This report summaries analysis of local data for the RIC in City CCG to inform the planning of interventions and targeting of services to reduce health inequalities in City CCG. This report has focussed on the data currently available to the BIRU including Born in Bradford cohort data, maternity data and national datasets. This is the first of a series of reports based on analysis of local data; the next report will provide more insight into the drivers of health inequalities in the adult population using Connected Bradford data.

Any queries / request for more in-depth findings should be directed to bo.hou@bthft.nhs.uk and brian.kelly@bthft.nhs.uk
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Executive Summary

1. City CCG has a relatively young population with a high birth rate. Intervening early has lifelong effects on the health, wellbeing and social outcomes. RIC should focus significant attention on early interventions (in coordination with other agencies that affect upstream determinants).

2. Many patients registered with GPs in City CCG live outside the CCG border. More impact on CCG outcomes will be made by focussing any place-based interventions in areas of high registrations. The high mobility of the City CCG population has implications for the way services are delivered.

3. Infant and child mortality is relatively high in City CCG. Interventions focussed on reducing the risks of infant and child mortality should be prioritised and evaluated carefully for impact. For example:

   a. Interventions to reduce smoking in pregnancy should target the White British and White Other populations where almost 50% of women at booking appointment report smoking.
   b. Focus on reducing BMI in girls and young women and postpartum, as well over 50% of pregnant women are overweight or obese which increases risk of poor pregnancy outcome and child obesity.
   c. Continue to intervene to reduce the rate of consanguinity, which though falling, is still high in the Pakistani heritage population and is the cause of raised child mortality rates due to genetic conditions.
   d. Interventions to reduce road traffic accidents should be focussed on hotspots where children are more frequently killed or seriously injured on roads.
   e. Childhood overweight/obesity is high and oral health is extremely poor. As well as targeted interventions (e.g. Tier 3 obesity intervention), early preventative interventions should be implemented to tackle diet and oral health.
   f. Effective targeted interventions to improve the management of childhood asthma are needed as there is a higher rate of asthma and a high rate of emergency admissions for respiratory problems compared to the national average. There is relatively poor usage of corticosteroid medication (especially in S.Asian heritage children who have a much raised risk of A&E visits).

4. Mortality from respiratory disease and cardiovascular disease in the under 75s is higher than the national average, (though respiratory disease is improving). Women under 65 in the City CCG population are particularly at risk of type 2 diabetes. Interventions to identify and actively manage those at risk (such as hypertension detection and follow up, and control of diabetes) should be prioritised.

5. Older people in Bradford City CCG are more likely to live alone, indicating that ways to address isolation and engagement with health services are likely to yield benefits.
1. Understanding the City CCG population

1.1 City CCG patient registrations

Some areas within the geographical boundary of Bradford City CCG have a relatively low proportion of patients registered with a City CCG associated GP practice. In some parts less than 25% of residents are registered with a City CCG GP practice (the others mostly being registered with a District CCG GP practice), conversely some areas outside the geographical boundary of Bradford City CCG have over half of residents registered with a City CCG GP practice, see figure 1. This has implications for place based interventions.

Figure 1: Map showing the proportion of LSOA residents that are registered with a GP practice affiliated with Bradford City CCG.

1.2 Migration in the CCG Population

A larger number of people leave Bradford to live in other parts of the UK than come to live here; in 2015/16 the net inward national migration was minus 2,600. In the Born in Bradford cohort study around 10% of children born at Bradford Royal Infirmary will have moved out of Bradford local authority by the age of 10 years. This is high compared to other local authorities (see figure 2). In parts of Bradford City CCG the rate of internal migration is
high, with over 50% of the population having lived elsewhere one year previously, while in other areas of the CCG this is under 10% (see figure 3).

Figure 2: Distribution of net and gross migration by local authority

Figure 2: Distribution of net and gross migration by local authority

![Distribution of net and gross migration by local authority](https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/migrationwithintheuk/bulletins/internalmigrationbylocalauthoritiesinenglandandwales/yearendingjune2015)

Source: ONS Internal migration 2015

Figure 3: Map showing the percentage of usual population that had lived elsewhere one year previously (internal migration inflow)

Figure 4: Map showing the percentage of the City CCG population born outside the UK

![Map showing the percentage of usual population that had lived elsewhere one year previously](source: 2011 Census Data (Nomis))

![Map showing the percentage of the City CCG population born outside the UK](source: 2011 Census Data (Nomis))
If the net negative migration is associated with more healthy individuals moving out, the population movement patterns (negative net migration over the life course) may partly explain why the Bradford City CCG older population is, on average, in poorer health. Health services and RIC interventions need to be able to engage with populations that are changing, particularly in those areas with the highest population turnover. Area level measurements of the impact of RIC interventions may be diluted by population movement (i.e. patients receiving interventions moving out, and new patients not receiving interventions moving in).

1.3 Pregnancy and Early Years

Bradford City CCG has a high birth rate, with 80 births per 1000 population of women aged 15 to 44 years compared to 73 in the Bradford local authority district and 61 in England.1

In Bradford City CCG around 85% of all births were to mothers from Black and Minority ethnic populations (2016/17).1 This is far higher than the England average of 24%, and the Bradford average of 50%. Our analysis of women in Bradford City CCG giving birth over the last 3 years (from Bradford maternity data) identifies the three largest ethnic groups as Pakistani heritage (63.8%), Other White (8.4%) and White British (6.0%).

As at 2018/19 1.0% of births in Bradford City CCG are to mothers who are less than 18 years of age; this is higher than the England average of 0.6%, but lower than Bradford District CCG where the proportion is 1.4%. Rates for England as a whole have fallen over the last five years, while the trend in Bradford City CCG and Bradford District CCG have remained constant, see figure 5.

Figure 5: Percentage of births to women under 18 years


When we take account of the underlying population and estimate the number of births as a rate of women aged under 18 then we see that there were 3.66 births per 1000 women aged under 18 years in Bradford City CCG in 2018/19, far higher than the 0.65 births per 1000 women aged under 18 years in Bradford District CCG; this is due to the lower proportion of
women aged under 18 in the District CCG (even though the proportion of births to women under 18 is higher in the District CCG), see table 1.

Table 1: Estimated births per 1000 women aged under 18 years 2018/19

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage of births to under 18 year old *1</th>
<th>Total Births *2</th>
<th>Number women aged 13-17 years *3</th>
<th>Births to under 18 year old *3</th>
<th>Births per 1,000 women aged 18 *3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bradford City CCG</td>
<td>1.0%</td>
<td>1435</td>
<td>14</td>
<td>3923</td>
<td>3.66</td>
</tr>
<tr>
<td>Bradford District CCG</td>
<td>1.4%</td>
<td>4705</td>
<td>66</td>
<td>101321</td>
<td>0.65</td>
</tr>
<tr>
<td>England</td>
<td>0.6%</td>
<td>625651</td>
<td>3754</td>
<td>1018153</td>
<td>3.69</td>
</tr>
</tbody>
</table>


We can look at ethnic differences in teenage pregnancy using maternity data for women from Bradford City CCG. Table 2a shows that there have been a total 39 births to women under 18 in the three years between 2016 to 2018 (this equates to an average of 13 a year, which matches the estimate in table 1); the vast majority of births were to the Other White ethnic category (mostly Eastern European). When we take account of the underlying population then we can see that proportion of births that are to women under 18 is lowest for the Pakistani heritage women (0.1% of all births in that group), higher in White British (1.4%), but very high in the Other White group (7.5%). Table 2b provides data for births to women under 20. There was a total of 153 births to women under 20 in the three year period, equating to around 51 a year. The proportion of births that are to women under 20 is still lowest for the Pakistani heritage women (1.8%) and highest in the Other White group (15.1%), but, but is also relatively high for the White British group (11.5%), but very high in the Other White group (7.5%).

Table 2a: Teenage pregnancy under 18, City CCG

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th>Total births</th>
<th>Proportion of total births</th>
<th>Proportion of total births</th>
</tr>
</thead>
<tbody>
<tr>
<td>White British</td>
<td>4</td>
<td>296</td>
<td>1.4%</td>
<td>(0.0% 2.7%)</td>
</tr>
<tr>
<td>Pakistani heritage</td>
<td>4</td>
<td>3139</td>
<td>0.1%</td>
<td>(0.0% 0.3%)</td>
</tr>
<tr>
<td>Other White</td>
<td>31</td>
<td>412</td>
<td>7.5%</td>
<td>(5.0% 10.1%)</td>
</tr>
</tbody>
</table>

Source: Medway data 2016-2018; 95% CI in brackets

Table 2b: Teenage pregnancy under 20, City CCG

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th>Total births</th>
<th>Proportion of total births</th>
<th>Proportion of total births</th>
</tr>
</thead>
<tbody>
<tr>
<td>White British</td>
<td>34</td>
<td>296</td>
<td>11.5%</td>
<td>(7.8% 15.1%)</td>
</tr>
<tr>
<td>Pakistani heritage</td>
<td>57</td>
<td>3139</td>
<td>1.8%</td>
<td>(1.3% 2.3%)</td>
</tr>
<tr>
<td>Other White</td>
<td>62</td>
<td>412</td>
<td>15.1%</td>
<td>(11.6% 18.5%)</td>
</tr>
</tbody>
</table>

Source: Medway data 2016-2018; 95% CI in brackets
Families in Bradford tend to be larger than the English average; ~24% of Bradford families have three or more children, compared to 16% in England, see figure 6. Compared to the England average, Bradford City CCG has a high proportion of children aged less than 5 years of age (~9% of Bradford City CCG, compared to ~6% in England). This percentage is set to remain fairly constant. ¹

Figure 6: Family size Bradford and England


### 1.4 Implications for RIC

Many patients registered with GPs in City CCG live outside the CCG border. More impact on CCG outcomes will be made by focusing any place-based interventions in areas of high registrations. The high mobility of the City CCG population has implications for the way services are delivered.

City CCG has a relatively young population with a high birth rate. Intervening early has lifelong effects on the health, wellbeing and social outcomes. RIC should focus significant attention on early interventions (in coordination with other agencies that affect upstream determinants).

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¹ Office for National Statistics
[https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/clinicalcommissioninggroupsinenglandtable3](https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/clinicalcommissioninggroupsinenglandtable3)
2. Considerations for preconception, maternal & child health

2.1 Infant Mortality

Infant mortality is high in Bradford City CCG and Bradford local authority district, 6.6 per 1000 and 5.7 per 1000 respectively, compared to 3.9 per 1000 in England. Child mortality (age 1 to 7 years) is also particularly high in Bradford City CCG at 24 per 1000; this is considerably higher than Bradford district at 15 per 1000 and England at 11 per 1000.

Perinatal/neonatal events (Category 8) accounts for 29% of child deaths in 2017 and 2018. Major risk factors for this include smoking in pregnancy and women being obese/overweight around conception and during pregnancy.

2.2 Smoking in Pregnancy

Using recent maternity data, we have looked at both self-reported smoking status at booking and results based on exhaled carbon monoxide tests in three biggest ethnic groups in City CCG. Results are shown in Table 3. The smoking rate is 45% for the White British group, 4.5% for the Pakistani heritage group and 41.5% for the Other White, and stable between 2016 and 2018. From exhaled carbon monoxide tests, high level of exposure to carbon monoxide (CO) is indicative of smoking. 29.2% of White British group is in high exposure group compared with 3.1% of Pakistani heritage group and with 25.8% of the Other White.

Table 3: Smoking in pregnancy, Bradford City CCG

<table>
<thead>
<tr>
<th></th>
<th>Self-reported smoking status</th>
<th>High level of exposure to carbon monoxide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Total</td>
</tr>
<tr>
<td>White British</td>
<td>133</td>
<td>296</td>
</tr>
<tr>
<td>Pakistani heritage</td>
<td>140</td>
<td>3137</td>
</tr>
<tr>
<td>Other White</td>
<td>170</td>
<td>410</td>
</tr>
</tbody>
</table>

Source: Medway data 2016-2018; 95% CI in brackets

With maternity data, we could also look at moderate level of exposure to CO, which possibly indicates second-hand smoking. Table 4 below shows that 25.1% of White British is in this group compared with 9.74% of Pakistani heritage group and with 21.1% of other ethnic group. This highlights Pakistani heritage women have a relatively high risk of moderate level of exposure to carbon monoxide possibly from second-hand smoking.

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2 Carbon monoxide (CO) is a poisonous gas and commonly is found in cigarette smoke, exhaust fumes and faulty gas boilers. This is especially risky to pregnant women as it influences a growing baby’s access to oxygen. The exhaled carbon monoxide test measures the level of carbon monoxide in the body. A test reading of 1-4 parts per million (ppm) is regarded as low exposure and normal. 5-9 ppm is moderate level of exposure and may suggest exposed to second-hand smoke. Over 10ppm is regarded as high level of exposure and this is a typical reading for smokers https://www.blf.org.uk/support-for-you/breathing-tests/exhaled-carbon-monoxide-test
considering this group has always been regarded as have a lower risk of smoking during pregnancy.

Table 4. Moderate level of exposure to carbon monoxide, City CCG (%)

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th>Total</th>
<th>Rates</th>
<th>95% CI in brackets</th>
</tr>
</thead>
<tbody>
<tr>
<td>White British</td>
<td>50</td>
<td>199</td>
<td>25.10%</td>
<td>(19.0% – 31.2%)</td>
</tr>
<tr>
<td>Pakistani heritage</td>
<td>287</td>
<td>2946</td>
<td>9.70%</td>
<td>(8.7% – 10.8%)</td>
</tr>
<tr>
<td>Other White</td>
<td>62</td>
<td>294</td>
<td>21.10%</td>
<td>(16.4% – 25.8%)</td>
</tr>
</tbody>
</table>

Source: Medway data 2016-2018; 95% CI in brackets

**2.3 BMI at booking**

In City CCG population, the Maternity data in table 5 show the Pakistani heritage group has the highest rate in overweight/obese/severely obese group (58%) compared to national rate of 49%. Other White (48%) and White British (48.5) have similar rates compared to the national rate. For severely obese (BMI>40), White British pregnant women have the highest rate compared with Pakistani heritage and Other White (5.1% vs 2.3% vs 2%). This rate is a lot higher compared to the national rate (3.3%).

Table 5: BMI at booking

<table>
<thead>
<tr>
<th></th>
<th>Overweight</th>
<th>Obese</th>
<th>Severely obese</th>
<th>Total Overweight/Obese/Severely obese</th>
</tr>
</thead>
<tbody>
<tr>
<td>England*</td>
<td>27.4%</td>
<td>18.3%</td>
<td>3.3%</td>
<td>49.0%</td>
</tr>
<tr>
<td>White British, City CCG</td>
<td>24.2% (71)</td>
<td>19.1% (56)</td>
<td>5.1% (15)</td>
<td>48.5% (142)</td>
</tr>
<tr>
<td>Pakistani heritage, City CCG</td>
<td>33.3% (1,033)</td>
<td>22.4% (695)</td>
<td>2.3% (72)</td>
<td>58% (1800)</td>
</tr>
<tr>
<td>Other White, City CCG</td>
<td>27.2% (110)</td>
<td>18.8% (76)</td>
<td>2% (8)</td>
<td>48% (194)</td>
</tr>
</tbody>
</table>

Source: Medway data 2016-2018; actual numbers were reported in parentheses


**2.4 Consanguinity**

The main causes of child mortality in Bradford are related to genetic conditions (Category 7 chromosomal, genetic and congenital anomalies) accounting for 43% of death, in 2017 and 2018. This is much higher than the national average of 25%. Consanguinity is likely to be an important contributor to this as well as unknown genetic causes.

We compared data from the Born in Bradford’s Better Start (BiBBS) birth cohort (n=2949, collected 2016/20) with data from the Born in Bradford cohort from the same Better Start

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3 Child Death Overview Panel (CDOP) Annual Report 2017-18
https://www.saferbradford.co.uk/resources/child-death-overview-panel-cdop/
geographical area (n= 2473, collected 2007/11) to look for changes over time. Rates of consanguinity are high in the Pakistani heritage population, particularly for women born in Pakistan, but there is some evidence that there has been a decrease over time. The percentage of Pakistani heritage women giving birth who were as first cousins with the father of the child fell from 39% to 26%, see figure 8. Women of Pakistani heritage who were born in Pakistan were more likely to be related to the father of their child than Pakistani Heritage women who were born in the UK, the difference between these two groups has grown over time, (see figure 9).

Figure 8: Consanguinity in Born in Bradford (2007/11) and Better Start (2016/20)

<table>
<thead>
<tr>
<th></th>
<th>Bib: White British</th>
<th>BIBBS: White British</th>
<th>Bib: Pakistani Heritage</th>
<th>BIBBS: Pakistani Heritage</th>
<th>Bib: Other</th>
<th>BIBBS: Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>First cousin</td>
<td>99.8%</td>
<td>99.7%</td>
<td>39.0%</td>
<td>22.9%</td>
<td>38.1%</td>
<td>54.1%</td>
</tr>
<tr>
<td>Other related</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not related</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Born in Bradford (2007 to 2011) and BiBBS (2016 to 2020) birth cohorts

Figure 9: Consanguinity in Born in Bradford (2007/11) and BiBBS (2016/20)

<table>
<thead>
<tr>
<th></th>
<th>Bib: Born England</th>
<th>BIBBS: Born England</th>
<th>Bib: Born Pakistan</th>
<th>BIBBS: Born Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>First cousin</td>
<td>36.1%</td>
<td>19.6%</td>
<td>40.8%</td>
<td>32.8%</td>
</tr>
<tr>
<td>Other related</td>
<td>23.2%</td>
<td>73.7%</td>
<td>23.1%</td>
<td>11.0%</td>
</tr>
<tr>
<td>Not related</td>
<td>40.7%</td>
<td>36.1%</td>
<td>56.3%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Born in Bradford (2007 to 2011) and BiBBS (2016 to 2020) birth cohorts

### 2.5 Road traffic accidents

The rate of children killed or seriously injured in Bradford City CCG (51 per 100,000) is far higher than the England average, (17 per 100,000) (Source: PHE). Figure 10 shows a map of incidents where children were killed or seriously injured in road traffic accidents. This map
suggests that there may be hotspots where interventions to tackle road safety (perhaps led by the local authority) can be focused.

Figure 10: Location of incidents where children were killed or seriously injured on roads

![Children Killed/ Seriously Injured on Roads](image_url)

Source: Bradford Local Authority KSI data

### 2.6 Childhood asthma

Almost one in eight (14.5%) of BiB children had a diagnosis of asthma recorded in their GP records by the age of 10 years (this is considerably higher than the estimated rate of one in eleven children of any age in the UK),

BiB children registered with a GP practice aligned with Bradford City CCG were more likely to have been diagnosed with asthma (16.0%, compared to 13.5% in Bradford District CCG). However once ethnicity of BiB children is accounted for there is no significant difference between asthma rates in the two CCG’s. This is because asthma rates are considerably higher in Pakistani heritage children (16.2%) compared to White British children (12.6%) and once the ethnic makeup of the CCG is controlled for the differences between CCG areas becomes
non-significant, while ethnic differences remain. This can be seen in figure 11, which shows the estimated rate of asthma in BiB children by CCG in part A of figure 11, and the rate for ethnic groups by CCG in part B. We intend to further investigate this relationship, to determine whether these observed ethnic differences are due to environmental factors and socio-economic differences.

Figure 11: Rates of asthma in BiB children by CCG, and by ethnicity in each CCG
Rates of hospital emergency admissions for respiratory problems in children aged under 18 years is high in Bradford City CCG (around 20% higher than the average for England), see Table 6.

Table 6: Emergency admissions for respiratory problems for children under 18 years.

<table>
<thead>
<tr>
<th>Area</th>
<th>Rate per 1,000 2011/12 to 2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>3.87</td>
</tr>
<tr>
<td>NHS Bradford City CCG</td>
<td>4.7</td>
</tr>
<tr>
<td>NHS Bradford Districts CCG</td>
<td>4.76</td>
</tr>
</tbody>
</table>

Source: https://fingertips.phe.org.uk/profile/general-practice

We looked at the Born in Bradford data and found that boys and children of Pakistani heritage are most likely to attend accident and emergency for asthma or wheeze related conditions, as were children who were born low birthweight (see table 7).

Table 7: Odds of an Accident and Emergency event for Asthma or Wheeze (Born in Bradford cohort data)

<table>
<thead>
<tr>
<th>Asthma related Accident and Emergency events</th>
<th>Odds ratio</th>
<th>Low 95% CI</th>
<th>High 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (ref: female)</td>
<td>1.85</td>
<td>1.32</td>
<td>2.59</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity (ref: White British)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pakistani</td>
<td>1.65</td>
<td>1.09</td>
<td>2.51</td>
</tr>
<tr>
<td>Other</td>
<td>1.16</td>
<td>0.64</td>
<td>2.12</td>
</tr>
<tr>
<td>Means-tested benefit status (ref: no)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In receipt of means-tested benefits</td>
<td>1.5</td>
<td>1.04</td>
<td>2.16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wheeze related Accident and Emergency events</th>
<th>Odds ratio</th>
<th>Low 95% CI</th>
<th>High 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (ref: female)</td>
<td>1.76</td>
<td>1.42</td>
<td>2.19</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity (ref: White British)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pakistani</td>
<td>1.48</td>
<td>1.11</td>
<td>1.96</td>
</tr>
<tr>
<td>Other</td>
<td>1.01</td>
<td>0.68</td>
<td>1.49</td>
</tr>
<tr>
<td>Means-tested benefit status (ref: no)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In receipt of means-tested benefits</td>
<td>1.13</td>
<td>0.9</td>
<td>1.43</td>
</tr>
</tbody>
</table>
The percentage of Born in Bradford children with diagnosed asthma who do not adhere to corticosteroid medication is high, particularly for children from ethnic minorities, or whose mothers were born outside the UK. Born in Bradford children with asthma who do not adhere to corticosteroid medication are almost three times as likely to experience an accident and emergency event related to asthma or wheezing than those children who do adhere to corticosteroid medication; 13.2% (95% CI: 10.8%-15.6%), compared to 5.1% (95% CI: 2.9%-7.3%) (see figure 12).

Figure 12: Predicted probability of accident and emergency attendance for asthma or wheeze for children with diagnosed asthma by adherence to corticosteroids.

2.7 Oral health

Oral health for Bradford City CCG children is worse compared with the national average. In 2016-2017, 55% of children had one or more decayed, missing or filled teeth compared with the national average of 23.3%.

2.8 Child BMI

In reception year of primary school, 12% of children in Bradford City CCG were obese, compared to 10% in Bradford district and 10% in England. By Year 6, 28% of children in Bradford City CCG were obese, compared to 25% in Bradford district and 20% in England, (see figure 13).

We know from analysing Born in Bradford data that obesity at a young age is associated with an increased use of health care provision and increased morbidity in childhood, see figure 14.

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4 NHS Digital dental statistics
2.9 Implications for RIC

Infant and child mortality is relatively high in City CCG. Interventions focussed on reducing the risks of infant and child mortality should be prioritised and evaluated carefully for impact. For example:

Interventions to reduce smoking in pregnancy should target the White British and White Other populations where almost 50% of women at booking appointment report smoking.

Focus on reducing BMI in girls and young women and postpartum, as well over 50% of pregnant women are overweight or obese which increases risk of poor pregnancy outcome and child obesity.
Continue to intervene to reduce the rate of consanguinity, which though falling, is still high in the Pakistani heritage population and is the cause of raised child mortality rates due to genetic conditions.

Interventions to reduce road traffic accidents should be focussed on hotspots where children are more frequently killed or seriously injured on roads.

Childhood overweight/obesity is high and oral health is extremely poor. As well as targeted interventions (e.g. Tier 3 obesity intervention), early preventative interventions should be implemented to tackle diet and oral health.

Effective targeted interventions to improve the management of childhood asthma are needed as there is a higher rate of asthma and a high rate of emergency admissions for respiratory problems compared to the national average. There is relatively poor usage of corticosteroid medication (especially in South Asian heritage children who have a much raised risk of A&E visits).
3. Considerations for Reducing Premature Mortality

3.1 The older population in City CCG

Older people who live in Bradford City CCG are more likely to have poor health than the England average. The mortality rate for those aged 65 to 74 years is 75% higher than the rate for England; life expectancy is 6 years lower for men and 4 years lower than the England average for women. Rates of avoidable mortality are 70% higher in Bradford City CCG compared to England as a whole.

Older people who live in Bradford City CCG are more likely to live alone, almost 80% of those aged 65 or more live in single person households (see figure 15).

Figure 15: Proportion of those aged 65 plus who live in single person households by CCG (with Bradford City CCG identified).

Source: ONS, Census 2011 (KS105EW - Household composition)
3.2 Under 75 mortality from cardiovascular disease and respiratory disease

Figures 16 and 17 show time trends of under 75 mortality from cardiovascular disease and respiratory disease in Bradford City CCG compared with all registered patients in England. Both indicators are almost twice that of the national average in 2017. Mortality from cardiovascular disease seems to be increasing from 2015 and mortality from respiratory disease showed reduction in 2017.

Figure 16: Mortality from cardiovascular disease under 75

![Under 75 mortality from cardiovascular disease](image)

Statistic: Directly age and sex standardised mortality rate (DSR) per 100,000 registered patients, Reporting period: 2009 to 2017 (calendar years)
Source: GP registered patient counts from NHAIS (Exeter), Primary Care Mortality Database (PCMD) and European standard population 2013

Figure 17: Mortality from respiratory disease under 75

![Under 75 mortality from respiratory disease](image)

Statistic: Directly age and sex standardised mortality rate (DSR) per 100,000 registered patients
Source: GP registered patient counts from NHAIS (Exeter), Primary Care Mortality Database (PCMD) and European standard population 2013
3.3 Type 2 diabetes

Table 8 shows the gender of people with diagnosed type 2 diabetes in Bradford City CCG compared to England rates. In City CCG, women have a higher rate of diagnosed type 2 diabetes compared to the England rate, whilst men have a lower rate than England as a whole.

Table 8: Gender of people with diagnosed type 2 diabetes in Bradford City CCG

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015/16</td>
<td>NHS Bradford City CCG</td>
<td>51.3%</td>
</tr>
<tr>
<td>2016/17</td>
<td>NHS Bradford City CCG</td>
<td>51.2%</td>
</tr>
<tr>
<td>2017/18</td>
<td>NHS Bradford City CCG</td>
<td>51.3%</td>
</tr>
<tr>
<td>2018/19</td>
<td>NHS Bradford City CCG</td>
<td>50.8%</td>
</tr>
</tbody>
</table>

Data source: [https://fingertips.phe.org.uk/profile/diabetes-ft](https://fingertips.phe.org.uk/profile/diabetes-ft)

Figure 18 shows the percentages of people with diagnosed type 2 diabetes by age groups. Under 40s and 40-64 year olds have higher rates of diagnosed type 2 diabetes compared to England rates. For instance, for age group of under 40s, the rates for Bradford City CCG is 10% compared to the England rate of 3.9% in 2017/18. For 40-64 age group, the rates are 58.5% for Bradford City CCG and 43.1% for the England rate in 2017/18. However, the 65-79 age group has a lower rate than the England rate (23.8% for Bradford City CCG versus 38.4% for England in 2017/18).

Figure 18: Percentage of people with diagnosed type 2 diabetes for Bradford City CCG by age groups, under 40 vs 40-64 vs 65-79

Data source: [https://fingertips.phe.org.uk/profile/diabetes-ft](https://fingertips.phe.org.uk/profile/diabetes-ft)
Please note that the data in this subsection is based on diagnosed diabetes, we do not know how many adults have undiagnosed type 2 diabetes. According to Public Health England, the estimated prevalence rate of diabetes including both undiagnosed and diagnosed is higher in the Bradford City population compared to the England rate in 2017 (11.9% for Bradford City CCG versus 8.5% for England in 2017). This warrants the need to investigate undiagnosed diabetes in our community.

### 3.4 Implications for RIC
Mortality from respiratory disease and cardiovascular disease in the under 75s is higher than the national average, (though respiratory disease is improving). Women under 65 in the City CCG population may particularly be at risk of type 2 diabetes. Interventions to identify and actively manage those at risk (such as hypertension detection and follow up, and diagnosis and management of diabetes) should be prioritised.

Older people in Bradford City CCG are more likely to live alone, indicating that ways to address isolation and engagement with health services are likely to yield benefits.

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5 Public Health Profiles, PHE
https://fingertips.phe.org.uk