation.
- The infant mortality rate for babies born in Bradford within the nationally derived most deprived quintile of deprivation is significantly higher compared to babies born into the same level of deprivation in England and Wales. Therefore deprivation alone does not provide the whole explanation for Bradford District's high rates of infant mortality.
- For both populations, a reduction in the number of very low birth weight babies would significantly reduce the number of babies who die in their first year of life.

Summary of conclusions for particular populations:

- Pre-term birth, younger teenage motherhood, smoking, alcohol and non-prescription drug use are greater risk factors for the white population, than for the Pakistani-origin population.
- Babies born to Pakistani-origin mothers are still twice as likely to die in the first year of life compared with babies born to white mothers as a whole. This may be explained by their over-representation in the most deprived fifth of neighbourhoods and the additional associated risks of low birth weight and congenital anomalies.
- Congenital anomalies, particularly autosomal recessive disorders, are significantly more likely to be the cause of death for Pakistani-origin infants than for white infants. The risk of being affected by an autosomal recessive disorder is still relatively small, but if affected the outcome can be fatal.
- Early, good quality ante-natal care is important for all pregnant women, but particularly important for some groups which include pregnant women who are diabetic or at risk of developing diabetes in pregnancy; and pregnant women living in the most deprived two fifths of neighbourhoods

To note:

- More of Bradford District's older babies (post neonatal) die of infections than the average for England and Wales.
- The deaths from 'other conditions' and 'congenital anomalies' need more investigation and would benefit from more accurate recording of the cause of death.

Summary of Recommendations:

Ten Priority Areas for Action

Detailed below are ten priority areas for action identified from the analysis of evidence presented to the Commission. In the view of the Commission, these are areas for action necessary to reduce the incidence of infant mortality in Bradford district. The list includes areas for action to tackle the social conditions that adversely affect infant health.

In relation to the impact of deprivation on infant mortality:

1. Reducing poverty and unemployment
2. Improving housing and the social environment of Bradford district's residents
3. Improving the nutrition of mothers and babies (including breastfeeding)
4. Ensuring access to appropriate health care
5. Ensuring appropriate social and emotional support for parents

In relation to factors that contribute to infant mortality for specific groups of our population:

6. Reducing the number of women who smoke or have high levels of use of alcohol and/or non-prescribed drugs in pregnancy
7. Developing a better understanding of the impact of genetics and strategies for empowering families to deal with genetic risk
8. Ensuring these recommendations are shared widely and understood by communities across the Bradford district

In relation to the actual causes of death:

9. Developing further the data collection and monitoring procedures in Bradford district
10. Continuing the research to understand the links between the underlying and immediate causes of death

More information is available on the Bradford District Infant Mortality Commission website (www.bdimc.bradford.nhs.uk).

3.4.3. Other Deaths 0-19 yrs

Context

In the UK the majority of infant and child mortality occurs at and shortly after birth. In the last century death rates for children have fallen dramatically and most of this can be attributed to the decrease in infant mortality caused by better medical care, access to health services and general improvements in living standards. In 2006, the Office of National Statistics shows total deaths at 5,903. The three main causes are external causes such as injuries or poisonings (17%), cancers (7.3%) and congenital malformations, deformations and chromosomal abnormalities (7%).

National and local targets

- By 2010, reduce the gap in mortality by at least 10% between 'routine and manual groups' and the population as a whole (1997-1999 baseline)
- All-Age All-Cause mortality rate per 100,000 population (Vital Sign-NHS Operating Framework).
- Mortality rate from causes considered amenable to healthcare (Vital Sign-NHS Operating Framework).
- Suicide and injury of undetermined intent mortality rate (Vital Signs- NHS Operating Framework).

Local Analysis

Table 12

Number of Total Deaths in Children aged 0-19 in Bradford District, Calendar Years 2002-2006
- Source: *Intelligence & Analysis, Bradford tPCT*.

| Calendar Year | | | | |
|---------------|------|------|------|------|
| 2002 | 2003 | 2004 | 2005 | 2006 |
| 103 | 108 | 79 | 117 | 95 |

The above data indicates that the absolute number of deaths in Bradford district has remained fairly stable over the last four years.

Table 13

Number of Deaths in Children aged 0-19, by age group, calendar years 2002-2006
- Source: Intelligence & Analysis, Bradford tPCT).

| Age Group | Number of Deaths | % of Total |
|-------------------|------------------|------------|
| Under 1 | 308 | 61.4 |
| Age 1 - 4 | 63 | 12.5 |
| Age 5 - 9 | 16 | 3.2 |
| Age 10 - 14 | 36 | 7.2 |
| Age 15 - 19 | 79 | 15.7 |
| Total Aged 0 - 19 | 502 | 100 |

In line with national data the highest number of deaths occur in the under one age group. The table across the page shows death by cause in the Bradford district for children over one year of age.

| Cause of Death | Number of Deaths | % of Total |
|--|------------------|------------|
| Neoplasms | 27 | 14% |
| Endocrine, nutritional & metabolic diseases & Immunity disorders | 10 | 5% |
| Diseases of the nervous system & sense organs | 21 | 11% |
| Diseases of the circulatory system | 10 | 5% |
| Diseases of the respiratory system | 17 | 9% |
| Diseases of the digestive system | 11 | 6% |
| Congenital anomalies | 15 | 8% |
| Signs, symptoms & ill-defined conditions | <5 | 2% |
| External causes of injury & poisoning | 56 | 29% |
| Other Causes | 24 | 12% |

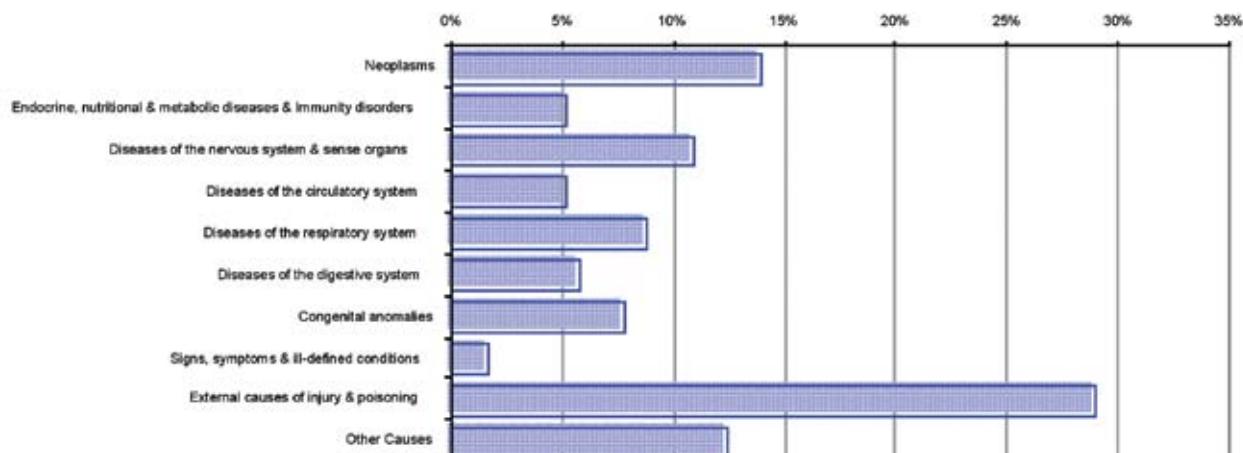


Figure 23
Number of Deaths in Children and young people aged 1 - 19. Calendar Years 2002 - 2006 - Source: Bradford Health Needs Analysis.

The greatest cause of death for children and young people (1 - 19 years) is injury and poisoning (29%). This reflects the primary cause of child death nationally. These are preventable deaths and if prevented would have led to 56 less children and young people aged 1 - 19 years dying in the Bradford District between 2002-6. This next cause of death is neoplasms (generally cancers) and then other causes (12%).

Summary

- Deaths have remained fairly stable in Bradford over the last five years.
- 61.4% of deaths in children and young people aged 0-19 occur in under 1s.
- Over a quarter of the deaths in the 1-19 age group are caused by injury and poisoning.
- The Child Death Review, which is a statutory requirement from April 2008, reviews information on all child deaths and is accountable to the Local Safeguarding Children's Board. This will enable more in depth analysis to be performed on childhood deaths.

3.5. Life Expectancy

Context

- Life expectancy at birth is the number of years one can expect a child born in Bradford district in 2008 to live if mortality rates remain the same as they are now.
- Life expectancy differs considerably between populations and is a good measure of the general health of a population.
- Life expectancy also differs considerably between the most deprived and least deprived sections of society, therefore it can be used to measure increases and decreases in health inequalities.
- Life expectancy can be increased if healthier lifestyles can be adopted, for example, stopping smoking and doing more physical activity and if deaths from illnesses such as cancer, heart disease and chronic obstructive pulmonary disease can be reduced. In addition, access to services, particularly for deprived groups, needs to be improved.

National and local targets

The national target for life expectancy is:

By 2010 to reduce inequalities in health outcomes by 10% as measured by infant mortality and life expectancy at birth. Healthy life expectancy at age 65 is a Vital Sign under the NHS Operating Framework.

Local Analysis

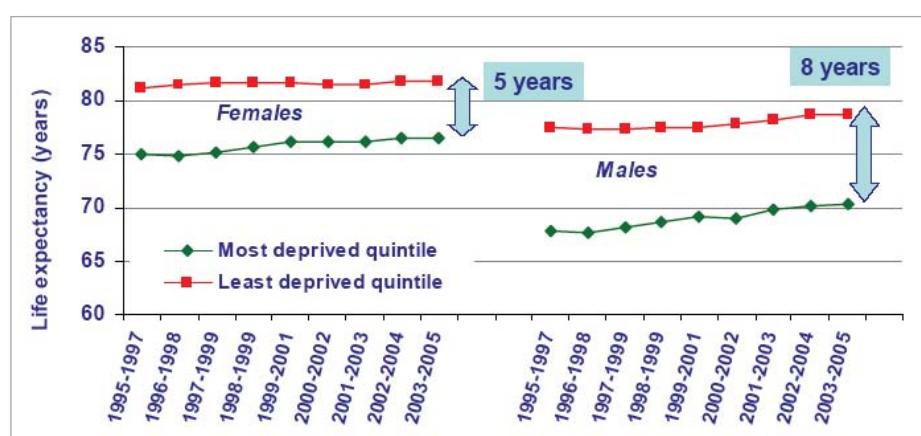


Figure 24

Life expectancy for men and women in the most and least deprived parts of Bradford District

- Source: Data from Bradford and Airedale tPCT intelligence and analysis team.

Life expectancy in Bradford is just below the national average for men (74 years compared to 77 years) and women (79 years compared to 81 years). However, when we take relative deprivation into account a different picture emerges. Men from the most deprived parts of Bradford District have over eight years shorter life expectancy than those in the least deprived areas (70.4 years compared to 78.7 years). See Figure 24 above. Although the difference is less for women there is still a five year gap in life expectancy between the most and least deprived (76.2 years compared to 81.6 years).

Summary

- Life expectancy is a good measure of the health of the District and how Bradford compares to other areas.
 - The gap between the life expectancy for Bradford District and that of England and Wales is projected to increase.
 - The Bradford population as a whole can expect to live slightly less than the national average. However, life expectancy falls considerably to eight years less for men and five years less for women when taking deprivation into account.
 - Life expectancy can be improved by targeted primary and secondary prevention.
-

3.6. Morbidity

3.6.1. Infectious Disease & Immunisation

Context

Despite reductions in incidence rates, infectious disease still remains one of the main causes of death in childhood, and one of the commonest causes of hospital admissions and GP consultations in childhood^{viii}.

A number of these infections are preventable by immunisation, the most effective public health intervention in the world for saving lives after clean water. Since the start of the routine childhood immunisation programme in the UK there has been a huge reduction in the number of cases and deaths from infections such as diphtheria, tetanus, measles, mumps, pertussis (whooping cough), and meningococcus serogroup C. The recent introduction of the pneumococcal conjugate vaccine for all infants in 2006 has started to show a significant reduction in disease and death as reported nationally. The most recent vaccination to be introduced is aimed at significantly reducing HPV (an infection that causes cervical cancer). A school based immunisation programme is due to start in the autumn of 2008 involving twelve to thirteen year old girls with a catch-up programme in 2009 to 2011 for girls up to eighteen years old.

However, cases of vaccine preventable diseases still occur where vaccine coverage is low. This may be due to: fears over complications of vaccination such as allergic reactions or supposed, but completely unfounded, links with autism; concerns over vaccine constituents such as mercury compounds; a disbelief in their efficacy; and a lack of knowledge as regards the severity of some illnesses. There are inequalities in vaccine uptake, with it being lowest among those of lower socioeconomic status. It is also lower among new immigrants who may not have been fully immunised in their home country and among travelling communities.

There still remain a number of infections which cannot be prevented by vaccination, or are not included in the routine immunisation schedule, such as dysentery and typhoid. While some are endemic to this country, such as those linked to food poisoning, others are brought by individuals travelling abroad, such as malaria.

Targets

Immunisation uptake for both the under two years and under five years are part of the vital signs for the NHS Operating Framework as shown in the table below:

Table 14

**Immunisation Uptake Targets under the Vital Signs of the NHS Operating Framework -
Source: NHS Operating Framework.**

| Vital Sign | Immunistaion Rate | Target (% uptake) | | |
|-----------------|--|-------------------|-------------|-------------|
| | | 2001 - 2003 | 2002 - 2004 | 2003 - 2005 |
| VSB10_03 | Children aged 1 immunised for Diphtheria, Tetanus, Polio, Pertussis, & Haemophilus influenza type b | 93 | 94 | 95 |
| VSB10_08 | Children aged 2 immunised for Pneumococcus | 75 | 80 | 85 |
| VSB10_09 | Children aged 2 immunised for Haemophilus influenza type b & Meningitis C | 93 | 94 | 95 |
| VSB10_10 | Children aged 2 immunised for measles, mumps and rubella | 85 | 90 | 95 |
| VSB10_14 | Children aged 5 immunised for Diphtheria, Tetanus, Polio, Pertussis | 85 | 87 | 90 |
| VSB10_15 | Children aged 5 immunised for measles, mumps and rubella | 83 | 85 | 87 |
| VSB10_18 | Girls aged around 12-13 years immunised for human papilloma virus | 70 | 80 | 90 |
| VSB10_21 | Children and young people aged 13 to 18 immunised with a booster dose of tetanus, diphtheria and polio | 20 | 40 | 90 |

National Analysis

There has been a rise in the number of notifications of measles, mumps and rubella infections due to decreased vaccine uptake following unfounded media allegations that raised concerns over the safety of the MMR vaccine. There have been two deaths from measles in the UK, one in 2006 and another in 2008.

Meningococcal meningitis and septicaemia remain feared conditions, though the incidence of new cases has fallen significantly since the introduction of the meningitis C vaccine. The majority of cases occur in children under five, with a peak incidence under one year and another peak in young adults.

Tuberculosis remains endemic in the UK, particularly amongst certain population groups in the big cities, though the number of reported cases has remained stable since an 11% increase reported in 2005.

Local Analysis

In Bradford there has been a rise in the number of notifications of measles, mumps and rubella infections which parallels the national trend. The number of cases of meningococcal septicaemia are low in keeping with elsewhere, though there is a sizeable number of cases of tuberculosis.

Table 15

Statutory Notifications of Infectious Disease in Bradford for Individuals aged under 24 years 2003-2007 - Source: Health Protection Agency NOIDS data.

| Infection | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------------------|------|------|------|------|------|
| Measles | 54 | 17 | 22 | 23 | 43 |
| Mumps | 25 | 48 | 853 | 89 | 45 |
| Rubella | 14 | 15 | 9 | 12 | 20 |
| TB | 36 | 28 | 47 | 54 | 33 |
| Meningitis | 42 | 30 | 48 | 47 | 26 |
| Meningococcal Septicaemia | <5 | 5 | 10 | 6 | 5 |
| Food poisoning | 274 | 88 | 77 | 61 | 95 |
| Viral Hepatitis | 18 | 20 | 17 | 43 | 31 |

Immunisation

The data for childhood vaccinations in Bradford shows a good level of primary immunisation before the second birthday with targets being met and exceeded for Diphtheria, Tetanus, Polio, Pertussis and Haemophilus influenzae (DTaP/IPV/HIB). Although levels of immunisation were relatively high for vaccination against Meningitis C and Pneumococcus, targets have not been met. Uptake of Measles, Mumps and Rubella (MMR) vaccine is above the national average, though an outbreak of measles occurred in a group of children and young people from travelling families in 2007. There are variations in uptake across the region, as shown in the tables below:

Table 16

Uptake of Immunisation in under 2 year olds January - March 2008 -

Source: HBradford & Airedale tPCT Practice Profiles.

| Area | Vaccine Uptake (%) | | | |
|--|--------------------|---------------------|-----|---------------|
| | DTaP/IPV/Hib | Hib & Men C booster | MMR | Pneumo-coccus |
| Bradford & Airedale tPCT | 96 | 84 | 87 | 73 |
| Airedale Alliance | 97 | 88 | 89 | 78 |
| City Care Alliance | 95 | 85 | 88 | 66 |
| South & West Alliance | 95 | 80 | 83 | 74 |
| Yorkshire Primary Care Alliance | 97 | 88 | 89 | 82 |
| UK | 94 | 93 | 83 | - |
| Target | 93 | 93 | 85 | 75 |

Data for immunisation rates by the fifth birthday in Bradford show targets for DTaP/IVP/HIB and MMR to have been largely exceeded and improving each year. However, there are variations in uptake across the region, as shown in the tables below:

Table 17

Uptake of Immunisation in under 2 year olds January - March 2008 -

Source: HBradford & Airedale tPCT Practice Profiles.

| Area | Vaccine Uptake (%) | |
|---------------------------------|--------------------------------|-------------|
| | Diphtheria, Pertussis, booster | MMR booster |
| Bradford & Airedale tPCT | 84.2 | 83.2 |
| Airedale Alliance | 87.6 | 85.3 |
| City Care Alliance | 84.5 | 84.9 |
| South & West Alliance | 79.5 | 77.7 |
| Yorkshire Primary Care Alliance | 87.8 | 85.9 |
| UK | 92.5 | 72.8 |
| Target | 85 | 83 |

Summary

- Infectious disease remains a serious life threatening problem for children.
- There are high numbers of reported cases of measles, mumps and rubella due to poor vaccine uptake.
- There needs to be continued work in areas of deprivation to ensure high levels of immunisation.
- Uptake of the Hib & Meningitis C booster and the MMR vaccine needs to be increased.

3.6.2. Sexually Transmitted Infections and HIV

Context

Sexually transmitted infections (STIs) are those infections transmitted through sexual contact and include:

- Chlamydia, the most common in the UK
- Gonorrhoea
- Syphilis
- Herpes
- Genital warts
- HIV
- Hepatitis B

The risk of developing an STI is dependent on sexual behaviour, with the highest number of new diagnoses seen in young adults. The National Strategy for Sexual Health and HIV states "...There is a clear relationship between sexual ill health, poverty and social exclusion..."^{xiii}. Figures from surveillance data show that some black and minority ethnic communities in England have disproportionate prevalence rates of STIs and HIV^{xiv}.

Potential consequences of STIs include:

- Pelvic inflammatory disease
- Infertility
- Cervical and other genital cancers
- Hepatitis, chronic liver disease and liver cancer
- Recurrent disease
- Premature birth of future pregnancies
- Psychological outcomes and impact on relationships

HIV in children is largely due to vertical transmission from mother to child at birth, and can be prevented by antenatal screening of expectant mothers and medical intervention where the mother is known to be positive. New infections are diagnosed in children born elsewhere coming to the UK, but also occur in teenagers and young adults through sexual contact.

Targets

The National Strategy for Sexual Health and HIV^{xiii} aims to:

- Reduce the transmission of HIV and STIs
- Reduce the prevalence of undiagnosed HIV and STIs

Recommended Standards for Sexual Health Services^{xiv} recommends that specific action is needed to meet the needs of:

- Young people beginning to become sexually active
- Looked after young people and those leaving care
- Black and minority ethnic communities
- Refugees and asylum seekers, homeless people, sex workers, people in custodial settings

Improving sexual health is one of the priorities for action in Choosing Health. Monitoring the prevalence of chlamydia is one of the Vital Signs in the NHS Operating Framework^{xv}.

National and Local Analysis

Figures for STIs other than HIV in the UK are based on diagnoses made in genitourinary medicine clinics (GUM), and are an underestimate as they do not include diagnoses made at general practices or family planning clinics. Individuals may also attend a GUM clinic outside the area they live or work in. Asymptomatic Infections which remain undiagnosed and unreported will also lead to an underestimation of the true figures.

Overall there has been an increase in the number of new diagnoses of all sexually transmitted infections. This may be as much due to an increased awareness and more people being tested as it is to higher levels of transmission. Figures are shown in the table below:

Table 18

Rates of New Episodes of STIs for <16 yrs and 16-19 yrs per 100,000 Population in the UK 2003-2007 - Source: Health Protection Agency.

| STI | Infection | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------|-----------|------|------|------|------|------|
| Chlamydia | <16 | 63 | 64 | 62 | 65 | 76 |
| | 16 - 19 | 818 | 881 | 914 | 920 | 1002 |
| Gonorrhoea | <16 | 14 | 12 | 10 | 9 | 11 |
| | 16 - 19 | 163 | 145 | 115 | 111 | 121 |
| Syphilis | <16 | <5 | <5 | <5 | <5 | <5 |
| | 16 - 19 | <5 | <5 | <5 | <5 | <5 |
| Herpes | <16 | 8 | <5 | 7 | 7 | 10 |
| | 16 - 19 | 88 | 90 | 94 | 106 | 124 |
| Warts | <16 | 28 | 29 | 26 | 31 | 37 |
| | 16 - 19 | 457 | 484 | 496 | 521 | 568 |

Table 19

Rates of New Episodes of STIs for <16 yrs and 16-19 yrs per 100,000 Population in the Yorkshire & Humber 2003-2007 - Source: Health Protection Agency.

| STI | Infection | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------|-----------|------|------|------|------|------|
| Chlamydia | <16 | 110 | 108 | 94 | 73 | 94 |
| | 16 - 19 | 1134 | 1249 | 1185 | 1083 | 1213 |
| Gonorrhoea | <16 | 20 | 20 | 19 | 10 | 8 |
| | 16 - 19 | 199 | 2008 | 151 | 132 | 131 |
| Syphilis | <16 | <5 | <5 | <5 | <5 | <5 |
| | 16 - 19 | <5 | <5 | <5 | <5 | <5 |
| Herpes | <16 | 9 | 5.4 | <5 | 6 | 12 |
| | 16 - 19 | 109 | 102 | 93 | 117 | 161 |
| Warts | <16 | 44 | 30 | 30 | 44 | 61 |
| | 16 - 19 | 571 | 589 | 562 | 584 | 677 |

New diagnoses for chlamydia are also made through the National Chlamydia Screening Programme (NCSP) in England, and figures from this confirm the existence of high prevalence rates. Figures for Bradford for chlamydia are shown in the table below:

Table 20

Number of Cases of Uncomplicated Chlamydia in Bradford <19 years 2003-2007 -

Source: KC60, Keighley Health Centre and The Trinity Centre.

| Age group | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------|------|------|------|------|------|
| 0 - <15 | <5 | 5 | 10 | <5 | 9 |
| 15 years | 18 | 10 | 9 | 8 | 19 |
| 16 - 19 years | 242 | 340 | 318 | 289 | 298 |

Figures for Yorkshire and the Humber do not reflect increasing trends nationally for Chlamydia but do show increases in herpes and genital warts. As explained above it is likely that all these figures are an underestimate.

Figures for the number of HIV diagnoses and cases of AIDS in the UK are collated from a number of surveillance reports, and are shown in the table below:

Table 21

Number of Individuals under 19yrs Newly Diagnosed with HIV in the United Kingdom -

Source: Health Protection Agency.

| Year | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------|------|------|------|------|------|
| Mother to infant | 146 | 153 | 123 | 126 | 78 |
| under 15 | 148 | 155 | 120 | 110 | 61 |
| 15 - 19 | 142 | 182 | 149 | 162 | 153 |

Figures available for HIV in Yorkshire and Humberside are shown in the table below:

Table 22

Number of Individuals under 19yrs Newly Diagnosed with HIV in Yorkshire and Humberside -

Source: Health Protection Agency.

| Year | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------|------|------|------|------|------|
| Mother to infant | 5 | 9 | 5 | 8 | <5 |
| under 15 | 5 | 9 | 6 | 10 | <5 |
| 15 - 19 | 15 | 6 | 6 | 12 | 7 |

Summary

- The incidence of new cases of STIs in young adults is increasing nationally.
- Health inequalities are known to exist with disproportionate prevalence rates for some minority ethnic groups and vulnerable groups.
- More data are needed for local figures.

3.6.3. Mental Health

'Mental health' can be a confusing term which is not always clearly defined. Children and young people who are mentally healthy:

- Develop psychologically, emotionally, intellectually and spiritually
- Initiate, develop and sustain mutually satisfying personal relationships
- Use and enjoy solitude
- Become aware of others and empathise with them
- Play and learn
- Develop a sense of right and wrong
- Face problems and setbacks and learn from them

Whilst many mental health difficulties are mild and soon settle, many can be more worrying and continue throughout childhood and even into adulthood. A useful distinction can be made between mental health problems, disorders and illness:

'Mental health problems may be reflected in difficulties and/or disabilities in the realm of personal relationships, psychological development, the capacity for play and learning and in distress and maladaptive behaviour. They are relatively common, and may or may not be persistent.'

When these problems ... are persistent, severe and affect functioning on a day-to-day basis they are defined as mental health disorders. In a small proportion of mental disorders, the term mental or psychiatric illness is used, to describe the very severe cases, for example, of depressive illness, psychotic disorders and anorexia nervosa (Children's NSF, Standard 9, 2004, p44).

Many factors in the child, family and wider environment are known to increase the risk of mental ill health in children and young people. However, other factors appear to protect and explain why some young people who suffer adversity are more resilient and do not develop problems to the same extent.

Evidence shows overwhelmingly that for all children, education and school life play the most important role in promoting children and young people's mental health aside from their parents, family and home life. In addition, multi-pronged approaches that address factors in the child, family, school and environment including early years settings have the best chance of being effective.

Services

Support for children and young people with mental health problems needs to come from all services and can usefully be described using a four tier framework:

Tier 1:

A primary level of care, consisting of a large and diverse group of professionals with the ability to recognise problems early on and start basic interventions, e.g. GPs, schools, youth workers, health visitors.

Tier 2:

A service provided by professionals who can support colleagues in Tier 1 as well as providing direct support.

Tier 3:

Specialised multi-disciplinary service for more severe, complex or persistent disorders.

Tier 4:

Specialist tertiary services, e.g. day units, highly specialised out-patient teams and in-patient units.

Targets

Standard Nine of the National Service Framework for Children, Young People and Maternity Services sets out the following objectives:

- An improvement in the mental health of all children and young people
- Multi-agency services should work in partnership to:
 - promote the mental health of all children and young people
 - provide early intervention
 - meet the needs of children and young people with established or complex problems
- Access to treatment should be equal for all children and young people
- Treatment should be based upon the best available evidence and provided by staff with an appropriate range of skills and competencies

The effectiveness of Children and Young People and Adult Mental Health Services (CAMHS) and how comprehensive a service it provides is a vital sign in the NHS Operating Framework, as is the mortality rate due to suicide and injury of undetermined intent.

The successful achievement of the five Every Child Matters outcomes is both dependent upon and contributes to good mental health.

National Analysis

The Office of National Statistics Survey of the Mental Health of Children and Young People in Great Britain in 2004 found that one in ten children and young people had a diagnosable mental disorder; in Bradford and Airedale, using 2006 Office of National Statistics population figures, this would equate to 6680 children and young people aged between five and fifteen years. The following table illustrates the prevalence of childhood mental disorders for the different age groups and sexes found in the 2004 survey and of the prevalences across different conditions.

While rates of completed suicide are very low in children, after the age of 11 they begin to rise, with boys being more at risk. Attempted suicide is more common with 2-3% of girls doing so at some point while a teenager. Self harm is much more frequent, a survey in 2002 in England found 6.9% of school had committed an act of self-harm, with girls doing so more than boys (11.2% versus 3.2%).

Table 23

Prevalence of Childhood Mental Health Disorders in 2004 -Source: *Mental Health of Children and Young People in Great Britain, ONS 2004.*

| Age | Boys (%) | | Girls (%) | | All 5 -16 year olds (%) |
|-----------------------|------------------|-------------------|------------------|-------------------|-------------------------|
| | 5 - 10 year olds | 11 - 16 year olds | 5 - 10 year olds | 11 - 16 year olds | |
| Conduct disorder | 6.9 | 8.1 | 2.8 | 5.1 | 5.8 |
| Hyperkinetic disorder | 2.7 | 2.4 | 0.4 | 1.4 | 1.5 |
| Emotional disorder | 2.2 | 4.0 | 2.5 | 6.1 | 3.7 |
| Less common disorders | 2.2 | 1.6 | 0.4 | 1.1 | 1.3 |
| Any disorder | 10.2 | 12.6 | 5.1 | 10.3 | 9.6 |

Local Analysis

Table 24

Estimated Numbers of Children and young people with a Mental Disorder in Bradford -Source: *CAMHS Needs Analysis Review 2007.*

| Age Range | | Number of Children | ONS 2004 Prevalence | Number with a disorder |
|-------------|-------------|--------------------|---------------------|------------------------|
| 5 - 10 yrs | Female | 21057 | 5.1 | 1074 |
| | Male | 22048 | 10.2 | 2249 |
| | All 5 - 10 | 43105 | 7.7 | 3319 |
| 11 - 15 yrs | Female | 17501 | 10.2 | 1785 |
| | Male | 18195 | 13.1 | 2384 |
| | All 11 - 15 | 35696 | 11.7 | 4176 |
| 11 - 15 yrs | All | 78801 | 9.6 | 7565 |

Figures for children and young people with a mental disorder in Bradford district can be estimated by applying the prevalence identified in the Office of National Statistics Survey in 2004 to the local population data from the numbers of children registered with a GP in 2007. Estimates of the number of children and young people with a mental disorder in Bradford by age and sex are in the table above.

Services & Access:

The 2006/07 CAMHS Mapping Exercise found that the service was seeing around 16% of the estimated total number of children and young people with a mental disorder in the area; research has indicated that about 25% of such children and young people will need specialist input suggesting there are access problems. In addition, 16.7% of the children and young people seen by CAMHS in 2006 were South Asian, compared to an estimated need of 22.5%, highlighting possible further access problems that may need to be addressed.

Counselling services play an important part of treatment as part of Tier 2 services, and commissioning has been undertaken from the voluntary sector to support their provision. A high level of need for counselling has been identified, with long waiting times, and possible unmet needs, especially from minority ethnic groups and those with disabilities. This is in the context of services being little publicised due to lack of resources. Voluntary sector agencies suggest that the real level of demand would be possibly as much as four times greater than that reported if services were properly publicised. There are also issues concerning the allocation of resources, i.e. whether lengthy meaningful courses of therapy should be given to a small number of individuals versus shorter courses to a larger number.

Waiting times for counselling have been reported to decrease by 50% at one agency by the use of paid counsellors rather than volunteers, though the source of funding was from the agency itself and not via grants or commissioning. One contributory factor to long waiting times is that most children and young people wishing to access services wish to do so after school; one way of getting round this has been to provide services in schools. Issues that have been dealt with in the counselling sessions include: family problems, lack of parental involvement, abuse of many kinds including sexual abuse, rape, bereavement, bullying, disability, drink and drug addiction, involvement with court or social services, and unresolved psychological problems. However this has been limited to only a few schools and the agencies involved would welcome the ability to increase provision. Access to services may also be prevented by stigma, parental attitude and confidentiality concerns.

Suicide and Self Harm:

Studies suggest that around 2-4% of adolescents will attempt suicide, and 7.6 per 100,000 fifteen to nineteen year olds will complete suicide (YoungMinds 2002). When these figures are applied to the number of 36507 fifteen to nineteen year olds registered with a GP and resident in Bradford in 2007, an estimate of the number attempting suicide would be between 730 and 1460 and the number completing would be between two and three a year. The annual number of suicides and undetermined deaths for those aged between ten and nineteen years between 2002 and 2006 has been under five.

Looked after children and young people:

In January 2007 there were 823 looked after children and young people in Bradford, of whom 630 were aged five years or over. A 2002 ONS survey on the mental health needs of looked after children and young people (Meltzer et. al. 2003a), found that 45% were assessed as having a mental disorder. Adjusting for placement type, the estimated number of looked after children and young people aged between five and seventeen years with a mental disorder in Bradford would be around 260, though not all would require a specialist CAMHS response. In 2007 the CAMHS mapping exercise identified a figure of 117 looked after children and young people being seen by CAMHS in Bradford, making up just under 10% of the total caseload.

Disabled children and young people:

Taking a figure of 4,900 for the number of children and young people with a disability under the age of eighteen years, 1,000-1,500 of them might have a mental disorder at any one time. Information compiled by the disabled children's information service shows that some 46% of families on the register have indicated that their child requires a lot of help in at least one mental health categories.

Children and young people with Learning Disabilities:

Using an estimated figure of 0.45-0.6% for the prevalence of children and young people with a moderate to severe learning disability (Parker et al, 2003), in Bradford the expected number of such children and young people would be between 612 and 816 of whom between 245 and 326 might have mental health problems. In 2007 the CAMHS mapping exercise identified a figure of 152 children and young people with moderate to severe learning disability, making up around 12% of the caseload.

The total prevalence of Autism Spectrum Disorders has been estimated at 116.1 per 10,000 (approximately 1%) by a recent study (Baird et al, 2006). Applying this figure to the population of children and young people aged between five and eighteen years would give an estimated number of 1165 cases.

Young Offenders:

Research into the mental health needs of young offenders has identified levels of mental health need of around a third, with high levels of unmet need. (Chitsabesan et al 2006). The same study identified 20% of young offenders as having a learning disability and that around 30% as having a borderline learning disability.

The number of young people involved with the Young Offenders Team seen by specialist CAMHS appears to have increased; the CAMHS Mapping exercise suggested that this figure has increased from 24 (2.43% of caseload) in 2003 to 86 (7.28%) in 2007.

Summary

- Mental health disorders are common among children and young people.
- The specialist CAMHS caseload does not reflect the anticipated demand and it is likely that there are a significant number of children and young people, especially within BME communities, Looked after Children, disabled children and young people and other vulnerable groups, who would benefit from their support but are not accessing it.
- There is a demand for counselling for children and young people which established services are unable to meet.

3.7. Disability

Context

Disability can be categorised as:

- Physical impairment
- Hearing impairment
- Visual impairment
- Speech, language or communication need
- Learning difficulty/Autism
- Emotional/behavioural problem
- Mental health problem

A child can be affected in one or more of these categories and their disability can range from mild with no difference in needs compared to non-disabled children and young people or severe with complex needs and considerable support required.

Disabled children and young people can experience a number of other barriers;

Financial:

Around 55% live in households with a low income and suffer consequent social exclusion. Raising a disabled child is estimated as costing three times as much as for a non-disabled child. Parents/carers may not be aware of benefits they are entitled to and find it difficult to work due to the need to care for their child.

Accessing Services:

Despite having a greater need, it is common for them to have difficulties in accessing services, particularly if from minority ethnic or asylum seeking backgrounds.

Mental Health:

There is a higher prevalence of mental health problems than in other children and young people and a greater requirement for psychological and emotional support.

Child Protection:

They are at higher risk of all forms of abuse, and are disproportionately represented among looked after children and young people.

Educational achievements:

These are below those of other children and young people.

Life Satisfaction:

They report more dissatisfaction in their lives^{xvi}.

National and local targets

Parents experience of services for disabled children and young people is a Vital Sign in the NHS Operating Framework.

National Analysis

When attempting to establish the prevalence of childhood disability, figures will vary according to what definition of disability is used and the means of deriving them. It should be borne in mind that the prevalence of severe disability and complex needs in the UK has risen in the last decade, partly due to the increased survival of premature babies and children and young people suffering from severe trauma, cancer or other major illnesses.

In the 1980s the Office of Population Statistics derived a figure of a little over 3% for the prevalence of childhood disability (under 16 years of age) in the UK, which contrasted with estimates of as high as 16% from previous surveys^{xvii}.

Local Analysis

Using the above figures and applying the rates to the Bradford population aged under 18 years would give estimates of 4080-21760 disabled children and young people. The Extended Inclusion Report suggests that 7% of children and young people are disabled, which would give a figure of 10,000.

Other sources of information for Bradford are:

- Census Information
- Children's Disability Register - Disabled Children's Information Service
- Department of Work and Pensions data for Disability Living Allowance
- Child Development Centre
- Education Bradford

Census Information:

The number of children and young people aged 0-15 recorded as having a limiting long-term illness in the 2001 Census in Bradford was 3,657 (5.1%), of whom 4,267 were in good or fairly good health and 1,041 were in poor health^{xviii}. This figure necessarily includes children and young people with a medical condition without a disability and may exclude those disabled children and young people who are not perceived by their parents/carers or themselves as being ill.

Children's Disability Register:

A register of disabled children and young people in the area is maintained by the Disabled Children's Information Service, within the Children and Young People's Department (Localities - Early Years, Childcare and Play) of Bradford Council under the provisions of the Children's Act 1989, though as it is voluntary the number on it is therefore an under representation of the total. In April 2008, there were 1541 children and young people registered as disabled on the register. Three wards, Manningham, Toller and Bradford Moor had the largest number of disabled children and young people, making up 22% of the total. Boys were over represented, comprising two thirds of those on it, and the largest age group was that between 13-17 years. In terms of ethnicity 716 (47%) were English and 477 (31%) were Pakistani. Autistic Spectrum Disorder was the most common disability, making up 25% of the total.

Department of Work and Pensions data:

3,540 children and young people under the age of 18 years were in receipt of Disability Living Allowance in Bradford in November 2007^{xix}.

Children's Development Centre (CDC):

The CDC, based at St Luke's hospital, reports that there is also a significantly increased prevalence of thalasaemia and other haemoglobinopathies, bleeding disorders, neuromuscular conditions, serious skin disorders and structural brain abnormalities in Bradford, which can also be categorised as a disability even if they are not directly the cause of a physical impairment. Some conditions such as cerebral palsy and hearing impairment are increased in all sections of the community. In recent years increasing numbers of children and young people with autism have been seen.

Education Bradford:

In February 2008 there were 897 children and young people in Bradford District's Special Schools, and 5,456 children and young people in mainstream schools with a special educational need at "school action plus", for whom help has been requested from external services/agencies. A breakdown of those needs is in the table below:

Table 25

Special Educational Needs identified by 'School Action Plus' - Source: Education Bradford.

| Need | Number | % |
|---|-------------|------------|
| Physical Difficulty | 205 | 3.8 |
| Speech, Language or Communication Needs | 541 | 9.9 |
| Hearing Impairment | 132 | 2.4 |
| Visual Impairment | 87 | 1.6 |
| Specific learning Difficulty | 390 | 7.1 |
| Moderate Learning Difficulty | 2,167 | 39.7 |
| Severe learning Difficulty | 85 | 1.6 |
| Profound or Multiple Learning Difficulty | 19 | 0.3 |
| Autistic Spectrum Disorder | 126 | 2.3 |
| Behaviour, Emotional or Social Difficulty | 1,502 | 27.5 |
| Other | 202 | 3.7 |
| Total | 5456 | 100 |

Summary

- The total number of children and young people with limiting long term illness is estimated at 3,540 (as measured by children and young people in receipt of Disability Living Allowance) with mental health disorders - 1,000-1,500 (estimated by applying national prevalence data to Bradford population), registered as disabled- 1,541 (from Children's Disability Register), and with special educational needs- 6,353 (Education Bradford figures). These numbers will overlap but as no one single source of measuring prevalence of disability exists a combination of these measures must be used to estimate prevalence.
- There is a need to develop more consistent approaches across agencies to understand prevalence rates of disability and to provide support for future planning.
- Clinicians have identified that there are higher than expected rates of disability with complex health needs in the district.
- Inequalities exist with a higher prevalence of disabilities in children and young people from areas of socioeconomic deprivation and South Asian ethnic groups. There is therefore a need to ensure that parents and carers of disabled children and young people within the district are informed of sources of support and offered effective inter-agency interventions.

3.8. Hospital Admissions

Context

Hospital admissions for children and young people are rising nationally despite an overall reduction in serious morbidity and mortality for a number of reasons:

- Increased parental anxiety around episodes of ill health
- A lower threshold for admission and subsequent investigation on the part of the reviewing clinician, partly due to concerns over litigation
- Increased survival of children and young people with complex conditions e.g.
 - malignancies
 - Congenital abnormalities
 - premature infants

Emergency admissions are far more common for children and young people than planned admissions. Very young children make up the largest proportion of emergency admissions, and they are often admitted in the evening via the emergency department to a paediatric ward and discharged within the next one or two days. Most of these have minor illnesses, though a smaller proportion will have a more serious condition. Older children and young people tend to be admitted as a result of injuries or poisoning. Children and young people from more deprived socio-economic groups are more likely to use emergency departments as a source of health care^{xx}.

Elective admissions tend to be either for surgical procedures (especially ear, nose and throat surgery) or for longer term conditions. As a larger burden of ill health is borne by those from more deprived backgrounds, they are overrepresented among elective admissions. In the later teens, an increasing proportion of admissions will be for pregnancy related reasons.

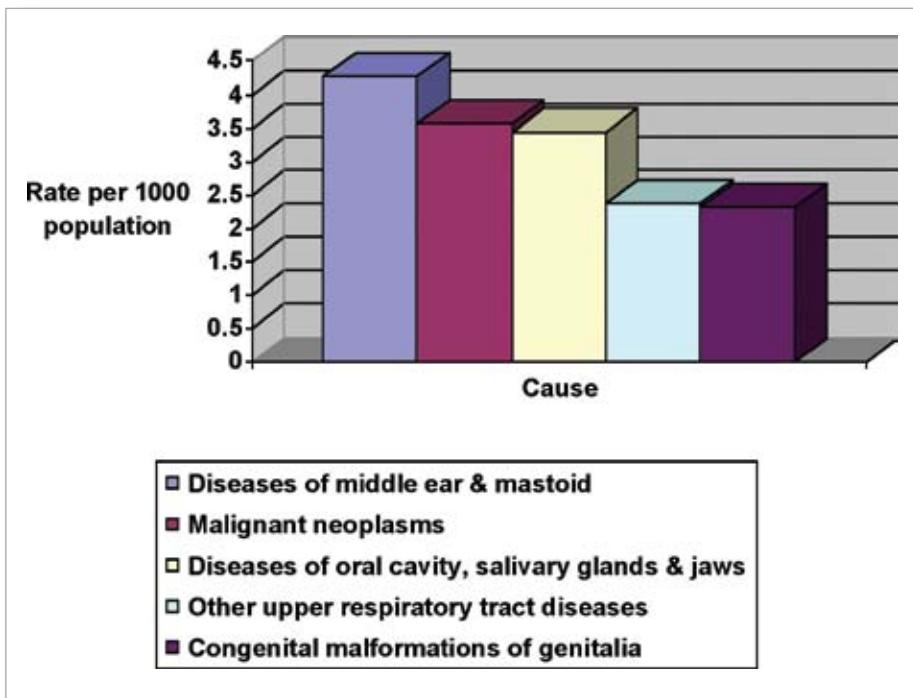
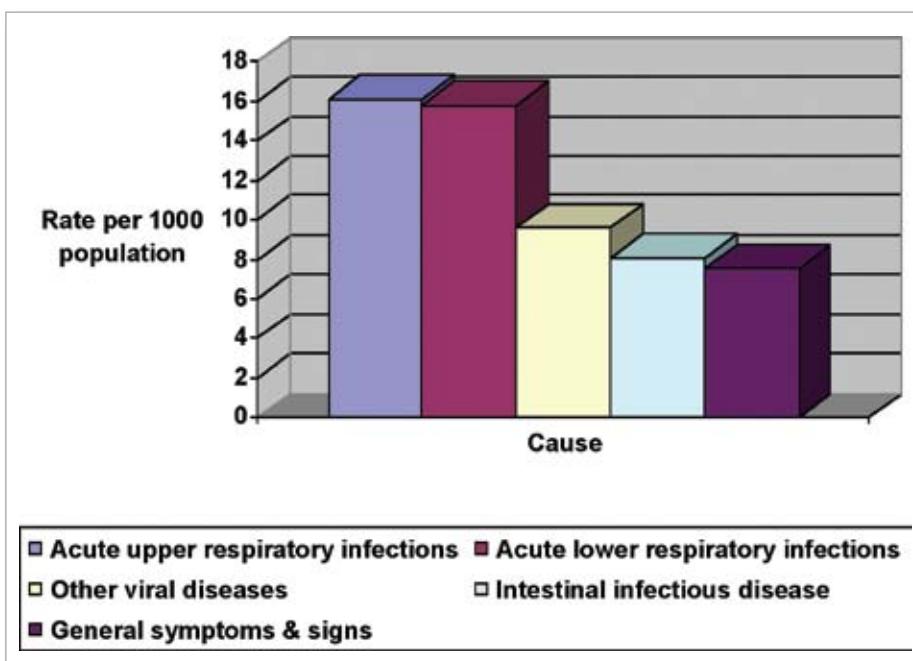
A number of these infections are preventable by immunisation, the most effective public health intervention in the world.

National and Local Targets

Hospital Admissions caused by unintended and deliberate injuries is a Vital Sign under the NHS Operating Framework.

Local Analysis

In Bradford as elsewhere acute respiratory infections are the most common cause of emergency hospital admission in very young children, followed by gastrointestinal and other viral infection. In older children and young people abdominal conditions are more common and poisoning is seen in teenagers. Tonsil, adenoid and dental operations are leading causes of elective admission in children and young people in Bradford, though management of haemolytic anaemias are another main reason. Termination of pregnancy is the leading cause of elective hospital admission in teenagers.



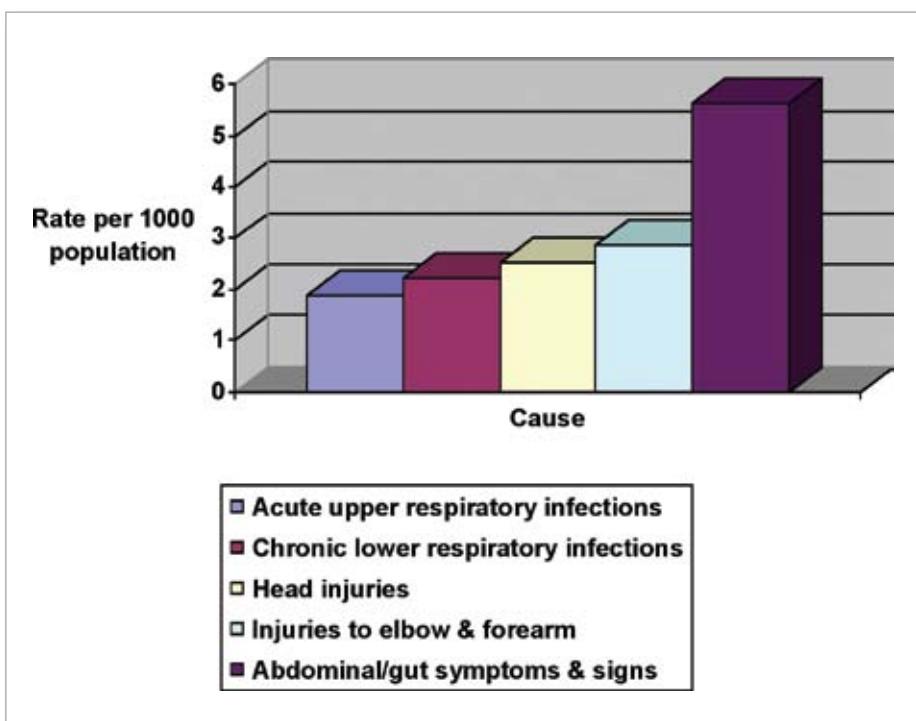


Figure 27
Leading Five Causes for Emergency Admission to Hospital for Individuals aged 5-14 years in Bradford 2007/08 - Source: Bradford & Airedale PCT.

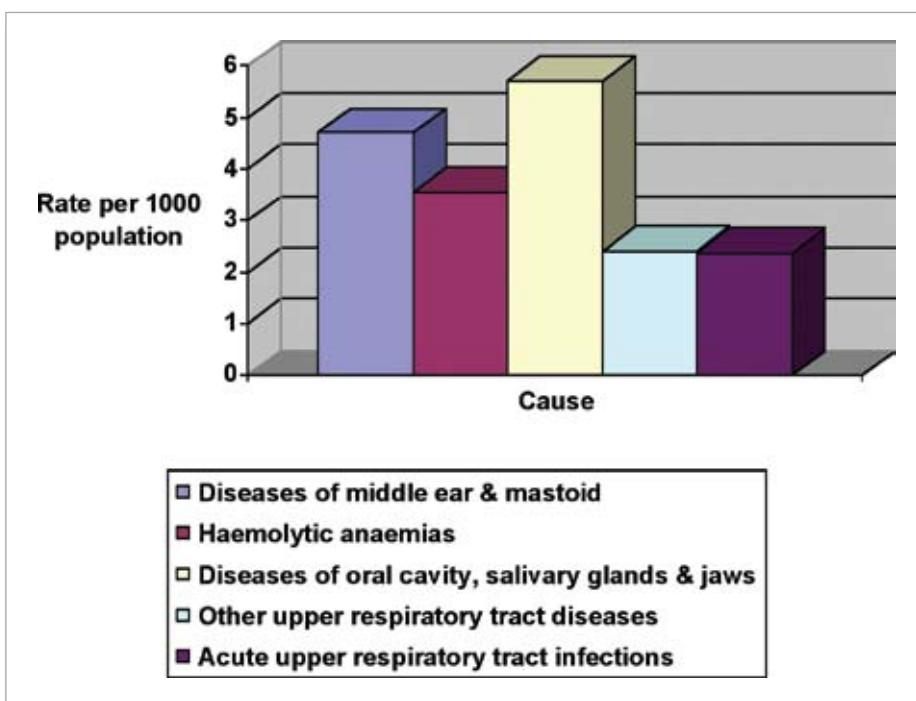
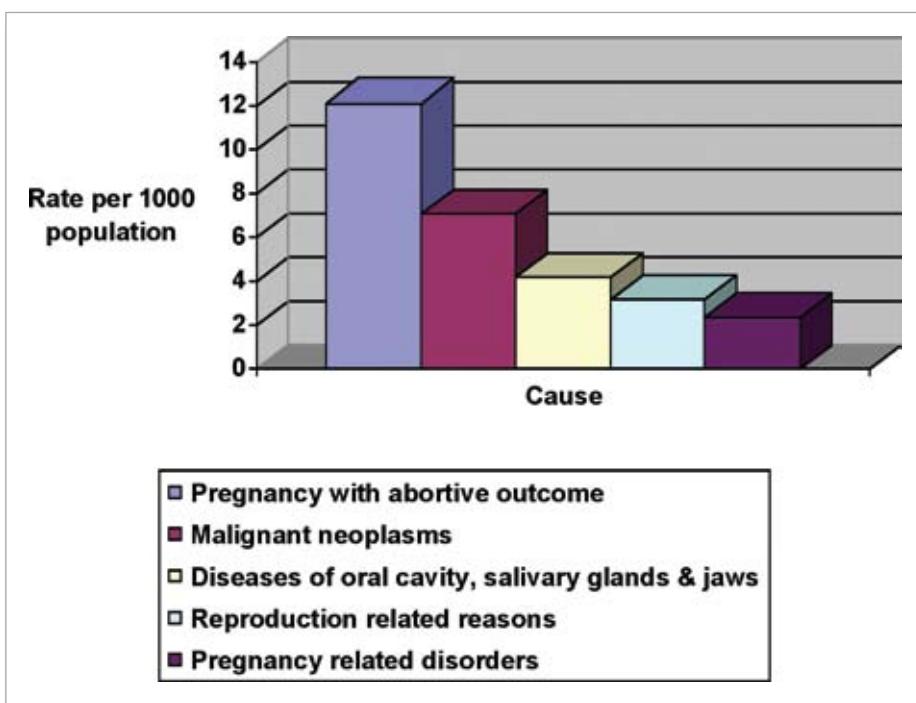
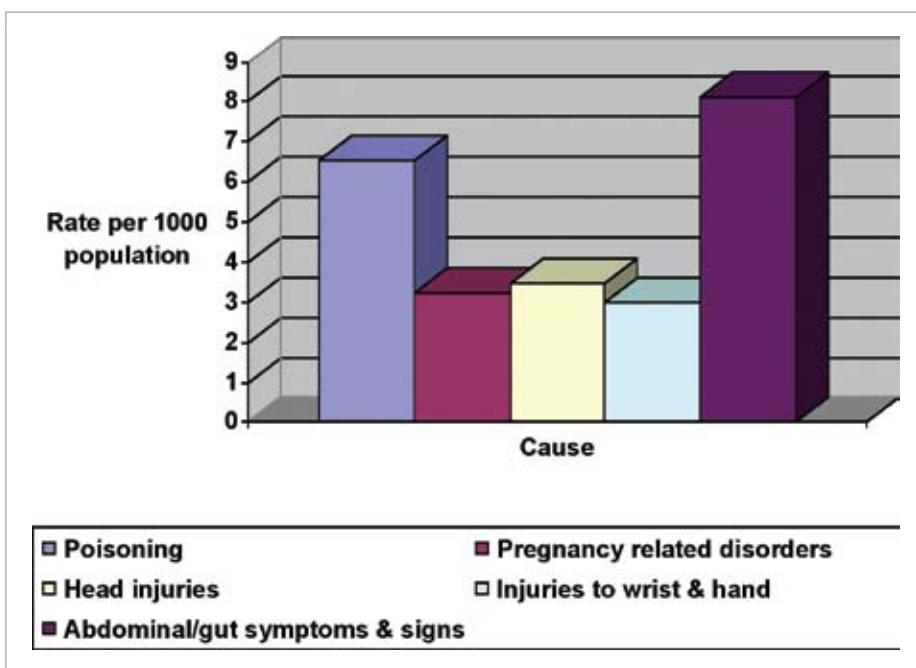


Figure 28
Leading Five Causes for Elective Admission to Hospital for Individuals aged 5-14 years in Bradford 2007/08 - Source: Bradford & Airedale PCT.



Admission rates are highest in the very young, largely due to high emergency admission rates. They are also higher in children from more deprived socioeconomic groups, as shown in the tables below:

Table 26

Elective and Emergency Elective and Emergency Admission Rates by Age Group in Bradford 2005-8 per 1000 - Source: Bradford & Airedale PCT.

| Age Group (years) | Elective Admission Rate | | | Emergency Admission Rate | | |
|--------------------------|--------------------------------|------------------|------------------|---------------------------------|------------------|------------------|
| | 2005 / 06 | 2006 / 07 | 2007 / 08 | 2005 / 06 | 2006 / 07 | 2007 / 08 |
| 0 - 4 | 48 | 45 | 51 | 137 | 136 | 129 |
| 5 - 14 | 41 | 42 | 41 | 43 | 47 | 43 |
| 15 - 19 | 52 | 56 | 70 | 62 | 63 | 65 |

Table 27

Admission Rates by Deprivation Quintile in Bradford 2005-8 per 1000 - Source: Bradford & Airedale PCT.

| Deprivation Quintile | Elective Admission Rate | | | Emergency Admission Rate | | |
|------------------------------------|--------------------------------|------------------|------------------|---------------------------------|------------------|------------------|
| | 2005 / 06 | 2006 / 07 | 2007 / 08 | 2005 / 06 | 2006 / 07 | 2007 / 08 |
| Quintile 1 (most deprived) | 53 | 54 | 62 | 79 | 85 | 79 |
| Quintile 2 | 49 | 48 | 50 | 85 | 81 | 78 |
| Quintile 3 | 42 | 42 | 46 | 63 | 67 | 67 |
| Quintile 4 | 38 | 42 | 44 | 59 | 65 | 58 |
| Quintile 5 (least deprived) | 37 | 34 | 39 | 55 | 57 | 59 |

Summary

- Acute respiratory infections are the most common cause of emergency hospital admission for very young children and young people in Bradford, followed by gastrointestinal and other viral infections.
- Tonsil, adenoid and dental operations are the leading causes for elective admission in children and young people in Bradford, with haemolytic anaemias and cancer being other main reasons.
- In teenagers termination of pregnancy is the leading cause of elective hospital admission in Bradford.
- Children and young people from more deprived backgrounds are more likely to admitted to hospital in Bradford district.

3.9. Accidents

Context

Unintentional injuries to children and young people are a leading cause of mortality and morbidity and present a significant burden to public services. More children and young people are admitted to hospital for this than for any other cause and child attendances at A & E cost the NHS £146 million per year. Accidents are also a cause of long term or permanent disability. Children and young people are particularly vulnerable to injury and children and young people from disadvantaged groups are disproportionately affected. Children and young people of parents in the UK who have never worked are 13 times more likely to die than those of parents who have professional occupations and 37 times more likely to die as a result of smoke, fire and flames.

National research suggests that the following risk factors increase the likelihood of unintentional injury:

- coming from a deprived background
- coming from an ethnic minority group
- being male and/or living in a single parent household.

Variations also exist regarding injury morbidity and mortality not just between socio-economic groups but also between ages, genders, ethnic groups and where the child lives^{xxi}.

Injury prevention is a very complex area, crossing a wide range of departmental and professional boundaries and as such it requires complex, multifaceted responses and a committed partnership approach. Whilst individual agencies are guided by relevant specialist treatments or interventions to reduce injuries to children and young people the greatest impact is made through joined up partnership working. Many different agencies have a key role to play in creating a safe environment for children and young people and the agencies working together to reduce unintentional injuries to children and young people including Local Authorities, Early Years and Childcare, NHS Acute Trusts, Primary Care Trusts, Traffic Engineering, Fire and Rescue Services, Police and Ambulance Services, Education and the Voluntary and Community Sector^{xxii}.

National and Local Targets

LAA Target: Reduce the number of children and young people killed or seriously injured in road traffic accidents by more than 50% by 2010 to no more than 32 children and young people.

Bradford Safeguarding Children Board Strategic Objective: At the end of the three year plan, to reduce the number of child casualties resulting from accidents within the home; in public spaces; and road traffic collisions.

Hospital admissions caused by unintended and deliberate injury is a Vital Sign under the NHS Operating Framework.

Local Analysis

A Child Accident Prevention Strategy for Bradford District, 2008-11, produced by Bradford Safeguarding Children Board is currently being published^{xxiii}. This provides a comprehensive coverage of accident prevention some of which is covered below.

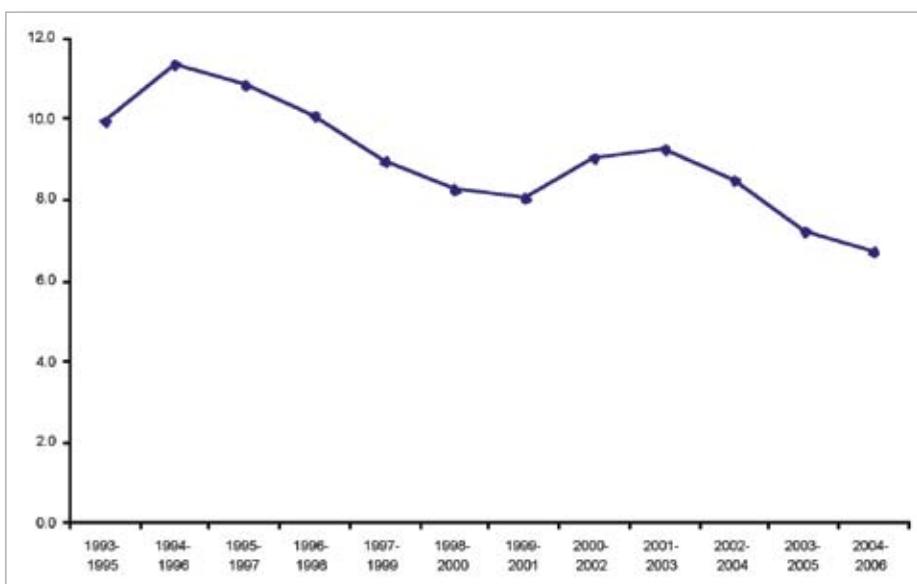


Figure 31
Deaths due to accidents in the Bradford District for 0-18 year olds (rolling three year time periods).
Source: Bradford and Airedale tPCT Intelligence and Analysis Team.

| | 1993 to 1995 | 1994 to 1996 | 1995 to 1997 | 1996 to 1998 | 1997 to 1999 | 1998 to 2000 | 1999 to 2001 | 2000 to 2002 | 2001 to 2003 | 2002 to 2004 | 2003 to 2005 | 2004 to 2006 |
|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| No. of deaths | 41 | 47 | 45 | 42 | 37 | 34 | 33 | 37 | 38 | 35 | 30 | 28 |
| Rate | 10 | 11 | 11 | 10 | 9 | 8 | 8 | 9 | 9 | 9 | 7 | 7 |

There appears to be a steady downward trend in the death rate between 1993-5 and 2004-6.

Injuries and External causes were the most common causes of death in Bradford children and young people between 2002-6 (see Section 3.4.3).

Bradford has an 80% higher death rate for accidents than the national average (Child Accident Prevention Trust, 2004^{xxiv}).

Hospital Admissions

The below tables demonstrate service usage due to accidents by alliance and by ward. Using rates per 1000 population, stratified by age, allows us to compare groups directly. The data includes all admissions for any length of time for accidents (external injuries, burns and poisoning).

Table 28

Admissions to Hospital for All Accidents by Age Group, Rate per 1000 population 2007/08.
Source: Bradford and Airedale tPCT Intelligence and Analysis Team.

| Alliance | Age Group | | | | |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|
| | 0 - 4 | 5 - 9 | 10 - 14 | 15 - 19 | 0 - 19 |
| Airedale Alliance | 22 | 15 | 16 | 25 | 20 |
| Independent | 10 | 9 | 13 | 15 | 12 |
| CityCare Alliance | 19 | 12 | 11 | 17 | 15 |
| South & West Alliance | 17 | 12 | 17 | 25 | 18 |
| Yorkshire Primary Care Alliance | 17 | 13 | 13 | 21 | 16 |
| Bradford Total | 18 | 13 | 14 | 21 | 17 |

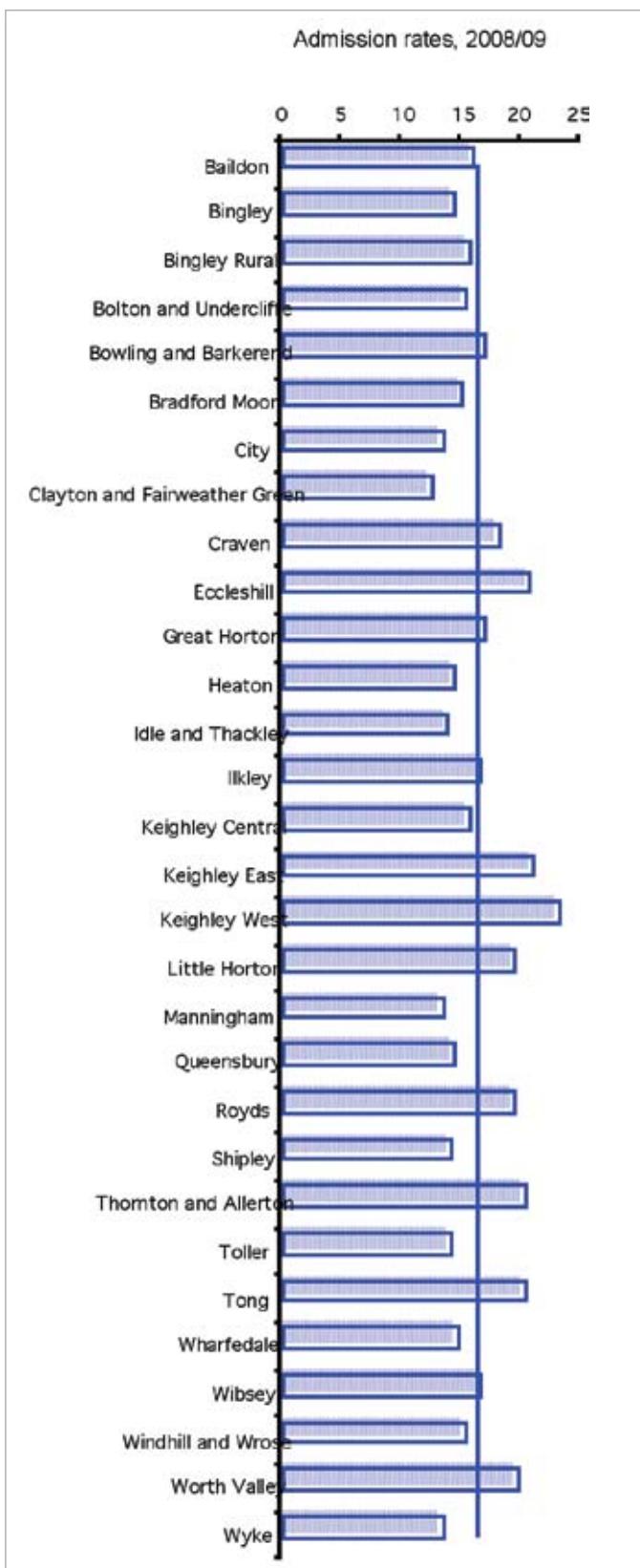
From the above data it appears that the alliance with the highest rate of accidents is Airedale and the Alliance with the lowest is CityCare. This does not fit with expected patterns demonstrated in the national literature, as Citycare covers an area with the highest overall deprivation. However, ward level data demonstrate that within Airedale Alliance, Keighley, which is highly deprived, has particularly high accidents admission rates which may skew the data. In addition the data only covers one year which may give rise to chance findings. Type of accident needs to be taken into account; higher admissions may be due to less serious injuries or a greater involvement in sporting activities leading to increased fractures. Further work is being done to monitor these trends over time.

Table 29

Admissions to Hospital for All Accidents by Ward, rate per 1000 population.

Source: Bradford and Airedale tPCT Intelligence and Analysis Team.

| Ward | 2004 to 2005 | 2005 to 2006 | 2006 to 2007 | 2007 to 2008 |
|-----------------------------|--------------------|--------------------|--------------------|--------------------|
| Baildon | 12 | 13 | 13 | 16 |
| Bingley | 15 | 10 | 16 | 15 |
| Bingley Rural | 13 | 13 | 12 | 16 |
| Bowling and Barkerend | 15 | 15 | 14 | 15 |
| Bolton and Undercliffe | 16 | 19 | 15 | 17 |
| Bradford Moor | 16 | 13 | 15 | 15 |
| City | 15 | 15 | 16 | 14 |
| Clayton and Fairwater Green | 13 | 17 | 14 | 13 |
| Craven | 10 | 15 | 12 | 18 |
| Eccleshill | 13 | 15 | 20 | 21 |
| Great Horton | 17 | 13 | 19 | 17 |
| Heaton | 20 | 14 | 16 | 15 |
| Idle and Thackley | 16 | 15 | 12 | 14 |
| Ilkley | 13 | 17 | 17 | 17 |
| Keighley Central | 9 | 16 | 17 | 16 |
| Keighley East | 17 | 15 | 16 | 21 |
| Keighley West | 18 | 18 | 18 | 23 |
| Little Horton | 17 | 15 | 16 | 19 |
| Manningham | 16 | 15 | 17 | 13 |
| Queensbury | 17 | 13 | 14 | 14 |
| Royds | 20 | 19 | 17 | 20 |
| Shipley | 17 | 11 | 22 | 14 |
| Thornton and Allerton | 15 | 18 | 18 | 21 |
| Toller | 16 | 15 | 14 | 14 |
| Tong | 18 | 20 | 21 | 21 |
| Wharfedale | 12 | 9 | 13 | 15 |
| Wibsey | 17 | 14 | 20 | 17 |
| Windhill and Wrose | 14 | 18 | 18 | 15 |
| Worth Valley | 12 | 12 | 15 | 20 |
| Wyke | 15 | 15 | 21 | 14 |
| Bradford | 15 | 15 | 16 | 17 |



The above data does not include A & E attendances, which may represent the major hospital service usage for accidents. The data for attendances at A&E is currently not coded accurately enough for it to be used as a measure of accidents as it also includes intentional injury and other causes of attendance such as infectious diseases. The above table does not show a strong association between deprivation and accident rates. The rate of accidents is similar between all wards.

Table 30

Serious accidental injury (more than three days) relating to hospital admissions 2004-2005 per 100,000 - Source: Yorkshire and Humber Public Health Observatory).

| | Bradford | Yorks and Humber | National Average |
|-----------------|----------|------------------|------------------|
| Under 4s | 112.3 | 94.2 | 88.4 |
| 5 - 14s | 94.6 | 84.0 | 76.9 |

When comparing admission figures nationally and regionally, Bradford is 20% higher than the national average for admissions to hospital due to serious injury for both the under four age group and the 5-14 age group (Public Health Observatory, 2006)^{xxv}. Bradford figures are also considerably higher than the regional average.

The following figure shows stays of more than three days by cause (in Saving Lives, Our Healthier Nation, the Department of Health defines serious injury as a length of stay greater than three days).

Table 31

Admissions to hospital with a length of stay greater than 3 days age 0-17, Bradford district (HIS tPCT data) for the years 2004-2007 - Source: Bradford and Airedale tPCT, Intelligence and Analysis Team).

| Total | Age Group | | | Total |
|-----------------------|------------------|---------------|----------------|--------------|
| | 0 - 5 | 6 - 15 | 16 - 17 | |
| Burns | 20 | 8 | <5 | 28 |
| Foreign Body | <5 | <5 | <5 | 5 |
| Fracture | 48 | 94 | 31 | 173 |
| Head Injuries | 20 | 30 | 16 | 66 |
| Other Injuries | <5 | <5 | <5 | 8 |
| Poisonings | <5 | 12 | 7 | 19 |
| Total | 93 | 150 | 56 | 299 |

From this data the three most common serious injury types in the Bradford district between 2004-7 are fractures, head injuries and burns.

When looking at the data in more detail for 2006/7. The following was observed:

- Transport accidents during 2006/2007 accounted for 9 % of injuries to children and young people who were admitted to hospital for a period of less than three days, 91% of these short stay admissions were due to other external causes of accidental injury.
- The most common type of accidents during 2006/2007 were; Falls (43%) exposure to inanimate mechanical forces (29%) (e.g. being struck or having contact with an object such as glass, knife or machinery), exposure to animate mechanical forces (10%) (e.g. collision with animal/person, being bit or struck by an animal or bumping into another person), pedal cyclist injured in transport accident (6%) and accidental poisoning by and exposure to noxious substances (5%).

- There were 100 child admissions to hospital which required a stay of three days or more (9%). 34% of these admissions were Transport related accidents compared to only 9% of admissions for less than 3 days. If a child is admitted to hospital for a period of three days or more, there is a one in three chance that it will be transport related.
- Falls account for 41% of hospital stays for three days or more, followed by Pedestrian injuries at 18%, Exposure to inanimate mechanical forces (11%), Exposure to animate mechanical forces (10%) and Pedal Cyclist Injuries (7%).

Road traffic data

Road injuries to children and young people fall into three bands 0 to 8 years, 9 to 16 years and 16 to 18. The majority of injuries to younger children and young people are as pedestrians and in the 0 to 8 years group close to home. From 9 to 16 years the road injuries occur in a more widespread pattern as young people develop greater independence, but again are mostly as pedestrians.

Between 16 and 18 young people become drivers, riders and passengers with their peers and are at risk because of the inexperience within this age group.

**Table 32
Child (0-18 years old) casualty in Bradford: 2007.**

| | Fatal | Serious | Slight |
|----------------------|-------|---------|--------|
| Number of collisions | 6 | 84 | 362 |
| Number of casualties | 7 | 90 | 719 |

Fire Statistics

In the Bradford district in 2007 there were 20 children and young people injured in dwelling fires.

Table 33

| Age Group | No. Injured | N. of Deaths |
|-----------|-------------|--------------|
| 0 - 5 | 8 | <5 |
| 6 - 14 | 8 | 0 |
| 15 - 18 | <5 | 0 |
| 0 - 18 | 20 | <5 |

The above data involved 14 incidents of which two households had no smoke alarm and of the twelve having a smoke alarm six alarms were not activated.

Inequality

From the data it has not been possible to demonstrate a relationship between deprivation and higher accident rates in Bradford district at ward or alliance level, despite the overwhelming national research that demonstrates this correlation. This may be due to the ward and alliance averaging affect which masks differences between small areas. However, a recent epidemiological study into accidental injuries in primary school children and young people (aged 4-12) in the Bradford District has been carried out by Hardy (as yet unpublished^{xxvi}). The study analysed all A & E attendances in 2004-2005 at BRI and Airedale General Hospital and observed the following:

- Children and young people from ethnic minorities are more likely to attend A &E following an accident as a vehicle occupant than white children and young people, no evidence was found that this is the case for pedestrian injuries.
- A greater proportion of children and young people living in deprived areas attend A & E following injury than those living in affluent areas.
- The home is the most common injury environment among 4-7 year olds and is significantly associated with residential economic deprivation.
- Children and young people residing in affluent areas are more likely to attend with a fracture than those living in deprived areas (links to sport related injuries).

There is strong anecdotal evidence from Health Visitors that there is an issue around provision of home safety equipment for families who are in difficult economic circumstances. Although some children and young people's centres currently provide equipment at costs price there is no district wide solution to this problem.

Summary

- Children and young people in Bradford district are 20% more likely to be admitted to hospital due to serious injury than the national average and 80% more likely to die. In addition injuries and external causes were the most common causes of death in Bradford children and young people between 2002-6.
- The majority of serious injuries are caused by falls or are transport related
- Local injury data specific to the Bradford district is inconsistent and incomplete, as is the case for many areas within the UK. One of the primary recommendations of the Accident Prevention strategy is to establish regular, reliable reporting of injuries and attendances at A and E. This would help to focus resources and to evidence effective interventions.
- Further data collection and analysis is needed to provide meaningful data for the Childhood Injury Prevention Network.

3.10. Oral Health

Context

Poor oral health is a disease of poverty. People experiencing social inequalities have more missing, filled and decayed teeth and access dental health services less^{xxvii}.

Dental and oral health problems seen in children and young people comprise:

- Decayed, missing or filled teeth (DMFT/dmft)*
- Gum disease
- Facial and dental injuries due to a variety of reasons such as playing contact sports, falls, binge drinking, violence, road traffic accidents and non-accidental injury.
- Dental crowding or displacement, correctable by orthodontic treatment

*The DMF index (DMF for adult teeth and dmf for milk teeth) is commonly used as a measure of dental health status within a population. It represents the number of decayed and untreated (DT, dt) teeth, missing due to extraction (MT, mt) and filled teeth (FT, ft) in an individual's mouth and the average value for a population. The lower the DMFT/dmft value the better the dental health of the individual or population.

Risk factors include:

- Poor diet with increased amount and particularly frequency of sugar consumption in either foods or drinks
- Poor infant feeding practices (bottles at night, sweet drinks in bottles)
- Poor oral hygiene
- Non-optimal fluoride use, at individual or community level

Poor oral health has a number of impacts^{xxvii} including:

- Pain, discomfort, sleepless nights and time off school
- Problems with communicating
- Low self-esteem and social confidence
- Difficulties enjoying a variety of foods

National and Local Targets

National surveys of children and young people's oral health have been undertaken ten yearly since 1973. The last survey in 2003 found:

- A continuing decline in disease in permanent teeth
- Cessation of the improvement in primary dentition seen from 1973 to 1983
- Inequalities with the likelihood of obvious decay in primary dentition being 50% higher in the lowest social group than the highest.

Regular NHS surveys of children and young people's oral health have been co-ordinated by the British Association for the Study of Community Dentistry, which have given detailed local information on the oral health status of five, twelve and fourteen year old children and young people since 1988.

The Oral Health Strategy for England (1994) set the National Target for dmft at 1 for five year olds for 2003. However the recorded mean value for those living in West Yorkshire Strategic Health Authority in 2004 was significantly greater and was the highest in England. The National Target for DMFT for twelve year olds for 2003 was also set at 1, though in 2001 the figure for Bradford was 1.34.

Access to primary dental services, based on assessments of local needs and the objective of ensuring year-on-year improvements in the number of patients being able to do so, is a vital sign under the NHS operating framework.

Local Analysis

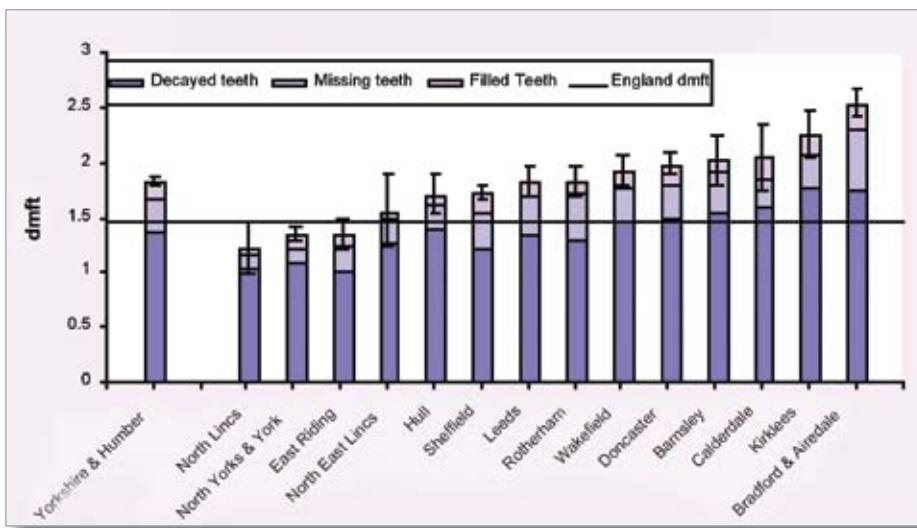


Figure 32
Breakdown of dmft in five year olds by PCT 2005-06 (Spearheads outlined in bold) -
Source: Dental Health of 5 year old children and young people in Y&H 2005/06; YHPHO Briefing July 2008.

- The mean dmft for five year olds in the tPCT area in 2006 was 2.62, the highest in the region and significantly higher than the England average
- A significant reduction in the dmft for the district from 2.81 in 2002 to 2.45 in 2004, with a non statistically significant rise in 2006, against a background of little change in the dmft of five year olds in England during the period 2002 to 2006
- Marked inequalities according to socio-economic status and ethnicity, with children and young people residing in the most deprived areas having more than twice as much dental disease in comparison with those from the least deprived (dmft 3.18 versus 1.13), and South Asian children and young people having significantly higher levels of disease than their white peers living in areas of similar socio-economic status.

How decay experience in five year olds compares across the wards within the PCT area is shown in the tables across the page:

Table 34

Dental Caries Experience of 5 year olds According to Electoral Wards in Bradford district 2006 -
Source: Shahid (2006).

| Ward | dmft |
|--------------------|------|
| City | 4.13 |
| Manningham | 3.79 |
| Clayton/F.W.G. | 3.55 |
| Keighley Central | 3.49 |
| Little Horton | 3.34 |
| Toller | 3.26 |
| Bradford Moor | 3.25 |
| Cleckheaton | 3.25 |
| Great Horton | 3.21 |
| Bowling/Barkerend | 3.21 |
| Heaton | 2.84 |
| Guiseley/Rawdon | 2.50 |
| Keighley West | 2.48 |
| Bolton/Undercliffe | 2.48 |
| Idle/Thackley | 2.47 |
| Keighley East | 2.45 |
| Royds | 2.45 |
| Tong | 2.38 |
| Thornton/Allerton | 2.33 |
| Queensbury | 2.26 |
| Wibsey | 2.14 |
| Windhill/Wrose | 1.77 |
| Wyke | 1.65 |
| Eccleshill | 1.67 |
| Bingley Rural | 1.66 |
| Bingley | 1.35 |
| Shipley | 1.19 |
| Baildon | 1.15 |
| Craven | 1.11 |
| Worth Valley | 0.97 |
| Ilkley | 0.49 |
| Wharfedale | 0.26 |
| Bradford | 2.62 |

 Significantly above the Bradford average.

 Significantly below the Bradford average

Twelve year olds:

- Bradford twelve year olds in 2001 had a mean DMFT of 1.34 compared to 1.14 in the rest of the former Yorkshire and Northern region
- No significant differences in the level of disease for twelve year olds were found in 2001 between wards within Bradford.
- Oral health improved significantly for twelve year olds between 1989 and 2001, though the proportion of decayed permanent teeth treated by either extraction or filling declined from 65% in 1989 to 43% in 2001.
- Surveys of twelve year olds in 1989 and 1993 both found that South Asian children and young people had significantly lower levels of dental caries than their white peers, though in 2001 this difference was found to be disappearing.
- Poorer oral health in twelve year olds with increasing levels of deprivation.

Fourteen year olds:

- The most recent survey in Bradford district demonstrated continued improvements in oral health, with the proportion of fourteen year olds with experience of dental disease in 2003 having fallen to 59% (mean DMFT 1.72) compared to 82% in 1987 (mean DMFT 3.77).
- In 2003 no difference was found in decay experience according to ethnicity unlike previously
- Substantial plaque deposits were found among 45% of fourteen year old South Asian children and young people in Bradford, compared with 26% of the white sample. Similarly, gingivitis was present among 45% and 31% respectively, and calculus among 46% and 29% respectively.

Vulnerable groups:

- A survey in 1997 found that dental caries levels in children and young people attending special schools were similar to those attending mainstream schools, but the former were more likely to have teeth extracted than filled.
- Access problems have been identified for looked after children and young people in the district, with the Local Dental Committee and dental practitioners have agreeing to prioritise this group for care and recently negotiated local dental contracts specifically considering provision for looked after children and young people.

Facial and dental injuries:

Local dental surveys have found that 5% of 12 year olds and 9% of 14 year olds in Bradford had suffered injury to their permanent teeth. According to the 2003 National Child Dental Health Survey (NCDHS) accidental damage to incisors is more common among boys than girls with the incidence declining nationally in both groups. However dental injuries have been documented as occurring more frequently in areas of deprivation (NCDHS 1994).

Orthodontic treatment:

It has been estimated that in a typical population one third of twelve year old children and young people would have a definite need for treatment (Holmes, 1992), which would equate to approximately 2,300 cases requiring treatment each year in Bradford. As this level of need is clinician defined demand may vary according to the perceived need of the population and access to care.

The 2003 local survey found that 33% of fourteen year old children and young people in Bradford were in 'great' or 'very great' need, compared to 19% nationally. Studies have shown that only 16% of Bradford fourteen year olds have received care and a strong social class gradient with regard to uptake of orthodontic care, with those from deprived communities least likely to access it.

Dental Services

General Dental Services:

The most significant primary providers of dental care in Bradford are General Dental Practitioners (GDPs). In Bradford there are 179 dentists working from 65 practices, of which 44 combine mainly NHS contracts with varied amounts of private care, 11 practices provide mainly private care but NHS care for children, young people and adults exempt from paying NHS dental charges, five practices provide mainly private care with NHS contracts for children and young people only, and five practices provide only private dental care. Their distribution throughout Bradford is shown below:

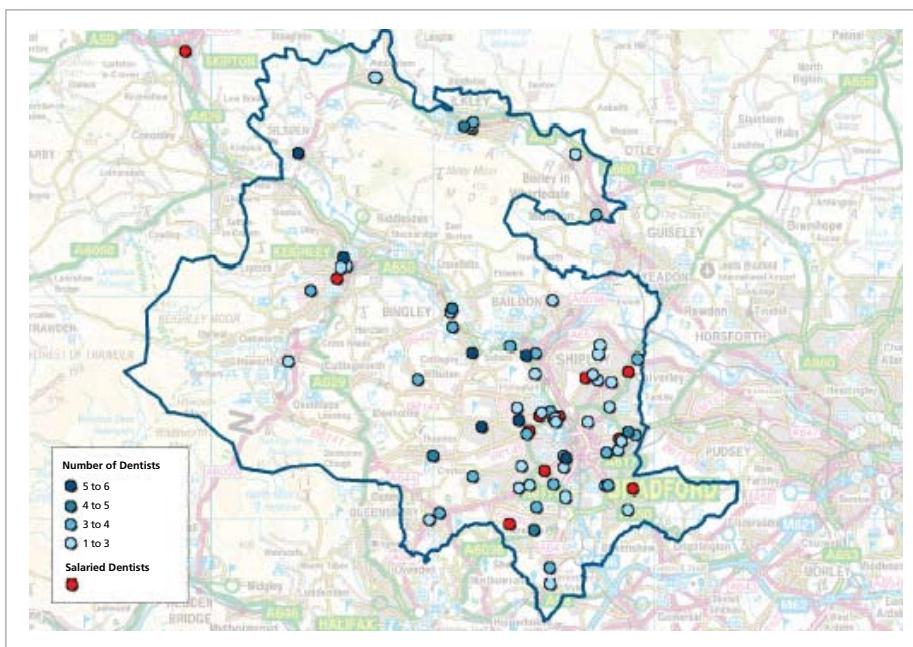


Figure 33
Distribution of Dental Practices in Bradford and Airedale by Practice Size in 2007
- Source: Bradford & Airedale PCT.

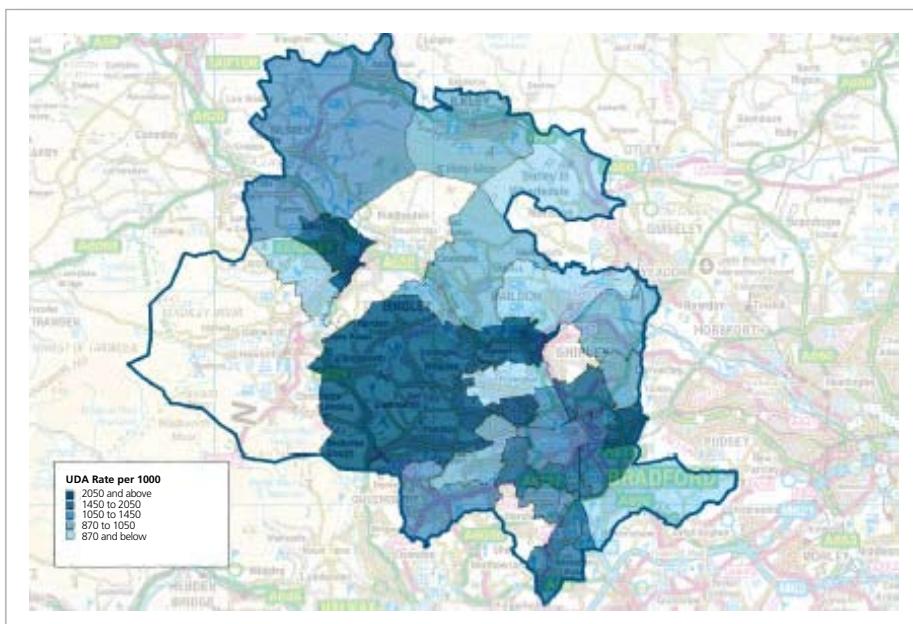


Figure 34
Distribution of NHS Dental Activity in Bradford and Airedale in 2007 Expressed as UDAs per 1,000 Population at Ward Level - Source: Bradford & Airedale PCT.

The map above illustrates the distribution of NHS dental activity at ward level throughout Bradford district in 2007. Historically there has been no control over the geographic location of NHS dental practices, however with the introduction of the new dental contract the PCT is now able to commission services appropriately located to serve local needs. GDPs currently receive payment by a system based on weighted course of treatment termed units of dental activity (UDAs), but in the past they did so by means of capitation and fee per item on a registered list of patients. As a result the majority of them currently maintain patient lists based on their previously registered list and have a limited capacity to take on additional patients.

Salaried Dental Services:

The salaried dental services provide a high quality cost effective dental service which is complementary and additional to that provided by the other primary care providers (GDS, nPDS, private practitioners) and the hospital dental service, and are made up of dentists employed directly by the PCT. The Bradford district salaried dental service employs approximately 21.56 wte dentists.

The role of the salaried services continues to be determined by local commissioning decisions, but there is now a greater flexibility with regard to their remit. They have an important part to play in delivering dental public health programmes, by providing dental care to patients with a disability who have a need for specialised dental care, providing specialised dental services (e.g. general anaesthesia in a hospital setting, sedation services, teaching and research) and providing general dental services. However the recent national shortage of dentists and the differential in the remuneration of dentists within the GDS and the salaried services has made retention of staff within the salaried services difficult.

Some idea of the proportion of children and young people with caries attending and receiving restorative care can be had from the following table of the care index for five year olds for each ward in Bradford district. The care index is the proportion of dental disease experience treated by restoration (ft/dmft%).

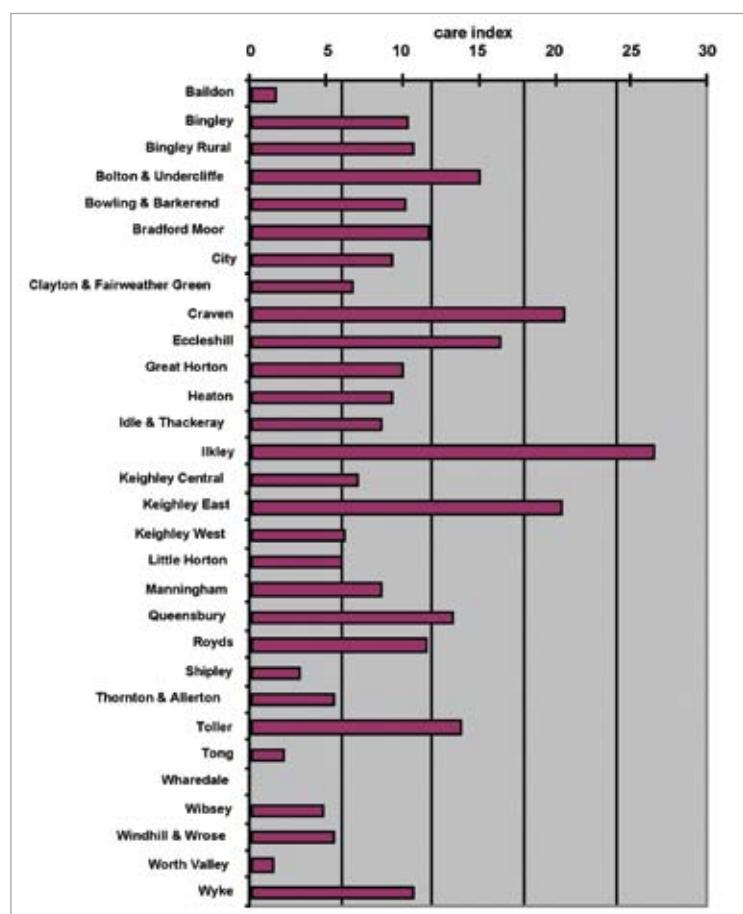


Figure 35
Proportion of dental disease experience treated by restoration in 5 year olds by ward - Source: Bradford and Airedale tPCT.

Strategies:

In February 2007, Bradford and Airedale tPCT Board approved two key strategies. The first, the Oral Health Strategy set out the specific actions and investments required to improve the oral health of Bradford and Airedale's population. The second, the Dental Commissioning Strategy, set out how, through local commissioning of dental services, the tPCT would secure better access to high quality dental services.

In order to inform this commissioning process the present NHS provision was related to the identified oral health needs of 5 year olds by plotting dmft against UDA rate according to ward. Subsequently £1.5 million has been invested in three new dental surgeries; the location of these new services has been driven by need, demonstrated in the oral health strategy

Overtime, these new services should provide routine care for approximately 20,000 patients. The innovative specification for these services has been developed especially to ensure an emphasis on quality and oral health improvement. Including links with population based oral health improvement programmes, and the development of evidence based oral health improvement care pathways.

Summary

- Poor oral health has a number of wider negative impacts on children and young people including poor school attendance, low self esteem and inability to eat a range of foods.
- Bradford has higher levels of dental disease in children and young people compared to other areas in the region and the worst levels in five year olds regionally, though there has been some improvement in recent years.
- There are marked inequalities in oral health according to socio-economic status and ethnicity, especially in younger children.
- There are access problems for dental and orthodontic care, which are greater for children and young people residing in more deprived areas and those coming from vulnerable groups.
- There are inequalities in provision of dental services between wards within Bradford.

4. Determinants of Health

4.1.1. Obesity

Children and young people, healthy growth and healthy weight

Our vision for the future is one where every child grows up with a healthy weight, through eating a balanced diet and enjoying being active. In early years, this means as many mothers breastfeeding as possible, with families knowledgeable and confident about healthy weaning and feeding of their young children and young people.

As children and young people grow, parents will have the knowledge and confidence to ensure that their children and young people eat healthily and are active and fit. All schools will be healthy schools, and parents who need extra help will be supported through children's centres, health services and their local communities.

Context

- Obesity is a major public health issue due its damaging effect on general health and life expectancy, and the significant financial costs imposed on the NHS.
- After smoking, obesity it is the second most important preventable cause of cancer.
- Between 1995 and 2005 the national prevalence of obesity amongst children and young people aged two to ten years rose from 9.6% to 16.6% in boys and 10.3% to 16.7% in girls. During the same period the proportion of obese adults over 16 years rose to 24% from 16%. If current trends continue it is estimated that one fifth of all boys, one third of girls, and one third of adults will be obese by 2020.
- The National Child Measurement Programme (NCMP) has required PCTs to record height and weight in reception children (aged 4-5years) and those in Year 6 (aged 10-11years) since 2005. This provides reliable, consistent data, which will allow accurate measures of prevalence, comparisons from year to year and analysis of trends to be made.

Reducing Childhood Obesity

Reducing childhood obesity requires a multi-faceted approach (see Figure 36).

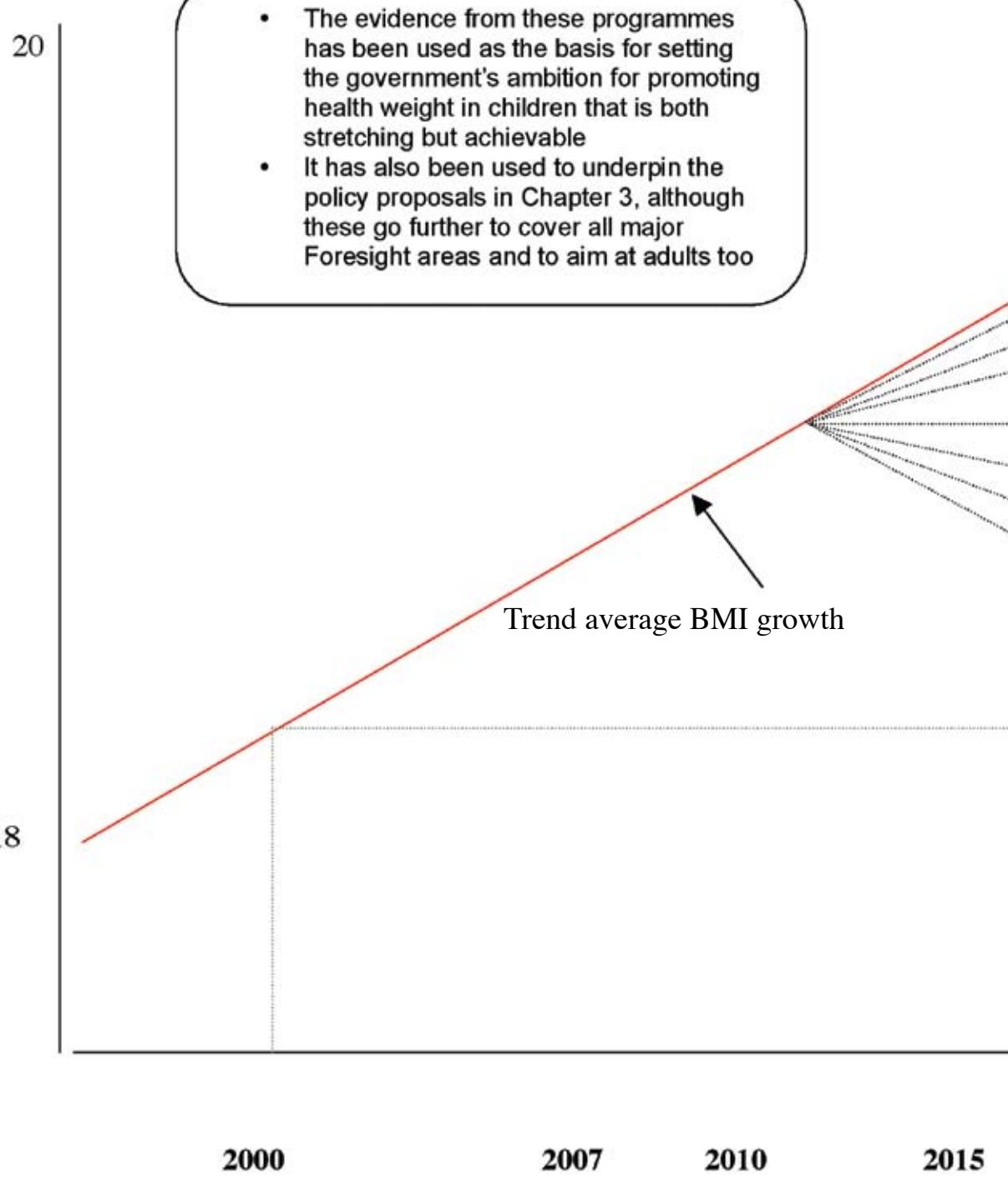


Figure 36
Illustrative chart of potential reduction in average BMI in children and young people from implementing best practice programmes
- indicative trajectory
- Source: Department of Health analysis.

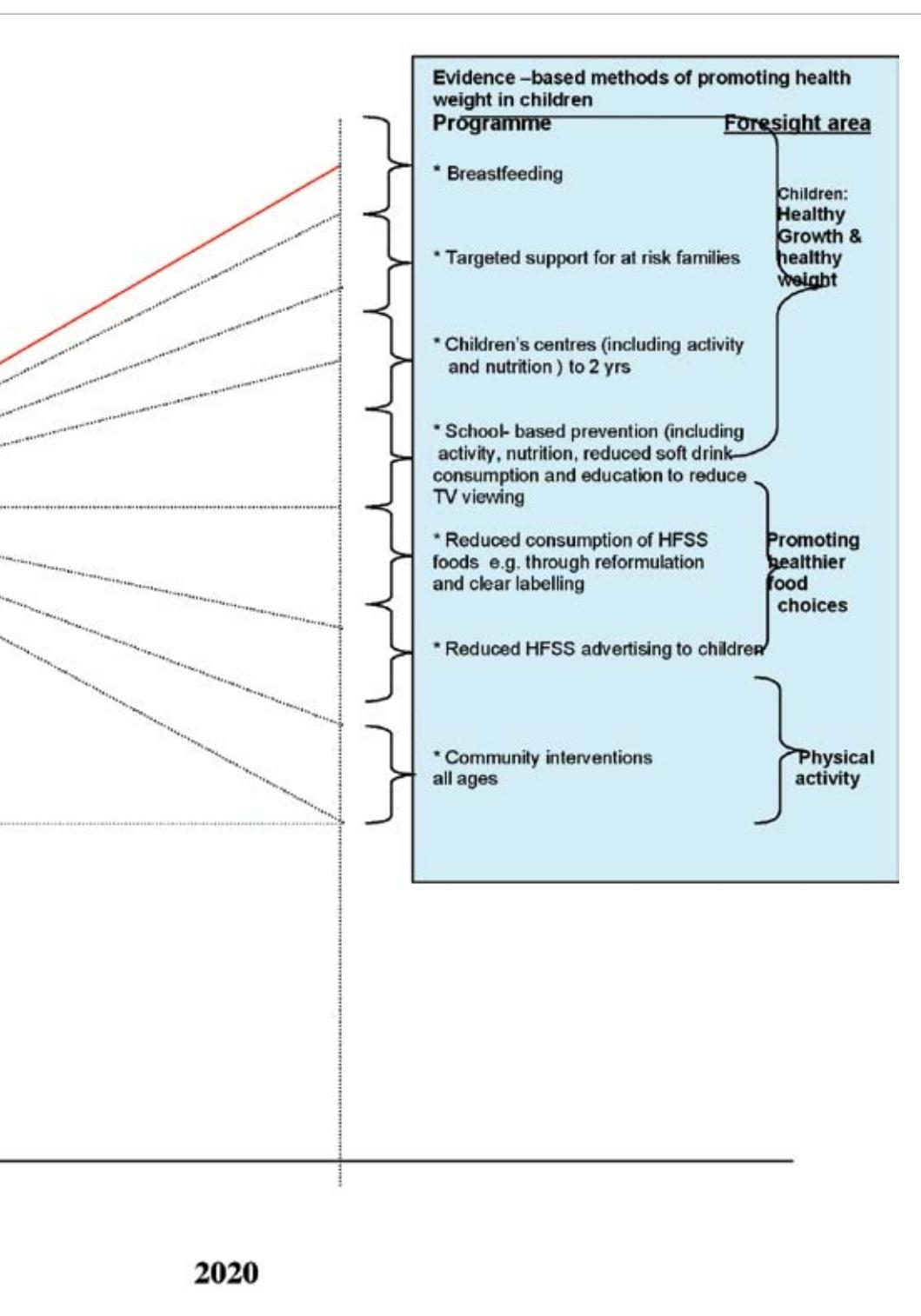


Table 35
Big Wins for Obesity.

| Programmes | Interventions |
|--|--|
| Healthy Schools | <ul style="list-style-type: none"> A qualified school nurse, working with every cluster or group of primary schools and the related secondary school, identifying and helping children and young people at risk Implement revised school meal standards All eligible schools and nurseries taking part in the school fruit & vegetable scheme Promotion of a whole school approach |
| Children and young people's Travel | <ul style="list-style-type: none"> Travelling to school initiative Cycle training Action to promote cycling and walking to school |
| School Sport | <ul style="list-style-type: none"> PE School Sport Club links, including specialist Sport Colleges and School sport Partnership |
| Early Years Interventions | <ul style="list-style-type: none"> Promotion of breastfeeding Promotion of healthy lifestyles through Sure Start Raising awareness of schools, teachers and parents of the health risks of obesity |
| Obesity care Pathway and Support Services | <ul style="list-style-type: none"> Establishment of obesity care pathways, including practical advice and support to promote healthy lifestyles |
| Physical Activity | <ul style="list-style-type: none"> Bringing public, private and voluntary sector together to promote physical activity through work, sport and transport; working with regional bodies such as Sport England; community level interventions to promote physical activity, sport and cycling Practical advice and support from health trainers on activity and diet |
| 5 a day | <ul style="list-style-type: none"> More community initiatives to promote fruit and vegetable consumption, targeting disadvantaged areas |
| Parks and Spaces to be Active | <ul style="list-style-type: none"> Promoting greater use and improving access to playing fields; parks and the countryside |

A range of other opportunities have been identified to address obesity, for example, Children's Centres and Children's Trusts.

Choosing Health also has a number of commitments. These are:

- To develop a comprehensive care pathway for obesity
- By the end of 2004, all four to six years old children in LEA-maintained infant, primary and special schools will be eligible for a free piece of fruit and vegetable every school day.
- By 2010, all schools in England should have active travel plans.
- To encourage health professionals across PCTs to use pedometers in clinical practice, with coverage of all areas by the end of 2006.

National and local targets

National:

- PSA target halting year-on-year rise of obesity in children under the age of 11 years.
- To reduce the proportion of obese and overweight children and young people to 2000 levels by 2020 (Children's Plan)
- The Choosing Health White Paper sets out a comprehensive plan of action on physical activity, diet, personalised support, information and curbs on marketing
- The publication of Healthy Weight, Healthy Lives updates the measures needed to address what the government describes as an epidemic.
- Reducing obesity amongst primary school children and young people is a Vital Sign in the NHS Operating Framework.

Local:

- The Big Plan - over nutrition is one of the six priorities in the health and wellbeing section and 'to eat healthily and not to become obese' is one of its key aims.
- Obesity is a priority in the Commissioning for Health strategy for the tPCT
- The Children and Young People's Plan sees tackling obesity as an important way to achieve its 'Be Healthy' priority.

Local Analysis

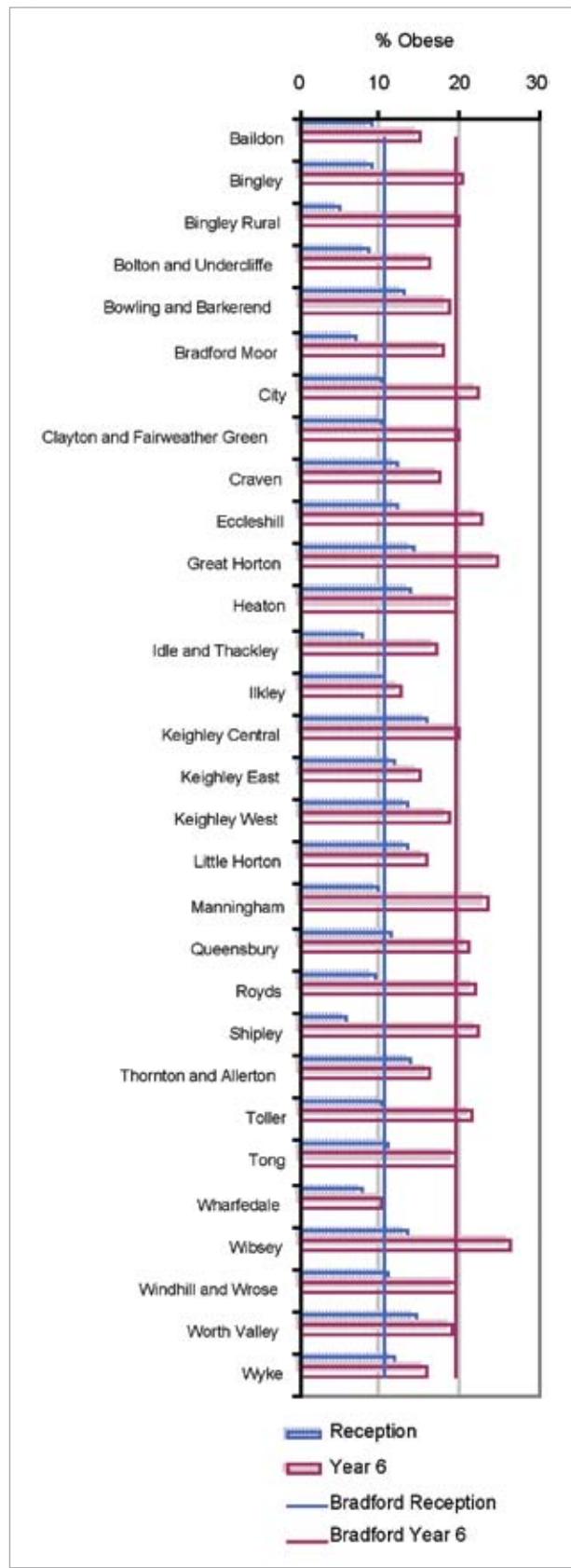


Figure 37
% of Obese Children and young people by Ward (from NCMP data)
- Source: Bradford and Airedale tPCT, Intelligence and Analysis Team.

Table 36

Child Obesity Figures for Bradford for the School Year 2006/7

- Source: NCMP, 2008.

| | Under weight | Normal weight | Overweight | Obese | % Measured |
|-----------|--------------|---------------|------------|-------|------------|
| Reception | 1.8% | 74.9% | 12.6% | 10.7% | 85% |
| Year 6 | 2.5% | 64.5% | 13.6% | 19.5% | 81% |

Table 37

Child Obesity Figures for Bradford for the School Year 2007/8

- Source: NCMP, 2008.

| | Under weight | Normal weight | Overweight | Obese | % Measured |
|-----------|--------------|---------------|------------|-------|------------|
| Reception | 1.9% | 75.3% | 12.2% | 10.6% | 89% |
| Year 6 | 2% | 63.2% | 13.8% | 20.9% | 87% |

Table 38

Comparing Bradford's results regionally and nationally (2007/8)

- Source: NCMP.

| | Bradford | | Yorkshire and the Humber | | England and Wales | |
|-----------|--------------|---------|--------------------------|---------|-------------------|---------|
| | % Overweight | % Obese | % Overweight | % Obese | % Overweight | % Obese |
| Reception | 12.2 | 10.6 | 13 | 9.8 | 13 | 9.6 |
| Year 6 | 13.8 | 20.9 | 14.2 | 18.9 | 14.3 | 18.3 |

Bradford district achieved very good coverage in 2007/8, 89% of Reception pupils and 87% of Year Six pupils were measured. This was in line with national coverage.

The number of overweight and obese pupils have remained stable over the two years of measurements. Future years' data will enable trends to be explored.

When comparing 2007/8 figures, Bradford children and young people had 1% higher overall rates of obesity at Reception than Yorkshire and Humber and England as a whole and 2% higher at Year Six.

Summary

- In 2007/8 one in five children in Year Six were obese and a third were overweight or obese.
- Childhood obesity is increasing and has potential adverse consequences in childhood and adult life both physically and psychologically.

- Figures for obesity and overweight in Bradford are similar to national levels.
- There are substantial differences in childhood obesity levels between Bradford ward areas but further data about local take up of the NCMP are required to fully interpret these differences.
- There is now national evidence of the effective measures needed to address childhood obesity.
- Bradford needs to develop a systematic, evidence based approach across its partnerships to reduce childhood overweight and obesity.

4.1.2. Food and Nutrition

Context

- A balanced diet containing the correct nutrients is essential for children and young people and young people in order for them to grow and develop properly. In addition nutrition can have a protective effect against childhood infections and reduce the risk factors associated with ill health and premature death.
- Achieving a healthy diet in childhood is particularly important because this establishes dietary behaviour and tastes that will continue into adulthood.
- A poor diet can lead to over-nutrition (obesity) and under-nutrition (failure to thrive, underweight and vitamin and mineral deficiencies)
- Eating five or more portions of fruit and vegetables a day has an impact on obesity, cancers and other disease such as heart disease. In the last five years there is evidence nationally that the proportion of adults and children and young people consuming five or more portions of fruit and vegetables a day is increasing. In 2006, 28% of men and 32% of women consumed five or more portions of fruit and vegetables.
- In order to reduce levels of obesity policies are required at national and local level that impact on diet and physical activity.
- The tPCT has a Vitamin D Policy for Mothers and children under five years of age with free vitamins for all children under two years old.
- The Healthy Start programme, which replaced the Welfare Food Scheme, provides free vouchers for low income families with children under five , which can be swapped for milk, fresh fruit, fresh vegetables and infant formula milk. Free vitamins are also available.

National and Local Targets

The tPCT Commissioning Strategy 'Achieving the Best Health for All' and the Sustainable Communities Strategy aim to address both under and over nutrition of children and young people.

Bradford Breastfeeding Targets (see Breastfeeding Section)

Obesity Targets (see Obesity section).

Local Analysis

There is very little data available on diet and nutrition. The Bradford District Children's Lifestyle Survey is currently being planned and will enable considerably more information to be gathered. Data used as a proxy for measuring a balanced diet and adequate nutrition include underweight, overweight and obesity figures (see section 4.1.1) and % of Decayed, Missing and Filled Teeth (see section 3.10).

5 A Day Intake

- It is estimated that within Yorkshire and the Humber 13.44 % of boys aged 5-15 years and 8.45% of girls aged 5-15 years eat five or more portions of fruit and vegetables a day (2003-5)^{xxviii}.
- The Bradford City Lifestyle Survey (2005) estimated that Bradford residents of all ages consumed a considerably higher amount at 31% eating five or more a day. This proportion was broadly comparable across ethnic groups (white and Pakistani) and for all ages but didn't specifically look at children and young people's intake.

Under nutrition

- 40% of four year olds in Bradford inner city localities have been diagnosed with iron-deficiency anaemia
- 363 children and young people were identified as Vitamin D deficient between 2000 and 2004.
- The Airedale PCT survey also revealed that 18% of 11-12 year olds and 29% of 14-15 year olds do not eat breakfast regularly.

Summary

- More data are needed to give a more comprehensive picture of the food consumption and nutritional needs of children and young people in the Bradford District. The Children and Young People's lifestyle survey planned for 2009 should provide more detailed information.
- The limited information available suggests that under nutrition and over nutrition are a significant problem in the Bradford District.

4.1.3. Physical Activity

Context

Lack of physical activity is a significant public health problem as it is related to increased levels of chronic disease and overweight and obesity. In addition, physical activity is fundamental for healthy growth and development.

Uptake of physical activity varies by gender, age and ethnic background. Boys are more likely to achieve the recommended level of activity than girls (70% compared with 61%). This difference increases with age so that by age 15, 50% of girls do 60 minutes of physical activity, seven days a week compared to 69% of boys^{xxix}. Chinese and Indian boys are more likely to walk rather than partake in active play. Black Caribbean boys are more likely to participate in sport or organised exercise than Pakistani boys^{xxx}.

Despite the proven need for physical activity, levels are falling nationally. In 1992/3 61% of 5-10 year olds walked to school. This fell to 52% in 2002/3. Among children and young people aged 11-16, 40% walked to school in 2002/3 compared to 44% in 1992/3. The number of 5 year olds cycling to school is negligible and only 2% of 11-16 year olds cycled to school in 2002/3 compared to 4% a decade earlier^{xxxi}.

The Schools Sports Survey 2007 provides an indication of national inequalities in sport provision. Schools where more pupils take part in two hours or more physical activity a week tend to have a smaller proportion of pupils who are eligible for free school meals, be in more affluent areas and have a lower proportion of children and young people from an ethnic minority groups than is the case in lower performing schools. In addition low income is associated with lower activity levels.

National and local targets

- Current national guidelines recommend that children and young people should do at least 60 minutes of physical activity a day (At least 5 a week: evidence on the impact of physical activity and its relationship to health, Department of Health, 2004)
- LAA Target: Children and young people's participation in high-quality PE and sport

Local Analysis

81% of children and young people aged 5-16 years achieved the target of participating in two hours of high quality physical education and school sport in academic year 2006-7. This compares to 86% across England and Wales. This is considered to be significantly worse than the national average (Source: APHO and Department of Health. Crown Copyright 2008).

Summary

More data are needed to build an accurate picture of how much physical activity children and young people in the Bradford District are undertaking. As Bradford District has a number of risk factors for children and young people doing low levels of physical activity it is expected that the level of physical activity will be below the national average. The Children and Young People's lifestyle survey planned for 2009 should provide more detailed information.

4.1.4. Breastfeeding

Context

Breastfeeding is considered, on evidence, to be one of the most important protective activities a mother can undertake to increase her baby's chance of survival and to reduce infections.

Babies who are not breastfed are more likely to:

- develop a number of conditions including gastrointestinal, respiratory and urinary tract infections
- be hospitalised as the result of infection
- have a higher prevalence of high blood pressure, high cholesterol, obesity and type-2 diabetes.

In addition, mothers who have not breastfed are:

- at greater risk of some cancers in later life, particularly breast cancer and ovarian cancer.
- less likely to return to their pre-pregnancy weight.

The World Health Organisation recommends that babies are exclusively breastfed for six months. In light of this the Department of Health (2003) made the following recommendations:

- Breast milk is the best form of nutrition for infants
- Exclusive breastfeeding for the first six months of an infant's life should be recommended
- Six months is the recommended age for the introduction of solids for infants
- Breastfeeding (and/or infant formula, if used) should continue beyond the first six months, along with appropriate types and amounts of solid foods.

There are a number of factors which influence whether a woman will breastfeed or not. These include individual, social and cultural attitudes and norms. Women who are less likely to breastfeed are from manual social class groups, left education aged 16 years or under, and are younger at birth of first child. The UK Breastfeeding Survey (Bolling et al, 2007) showed that 65% of women from managerial and professional occupations were breast feeding at six weeks compared to 32% of those from routine and manual groups^{xxxii}. Decisions to breastfeed are often made long before a woman becomes pregnant^{xxxiii}.

The UK Breastfeeding Survey (Bolling et al, 2007^{xxxiv}) estimated that;

**Table 39
Estimate of national breastfeeding prevalence.**

| | At birth | At six weeks | At six months |
|------------------------------|----------|--------------|---------------|
| Partially Breastfed | 78% | 50% | 26% |
| Exclusively breastfed | 45% | 21% | Negligible |

However, the majority of women would like to breastfeed longer but didn't feel they had the right support. The Healthcare Commission who also measure breastfeeding prevalence in England have estimated it at 69.6% at birth for 2006/7.

National and Local Targets

Breastfeeding links in to a number of national and local targets on general nutrition, health inequalities and infant mortality.

NHS Priorities and Planning Framework 2003-6 and National Standards, Local Action Health and Social Care Standards and Planning Framework 2005-6/ 2007-8 identifies the increase of breastfeeding initiation and duration rates as key interventions for improving infant mortality rates and reducing inequalities in health outcomes. It sets the following targets: 'Deliver and increase of 2 percentage points per year in breastfeeding initiation rate, focussing especially on women from disadvantaged groups.'

'A Breastfeeding Strategy for the Bradford District 2006-2010' has a number of objectives for Bradford.

Child Health and Wellbeing PSA Targets - prevalence of breastfeeding at 6-8 weeks.

Percentage of infants breastfed at 6-8 weeks is a Vital Sign under the NHS Operating Framework. This target has been set at 42%.

**Table 40
Local Analysis of Breastfeeding Prevalence at Birth -
Source: Performance data, Bradford and Airedale tPT.**

| | Total Maternities | Breastfed | % Breastfed | Not Breastfed | % | % Coverage |
|------------------------|-------------------|-----------|-------------|---------------|-----|------------|
| 06/07 | 8,011 | 5,161 | 64% | 2,754 | 34% | 99% |
| 07/08 | 8,410 | 5,292 | 63% | 2,792 | 33% | 96% |
| 08/09 (Q1 only) | 2,053 | 1,297 | 63% | 654 | 32% | 95% |

Table 41

Prevalence of Breastfeeding at 6- 8 week check -

Source: Performance data, Bradford and Airedale tPT.

| | Total no. of infants recorded at 6-8 week check | Exclusively breastfed | % exclusively Breastfed | Partially breastfed | % any form of breastfeeding | % Coverage |
|-----------------|---|-----------------------|-------------------------|---------------------|-----------------------------|------------|
| 06/07 | 7,423 | 2,765 | 37% | 1,263 | 54% | 90% |
| 07/08 | 7,538 | 2,693 | 36% | 1,328 | 53% | 92% |
| 08/09 (Q1 only) | 1,943 | 548 | 28% | 370 | 47% | 90% |

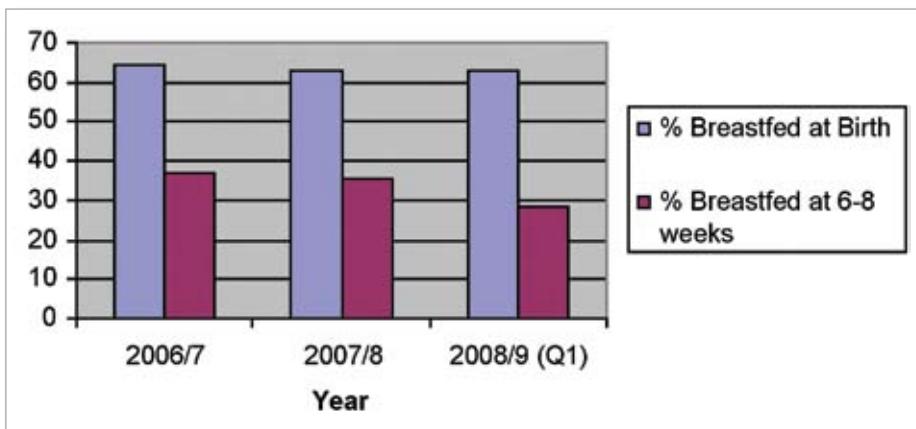


Figure 38
% of Babies Breastfed in Bradford District -
Source: Performance Data, Bradford and Airedale tPCT.

When comparing Bradford District with national survey data, breastfeeding prevalence is lower at initiation (78% vs 63%) but slightly higher at 6-8 weeks (50% vs 54%). However, any comparison of this kind should be treated with caution as it is comparing a national estimate at one point in time with actual figures collected over a period of a year. According to Healthcare Commission data Bradford District has a lower, but not significantly so, breastfeeding prevalence at birth. Historically in Bradford District data collection on breastfeeding has been of variable quality, which is likely to overestimate breastfeeding prevalence, now robust contracts have been introduced to ensure consistent quality breastfeeding prevalence may drop due to how data is collected rather than any real difference in rates. This may explain the % drop in breastfeeding rates on the above table. Bradford District has committed to achieving a 42% 6-8 week breastfeeding rate, which on the above figures for 08/09 Quarter One, would require an increase in breastfeeding prevalence.

Data coverage is high for breastfeeding initiation but lower for the six to eight week check. This may seriously bias the data as it is likely that the 10% of mothers who do not attend their check also have risk factors for not breastfeeding.

Summary

- Bradford district has considerably improved the robustness of its data collection and quality and this may have an impact on breastfeeding prevalence.
- Bradford district needs to increase breastfeeding initiation and improve continuation rates.

4.1.5. Maternal Smoking

Context

Maternal smoking has a number of negative effects on a child's health. It is documented that women who smoke are three times more likely to have a low birth weight baby and babies born to mothers who smoke during pregnancy are more likely to die during the first four weeks of life (BMA 2004^{xxxv}). Smoking in the home following childbirth has been linked to increased illness and cot death and evidence suggests that the children of smokers are far more likely to begin smoking themselves^{xxxvi}.

It has been found that routine and manual groups are the only group where prevalence of smoking during pregnancy has increased over the last 5 years (Infant Mortality Feeding Surveys 2000 and 2005^{xxxvii}). Younger mothers are more likely to smoke and these risk factors are further compounded if the mother is a single parent and still in their teenage years.

In 2005, 33% of women smoked before becoming pregnant and 17% continued to do so throughout the pregnancy (BMJ, 2007). However, this data should be viewed with caution as it is likely to be an underestimate due to under reporting (the data are collected by interviewing pregnant women and they may deny smoking due to the stigma associated with smoking in pregnancy).

Nearly all smoking cessation occurs before pregnancy or in the very early days, with little occurring after the first antenatal contacts with healthcare professionals. More than nine out of 10 women who stop smoking in pregnancy start smoking again afterwards (BMJ, 2007^{xxxviii}).

Local and National Targets

- To reduce smoking amongst pregnant smokers from 23% to 18% by 2005 and 15% by 2010 (The Health and Social Care Standards and Planning Framework, 2004).
- The Healthier Communities / Older Peoples theme in the LAA prioritises reducing health inequalities and increasing life expectancy and focuses among other activity on smoking prevention and smoke free environments.
- The Bradford District Tobacco Strategy and Action Plan (2008) have a number of further actions targeted at reducing smoking at pre-conception, during pregnancy and postpartum.

Local Analysis

In comparing data from 2003/04 with 2004/05, the rate of smoking among pregnant women decreased nationally from 19.2% to 18.2% as compared to the rate in Yorkshire & Humber where the rate increased from 21.9% to 22.1% (Health Care Commission, 2005^{xxxix}). Locally, according to 2007/8 data smoking in pregnancy is lower than the national and regional average at 14%. However, Bradford district smoking prevalence data should be viewed with caution as historically it has been variable in quality and completeness. In addition, smoking prevalence is self reported which may lead to an underestimation. This district wide figure probably hides large difference in smoking rates for

pregnant women between ethnic groups, as while there are concentrations in deprived communities of South Asian women, and also high fertility rates, it is known that South Asian women are less likely to smoke than their counterparts in other ethnic groups.

The below table shows data from Bradford District Stop Smoking Services:

Table 42

Absolute Numbers of Quits for Pregnant Women who set a quit date -

Source: Bradford District Stop Smoking Services, 2008.

| | 05/06 | 06/07 | 07/08 |
|---|-------|-------|-------|
| Number of pregnant women setting a quit date | 216 | 173 | 184 |
| number quit at 4 weeks | 79 | 70 | 61 |
| % Quit | 37% | 40% | 33% |

The data above does not indicate any particular trend in quit rates however, it does give some idea of how challenging cessation of smoking in pregnancy is.

Summary

- Smoking rates in pregnancy in Bradford are slightly lower than the national average but this may be distorted by the high numbers of pregnant women from the South Asian community who are less likely to smoke.
- Accurate data collection is essential for monitoring prevalence and trends. A considerable amount of energy is being put in to improving data collection and profile of smoking in pregnancy.

4.1.6. Tobacco smoking, substance misuse and alcohol

Tobacco Smoking - Context

Tobacco smoking is the single greatest preventable cause of death and illness in the UK, causing a range of diseases including cancer, coronary heart disease, stroke and chronic obstructive pulmonary disease. It is estimated that 106,000 people in the UK die each year because of smoking and smoking causes a third of all cancer deaths (Annual Report of the Joint Director of Public Health Bradford and Airedale, 2007/8).

Although smoking has very serious health consequences for all ages there are particular risks for those who start smoking at an early age. Research shows that people who begin to smoke at a young age are less likely to give up than those who start smoking later in life and are more likely to smoke heavily. They are also more likely to die from a smoking related cause; someone who starts smoking at age 15 is three times more likely to die of cancer due to smoking than someone who starts in their mid-20s. Children and young people who smoke experience more respiratory symptoms than those who do not smoke and are two to six times more susceptible to coughs, increased phlegm and wheezing. Smoking has been established as a cause of impaired lung growth in children and young people and is also the cause of asthma-related symptoms^{x1}.

A national survey carried out for the NHS in 2006 on smoking, drinking and drug use amongst young people reported the following^{xli}:

- 39% of pupils have tried smoking at least once.
- The proportion of pupils who have never smoked increased from 47% in 1982 to 61% in 2004 and has remained at a similar level since.
- The prevalence of regular smoking (at least one cigarette a week) among pupils aged 11 to 15 was 9%, and has remained unchanged since 2003.

Risk factors for smoking included the following:

- Gender: Following the trend found in previous years, girls were more likely than boys to be regular smokers; 10% of girls and 7% of boys smoked regularly.
- Age: The prevalence of regular smoking increased sharply with age: 1% of 11 year olds usually smoked at least one cigarette a week, compared with 20% of 15 year olds.
- Household Smokers: A pupil who lives with at least one other person who smokes is more than twice as likely to be a regular smoker as someone who lives in a household where no one else smokes.
- Ethnicity: Young people of mixed ethnic background and white pupils had a greater likelihood of being regular smokers than black or Asian pupils.
- Socio-economic group: Children and young people from poorer backgrounds were much more likely to smoke than those from wealthier families.

National and Local Targets

Smoking prevalence among people aged 16 and over, and aged 16 or over in routine and manual groups (quit rates locally 2008) is a Vital Sign under the NHS Operating Framework.

Reducing regular smoking amongst children and young people was highlighted in the 1998 White Paper 'Smoking Kills'.

Tackling tobacco smoking is a priority under the 'Being Healthy Stream' of Every Child Matters.

Choosing Health identifies tackling tobacco smoking as a public health priority.

The Health and Social Care Standards and Planning Framework set out key public service agreement targets for smoking prevalence: to reduce smoking prevalence amongst 11-15 year olds from 13% to 9% by 2010.

Local Analysis

There is currently no estimate of Bradford District smoking prevalence for under 19s. The Bradford Children and Young People's Lifestyle Survey due to be carried out next year will enable an estimate to be made. Overall smoking prevalence for all age groups, is estimated at 29%, similar to the national averages but deaths from smoking are considerably above the national average (Annual Report of the Joint Director of Public Health Bradford and Airedale 2007/8).

The Stop Smoking Service for Bradford report that there has been an increase in the number of under 18 males and females setting a quit date with the service in 2007/8 but that the quit rate has dropped slightly.

Substance Misuse

Reducing illegal drug use in young people is a key government commitment outlined in their ten year drug strategy 'Tackling Drugs to Build a Better Britain' (1998). This commitment is also emphasised in the Every Child Matters Programme. Drug use in young people has a negative effect both for communities and for individuals. These effects include crime caused by drug users and the physical and mental health effects of drug using. Drug use is associated with depression, suicide and behavioural problems^{xlii}.

National Survey Data conducted on secondary school pupils throughout England in 2006 has revealed that:

- In 2006, 35% of pupils reported that they had ever been offered drugs, a decrease from 42% in 2001.
- The prevalence of drug use had also declined since 2001. In 2006, 24% of pupils said they had ever used drugs, and 17% had taken any drugs in the last year. In 2001, the corresponding proportions were 29% and 20%.
- Pupils were most likely to have taken cannabis in the last year (10%, an overall decrease from 13% in 2001). 5% of pupils had sniffed glue or other volatile substances in the last year and 4% had taken poppers.
- The proportion of pupils who had taken any Class A drugs in the last year has stayed at around 4% since 2001.
- The proportions of pupils who had taken drugs increased with age and boys were slightly more likely to have taken drugs than girls. Black pupils and those of mixed ethnicity were also more likely than white pupils to have taken drugs.

Local Analysis

More information is needed on drug taking prevalence and behaviour at a local level for those children and young people who do not present to treatment services.

The following information is available about treatment services in Bradford:

- In Bradford, a disproportionate amount of young people presenting for treatment are white (only 6% are Pakistani compared to 30% of all school population). This is likely to be due to the high number of young Pakistanis who are Muslims and will not use substances or alcohol due to their religious beliefs.
- 83% of young people who present for treatment are seen in a young person's specialist service.
- The majority of clients within specialist treatment are aged 15-18.
- Alcohol and cannabis are the main substances used by young people presenting to treatment services (cannabis 58%, alcohol 15%, Heroin 13%).
- Presentations for herion, amphetamines, cocaine, solvents and poly drug use are down whilst presentations for ecstasy, cannabis and alcohol have increased. This is consistent with the national picture.
- Planned discharges have raised significantly to 72% over the last year. This is not quite in line with the 08/09 target requirement of 80%.

Alcohol

Adolescence is a crucial time for development both physically and mentally. In addition it is also a time when young people change emotionally, intellectually and socially. Alcohol may impair this process of development by causing direct physical and psychological damage and may also encourage young people to conduct risk taking behaviour. Negative drinking patterns developed in teenage years also continue into adulthood which can have serious consequences. Deaths from cirrhosis of the liver rose sharply between 1970 and 2000, particularly in the 25-34 age group, and this is thought to be a consequence of increased drinking starting at an earlier age^{xliii}.

National Survey Data conducted on secondary school pupils throughout England in 2006 has revealed that:

- More than half of pupils had had at least one alcoholic drink in their lifetime. This increased with age.
- A fifth of pupils said that they had been drunk in the last four weeks (descriptions of drunkenness ranged from mild tipsiness to incapacity). This was more common in older pupils (37% of 15 year old boys and 47% of 15 year old girls) than younger pupils (5% of 11 year old boys and 4% of 11 year old girls)
- White pupils were more likely to have drunk alcohol than those from minority ethnic groups.
- The number of children and young people who had drunk on the last seven days had fallen from 26% in 2001 to 21%.
- Pupils who smoked regularly and those who truant were more likely to have drunk alcohol.

National and Local Targets

Rate of hospital admissions per 100,000 for alcohol related harm is a Vital Sign under the NHS Operating Framework.

Local Analysis

Alcohol abuse is a significant and growing issue for the district. In 2006/07, Bradford district was ranked the 16th highest local authority (out of 21 in Yorkshire and the Humber) for alcohol specific hospital admissions for under 18 females and the highest local authority for male admissions.

There were 129 hospital admissions for under 18s with alcohol specific conditions in Bradford district in 2006/07. (Males = 50 (26.48 per 100,000 population) and females = 79 (43.06 per 100,000 population).

15% of the young people receiving a care planned intervention through a specialist substance misuse service in Bradford presented with alcohol as the main substance they were misusing. Alcohol was the 2nd highest presenting substance and its misuse is steadily increasing as reported on National Drugs Treatment Monitoring System (2006/7).

Summary

- Local survey data is needed on prevalence of smoking, drug use and alcohol consumption in the under 19s.
- Smoking is the single greatest preventable factor for death and illness in the UK. The earlier you start smoking the higher your risk. Older age, female gender, being from a white or mixed background, having a household member who smokes and being from a lower socio-economic group are all risk factors for starting smoking at a young age.
- Alcohol specific admissions for under 18s are some of the highest in the region.

4.1.7. Healthy Schools

Context

National Healthy Schools Standard (NHSS) includes programmes targeting physical activity, healthy diets plus a range of other dimensions of health and well-being among school children and young people.

Local Analysis

**Table 43
% Participation in National Healthy Schools Scheme.**

| | Bradford District (March 08) | Yorkshire and Humber (July 07) | England (July 07) |
|---|---------------------------------|-----------------------------------|----------------------|
| Participation in National Healthy Schools Scheme | 98% | 94% | 91% |
| Achieving Healthy Schools Status | 65% | 63% | - |

Summary

Bradford district is achieving excellent participation in the National Health Schools Scheme and above regional average achievement of healthy schools status.

4.1.8. Sexual Behaviour

In addition to sexual health outcomes (unplanned pregnancies and STI rates), sexual behaviour can be examined using a number of other factors such as age at first intercourse, use of contraception and number of sexual partners. All of these are established risk factors for poor sexual health outcomes.

The National Survey of Sexual and Lifestyles (NATSAL) is a decennial survey that collects data on a number of risk factors. Between 1997 and 2003 no increase in the numbers of young people with multiple sexual partners was reported. There appears to have been a true increase in the number of young people using contraception; however approximately a third of young people reported not always using a condom.

NATSAL consistently cites factors associated with younger age at first intercourse as socio economic disadvantage, family disruption, early school leaving and poor educational attainment.

There is virtually no systematically collected local data on sexual health risk factors relevant to young people.

Within Bradford and Airedale the views of young people were sought as part of the recent Joint Area Review. A number of common themes emerged from this review. The continued development of sexual health services and sexual health promotion activity is important. This should be appropriately focused and targeted in those populations with greater need. The themes covered in the JAR relevant to sexual health include:

NHS services

- Young people's reluctance to attend appointments made for the GUM clinic has led to GUM services being delivered at the Information Shop for Young People (provided by the tPCT Contraceptive and Sexual Health Service).
- Young People (YP) have also made substantial contributions to service improvements in Termination of Pregnancy services; including improved provision of counselling for undecided young people.
- There is a need for increased provision of Young People's drop-ins at GPs; the development of confidentiality posters; an increase in media use for services and prevention messages; and confidentiality / 'a smiling receptionist' are consistently cited as the most important factor for young people friendly service delivery.
- There are eight designated young person drop- ins in GP surgeries / health centres in the district. These are not evenly spread through the district, being concentrated in the South and West. They offer a range of services from advice to fitting implants. Currently this model is being rolled out and integrated into Contraceptive and Sexual Health (CASH) / level 2 services.
- Emergency Hormonal Contraceptive in pharmacies is available free to young people aged under 20 in 24 of 110 pharmacies, chiefly concentrated in City and South and West areas.

Media and market research

- Evaluations and surveys have shown that many under 16s believe themselves not legally able to get contraceptives. The majority of 13,14 and 15 year olds believe that most under 16s have had sex
- Local research has shown a considerable impact from media activity on young people with 72% aware of local safe sex campaigns on radio and buses. Most of the young people described the campaign as 'helpful' or 'interesting'.
- Promotional information is updated based on evaluations or inputs by young people.
- A local survey shows young people's reasons for first sex includes 'being ready for it' and 'love and commitment' but 'peer pressure' is an important third component with 'opportunity' and 'alcohol' also important.

Schools and education services

- Young people have expressed a need for greater input from school nurses and for sex education to be made more relevant. This is being factored into planning for future work. School nurses currently offer drop-ins at most secondary schools.
- Long Acting Reversible Contraception (LARC) is promoted, including a schools DVD.
- Teenage Information and Advice Centres (Tic Tacs) are currently provided in three schools. Up to 250 young people access this. These offer signposting, condom distribution and prescribing contraception. Three more Tic Tacs are to be developed in other high risk areas.
- Targeting services on schools is problematic, given the long distances young people travel to some schools in Bradford; thus a community focus might be equally beneficial.
- APAUSE - a school based sex and relationship programme for years 9 and 10 - is provided in six schools, all in high teenage pregnancy areas. This programme uses peer educators, and offers training and support on policy and practice provided for teachers on Sex and Relationship Education (SRE). Results show increased enjoyment of SRE, increased knowledge, understanding and skills and a change in actual behaviour patterns.

Local stakeholders also consistently cite the need to ensure that sexual health work reflects the religious and cultural issues pertinent to Bradford's population. There have been a number of qualitative research projects undertaken in this area in recent years.

4.2. Social and community influences

4.2.1. Family Status

Looked After Children - Context

Looked After Children (LAC) experience a number of factors which are associated with poor health outcomes:

- Many are born into families from lower socio-economic groups.
- They may have been exposed to considerable familial stress and conflict.
- A significant proportion are looked after due to physical injury, neglect or sexual abuse.
- They may have missed out on routine health care, for example, immunisations.
- A high number have mental health needs. Estimated at 45% with a mental disorder, 37% with clinically significant conduct disorders, 12% with emotional disorders - anxiety and depression - and 7% who are hyperactive^{xliv}.
- In addition, when children and young people are in care they have other circumstances that impact on their health, for example, they may move placement regularly which can result in appointments not being kept, health records being lost and routine health promotion opportunities being missed.

Research would suggest that fewer changes in placement and more stable placements are factors in promoting the health and wellbeing of looked after children and young people, Care Matters (DFES 2008) also stresses the importance of stability as a key factor helping children and young people achieve higher outcomes^{xlvi}.

LAC may also be unaware of their health history and this can impact on them in the following ways:

- Genetic - inherited conditions may not be diagnosed. These may not manifest themselves in childhood but knowledge of these conditions may influence behaviour in adult life.
- Prevention - for example knowing a parent's allergy history may ensure that certain foods are introduced at a later date.
- Infection Risk - children and young people at risk may need to be tested for diseases for example, HIV.

Children and young people leaving care often have limited life skills and this may result in unemployment, poverty, isolation, poor mental health and homelessness^{xlvi}. Children and young people leaving care are recognised as being disproportionately more at risk of:

- Leaving school without qualification (75% compared with 6% as a national average)
- Becoming unemployed

- Becoming teenage parents (two and a half times greater than the average rate)
- Serving a prison sentence (26% of prisoners have been in care as children and young people compared with 2% of the total population)
- Becoming homeless (between a quarter and a third of rough sleepers have been looked after by local authorities as children and young people)^{xlvii}.

Local Targets

LAA Indicator: Stability of placements of looked after children and young people; length of placement.

Local Analysis

In Bradford district, services for Looked After Children and Care Leavers are coordinated under the umbrella of the LAC multi-agency partnership. The LAC Health team undertakes an assessment and annual review of all Looked After Children and allocates a Health Nurse to every child. This nurse stays with the child whilst they remain in Bradford district to ensure continuity of care. There are dedicated workers in CAMHS for looked after children and young people, who provide consultancy to residential units from child psychiatry, CAMHS social workers in the Area based teams, psychology input to Foster and Adoption Services and a named Educational Psychologist in Education Bradford.

As of 31st March 2008 there were 840 LAC in Bradford district. The largest group of were those aged 10-15 years old. Children and young people from ethnic minorities are proportionally underrepresented within the overall LAC population, a trend that has remained consistent over time. There are more children and young people looked after as teenagers than in other age groups. Although, the proportion of looked after children and young people in Bradford is similar to that of statistical neighbours it is higher than the national average; if Bradford has the same proportion of children and young people being looked after as the country as a whole, less than 700 children and young people would be looked after. The higher proportion of children and young people looked after in Bradford district is due to higher levels of need, through many associated issues derive from deprivation and social exclusion in the district. Children on average remain looked after for a period of almost three years.

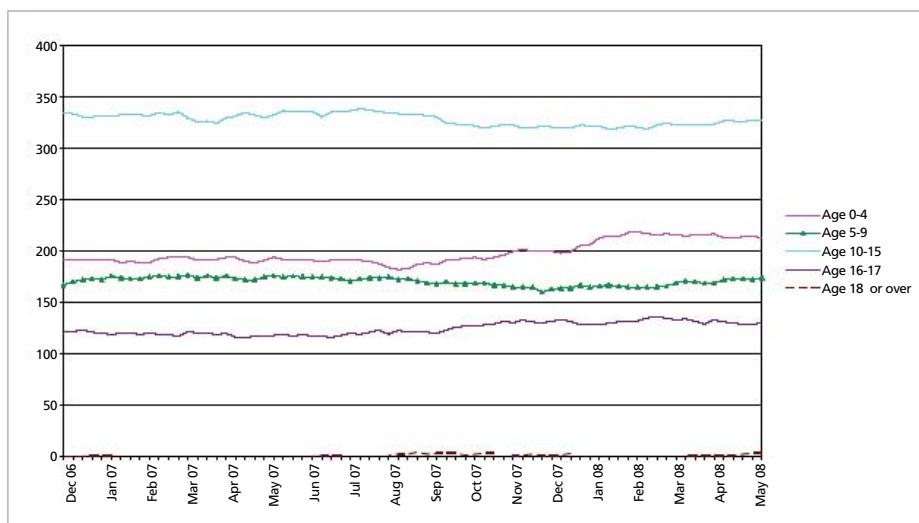


Figure 39
Looked after Children by age - 2006-2008 -
Source: Bradford District Children and Young People's Needs Analysis.

The above graph shows that the number of looked after children and young people remained fairly stable from 2006-8 among all age groups.

The majority of looked after children and young people in Bradford are placed in stable placements. Less than 10% of children and young people need to have 3 or more placement moves within their first 12 months of being looked after. For children and young people looked after for over 2 years, over two thirds have been living in that placement for 2 years.

Children and young people are looked after in a number of settings:

- Around 425 children and young people are placed in foster care settings (the proportion provided directly by the Local Authority has risen over the period March 2007 to March 2008, and is around 375).
- 23% of LAC are placed within Family and Friends placements, and a reducing number are placed with parents.
- There are stable numbers of children and young people looked after in residential provision provided directly by the local authority and through purchased residential accommodation.

Most newly placed children and young people are placed within 20 miles of their home address (around 95%). However, 27% of looked after young people are placed out of district. There are small numbers of children and young people placed in Bradford from other local authorities who are accessing NHS services.

**Table 44
Looked After Children who received a health check and/or dental check between October 2006 and September 2007.**

| | Placed with parents* | Independent Living Accommodation | Placed in Bradford District* | Placed outside Bradford |
|--|----------------------|----------------------------------|------------------------------|-------------------------|
| % of LAC receiving a health check | 73% | 66% | 85.6% | 82.5% |
| % of LAC receiving a dental check | 73% | 61% | 85.6% | 82.5% |

* Amalgamated figure.

Overall 91% of LAC receive a health check and 78.1% receive a dental check. The above table indicates that certain sub groups of LAC do not achieve this high figure particularly those children and young people who live independently. Additional support should be considered for this group.

The emotional health needs of looked after children and young people is being comprehensively assessed for the first time during 2008-09 through a Strengths and Needs Assessment of all children and young people who are looked after. Once completed this will provide a much greater level of information on LAC emotional well-being than is currently understood.

Summary

- Looked after children and young people experience a number of risk factors for poor health and have poorer health outcomes.
- Bradford has a higher proportion of LAC than the national average.
- There are higher rates of children and young people looked after among white communities.
- Certain sub groups of looked after children and young people may require additional support to maximise their health potential.

4.2.2. Child Protection

Context

Child abuse can take four forms, all of which can cause long term damage to a child:

- Physical abuse
- Emotional abuse
- Neglect
- Child sexual abuse

Bullying and domestic violence are also forms of abuse^{xlviii}. Neglect is the most widely reported category nationally, followed by physical abuse.

The incidence of child abuse and neglect may be partially understood and derived from an analysis of the numbers and rates of referrals to social care agencies. By itself this does not provide a comprehensive picture of need, but a good indication of perception of need across the different agencies and also levels of assessed needs. Child protection registrations are not a reliable indication of how many children and young people are abused because of the incidence of under reporting of children and young people who may be abused but are unknown to services. In addition, because all children and young people for whom an inter-agency plan exists are placed on the register this can overestimate actual abuse by including unborn children and those who are currently only at risk.

Local Targets

Bradford Safeguarding Children Board Strategic Objectives: At the end of this three year plan the number of children and young people within Bradford district who are maltreated, neglected, or experience violence or sexual exploitation will have reduced, and inter-agency arrangements for identifying assessing and supporting such children and young people will have improved.

Local Analysis

During 2007-08 approximately 5,000 referrals were made to social care agencies within the district, where the referring agency considered a child needed intervention from Social Care Services. The number of children and young people being referred to social care agencies is comparable to rates nationally and with comparator areas (in 2007 Bradford referred 460 children and young people per 10,000 and the comparator mean average was 460 per 10,000).

Around 1,250 children and young people were referred again to Social Care Services within 12 months; this represents around 25% of children and young people whose needs may not have been satisfactorily met or their needs may potentially have changed. Around 70% of referrals to social care services were the subject of an initial assessment. Approximately 3,000 initial assessments each year are undertaken across the district to further understand a child's needs. Of these approximately 2,000 cases are assessed more comprehensively through a 'Core Assessment'.

The numbers of children and young people whose needs are assessed through a core assessment are significantly higher in Bradford (174.6 per 10,000 in March 2008) than with comparator areas (mean average of 88.1 per 10,000 in 06/07; national average 84.5 per 10,000). This rate may be partially interpreted as identifying more acute need in Bradford; however, it may also be affected by assessment practices within social care teams.

Summary

Bradford district has a similar number of child protection referrals as comparator areas however, core assessments are more than double the national average which may be due to more acute need.

4.3. Living and working conditions

4.3.1. Education

Context

Level of education and training achieved has a number of impacts on health and wellbeing. Recent research has shown that a poor experience of education is strongly correlated to health risk factors and health outcomes. When comparing those who were disengaged at school and had no GCSE qualifications and those who did, the odds of:

- smoking are 4.7 times higher for women and 3.5 times higher for men
- drinking heavily are 1.5 times higher
- taking exercise less than once a week are 1.5 times higher
- having depression are 2.4 times higher for women and 2 times higher for men
- having back pain are 1.3 times higher in men
- having migraines are 1.3 times higher in women^{xlix}.

In addition, the importance of Health Literacy to general health outcomes is becoming increasingly widely recognised. Health Literacy is defined as the cognitive and social skills that determine the motivation and ability of individuals to gain access to understand and use information in ways that promote and maintain good health. Research has shown that low levels of literacy, language and numeracy make it less likely that an individual will be able to access the advice, information and care that they need^l. This will have a long term impact on people's ability to care for themselves and their families.

Local Targets

Bradford's Community Strategy has the following education target identified by the Children and Young People's Plan:

Improve education outcomes: every learner can enjoy school life to the full and achieve their full potential.

Local Analysis

Qualifications in General Population

Table 45

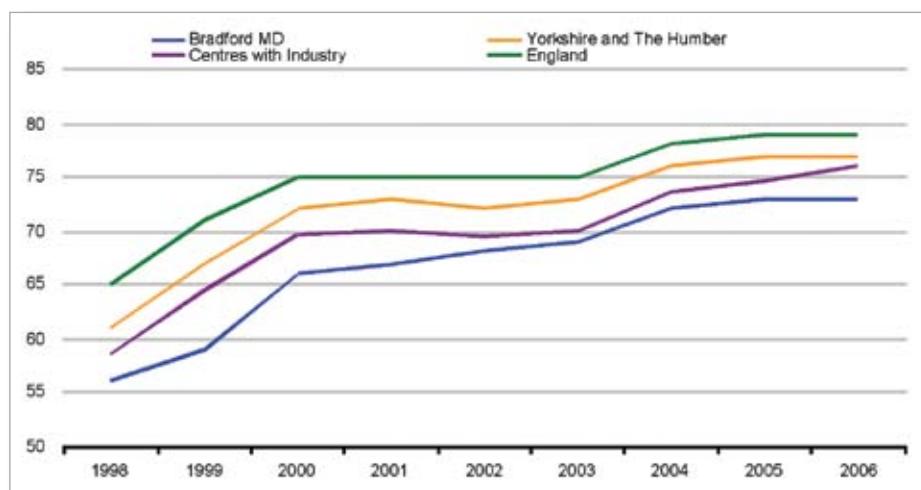
Resident population aged 16 to 74 (percentage) - Source: 2001 Census, ONS.

| | Bradford | England and Wales |
|--|----------|-------------------|
| Had no qualifications | 35.1 | 29.1 |
| Qualified to degree level or higher | 15.9 | 19.8 |

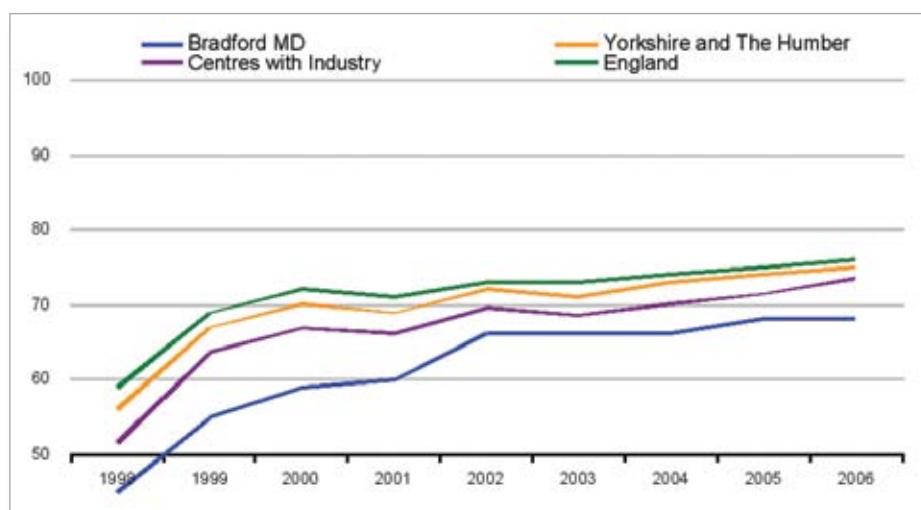
The table above indicates that the Bradford population has less qualifications as England as a whole and has fewer people educated to degree level or higher.

Educational achievement in school

Detailed analysis of educational attainment for children and young people aged 0-19 is available in the Children and Young People's Needs Assessment 2008 (available from Bradford Council). The information below presents an overview of educational achievement at Key Stage 2 (aged 7-11 years), 3 (11-14 years) and 4 (14-16 years).

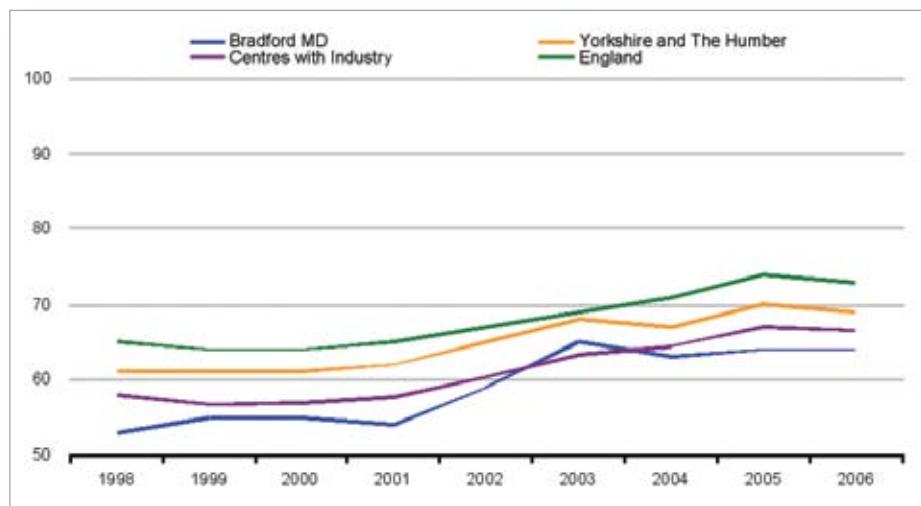


**Figure 40
Key Stage 2
Achievement - English**
- Source: Department for
Children, Schools and
Families.

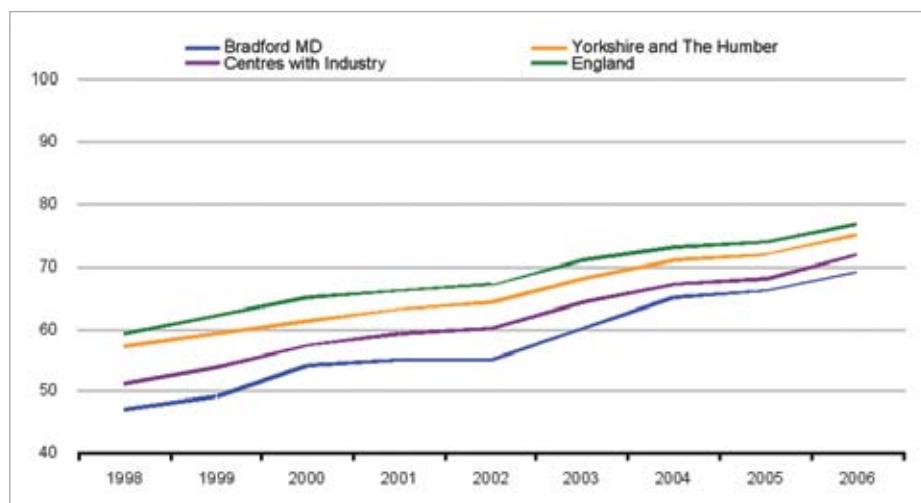


**Figure 41
Key Stage 2
Achievement -
Mathematics** - Source:
Department for Children,
Schools and Families.

The above charts show how KS2 English and Maths results have risen both nationally and locally over time (approximately 15% improvement in % gaining Key Stage Level 4). Maths started particularly poorly in comparison with regional and national levels. However, despite this considerable improvement, Bradford district still has lower achievement than comparator areas, Yorkshire and the Humber and England.



**Figure 42
Key Stage 3
Achievement - English**
- Source: Department for Children, Schools and Families.



**Figure 43
Key Stage 3
Achievement -
Mathematics** - Source:
Department for Children,
Schools and Families.

There is a very similar picture at Key Stage 3 to Key Stage 2. The districts trend has followed quite closely that of the England Average; Results have improved over time and the gap has narrowed slightly.

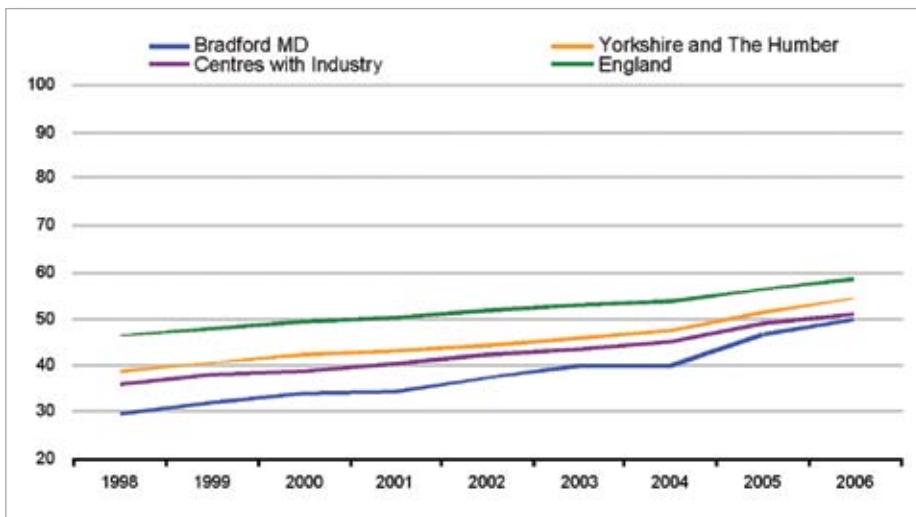


Figure 44
Key Stage 4 Achievement - GCSE Grades A* to C - Source: Department for Children, Schools and Families.

The Bradford district attainment rate is well below that of the England average but over time the gap has narrowed.

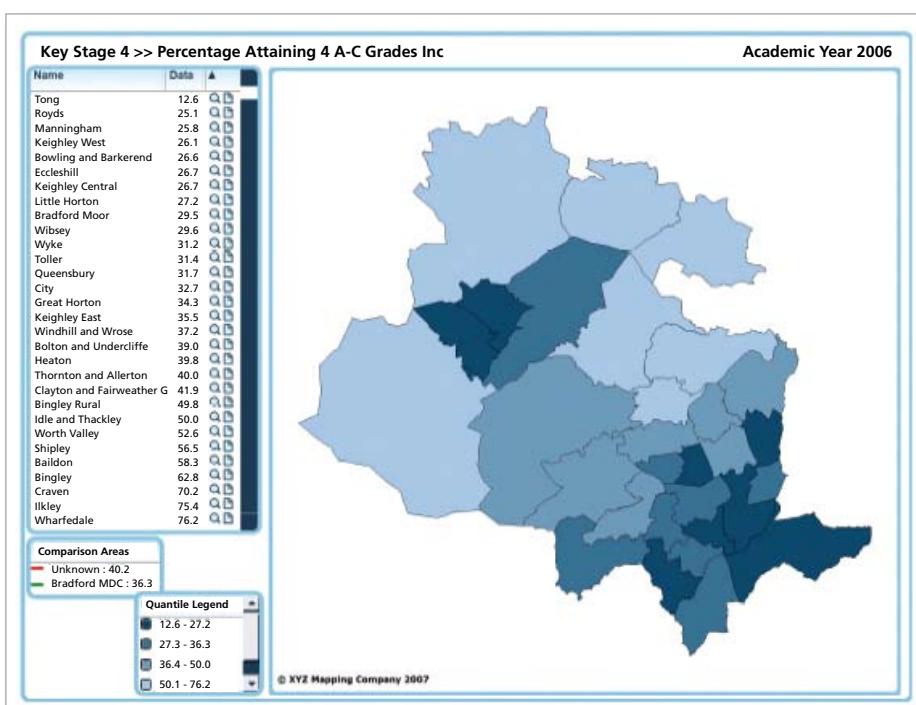


Figure 45
Key Stage 4 Percentage Achievement at 5+ A*-C including Maths & English at GCSE level by Ward - Source: Bradford District Children and Young People's Needs Analysis.

The above diagram maps GCSE attainment to ward and indicates that educational attainment is strongly associated with deprivation in Bradford district.

Key Issues

The following points were highlighted in the Enjoy and Achieve Section of the Bradford Children and Young People's Plan.

Key issues for the district are:

- Educational attainment is behind the national average at all stages.
- Key stage 1 rates have fallen over the last three years.
- Unauthorised absences at primary and secondary schools are twice the national average (based on 2006 data).

The greatest inequalities within the district are:

- Lower attainment amongst white and Bangladeshi ethnic groups at Key Stage 1.
- Boys' educational attainment is generally lower than girls at all Key Stages.
- Looked after children and young people are achieving lower than the district average at all Key Stages.
- Lower school attendances rates of Looked after Children.

4.3.2. Child Poverty

Deprivation is discussed in Section 3.1.

Context

Poverty is one of the main predictors of a child's health and wellbeing status both as a child and young person and throughout adulthood. There is an association between low economic status and a number of health indicators such as low educational achievement, high rates of teenage pregnancy, lower life expectancy, higher infant mortality rates, poorer dental health and higher smoking prevalence. The government commissioned 'Black Report' in 1980, demonstrated that the lower the socio-economic class you were in the more likely you were to experience illness and premature death. This was present at every age, for all major diseases and over time¹¹. Poverty is particularly relevant to children and young people because they are at greater risk of living in low income households than in the population as a whole.

Measuring poverty

There are a number of ways of measuring child poverty. The UK government uses three related definitions:

- The proportion of children and young people in households with incomes below 60 per cent of the median income - where the median is the level of income after direct taxes and benefits, adjusted for household size, such that half the population is above the level and half below it.
- The proportion of children and young people living in households with incomes below 60 per cent of the current median income.
- The proportion of families with incomes less than 70 per cent of the current median income and unable to afford a list of specific goods and services.

Thus, the three-part definition includes an unchanging income poverty line, a relative income poverty line, and a measure of access to material goods.

The Department of Work and Pensions uses the 'Absolute Poverty Line' which equates to the following:

- less than or equal to a weekly income of £301 per couple with two children and young people aged 5 and 14
- a weekly income of £233 for a single person with two children and young people aged 5 and 14.

In addition we can get an indication of the level of poverty in Bradford by a number of proxy measures. These include:

- numbers of children and young people living in households where no one is working;
- numbers of children and young people in receipt of free school meals;
- families in receipt of Child Tax Credit more than the Family Element.

Risk factors for living in poverty

The following are risk factors for children and young people experiencing low income;

- lone-parent families,
- children and young people of couples who work part-time or are unemployed,
- families with 3 or more children and young people,
- families with a mother under 30.

Local and National Targets

Child poverty halved by 2010 and eradicated by 2020.

Local Analysis

Bradford is the 32nd most deprived district in England and Wales, with the deprivation concentrated in localities in Bradford City and Keighley.

In 2004, 43% of the Bradford population lived in the most deprived 20% of wards in England with 30% of them living in the most deprived 10% of wards. However, there are marked differences in deprivation across the district with Ilkley being within the 10% least deprived wards in the country.

Income

For income deprivation, Bradford has 17% of its Super Output Areas (small geographical areas) in the 3% most deprived in the country. Bradford ranks fourth nationally for income deprivation. More than 32,000 people experience income deprivation in the Bradford district and these tend to be concentrated in the inner-city areas of Bradford and Keighley. Approximately 29% of the district is among the most income deprived 10% of areas in England. These areas typically had at least 34% of the population experiencing income deprivation. This rose to as much as 75% in the most deprived area of Undercliffe, which ranked as the 10th most income deprived area in England.

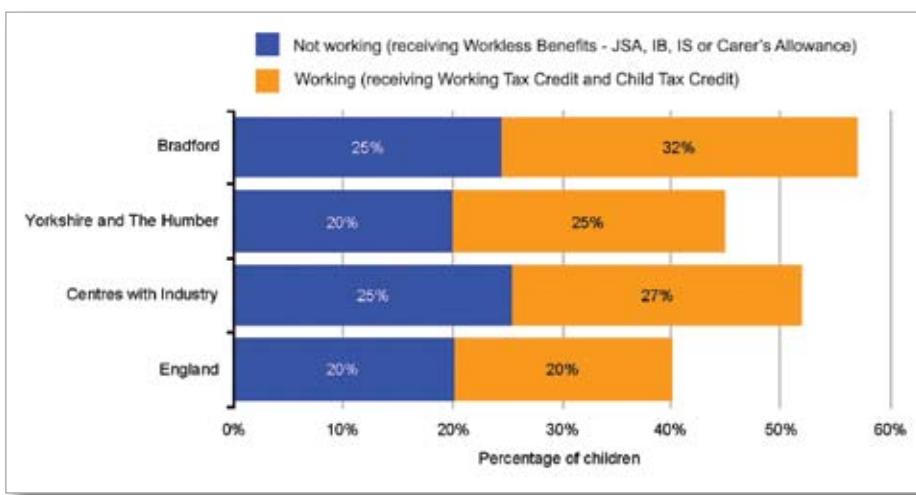


Figure 46
'Children and young people in Low Incomes' Indicator - Source: HM Revenue and Customs (latest data - 2006).

The above figure is taken from a government toolkit to measure child poverty at a district wide level. It indicates that Bradford has higher levels of child poverty than the region and than England as a whole; 57% compared to 45% and 40% respectively.

In addition Bradford's average weekly earnings in 2007 were lower than the region and the UK.

Table 46
Average Weekly Earnings in 2007 - Source: Bradford C & YP Health Needs Analysis, 2008.

| | Bradford District | Yorkshire and Humber | UK |
|-----------------|-------------------|----------------------|----------|
| Weekly Earnings | £ 381.50 | £ 425.00 | £ 459.00 |

Employment

Employment is one determinant of socio-economic status. Work has been shown to have a number of beneficial effects on people's health. In addition, those in work have opportunities to receive health promotion information which may impact on them and their wider family.

Bradford is the 6th most deprived district across England and Wales for employment deprivation. Around 16% of the district fell within the most employment deprived 10% nationally. These areas typically had more than 19% of the population experiencing some kind of employment deprivation; by definition this comprises people claiming benefits. An area of Little Horton ward (ranked 69th nationally) was the most employment deprived in the district, with 39% of its population affected.

23% of children and young people in the Bradford district live in workless households. In thirteen super output areas this rises to over 50% of children and young people (2007 Indices of Multiple Deprivation figures).

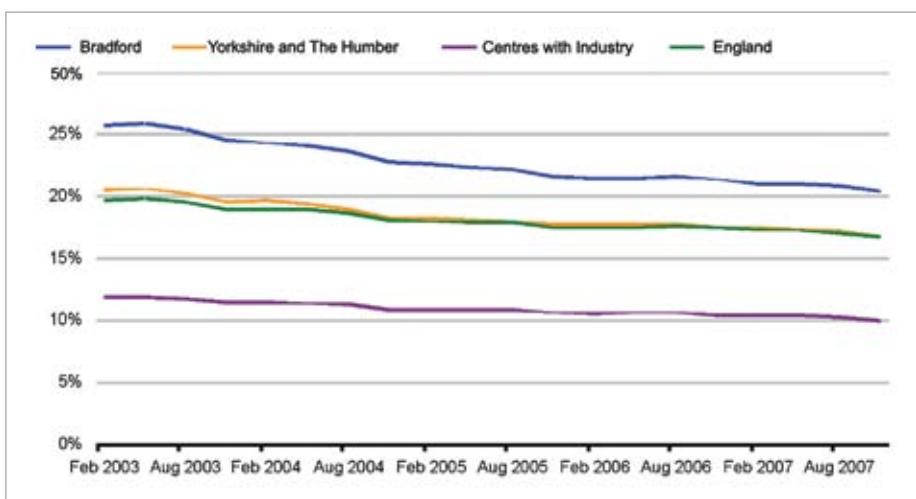


Figure 47
Percentage of children and young people in families on workless benefits - Source: DWP Information Directorate: Work and Pensions Longitudinal Study (latest data - Nov 2007).

The above graph shows that the percentage of families on workless benefits is higher in Bradford district than both regionally and nationally. Between February 2003 and August 2007 the number of families on workless benefits fell by about 5%. This reduction was slightly higher than regionally or nationally.

A recent report (2008) from the 'Campaign to End Child Poverty' lists families on workless benefits by wardⁱⁱⁱ.

Table 47

Percentage of children and young people in families on out of work benefits in Bradford District - Source: Campaign to End Child Poverty.

| Bradford Constituency Area | % of families on workless benefits | Yorkshire rating (56 total constituencies) |
|----------------------------|------------------------------------|--|
| Bradford North | 30% | 7th |
| Bradford South | 26% | 13th |
| Bradford West | 31% | 6th |
| Keighley | 17% | 32nd |
| Shipley | 13% | 41st |

The above table demonstrate again the differences in employment across the District with Bradford North having more than double the families out of work than Shipley.

Ethnicity

Eligibility for free school meals is commonly used as a proxy indicator of deprivation.

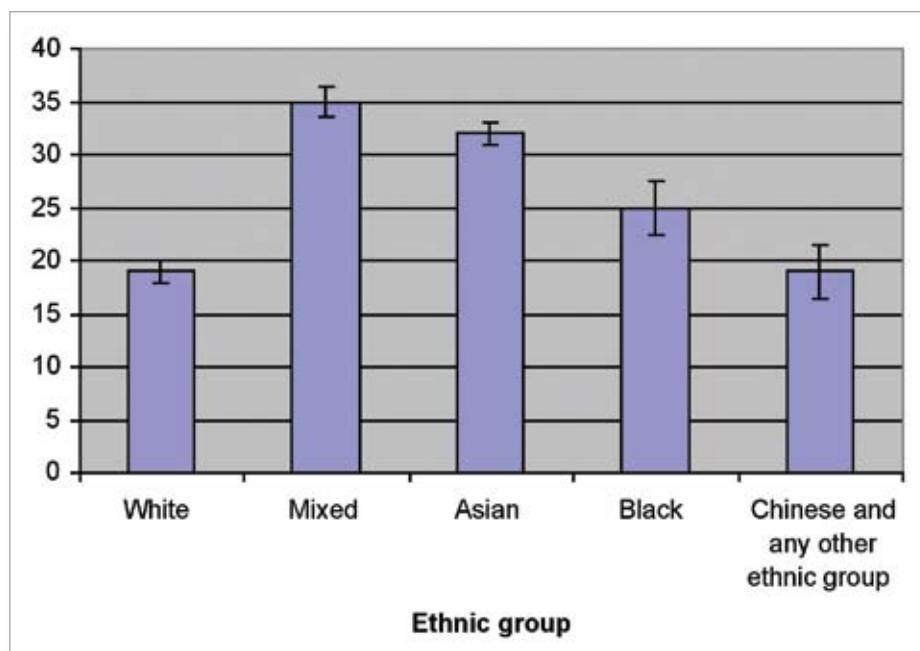


Figure 48
% of Bradford children and young people eligible for school meals - Source: APHO and Department of Health. Crown Copyright 2008.

Compared with England as a whole the percentage of white, mixed and Asian children and young people who are eligible for free school meals is higher than the average. In addition, within Bradford, children and young people of mixed parentage are significantly more likely to be entitled to school meals than Asian children and young people who in turn have are significantly more likely to be than Black children and young people who are significantly more likely to be than White or Chinese children and young people. This is likely to also reflect varying levels of poverty between these ethnic groups.

Summary

- Bradford district experiences higher unemployment than the UK as a whole and corresponding income deprivation. This is mainly concentrated in Keighley and Bradford City.
- The close relationship between health and income means that in order to improve the wellbeing of children and young people in Bradford it is essential to move families out of poverty and ensure that they have the necessary resources to ensure good health.
- The Children and Young People's Plan identifies that more information and analysis is required to understand the full impact of deprivation, poverty and poor housing on children and young people's outcomes across the district.

4.3.3. Housing

Context

It is well documented that housing conditions can affect the health and wellbeing of children and young people. In addition parents can also be affected by their living conditions which can impact on their parenting ability. Poor housing can have a number of adverse affects^{lvi}:

- Physical- there is an association between cold, damp homes and conditions such as asthma. Risks may also be posed by gases such as radon, which can lead to cancer, and carbon monoxide, which may result in asphyxiation.
- Psychological - poor quality housing can have an adverse effect on children and young people's well-being as can overcrowding. Insecure housing may result in entry by intruders.
- Stigma - parents and children and young people both complain of the social stigma of living in poor housing.
- Educational- overcrowding may mean that children and young people have little space to study.
- Risk of infection - facilities may be lacking to enable domestic hygiene, food safety and personal hygiene.
- Risk from accidents - if accommodation is unsafe there may be increased falls, electrical hazards and fires.

National and local Targets

PSA Target: 65% of all dwellings occupied by vulnerable residents should be made decent by 2006/7 and that this should increase to 70% by 2010/11.

Local Analysis

Bradford has an older housing profile than the rest of England with a greater proportion of the housing stock built before 1945. Older housing tends to be less energy efficient and more difficult to bring up to energy efficiency standards^{lvii}.

Dwelling types

Table 48

Dwelling Type and Tenure by Household Type - Source: Bradford Household Survey 2007 - 08.

| Household Type | Owned | Private Rent | Social Rent |
|-------------------------------|-------|--------------|-------------|
| Single person | 53.2% | 25.8% | 20.9% |
| Lone parent | 31.9% | 37.2% | 31.0% |
| Adult couple | 80.8% | 13.9% | 5.3% |
| Adult couple with children | 83.4% | 9.7% | 6.9% |
| Group of adults | 79.4% | 10.0% | 10.7% |
| Group of adults with children | 81.1% | 7.6% | 11.4% |
| All pensioners | 65.6% | 7.7% | 26.7% |
| All household groups | 70.4% | 14.2% | 154% |

The above table shows that children and young people who are living with one parent are more likely to live in privately rented (37.2%) or social housing (31%) than children and young people living with two adults or a group of adults. Over 80% of these children living with more than one adult live in privately owned property.

Decent homes

It is government policy that everyone should have the opportunity to live in a "decent home". The Decent Homes Standard contains four broad criteria that a property should adhere to:

- Be above the legal minimum standard for housing.
- Be in a reasonable state of repair.
- Have reasonably modern facilities (such as kitchens and bathrooms).
- Provide a reasonable degree of thermal comfort (effective insulation and efficient heating).

If a dwelling fails any one of these criteria it is considered to be "non decent".

The government currently has a target that 65% of all dwellings occupied by vulnerable residents should be made decent by 2006/7 and that this should increase to 70% by 2010/11. Vulnerable households are defined as those in receipt of certain benefits. This includes child tax credit, council tax benefit and housing benefit.

It is expected that social housing in Bradford will meet the government decency target by 2010. However, there will be a greater challenge to meet this target in the private sector (owner occupied and privately rented dwellings). In Bradford, at present, there are 48,500 private sector dwellings occupied by residents in receipt of one of the benefits listed above. Of these an estimated 49% are classified non-decent. This compares to a national figure of 34% (EHCS, 2005). For all private sector dwellings (not just those classified as having a vulnerable resident) 40.5% are not decent compared to 27% in England as a whole.

Fuel Poverty

Fuel Poverty is defined as the ability to afford sufficient warmth for health and comfort within 10% of net household income. However, fuel poverty is not just related to income but also to other factors such as the household's requirement for heat and hot water. Those people who spend more time in the home such as parents of young children and families with sick children use disproportionately more heat. They may also have lower incomes. Fuel poverty is a particularly relevant topic at the moment because of steep rises in the cost of fuel. The Department of Trade & Industry has estimated that for every 1% increase in fuel prices, there will be an extra 40,000 fuel-poor households nationally. In order to address fuel poverty the energy efficiency of houses of vulnerable people needs to be maximised. There are a number of government schemes to address this, specifically the Warm Front scheme, which offers grants for energy efficiency interventions to vulnerable houses^{iv}.

National and Local Targets

National

To reach those most vulnerable to cold-related ill health by 2010.

To eradicate general fuel poverty by 2016 (UK Fuel Poverty Strategy, 2001).

Local

A number of targets are outlined in the Bradford Affordable Warmth Strategy (2007).

Local Analysis

83.2% of people in Bradford live in private sector housing and it is estimated that 36% of these houses would fail to meet the Decent Homes Standard on the inadequate thermal comfort component. These properties tend to be concentrated in the inner-city areas of both Bradford and Keighley.^{iv}

Table 49

Number of fuel-poor households locally in 2005 - Source: NEA, September 2005.

| | Number | Percentage |
|-----------------------|---------|------------|
| Bradford | 33,464 | 17.8% |
| West Yorkshire | 136,344 | 15.6% |
| England | - | 13.5% |

The above table show that 17.8% of households in Bradford were fuel poor in 2005. This means that Bradford has a higher fuel poverty levels then the region and also compares poorly to the UK as a whole^{vii}.

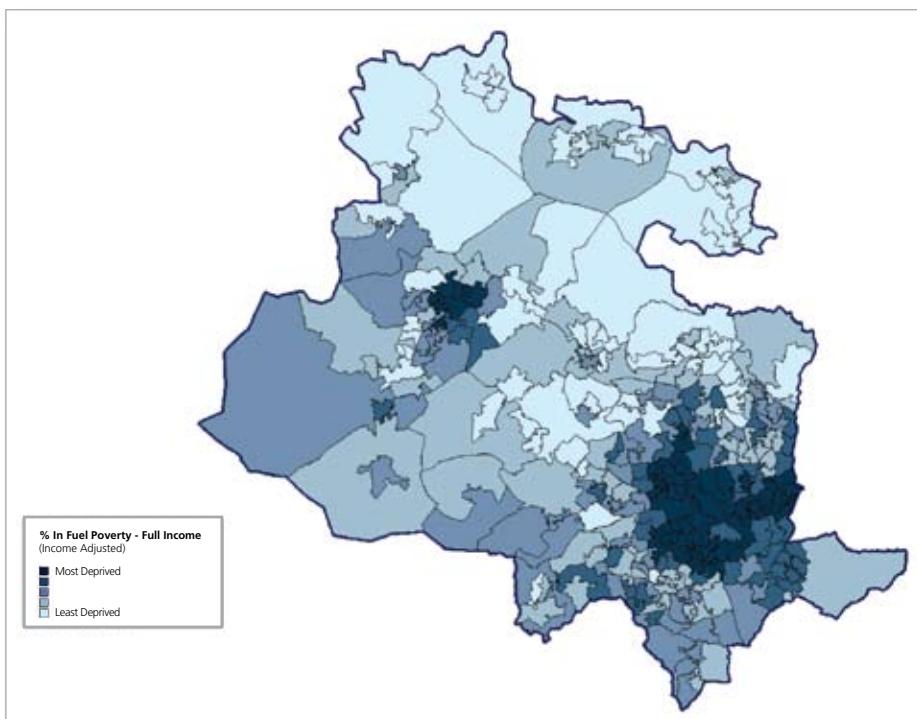


Figure 49
Percentage in Fuel Poverty - Full Income (Income Adjusted) -
Source: Bradford and Airedale tPCT: Intelligence and Analysis Team.

The above map indicates how levels of fuel poverty are spread across the District. As one would expect, higher rates of fuel poverty are correlated to higher rates of deprivation.

Summary

- Fuel poverty is a significant problem for Bradford due to the combination of older less efficient homes, lower incomes and rising fuel prices. This may have a greater impact on young children and those who are disabled or ill due to their greater consumption of heat and hot water. To tackle this problem homes need to have their energy efficiency improved.
- Over a third of lone parents live in private rented housing compared to 14% of couples with children and young people. Over half of private sector housing does not conform to decency standards and this leaves these children and young people more vulnerable to the negative physical and psychological effects of poor housing.

5. Conclusion

Bradford district experiences a number of socio-demographic factors which impact in a negative way on the health and wellbeing of children and young people. It contains some of the most deprived areas in the UK and the associated factors of poor housing, low income and low educational attainment are reflected in the poor health outcomes that children and young people experience in a number of areas described in the report.

This HEA identifies a number of key findings including the fact that the district has a relatively young population with a significant minority ethnic community which is growing rapidly. Key areas of concern include high levels of obesity, teenage pregnancy, infant mortality and poor oral health. There is also the need for the further collection and analysis of data in some areas, particularly accidents in children and young people and children and young people with disabilities. Much of the data in this report will become available in the Public Health Observatory in the future and will be updated on a regular basis. This information is part of the Bradford District Needs Analysis, which informs the Joint Strategic Needs Assessment and the Children and Young People's Plan.

Across Bradford district there are a wide range of key partnerships tackling these issues with associated strategies and action plans to improve the lives of children and young people. It is hoped this report will enable both an understanding of the public health perspective on these issues and provide a means by which to prioritise and develop future work streams.

References

- i Department of Health (2003). **Health Equity Audit - A guide for the NHS.** [Internet] www.dh.gov.uk
- ii Ibid.
- iii Bull, J., Mulvihill, C. and Quigley, R. (2003). **Prevention of low birth weight: assessing the effectiveness of smoking cessation and nutritional interventions.** Evidence briefing Health Development Agency: NHS.
- iv Haas, D. (2007). **'Preterm Birth'.** BMJ Clinical Evidence. [Internet] http://clinicalevidence.bmj.com/ceweb/conditions/pac/1404/1404_background.jsp
- v Benson J, Korwariwalla S. Blackburn. (2004). 'Asians with a family history of recessive disorders need intensive counselling regarding the risks associated with cousin marriage'. Paper presented at: 8th Spring Meeting of Royal College of Paediatrics and Child Health.
- vi Ibid.
- vii Ibid.
- viii Bradford District Infant Mortality Commission (2006). **Summary Report.** Bradford Vision: Bradford.
- ix DfES (2006). **Teenage Pregnancy: Accelerating the Strategy to 2010.** [Internet] <http://www.teensandtoddlers.org/news/TP-Accelerating-the-Strategy.pdf>
- x Office of National Statistics. [Internet] www.statistics.gov.uk.
- xi Department of Health (2007). **The Review of the Health Inequalities Infant Mortality PSA Target.** [Internet] www.dh.gov.uk
- xii Bradford District Infant Mortality Commission (2006). **Summary Report.** Bradford Vision: Bradford.
- xiii The National Strategy for Sexual Health and HIV, Department of Health 2001.
- xiv Recommended standards for sexual health services, Medical Foundation for AIDS and Sexual Health 2005.
- xv NHS Operating Framework 2008.
- xvi Department of Health (2004). **National Service Framework for Children, Young People and Maternity Services: Disabled Children and Young People and those with Complex Needs.** [Internet] www.dh.gov.uk
- xvii Parker et al, (2003). **Children with Long Term Disability in the Former Northern and Yorkshire NHS Region.** North East Public Health Observatory.
- xviii Office of National Statistics (2007). **Census Data 2001.** [Internet] www.statistics.gov.uk
- xix Department of Work and Pensions (2007). **Work and Pensions Longitudinal Study.** [Internet] www.dwp.gov.uk
- xx Stewart, M., Werneke, U., and MacFaul, R. et al.(1998). **Medical and social factors associated with the admission and discharge of acutely ill children.** Archives of Disease in Childhood, 79; p219–224.
- xxi Health Development Agency (2005). **'Injuries in Children aged 0-14 yrs and Inequalities'.** [Internet] www.nice.org.uk.
- xxii Bradford Safeguarding Children Board (2008). **Child Prevention Strategy for the Bradford District 2008-11.**
- xxiii Ibid.
- xxiv Children Accident Prevention Trust (2004). **Coming of Age, winning recognition and shared strategic commitment to reduce children's accidents in Bradford.** [Internet] www.idea.gov.uk
- xxv West Midlands Public Health Observatory (WMPHO). [Internet] www.wmpho.org.uk.
- xxvi Hardy, M. (2007) **Accidental Injuries in Primary School Age Children: An epidemiological exploration of socio-demographic factors on injury presentation.** Unpublished PhD Study, University of Bradford.
- xxvii Department of Health **Choosing Better Oral Health, 2004.** [Internet] www.dh.gov.uk
- xxviii Yorkshire and Humber Public Health Observatory (2006). **Prevalence of Fruit and Vegetable Consumption (Children aged 5-15).** [Internet] www.yphpo.org.uk
- xxix Department of Health (2003). **Health Survey for England 2002.** [Internet] www.dh.gov.uk
- xxx Department for Education and Skills (2005). **Early Years Foundation Stage: Direction of Travel Paper.** [Internet] www.everychildmatters.gov.uk
- xxxi Department for Transport (2005). **Focus on personal travel including the report of the national travel survey 2002/3.** London: The Stationery Office.

- xxxii Bolling et al (2007).
UK Infant Feeding Survey.
[Internet] www.dh.gov.uk.
- xxxiii Fletcher, A (2006).
A Breastfeeding Strategy for the Bradford District 2006-2010.
[Internet] www.bradford.nhs.uk/children/babies/feeding
- xxxiv Bolling et al (2007).
UK Infant Feeding Survey.
[Internet] www.dh.gov.uk
- xxxv BMA (2004).
Smoking and reproductive life: The impact of smoking on sexual, reproductive and child health.
[Internet] www.bma.org.uk
- xxxvi DOH (1998).
Smoking Kills.
[Internet] www.dh.gov.uk
- xxxvii Department of Health, Social Services and Safety Information Centre (2005).
Infant Feeding Survey: Early Results.
[Internet] www.dh.gov.uk
- xxxviii BMJ (2007).
Health Intelligence: Smoking Cessation.
[Internet] <http://healthintelligence.bmj.com/hi/do/public-health/topics/content/smoking-cessation/lpts.html>
- xxxix Health Care Commission (2005).
Infant Mortality:smoking during pregnancy.
[Internet] <http://ratings2006.healthcarecommission.org.uk>
- xl Fuller, E (Ed) 2006.
Smoking, drinking and drug use among young people in England in 2006.
National Statistics: NHS.
- xli Ibid.
- xlii Ibid.
- xliii Ibid.
- xliv Meltzer et. al. (2003).
An ONS survey of the mental health needs of LAC aged 5 - 17 in 2002.
Office of National Statistics: London.
- xlv DFES (2008).
Care Matters.
[Internet] www.dfes.gov.uk
- xlii Scott, J. and Hill, M. (2006).
The Health of Looked After and Accommodated Young People in Scotland - Messages from Research.
[Internet] [http://www.scotland.gov.uk/Publications/2006/06/07103730/0](http://www.scotland.gov.uk/Publications/2006/06/07103730/)
- xlvii Social Inclusion Unit (2001).
[Internet] www.scie.org.uk
- xlviii NSPCC (2008).
'What is Child Abuse'.
[Internet] <http://www.nspcc.org.uk>.
- xlix Department of Health (2008).
'Definitions of Health Literacy'.
[Internet] <http://www.dh.gov.uk>
- l Ibid.
- li Black, D., Morris, J., Smith C. (1980).
Inequalities in Health: Report of a Research Working Group (Black Report).
London: Department of Health and Social Security.
[Internet] www.sochealth.co.uk/history/black.htm
- lii Campaign to End Child Poverty (2008).
[Internet] <http://www.endchildpoverty.org.uk/why-end-child-poverty/poverty-in-your-area#yorkshire>
- liii Social Inclusion Unit (2005).
SCIE research briefing 19: What is the impact of environmental housing conditions on the health and well-being of children?
[Internet] www.scie.org.uk
- liv City of Bradford Metropolitan District Council Housing Strategy & Research Section and National Energy Action (2007).
'Working together for affordable warmth' An affordable warmth strategy for the Bradford District.
- lv Ibid.
- lvi City of Bradford Metropolitan District Council (2006) Housing Strategy & Research Section.
- lvii Ibid.
- lviii Mackway-Jones, K. (ed) (2006).
Advanced Paediatric Life Support, The Practical Approach, 4th Edition.
WileyBlackwell: London.

