

# **Every Baby Matters** Intelligence Report – April 2021

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## Introduction

In Bradford District, children who grow up in low-income households have poorer mental and physical health and are more likely to leave school with lower educational attainment. Just under a quarter of children are classified as living in poverty (two-thirds of whom live in working households) and this is projected to increase. Other sources of social inequality in Bradford include fuel poverty, poor quality housing, education attainment and the quality of parental employment. Social inequalities are linked to poor health outcomes in childhood, which often progress into adulthood. For example, rates of obesity and poor oral health have a clear link to poverty and ethnicity in Bradford.

The Every Baby Matters (EBM) programme aims to improve maternal and infant health and reduce infant mortality across the Bradford District. It also has a key task of reducing inequalities in the health outcomes of young children and their families across Bradford District, and between Bradford and the rest of England. EBM builds on the recommendations of the 2006 Bradford District Infant Mortality Commission. The report focuses on the latest intelligence available which reflects the recommendations set out by EBM.

#### Infant Mortality

Infant mortality is an indicator of the general health of an entire population. It reflects the relationship between causes of infant mortality and upstream determinants of population health such as economic, social and environmental conditions. Deaths occurring during the first 28 days of life (the neonatal period) in particular, are considered to reflect the health and care of both mother and newborn (1).

Reducing infant mortality overall and the gap between the richest and poorest groups are part of the Government's strategy for public health (Healthy Lives, Healthy People: Our Strategy for Public Health November 2010) (1).

Code	Data Collection	Most Recent	Current	Recent	RAG Status
PHOF 4.01	Three year average	2017-19	6.1		Significantly worse

In 2017-19 the infant mortality rate in Bradford District was 6.1 deaths per 1,000 live births, a slight increase from 5.7 deaths in 2016-18 (**Figure 1**). The infant mortality rate in Bradford District remains above both the regional average (4.2) and England average (3.9). The gap between Bradford and the England average has widened to 2.2 deaths per 1,000 live births. Bradford District has the 8<sup>th</sup> highest infant mortality rate in England. Bradford District has the second highest infant mortality rate within the Yorkshire & Humber region – following Kirklees (**Figure 2**).

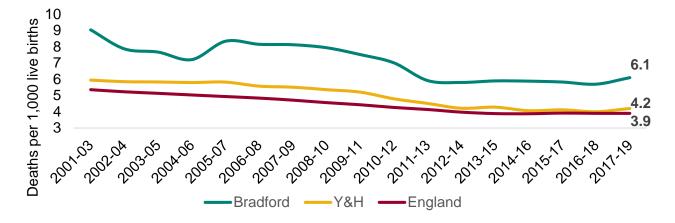
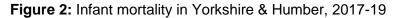
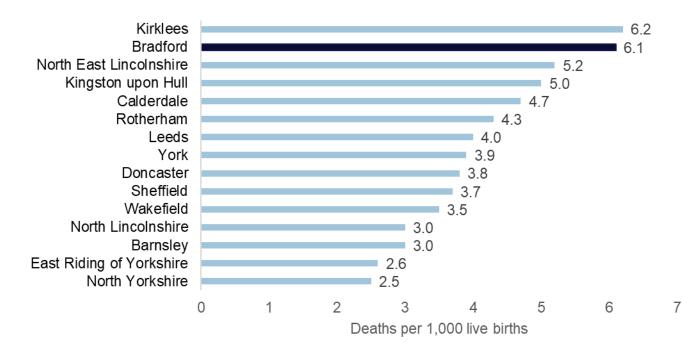
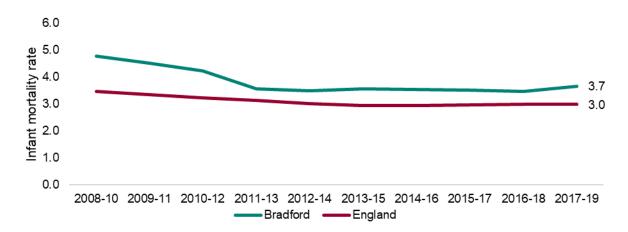


Figure 1: Infant mortality in Bradford District, 2001-03 to 2017-19





On average 74.3% of all deaths reviewed in children less than 18 years of age since 2008 were in category 7 or 8. This proportion has ranged from 69.7% to 81.8% however there has been no clear upward or downward trend identified. Nationally in 2017 just 58.4% of child deaths were due to Chromosomal, genetic and congenital anomalies or perinatal/ neonatal event (2). After applying a rate reduction based on these figures, in an attempt to control for chromosomal, genetic and congenital anomalies or perinatal event (catergory 7 or category 8) the IMR rate then becomes in line with that seen nationally (**Figure 3**).



**Figure 3:** Infant mortality in Bradford District and England excluding cases of genetic abnormalities\*, 2008-10 to 2017-19

\*the average proportion of deaths (0 to 17 years) due to genetic abnormalities 2008 to 2019 in Bradford District was 39.9% therefore a rate reduction of 39.9% was applied. Similarly, for England the average proportion of deaths (0 to 17 years) due to genetic abnormalities in 2019 24.3% - therefore a rate reduction of 24.3% was applied.

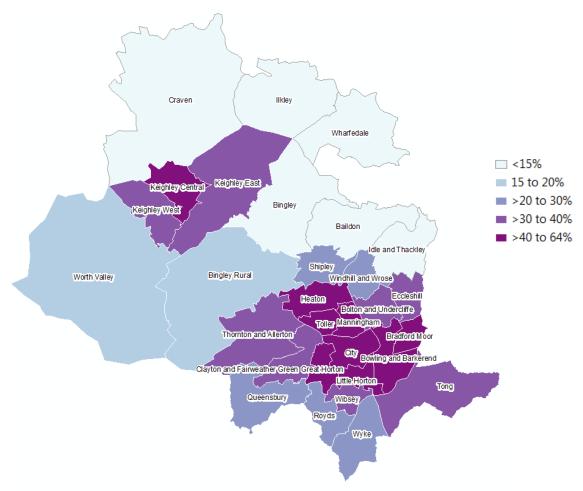
To reduce poverty and unemployment in families in Bradford District

#### Children in low income families

Relative low income is defined as a family in low income Before Housing Costs (BHC). A family must have claimed Child Benefit and at least one other household benefit (Universal Credit, tax credits or Housing Benefit) at any point in the year to be classed as low income in these statistics (4).

Bradford District has the third highest rate of children living in relative low income families of all local authorities within the UK. In 2020, 48,100 (38%) children in Bradford District were living in relative low income families. Regionally, Bradford has the highest percentage of children living in relative low income families, followed by Hull, Craven has the lowest rate. There are large differences between wards, with the highest levels of children in relative low income families in Manningham (64.9%), and the lowest in Wharfedale (6%) (Figure 4) (3). Bradford West (where Manningham is located) has the third highest recorded rate (49%) of all the parliamentary constituencies within the UK (4).

Figure 4: Percentage of Children (aged under 16) living in Relative low income families, 2020.



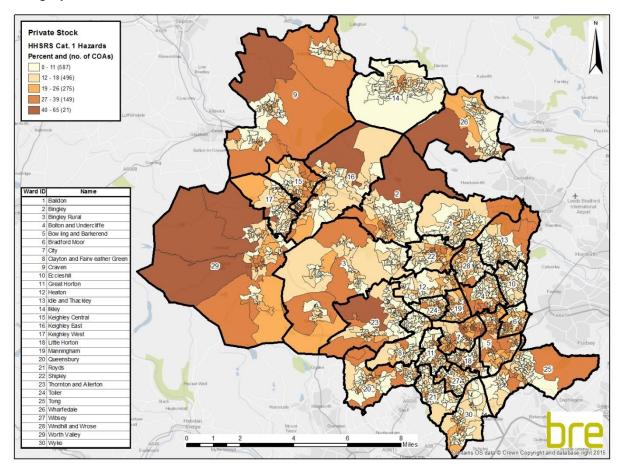
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The distribution of category 1 hazards, as defined by the Housing Health and Safety Rating System (HHSRS), shows that there are concentrations of high levels of hazards in City, Bowling and Barkerend and Manningham wards (Figure 5) (5).

Category 1 hazards are identified using the statutory Housing Health and Safety Rating System (HHSRS) which assesses 29 types of housing hazard and weights these to determine the category of risk – Category 1 hazards are the most serious.

One of the housing hazard types used in HHSRS is excess cold. While there are relatively low levels of excess cold hazards in Bradford as a whole the age and structure of some of the housing stock results in higher proportions of this hazard in some outlying areas such as Craven and Worth Valley. This may account for the higher levels of overall HHSRS hazards in these areas.

**Figure 5:** Percentage of private sector dwellings in Bradford with the presence of a HHSRS category 1 hazard



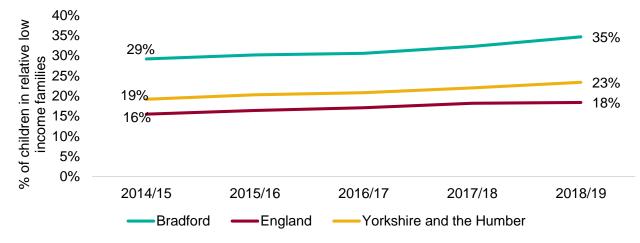
#### Children in low income families

The children in relative low income families measure is useful for comparing the situation in local areas and measuring the number and proportion of individuals who are currently in low income compared to the current median income.

Code	Data	Most Recent	Current	Long Term	RAG Status
93700	Yearly	2018/19	34.7%		Significantly worse than

In 2018/19, 34.7% of children under the age of 16 were living in relative low income families **(Figure 6).** Between 2014/15 and 2017/18 the rate was steadily increasing by 1% per year – however, between 2017/18 and 2018/19 the rate increased by 3%. The rate is significantly higher than both the average for England (18.4%) and the region (23.4%).

Figure 6: Proportion of children in low income families



### Unemployment

Code	Data Collection Frequency	Most Recent Data Available	Current Value	Long Term Trend	RAG Status
91126	Yearly	2018	5.1%	•	Significantly worse than England

In 2018, 5.1% of economically active adults who were able to work were unemployed, this equates to 11,700 individuals (Figure 7). Although the rate of unemployment has decreased from 11% in 2013, it remains higher than the England (4.1%) and regional (4.5%) average. The impact of the COVID-19 pandemic on employment has been substantial with the proportion of claimants almost doubling since 2019 (4.8%) to 9.4% in December 2020 (Figure 8).

Figure 7: Proportion of adults (16+) who are unemployed in Bradford District, 2013 to 2018

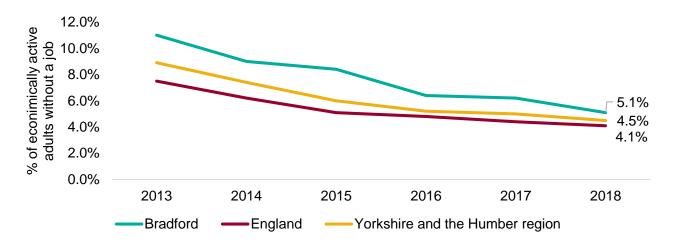
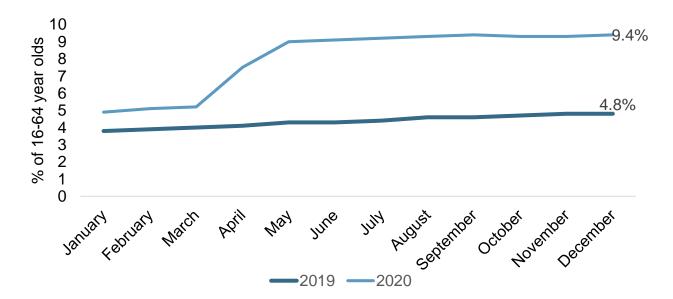


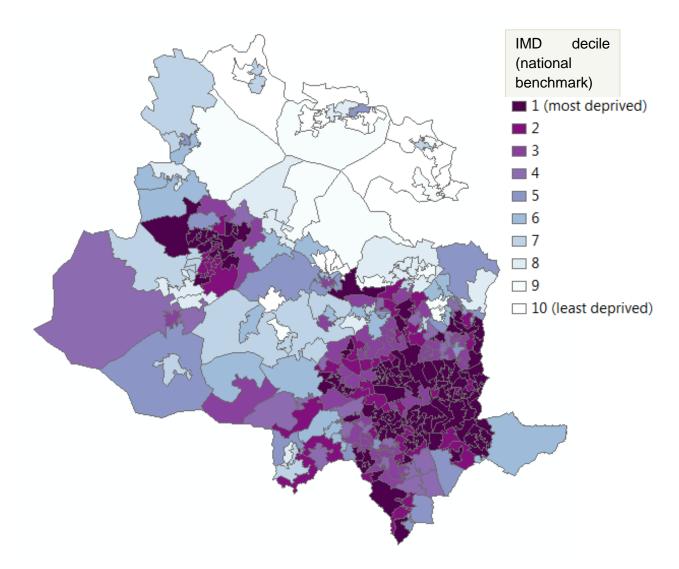
Figure 8: Claimants as a proportion of residents aged 16-64



#### Deprivation

Bradford District is within the most deprived 15% of local authorities nationally and is the most deprived authority in West Yorkshire. Within Bradford District population, 34% live in the most deprived 10% of areas in England (Figure 9). The gap between the most deprived and least deprived areas of the district is one of the largest in the country - inequalities exist within the district as well as compared with the country as a whole (6).

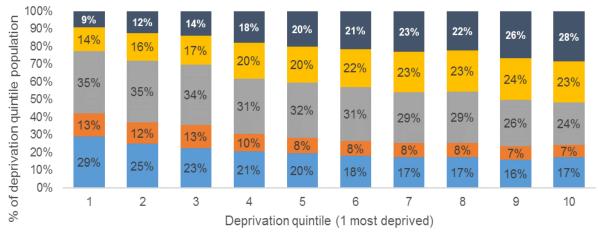
**Figure 9:** Index of multiple deprivation (2019) decile by LSOA in Bradford district. Data source: (7)



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The most deprived areas of the district are made up of a higher proportion of the younger age groups (**Figure 10**). For instance, 42% of those in the most deprived decile are aged between 0 to 24 years – this is almost double that seen in the least deprived decile (25%). Correspondingly, just 9% of the population in the most deprived decile are made up of over 65-year-olds, this rises to 28% in the least deprived decile.

Figure 10: Age breakdown of each deprivation decile. Data source: IMD 2019 and ONS 2019 midyear population estimates



■ 0 to 15 ■ 16 to 24 ■ 25 to 49 ■ 50 to 64 ■ 65+

To improve the availability of good quality and affordable housing for families

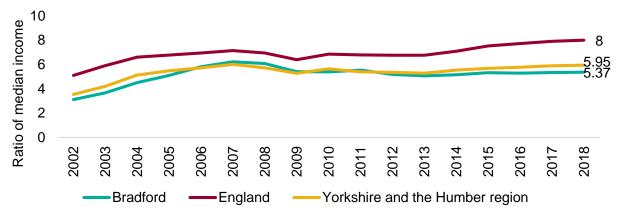
#### Affordability of home ownership

Housing affordability affects where people live and work, and factors that influence health including the quality of housing available, poverty, community cohesion, and time spent commuting (8). Housing is an important social determinant of health.

Code	Data Collection Frequency	Most Recent Data Available	Current Value	Long Term Trend
93111	Yearly	2018	5.4	1

Ratio of median house price to median gross annual residence-based earnings (A higher ratio indicates that on average, it is less affordable for a resident to purchase a house in their local authority district). Although there was a sharp increase in unaffordability of housing in Bradford from 2002 to 2009, there has been little change in the affordability of houses in Bradford since 2009. Not rising as much as the England average (**Figure 11**).

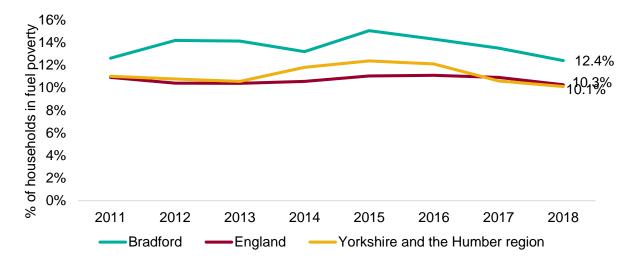
Figure 11: Housing affordability Ratio of median house price to median gross annual residence-based earnings



## Fuel poverty

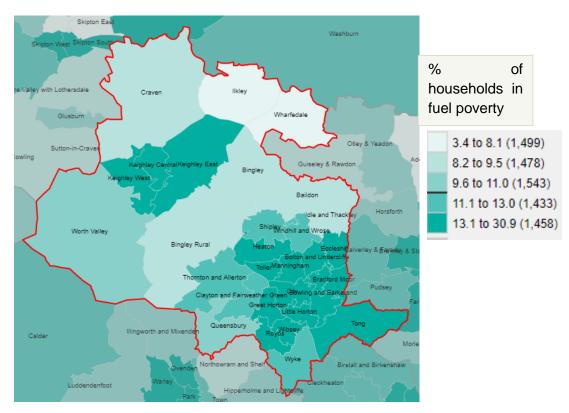
Code	Data Collection	Most Recent	Current	Long Term	RAG Status
93280	Yearly	2018	12.4%		Significantly worse

Fuel poverty can have severe and life-long effects on families and children; impacting on hospital admissions, breathing issues, mental health and education. Across the District, fuel poverty remains higher than the regional and England average (Figure 12). In 2018, 25,934 households in the District (12.4%) required fuel costs that were above average and which, if spent, would leave the household with an income below the official poverty line. The highest levels of fuel poverty were in Bradford West (17.9%), whereas the lowest were in Shipley (9.9%). Fuel poverty is more prevalent in more deprived urban parts of the district. For instance 22.3% of households experience fuel poverty in City and Manningham – in comparison to 7.8% in Ilkley (Figure 13).



**Figure 12:** Proportion of households that are fuel poor, Bradford, Yorkshire and Humber and England, 2011 to 2018.

Figure 13: The percentage of households that experience fuel poverty by ward based on the "Low income, high cost" methodology (%)(9)

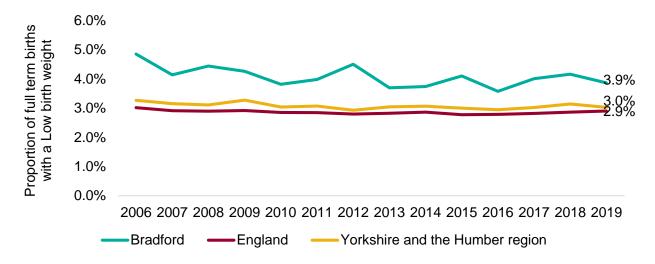


Rec 3a: To improve the health and nutrition of pregnant women, babies and women planning pregnancy

Code	Data Collection	Most Recent	Current	Long Term	RAG Status
20101	Yearly	2019	3.9%		Significantly worse

Low birth weight increases the risk of childhood mortality and of developmental problems for the child and is associated with poorer health in later life. At a population level there are inequalities in low birth weight and a high proportion of low birth weight births could indicate lifestyle issues of the mothers and/or issues with the maternity services. Bradford has consistently had a higher rate (3.9%) of full term births with a low birth weight than Yorkshire and Humber (3.0%) and England (2.9%) (**Figure 14**). Furthermore, Bradford have the highest rate of low term birthweight out of all local authorities in Yorkshire and Humber. A report produced by Born in Bradford identified an association in low birth weight following pregnancies with gestational diabetes(10).

**Figure 14:** Proportion of full term births with a low birth weight (2006 – 2019)



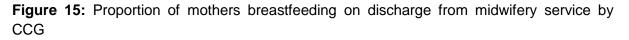
Suggestion of obtaining information on supplements taken in children aged 0-5 years

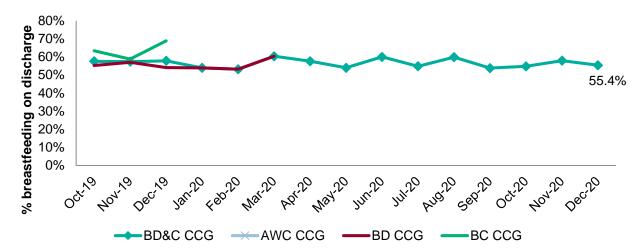
3b: To increase the numbers of women who start breastfeeding

#### Breast feeding at discharge CCG

Code	Data Collection Frequency	Most Recent Data Available	Current Value	Long Term Trend
N/A	Monthly	Dec 2020	CCG average: 55.4%	

The average proportion of mother's breast feeding across the three CCGs is 64.9% (Figure 15). Latest data from March 2019 seems to indicate there is not a huge variation in Breast feeding at delivery by CCG.

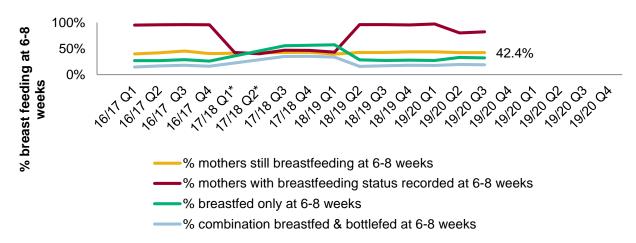




Code	Data Collection Frequency	Most Recent Data Available	Current Value	Long Term Trend
N/A	Quarterly	2019/20 quarter 3	Still breast feeding at 6- 8 weeks: <b>42.4%</b>	

There appears to be a peak in the number of women breastfeeding in 2017/18 quarter three and quarter four **(Figure 16).** However, this peak coincided with poor recording of breastfeeding status; it could therefore be subject to positive measurement bias. Excluding this period of uncertainty the rates of breastfeeding at 6 – 8 weeks appear relatively static.

**Figure 16:** Breast feeding proportions at 6-8 weeks, by quarter 2015/16 Q1 to 2019/20 Q3 Bradford District



To ensure equal access to all aspects of pre-conception, maternal and infant health care

#### Teenage pregnancies

Most teenage pregnancies are unplanned and around half end in an abortion. As well as it being an avoidable experience for the young woman, abortions represent an avoidable cost to the NHS. And while for some young women having a child when young can represent a positive turning point in their lives, for many more teenagers bringing up a child is extremely difficult and often results in poor outcomes for both the teenage parent and the child, in terms of the baby's health, the mother's emotional health and well-being and the likelihood of both the parent and child living in long-term poverty (11).

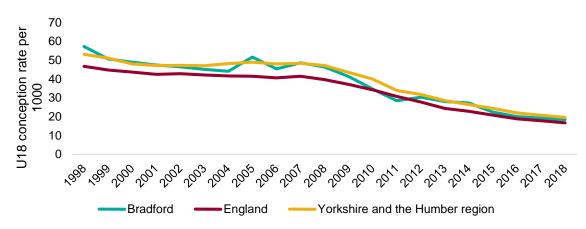
Research evidence, particularly from longitudinal studies, shows that teenage pregnancy is associated with poorer outcomes for both young parents and their children. Teenage mothers are less likely to finish their education, are more likely to bring up their child alone and in poverty and have a higher risk of poor mental health than older mothers. Infant mortality rates for babies born to teenage mothers are around 60% higher than for babies born to older mothers. The children of teenage mothers have an increased risk of living in poverty and poor quality housing and are more likely to have accidents and behavioural problems (11).

As well as being included in the Public Health Outcomes Framework, teenage pregnancy has also been included as a child poverty strategy indicator 2011-14, in the "A New Approach to Child Poverty: Tackling the Causes of Disadvantage and Transforming Families' Lives" document, published jointly between the Department for Work and Pensions and Department for Education, April 2011 – (11)

Code	Data Collection	Most Recent	Current	Long Term	RAG Status
20401	Yearly	2018	18.4		Similar to England

The teenage conception rate has fallen from 57.2 per 1,000 15-17-year-old women in 1998 to 18.4 per 1,000 in 2018. The rate observed is in line with what is seen in Yorkshire and Humber, and England (Figure 17).

Figure 17: Under 18 conception rate, 1998 to 2018

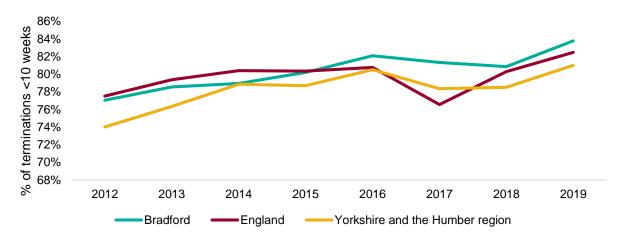


Code	Data Collection	Most Recent	Current	Long Term	RAG Status
90784	Yearly	2019	83.8%		Similar to England

The earlier abortions are performed the lower the risk of complications. Prompt access to abortion, enabling provision earlier in pregnancy, is also cost-effective and an indicator of service quality.

In 2019 the proportion of terminations taking place in the first ten weeks of pregnancy in Bradford was at 83.8% a slight increase from 2018 80.9%. This rate is similar to the both the regional (81.0%) and England average (82.5%).

Figure 18: Proportion of terminations <10 weeks



To improve social and emotional support for parents, especially those living in areas of social disadvantage

These estimates are based on national estimates of these conditions and local delivery figures only, and have been rounded up to the nearest five. They do not take into account socioeconomic factors or anything else which is likely to cause local variation. We are not aware of any data or research on exactly how maternal mental health differs by socioeconomic status that would allow us to take this into account in our estimates but appreciate that this would be useful if possible in the future.

For a comprehensive report on mental health in pregnancy and infants please refer to <u>Perinatal Mental Health</u> report on fingertips.

- Estimated number of women with postpartum psychosis: 12
- Estimated number of women with chronic SMI: 12
- Estimated number of women with severe depressive illness: 174
- Estimated number of women with mild-moderate depressive illness and anxiety (lower estimate): 580
- Estimated number of women with mild-moderate depressive illness and anxiety (upper estimate): 870
- Estimated number of women with PTSD: 174
- Estimated number of women with adjustment disorders and distress (lower estimate): 870
- Estimated number of women with adjustment disorders and distress (upper estimate): 1740

Source of deliveries: Hospital Episode Statistics, NHS Digital.

Adding all these estimates together will not give you an overall estimate of the number of women with antenatal or postnatal mental health conditions in your area, as some women will have more than one of these conditions. It is believed that overall between 10% and 20% of women are affected by mental health problems at some point during pregnancy or the first year after childbirth (12).

Source of rates of disorders: Joint Commissioning Panel for Mental Health. Guidance for commissioners of perinatal mental health services. Volume two: practical mental health commissioning. London: Joint Commissioning Panel for Mental Health; 2012. Available from: <a href="http://www.jcpmh.info/resource/quidance-perinatal-mental-health-services/">www.jcpmh.info/resource/quidance-perinatal-mental-health-services/</a>

#### Specialist Mother and Baby Mental Health Service (SMABS) data extract

The most common condition recorded amongst mothers receiving face to face contact at SMABS was depression (52%) followed by postpartum psychosis (PPP) or bipolar **(Table 1)**. These figures solely refer to the perinatal period rather than those already in mental health services. Although only 14% of women have been recorded as experiencing anxiety – this has been noted to be an underestimation as anxiety is recorded as symptom of other

conditions and not as a condition in its own right. Furthermore, these figures are representing the most high risk women, which explains the large psychosis prevalence.

**Table 1:** Recorded mental health condition of women accessing SMABS November 2018 to

 November 2019

Condition*	%
Depression	52
Postpartum psychosis (PPP) or bipolar	27
Emotionally unstable personality disorder (EUPD)	21
Obsessive compulsive disorder (OCD)	18
Anxiety	14
Trauma	10
Eating	7
Other	7

\*Some women may have more than one condition recorded.

The expected prevalence in general population is, as expected, much lower.

**Table 2:** Expected prevalence in all maternities in the general population

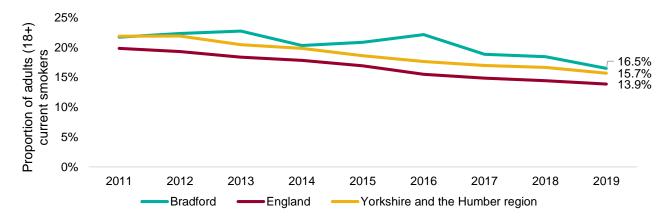
Disorder	Rate per 1,000 maternities
Postpartum psychosis	2
Chronic serious mental illness	2
Severe depressive illness	30
Post-traumatic stress disorder	30
Mild-moderate depressive illness and anxiety states	100-150
Adjustment disorders and distress	150-300

Source of rates of disorders: Joint Commissioning Panel for Mental Health.

a)	a) To reduce the numbers of men and women smoking										
Code	Data Collection Frequency	Most Recent Data Available	Current Value	Long Term Trend	RAG Status						
9244	3 Yearly	2019	16.5%	-	Significantly worse than England						

The prevalence of smoking has been on a gradual decline since 2011, however an increase was evident in Bradford in 2016 **(Figure 19).** In 2019, 16.5% of the adult population were smokers, this is higher than both the regional (15.7%) and England (13.9%) average.





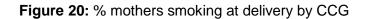
## Smoking in pregnancy

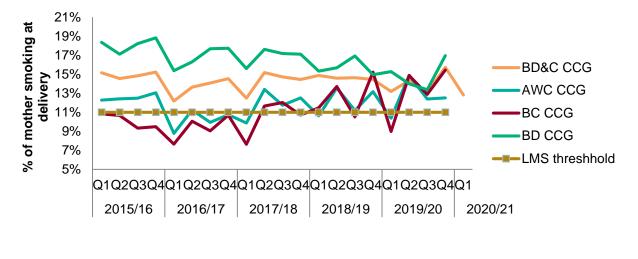
Smoking in pregnancy has well known detrimental effects for the growth and development of the baby and health of the mother. On average, smokers have more complications during pregnancy and labour, including bleeding during pregnancy, placental abruption and premature rupture of membranes.

Code	Data Collection Frequency	Most Recent Data Available	Current Value
N/A	Monthly	March 2019	CCG average: 15.7%

Bradford City has the largest variation in the prevalence of mothers smoking at the time of delivery per month – ranging from 7.6% to 15.4% in the latest quarter.

At the point of delivery, the average proportion of mothers smoking by CCG in quarter 2 2020/21 was at 13.2%. This figure is above the LMS threshold of 11%. Bradford District CCG consistently remains a few percentage points above this threshold, whereas Bradford City and Airedale Wharfedale and Craven are more in line.





b) To reduce the numbers of women with high levels of use of alcohol and/or nonprescribed drugs in pregnancy

Alcohol: Data from Born in Bradford reported that 3,403 (30.0%) drank alcohol in the three months prior to the pregnancy, 1,731 (15.2%) drank alcohol in the first three months of pregnancy, and 1,300 (11.4%) drank since the 4th month of pregnancy (13). In addition, large ethnic differences in alcohol consumption were reported. For example, pregnant women of South Asian origin reported very low levels of alcohol consumption; whereas white British mothers reported much higher levels of alcohol consumption (72% consumed alcohol in the 3 months prior to pregnancy and 40% during pregnancy).

Between 2019/20 and 2020/21 there was a slight increase observed in the proportion of women accessing SMS treatment who were pregnant **(Table 3**).

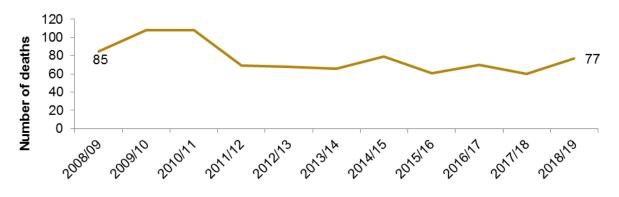
Table 3:	Number	and	proportion	of	female	clients	starting	SMS	treatment	recorded	as
pregnant											

	2017-18			2018-19			2019-20			2020-21		
	No (women) starting treatment	No (women) recorded as pregnant	%	No (women) starting treatment	No (women) recorded as pregnant	%	No (women) starting treatment	No (women) recorded as pregnant	%	starting treatment	No. (women) recorded as pregnant	%
Number of female clients starting treatment recorded as pregnant	335	7	2.1%	417	10	2.4%	449	6	1.3%	331	7	2.1.%

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

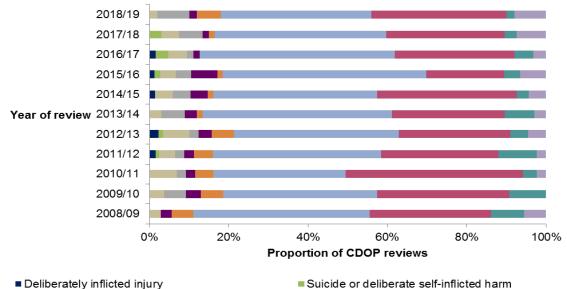
The number of deaths reviewed per year does not vary greatly with just one peak noticeable in 2011/12 (Figure 21). The breakdown by cause of death has seen a similar trend since 2008/09 with category 7 and 8 deaths accounting for over two-third of all deaths each year (Figure 22).

Figure 21: Number of deaths per year\* 2008/09 to 2018/19. Source: Child Death Overview Panel. Date extracted: June 2019



\* year of death of the child - as opposed to the year the child's death was reviewed

Figure 22: Proportion of child deaths (0 to <18 years of age) by cause. Source: Child Death Overview Panel. Date extracted: June 2019



- Trauma and other external factors
- Suicide or deliberate self-inflicted harm
- Acute medical or surgical condition
- Chromosomal, genetic and congenital anomalies
- Infection

- Chronic medical condition
- Perinatal/neonatal event

Malignancy

Sudden unexpected death

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