



Child and family health and wellbeing in Bradford and Tower Hamlets: an ActEarly report

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Healthy Livelihoods Theme

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EXECUTIVE SUMMARY

Background

In 2010, the Marmot Review (the third of the UK's government-commissioned reports on health inequalities) described a social gradient in health outcomes across England; people with fewer social and economic advantages experience poorer health. The review emphasised the importance of social and environmental factors in shaping health and identified potential areas of progress to address socioeconomic inequalities and in turn eliminate inequalities in health to create a fairer society.

A specific policy objective recommended by the Marmot Review was to "give every child the best start in life". The ActEarly research programme is focussed on this agenda. ActEarly aims to develop a systems approach to promote early life development, and thereby improve the lifelong health and wellbeing of children and families.

The ActEarly research consortium, which focuses on upstream early life interventions to improve the health and opportunities for children, works in two parts of the country with high rates of child poverty: the city of Bradford and the London Borough of Tower Hamlets. Within ActEarly, the Healthy Livelihoods theme focuses on identifying interventions and policies that may reduce economic inequalities and address health disparities. Intervention and policy development relies upon thorough understanding of the local context. This report is an attempt to document the relevant context in Bradford and Tower Hamlets, drawing on a range of indicators to build a picture of the two areas in terms of child and family health outcomes, socioeconomic indicators, and inequalities in both.

Summary of findings

For nearly all health outcomes (life expectancy at birth, infant mortality, low birthweight, child mortality, breastfeeding, vaccination, children's A&E admissions, paediatric dental extractions, asthma hospitalization, child development at age 2, school readiness, childhood overweight/obesity, and teenage pregnancy) children residing in Bradford and Tower Hamlets experienced worse health outcomes compared to children in the rest of the country.

Compared to England as a whole, and examining socioeconomic indicators, higher proportions of children and families living in Bradford and Tower Hamlets experienced higher levels of poverty, larger gaps in educational attainment, higher rates of unemployment, unaffordable housing and poor housing conditions, higher levels of food insecurity, and air pollution. We also found that residents from ethnic minority backgrounds experience more social inequalities, compared to White British people.

Conclusions

Both Bradford and Tower Hamlets have young and ethnically diverse populations with unique strengths and potential. However, children and their families in Bradford and Tower Hamlets experience worse health outcomes than those in other parts of England and both areas have high levels of socioeconomic disadvantage and inequalities.

Furthermore, this report highlights important data gaps. The ethnic diversity of Bradford and Tower Hamlets is not fully presented in different health and socioeconomic indicators available at local or national levels; making it difficult to tease out the extent of the inequalities and to identify groups most affected.

It is also important to bear in mind that the data presented here are static representations of a changing context. The indicators are largely from before the Covid-19 pandemic or during its first year. It is too soon to tell whether indicators from the Covid era will be temporary departures from the norm, or permanent changes of trajectory. Moreover, the onset of the cost of living crisis may have an added negative effect on many of the health and socioeconomic indicators in due course.

INTRODUCTION

In 2010, the Strategic Review of Health Inequalities in England (The Marmot Review, Marmot et al 2010) presented comprehensive evidence of the extent to which inequalities in socioeconomic status as measured by factors such as income, education, and housing conditions have led to the creation of a social gradient and systematic differences in health by limiting the opportunities people have to lead their lives and thrive. Based on these principles the Review set forward areas where progress can be made, specifically: 1) providing children with a better start in life; 2) creating fair employment and work for all; 3) creating and developing healthy and sustainable places and communities; 4) enabling every child and adult to maximise their life potential; 5) ensuring healthy standard of living for all; and 6) strengthening the role of disease prevention, and called for a collaborative and multidisciplinary effort in using these objectives as a framework for addressing social inequalities and health disparities across the country. Using this framework, the ActEarly research programme aims to develop a systems approach to promote early life development and improve the lifelong health and wellbeing of children and families living in areas with high rates of child poverty through the creation of a North-South preventive research consortium and engagement with interdisciplinary experts, local authorities, and community members in the city of Bradford and the London Borough of Tower Hamlets.



One of the focus areas of ActEarly is that of Healthy Livelihoods. This thematic area aims to identify interventions and policies that may reduce socioeconomic and health inequalities in Bradford and Tower Hamlets by addressing economic need and families' livelihoods through provision of access to financial and community resources. To better understand the similarities and differences between the two areas as well as to create a comparative picture with the rest of England, we have put together the most recent available data on a broad range of health outcomes and socioeconomic factors that can affect children and families' livelihoods and health.

DEMOGRAPHIC CHARACTERISTICS

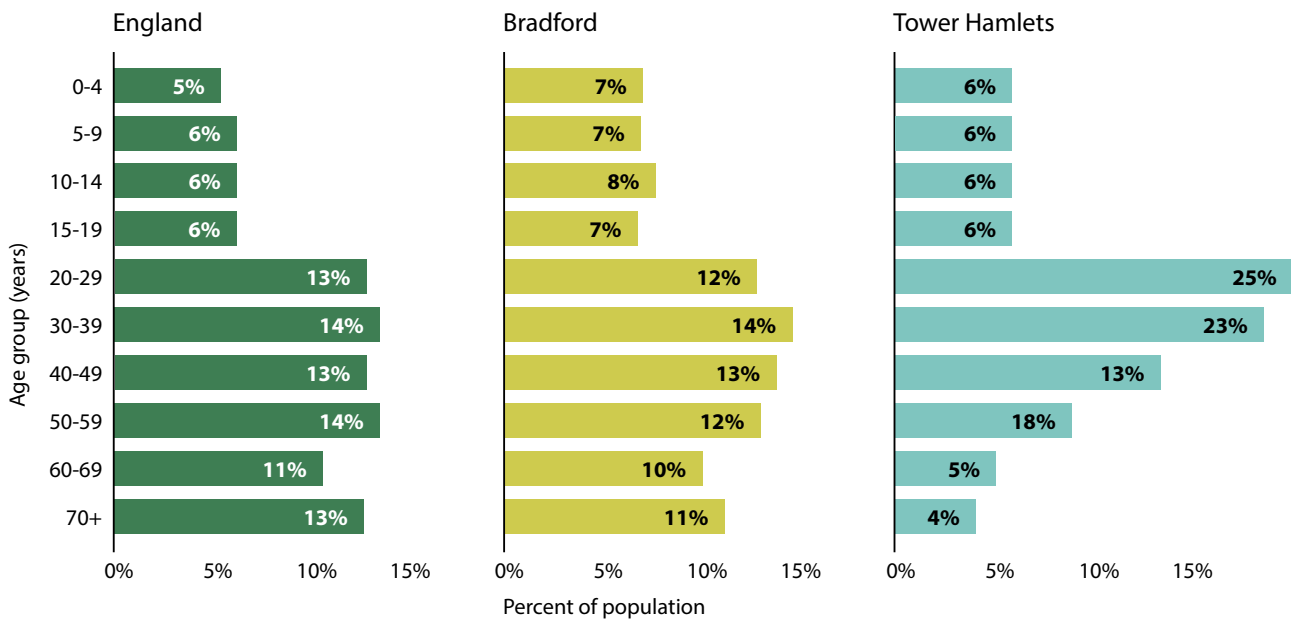
Understanding the demographic characteristics of an area can help us to identify and prioritize the health and socioeconomic issues – and resources necessary to address them – in that area. In this section, we compare the demographics of England, Bradford, and Tower Hamlets.

Population

The population breakdown of England, Bradford, and Tower Hamlets in 2021 (the most recent available census data) are shown in Figure 1 and Appendix. The total estimated population of England in 2021 was 56,489,800 and 546,400 and 310,300 in Bradford and Tower Hamlets respectively. The shape of the age distribution for Bradford’s population is fairly similar to that of England. In contrast, Tower Hamlets’ adult population has a distinctly different age distribution.

The populations of Bradford and Tower Hamlets are younger than that of England as a whole. In Bradford, 29% of the population is aged 19 or younger, compared to 23% in England. In Tower Hamlets, 48% of the population is aged 20-39 (compared to 27% in England) and only 9% is aged 60 or over (compared to 24% and 21% in England and Bradford respectively).

Figure 1. Age structure of the populations of England, Bradford and Tower Hamlets, 2021. Source: ONS Population and household estimates, England and Wales: Census 2021, 2022 (1, 2).



Migration patterns

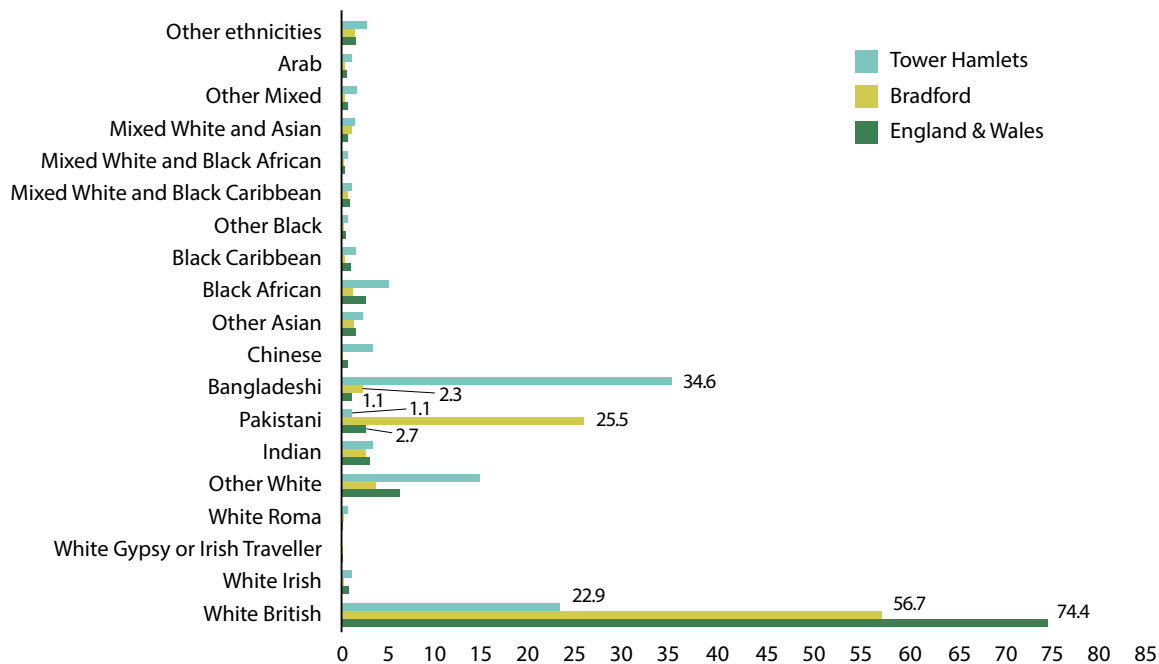
In the period mid 2019-mid 2020 migration into the area from other parts of the UK was less than migration out of the area for England as a whole and for Bradford and Tower Hamlets (Net Internal Migration Flow calculated as inflow – outflow of the population, England = -20,293; Bradford = -2,036; Tower Hamlets = -2,794). While approximately 12 people moved to other parts of the UK for every 10 who arrived in England, the gap was smaller in Bradford and Tower Hamlets (11 people leaving per 10 arriving) (3).

In contrast to internal migration, more people arrived in both Bradford and Tower Hamlets as well as England from outside of the UK in mid-2019 to mid-2020. In Tower Hamlets, 10 people arrived from abroad for every 5 people departed. In England as a whole, this was approximately 10 international arrivals for every 6 international departures, and in Bradford this was 10 arrivals for every 4 departures. Net international migration was equivalent to 2.1% of the 2020 midyear population estimate for Tower Hamlets, compared with 0.41% and 0.43% for England overall and Bradford respectively (3).

Ethnic profile

Figure 2 illustrates the latest ethnic breakdown in England, Bradford, and Tower Hamlets as recorded in the 2021 census. The figure shows that in England and Wales, as well as in Bradford, more than half of the population self-identified as White British, but this majority was much smaller in Bradford at 57% compared to 74% in England and Wales. In Tower Hamlets, however, only 23% of the population self-identified as White British. Moreover, Bradford and Tower Hamlets had larger proportions of people identifying as ethnic minorities than did England and Wales. In Bradford, 25% of the population self-identified as Pakistani compared to 3% in England and Wales overall. In Tower Hamlets, people identifying as Bangladeshi made up 35% of the population, compared to 1% in England and Wales; however, several different ethnic groups had greater shares of the population in Tower Hamlets than nationally, albeit much fewer than the proportion identifying as Bangladeshi.

Figure 2. Ethnic composition of England & Wales, Bradford, and Tower Hamlets in 2021. Source: ONS, Regional Ethnic Diversity, 2022 (4).



Notes. The national proportions include England and Wales. The UK 2021 census added the response option "Roma" within the high-level White ethnicity group.

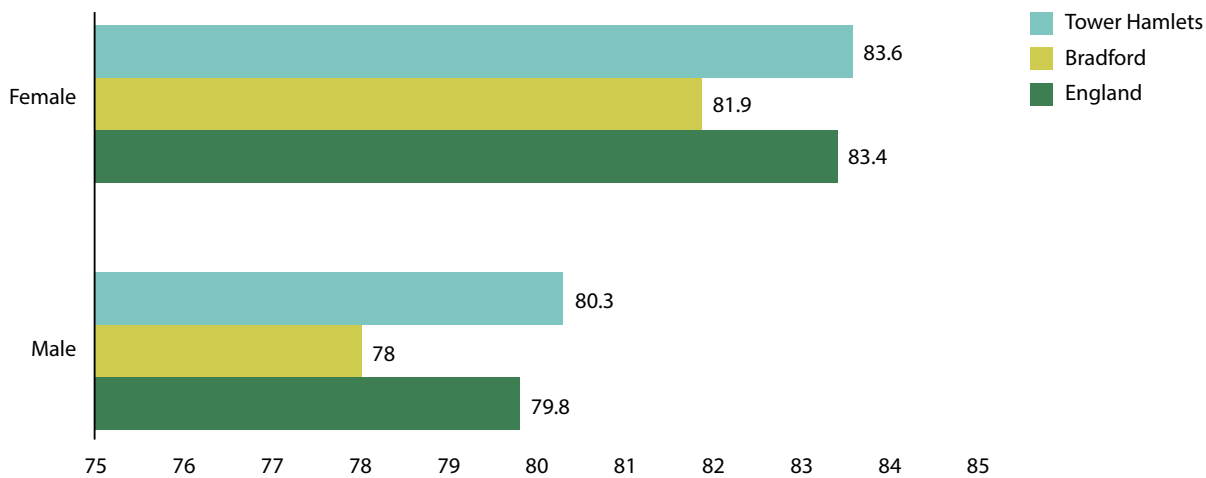
HEALTH AND DEVELOPMENT INDICATORS

Early childhood and the transition from childhood to adulthood are critical stages of life during which individuals' physical and emotional health and wellbeing can have a profound impact on their development and health later in life. In this section, we summarize the state of health in Bradford and Tower Hamlets.

Life expectancy at birth

Life expectancy at birth is an important indicator of the overall health of a society. The most recent data (from 2017-2019) indicate that life expectancy for both males (78 years) and females (82 years) is lower in Bradford than in England (male, 80 years; female, 83 years) while life expectancy in Tower Hamlets (male, 80 years; female, 84 years) is comparable to that of England overall (Figure 3). The difference in life expectancy between Bradford and Tower Hamlets reflects well-known North-South disparities, however, there are also within-area differences. For example, in Bradford in 2016-2018, those born in more deprived areas had lower life expectancy at birth than those born in less deprived areas (Bradford Metropolitan District Council, 2019). Similarly, in 2016-2018, the average life expectancy in Tower Hamlets was slightly lower than that in London respectively for both males and females.

Figure 3. Life expectancy at birth by gender and location, 2017-19. Source: ONS, 2021 (5).

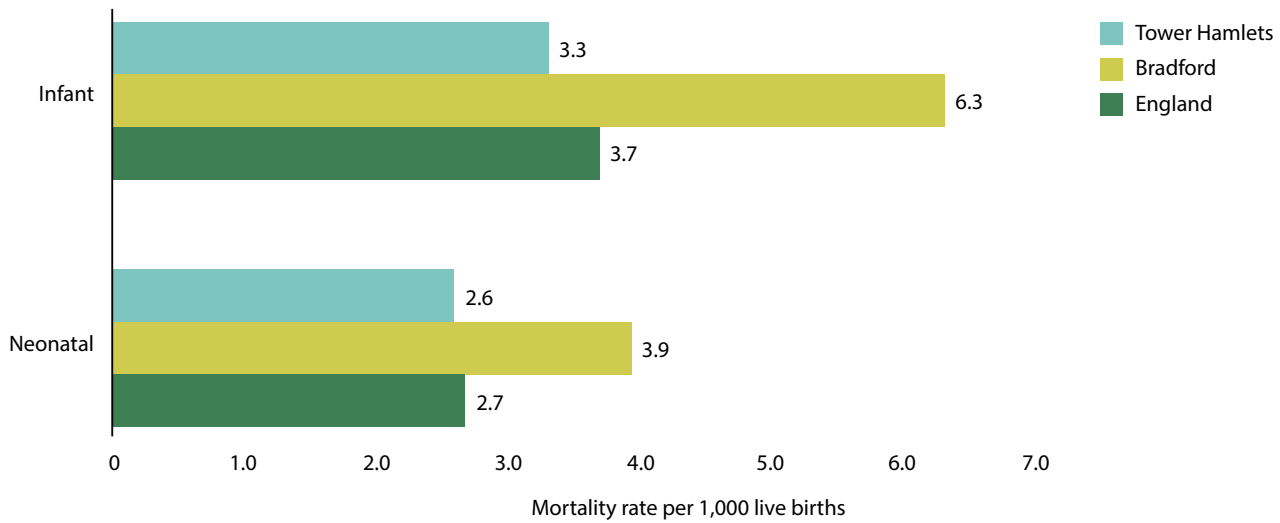


Notes. Data are based on the number of deaths registered and mid-year population estimates aggregated over 3 consecutive years. Data for England and local authorities exclude deaths of non-residents.

Newborn mortality

In 2019, a total of 7,270 live births in Bradford, 4,307 in Tower Hamlets, and 610,505 live births in England were registered. Among the three areas, Bradford had the highest rates of neonatal mortality (deaths within the first month of life) at 3.9 deaths per 1,000 live births and infant mortality (deaths within the first year of life) at 6.3 deaths per 1,000 live births followed by Tower Hamlets (2.6 and 3.3) compared to England overall (2.7 and 3.7) (Figure 4).

Figure 4. Newborn mortality rate, 2019. Source: ONS, 2022 (6).



Notes. Death figures are based on deaths registered rather than deaths in a calendar year. The neonatal and infant mortality rates for Tower Hamlets are marked as unreliable in the ONS. Neonatal is defined as under 28 days and infant is defined as under 12 months.

Although infant mortality rates broken down by ethnicity were not available at the local authority level, regional differences in infant mortality by ethnicity were present in Yorkshire and Humber, London, and England. As presented in Table 1, nationally, Black infants had the highest mortality rate (6.4 deaths per 1,000 live births) compared to other ethnic groups. However, across the three regions (England, Yorkshire and Humber, and London), Asian infants (including Bangladeshi, Indian, Pakistani and Any other Asian background) in Yorkshire and Humber region had the highest mortality rate at 7.6 deaths per 1,000 live births.

Table 1. Regional infant mortality rates (per 1,000 live births), 2019. Source: ONS, 2022 (7).

Ethnicity	England	Yorkshire & Humber	London
All	3.7	3.9	3.4
White	3.0	2.9	2.2
Asian	5.5	7.6	4.4
Black	6.4	4.3	5.9
Mixed/multiple	3.5	5.5	2.2
Other	3.6	7.2	2.8

Notes. Due to small sample size, values in bold are not reliable. White group includes White British and White Other; Asian group includes Bangladeshi, Indian, Pakistani and Any other Asian background; Black group includes Black African and Black Caribbean and Any other Black background.

Low birthweight

The Low birthweight (<2500 grams) rate in 2019 was higher in Tower Hamlets and Bradford compared to England as a whole. Among 3,934 term (37wk 0d to 40wk 6d gestation) live births in Tower Hamlets, 4.42% were considered low birthweight followed by 3.86% in Bradford compared to 2.90% in England (Table 2).

Table 2. Low birthweight, 2019. Source: ONS, 2022 (8).

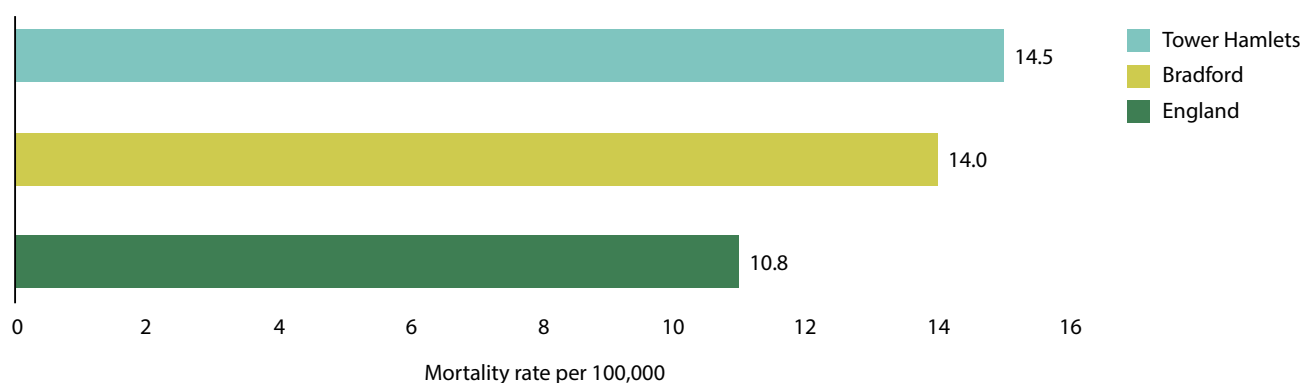
Region	Term live births with known weight	Low birthweight	
	Total	Total	%
England	552,823	16,048	2.90
Bradford	6,599	255	3.86
Tower Hamlets	3,934	174	4.42

Notes. Term birth is defined as births between 37 weeks 0 days to 40 weeks 6 days of gestation; Low birthweight is defined as birthweight <2500 grams.

Child mortality rate

In 2019, there were differences in the rates of child mortality. Tower Hamlets reported the highest mortality rate among children aged 1–17 years old at 14.5 per 100,000 children followed by Bradford at 14 per 100,000 children compared to 10.8 at the national level (Figure 5).

Figure 5. Child (1–17 years old) mortality rate, 2019. Source: PHE, 2022 (9).

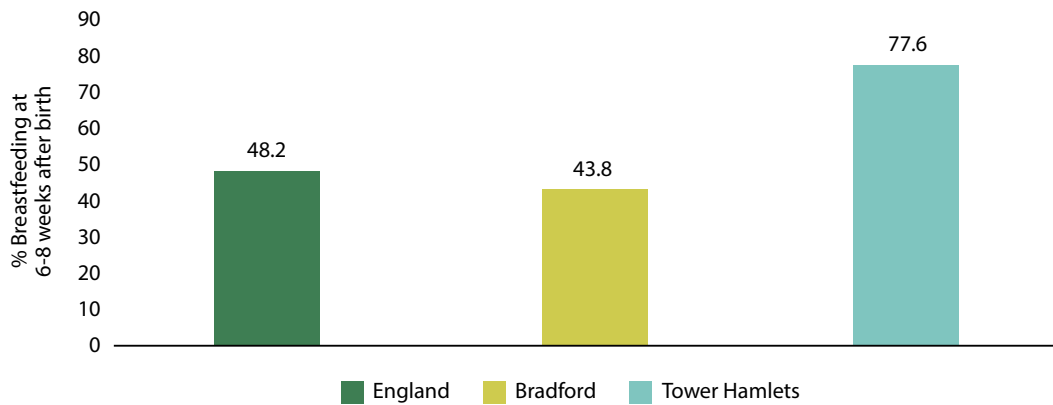


Note. Rates are directly standardized per 100,000.

Breastfeeding

Figure 6 presents breastfeeding prevalence at 6–8 weeks after birth for babies that were totally or partially breastfed in the first quarter of 2019/2020. In Tower Hamlets, 78% of infants were breastfed at 6–8 weeks after birth, which was approximately 30 percentage points higher than the reported national prevalence and 34 percentage points higher than the reported prevalence in Bradford which had the lowest prevalence of breastfeeding at 43.8% in the same time period. Breastfeeding data by ethnicity are not available at the local authority level. Data from Bradford council indicate that wards with the lowest proportion of breastfeeding have a mainly White population (Bradford Metropolitan District, 2020)

Figure 6. Prevalence of breastfeeding, 2019/2020 (Quarter 1). Source: PHE, 2021 (10)



Paediatric vaccination rates

Table 3 presents the most recent data on paediatric vaccination by region. In 2019-2020, more than 90% of all children in Bradford, Tower Hamlets, and England received the 6-in-1 vaccine (diphtheria, tetanus, pertussis (whooping cough), polio, haemophilus influenza type b, and hepatitis B) as well as MenB (meningococcal group B) by age one. There were, however, regional differences in the percentage of children receiving rotavirus vaccination, where 88% of children in Bradford received the vaccine by age one followed by 89% in Tower Hamlets compared to 91% in England.

Vaccination rates for MenB booster shot were lower in all three areas (Bradford 88%, Tower Hamlets 86%, England 89%) by age two. Similarly, only 86% of children in Tower Hamlets received the MMR (measles, mumps, and rubella) vaccine by age two compared to 90% of children in Bradford and 91% of children in England. By age five the vaccination rate for the 1-in-5 booster shot and MMR 1st and 2nd doses fell below 90% in all three areas, with children in Tower Hamlets having the lowest rates (80%, 81%) compared to children in Bradford (89%, 90%) and England as a whole (85%, 87%) respectively.



Table 3. Paediatric vaccination rate, 2019-2020. Source: NHS, 2021 (11).

Region	Total children	(DtaP /IPV/ Hib/HepB)/ (DtaP/IPV/ Hib)	Diphtheria, Tetanus, Polio, Pertussis, Hib	MMR	MMR	PCV	Hib/MenC	Rotavirus	MenB
% Vaccinated by 12 months									
		Primary			Primary	Primary	Primary	Primary	Primary
England	626,000	92.6	----	----	----	93.2	----	90.1	92.5
Bradford	7,300	91.8	----	----	----	92.5	----	87.9	91.4
Tower Hamlets	4,200	92.4	----	----	----	92.8	----	89.0	91.0
% Vaccinated by 24 months									
		Primary		1st dose		Booster	Booster		Booster
England	650,300	93.8	----	90.6	----	90.4	90.5	----	88.7
Bradford	6,800	93.2	----	89.9	----	90.0	89.9	----	88.3
Tower Hamlets	4,200	92.3	----	86.3	----	87.2	87.2	----	86.0
% Vaccinated by 60 months									
		Primary	Booster	1st dose	1st & 2nd dose		Booster		
England	689,600	95.2	85.4	94.5	86.8	----	92.5	----	----
Bradford	8,200	96.0	89.3	95.0	89.6	----	94.6	----	----
Tower Hamlets	4300	92.6	80.4	90.6	80.8	----	89.7	----	----

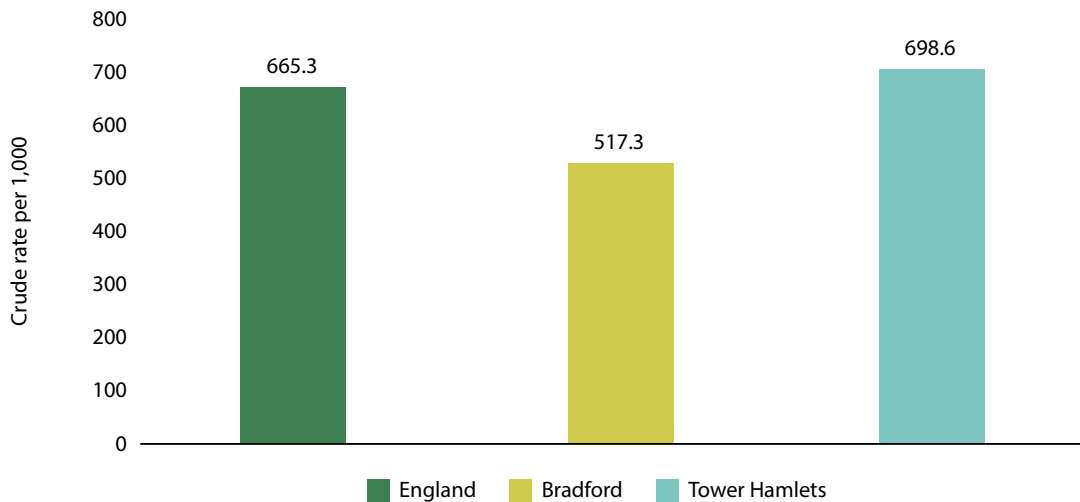
Abbreviations: DtaP/IPV/Hib/HepB, Diphtheria, Tetanus, Pertussis, Polio, Haemophilus influenzae type B, Hepatitis B; Men B, Meningitis B; Men C, Meningitis C; MMR; Measles, Mumps, Rubella; PCV, Pneumococcal conjugate.

Notes. In 2019-20, all children in the 12-month cohort were eligible for the DtaP/IPV/Hib/HepB (6-in-1) vaccination, which replaced the 5-in-1 vaccination. This is the first-year coverage is fully reported against the 6-in-1 vaccine for the 12-month cohort. See Appendix G of the accompanying appendices document for full details. The DtaP/IPV/Hib (5-in-1) vaccine was replaced by the DtaP/IPV/Hib/HepB (6-in-1) vaccine in August 2017. Therefore the 24-month age cohort in 2019-20 (born in 2017-18), will have received either the 5-in-1 or the 6-in-1 vaccination, depending on when in the year they were vaccinated.

Child A&E admissions

The most recent data (2018-2019) on accident and emergency (A&E) admissions for children below the age of 5, indicate regional differences in the rate of admission. Specifically, the crude rate of A&E admission was 698.6 per 1,000 children aged 0-4 in Tower Hamlets compared to 665.3 at the national level. In contrast, Bradford reported the lowest rate of A&E admission for children 0-4 in 2018-2019 compared to Tower Hamlets and England overall (Figure 7).

Figure 7. A&E admission for children 0-4, 2018-2019. Source: PHE, 2020 (12).



Hospital episodes for dental extraction

Table 4 presents the most recent data (2019-2020) on finished consultant episodes (FCEs) for dental extractions among children 19 years old and younger. Overall, in 2019-2020, Bradford reported the highest percentage of hospital admissions for tooth extractions among children aged 0 to 19 (0.8%) compared to Tower Hamlets (0.4%) and England as a whole (0.4%). Specifically, 1% of children admitted to hospital for dental extractions in Bradford were younger than 6 years old and 1.2% were between 6-10 years old.

Table 4. Finished Consultant Episodes (FCE) for children 0-19 years of age for hospital dental extractions, 2019-2020. Source: PHE, 2021 (13).

Region	All FCEs, n (% of Population)				
	0-5 years	6-10 years	11-14 years	15-19 years	Total
England	12,217 (0.3)	22,453 (0.6)	11,136 (0.4)	9,331 (0.3)	55,137 (0.4)
Bradford	485 (1.0)	500 (1.2)	155 (0.5)	105 (0.3)	1,245 (0.8)
Tower Hamlets	125 (0.5)	120 (0.6)	35 (0.2)	35 (0.2)	315 (0.4)

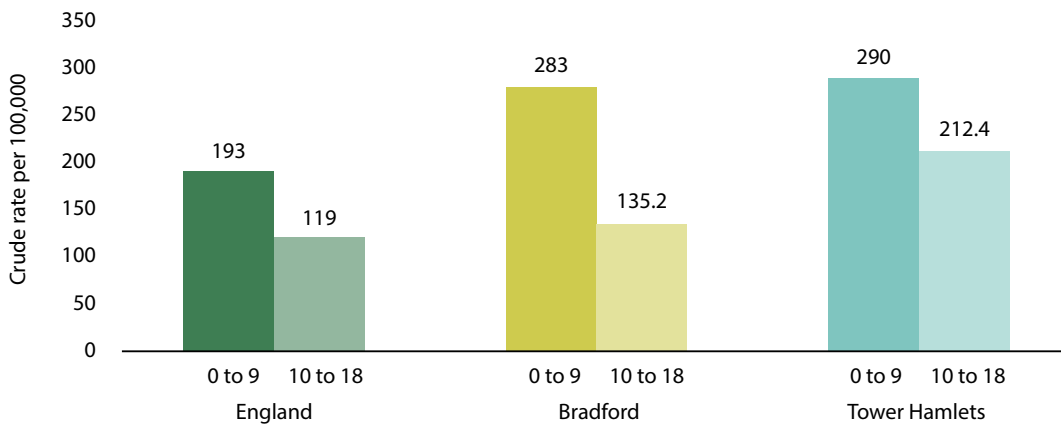
Abbreviations: FCE: finished consultant episode.

Note. % population is based on the 2019 midyear population estimates.

Asthma hospitalization rate

Figure 8 presents the latest data (2019-2020) on hospital admissions for asthma in children younger than 19. Overall, the rate of asthma hospital admissions was highest among children in Tower Hamlets closely followed by Bradford compared to the national levels. Specifically, in Tower Hamlets, the rate of hospital admission was 290 per 100,000 children aged 0-9 and 212.4 per 100,000 children aged 10-18 respectively. In Bradford, the hospital admission rates were slightly lower than in Tower Hamlets at 283 per 100,000 children 0-9 years old and 135.2 per 100,000 children 10-18 but higher than the national levels for each age group.

Figure 8. Children’s hospital admissions for asthma, 2019-2020. Source: PHE, 2021 (14).

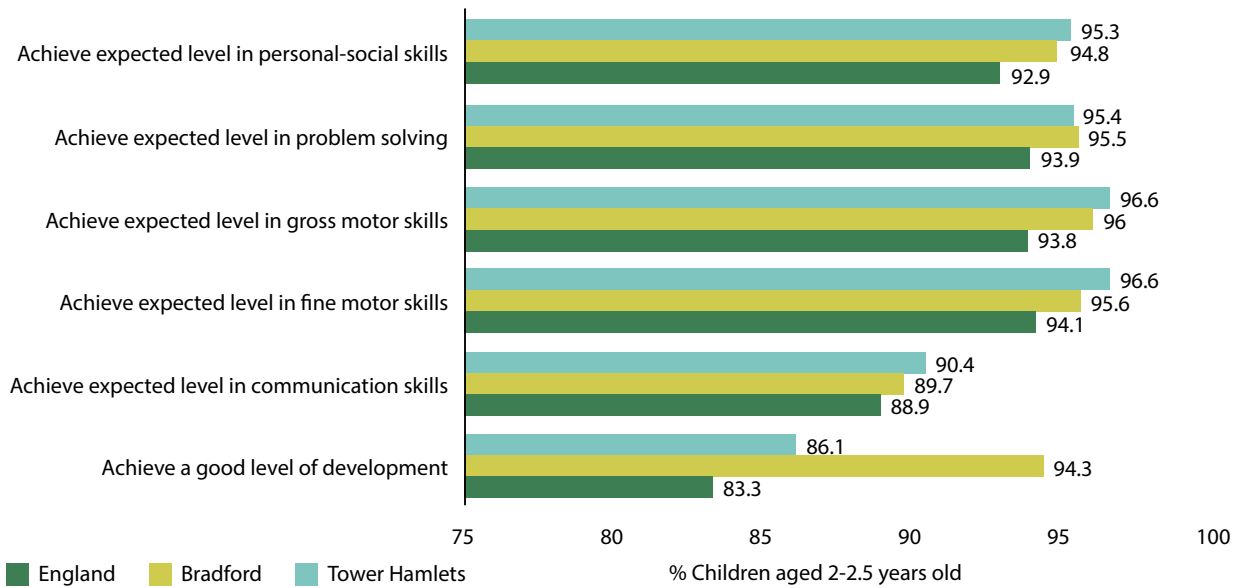


Child development

The most recent data (2019-2020) on child development outcomes for children aged 2–2.5 years old are presented in Figure 9. In all six child development categories (achieving expected levels in personal-social skills, problem solving, gross motor skills, fine motor skills, communication skills, and development), a higher percentage of children 2–2.5 years old in Bradford and Tower Hamlets achieved the expected levels of development compared to the national levels. Similarly, 94% of children between 2–2.5 years old in Bradford were reported to have achieved a good level of development compared to 86% in Tower Hamlets and 83% in England overall.

These results, however, should be interpreted with caution. Recent intelligence obtained from the Bradford District Care NHS Foundation Trust, found great variation by ward relative to the average across a number of measures. One example from the Ages and Stages Questionnaire (ASQ) used with 2–2.5-year-olds demonstrated that while the proportion of children scoring above the cut-off for gross motor skills in Bradford district as a whole was 96% (greater than the England average: 93.8%), 24 of 30 wards in Bradford reported a lower proportion, and the lowest value was almost 30% less than the reported averages for both Bradford and England. Large differences are reported between the deprived and non-deprived areas within Bradford, and it is likely that the same variation would be found in Tower Hamlets.

Figure 9. Child Development Indicators, 2019-2020. Source: PHE, 2021 (15).



Early Years Foundation Stage Profile

The most recent data (2018-19) on the early years foundation stage (EYFS) profile, indicate that for children who turned 5 at the end of the academic year, a lower proportion in Bradford and Tower Hamlets achieved the expected level of learning and development compared to the national levels (Table 5). Specifically, 66% of children 5 years old or younger in Bradford achieved at least the expected level of all 17 Early Learning Goals (Department for Education, 2023 handbook) followed by 69% of children in Tower Hamlets compared to 72% of children nationally. Similarly, only 67% of children in Bradford achieved the expected level in all 4 specific areas of learning compared to 78% of children in Tower Hamlets, and 71% in England overall. In contrast, a lower percentage of children (71%) in Tower Hamlets achieved the expected levels in all 3 prime areas of learning compared to children in Bradford (78%) and in England (79%). Similar to child development indicators at 2–2.5 years, the proportions of early years foundation stage profile should be interpreted with caution as they may underestimate the differences that exist by neighbourhoods in which children live within each area.

Table 5. Early Years Foundation Stage (EYFS) profile for children turning 5 at the end of the academic year, 2018-2019.
Source: DfE, 2020 (16).

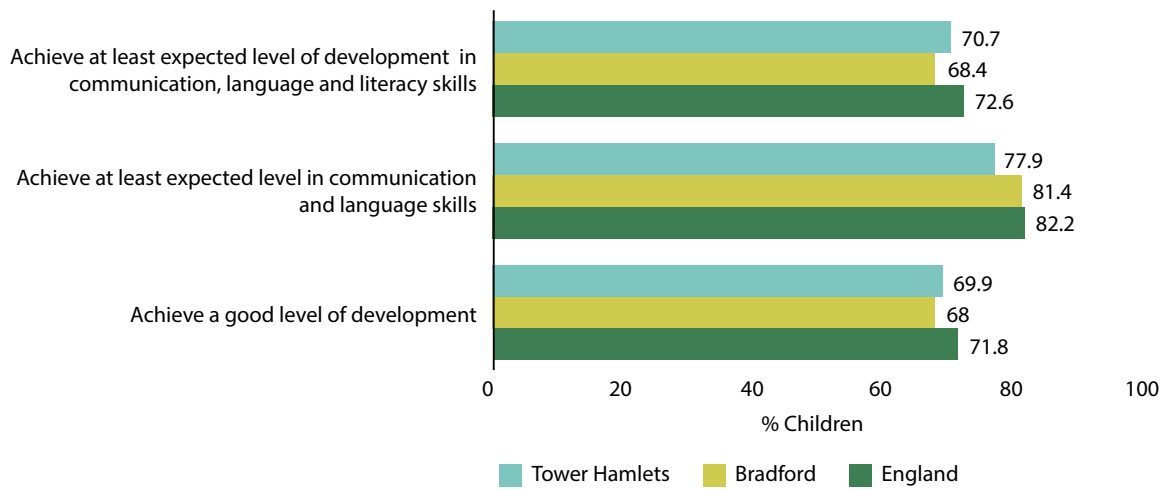
EYFS indicators	England	Bradford	Tower Hamlets
Achieve good level of development	71.8	68.0	69.9
Achieve at least expected level in all 17 early learning goals	70.7	66.5	68.7
Achieve at least expected level in all 3 prime areas of learning	79.2	78.4	70.7
Achieve at least expected level in all 4 specific areas of learning	71.4	66.7	77.9
Achieve at least expected level in being imaginative	88.6	85.6	85.0
Achieve at least expected level in communication and language (prime area of learning)	82.2	81.4	70.7
Achieve at least expected level in exploring and using media and materials	88.9	86.1	85.5
Achieved at least expected level in expressing arts and design	87.2	84.4	83.8
Achieve at least expected level in health and self-care	90.9	89.4	87.3
Achieved at least expected level in listening and attention	85.9	85.8	81.2
Achieved at least expected level in literacy (specific area of learning)	73.4	68.6	72.0
Achieved at least expected level in making relationships	89.2	89.6	85.4
Achieved at least expected level in managing feelings and behaviour	87.3	85.8	83.3
Achieved at least expected level in mathematics (specific area of learning)	78.5	73.4	75.4
Achieved at least expected level in moving and handling	89.2	90.1	86.9
Achieved at least expected level in numbers	79.8	74.8	77.3
Achieved at least expected level in people and communities	85.6	81.6	80.7
Achieved at least expected level in personal, social, and emotional development (prime area of learning)	84.4	83.6	80.7
Achieved at least expected level in physical development (prime area of learning)	87.1	85.7	84.3
Achieved at least expected level of reading	76.9	70.7	74.5
Achieved at least expected level of self-confidence and self-awareness	88.5	86.9	84.5
Achieved at least expected level in shape, space, and measures	81.5	76.9	78.1
Achieved at least expected level in speaking	85.4	83.8	81.3
Achieved at least expected level in technology	93.1	94.4	89.2
Achieved at least expected level in the world	85.5	81.2	80.0
Achieved at least expected level in understanding	85.7	84.0	81.5
Achieved at least expected level in understanding the world (specific area of learning)	83.9	79.8	78.7
Achieved at least expected level in writing	73.7	68.9	72.5

School readiness at the end of reception year

The most recent data (2018-2019) on children's school readiness indicate that overall, in neither of the two local authorities nor in England as a whole did the percentage of children achieving the expected levels of school readiness reach 90%. However, there were real differences; a lower percentage of children in Bradford and Tower Hamlets achieved the expected levels of school readiness at the end of Reception compared to the national levels. Specifically, in Bradford only 68% of children achieved the expected physical development at the end of Reception followed by 70% in Tower Hamlets compared to 72% of children in England as a whole. Similarly, 68% of children in Bradford and 71% of children in Tower Hamlets achieved at least the expected level of development in communication, language, and literacy skills compared to 73% of children nationally (Figure 10).



Figure 10. School readiness indicators at the end of reception, 2018-2019. Source: PHE, 2022 (17).



Childhood overweight and obesity

Body mass index (BMI) is calculated as the ratio of weight in kilograms to the square of height in meters. In children BMI > 91st centile is considered overweight and a BMI > 98th centile is considered obese (Royal College of Paediatrics & Child Health & Department of Health, N.D.). In 2019-2020, approximately 22% of children aged 4-5 years old in Bradford and 22% of children in Tower Hamlets had BMIs above the 91st centile compared to 23% nationally. This proportion increased in older children. Among children aged 10-11 years old, 41% in Bradford and 42% in Tower Hamlets had BMIs above the 91st centile compared to 35% of children in the same age group at the national level (Table 6).

Table 6. Prevalence of childhood overweight (including obesity), 2019-2020. Source: NHS Digital, 2020 (18).

Region	Reception Year (aged 4-5)		Year 6 (aged 10-11)	
	Healthy weight, n (%)	Overweight (+ Obese), n (%)	Healthy weight, n (%)	Overweight (+ Obese), n (%)
England	303,976 (76.1)	91,723 (23.0)	311,338 (63.4)	172,831 (35.2)
Bradford	3,670 (76.3)	1,075 (22.3)	1,610 (56.4)	1,165 (40.8)
Tower Hamlets	1,135 (74.9)	340 (22.4)	1,705 (56.8)	1,270 (41.8)

Notes. Underweight not shown. The National Child Measurement Programme (NCMP) measures the height and weight of over one-million children in Reception (age 4-5 years) and Year 6 (age 10-11 years) each year in primary schools in England. Body mass index (BM) is defined as the ratio of weight in kilograms to the square of the height. According to Royal College of Paediatrics and Child Health, a BMI above the 91st centile suggest overweight in children between 2-20 years old and a BMI above the 98th centile is very overweight (clinically obese).

Teen conception and pregnancy

In 2019 the rate of conception for women between 15 to 17 years old in Bradford (17.5 women per 1,000 women 15-17 years old) exceeded the national rate (15.7 women per 1,000 women 15-17 years old), while the rate was lower in Tower Hamlets than the national rate (9.2 women per 1,000 women 15-17 years old). The rate of abortion for women in this age group, however, was higher in Tower Hamlets (8.4 per 1,000 women 15-17) as well as Bradford (7.5 women per 1,000 women aged 15-17) than for England at 7.1 per 1,000 women. Furthermore, in 2019, the percentage of teenage mothers in Bradford (0.8%) was similar to England overall (0.7%), while the percentage of teenage mothers in Tower Hamlets was not reported due to disclosure control (Table 7).

Table 7. Conception and outcomes for women below 18, 2019. Source: ONS, 2021 (19).

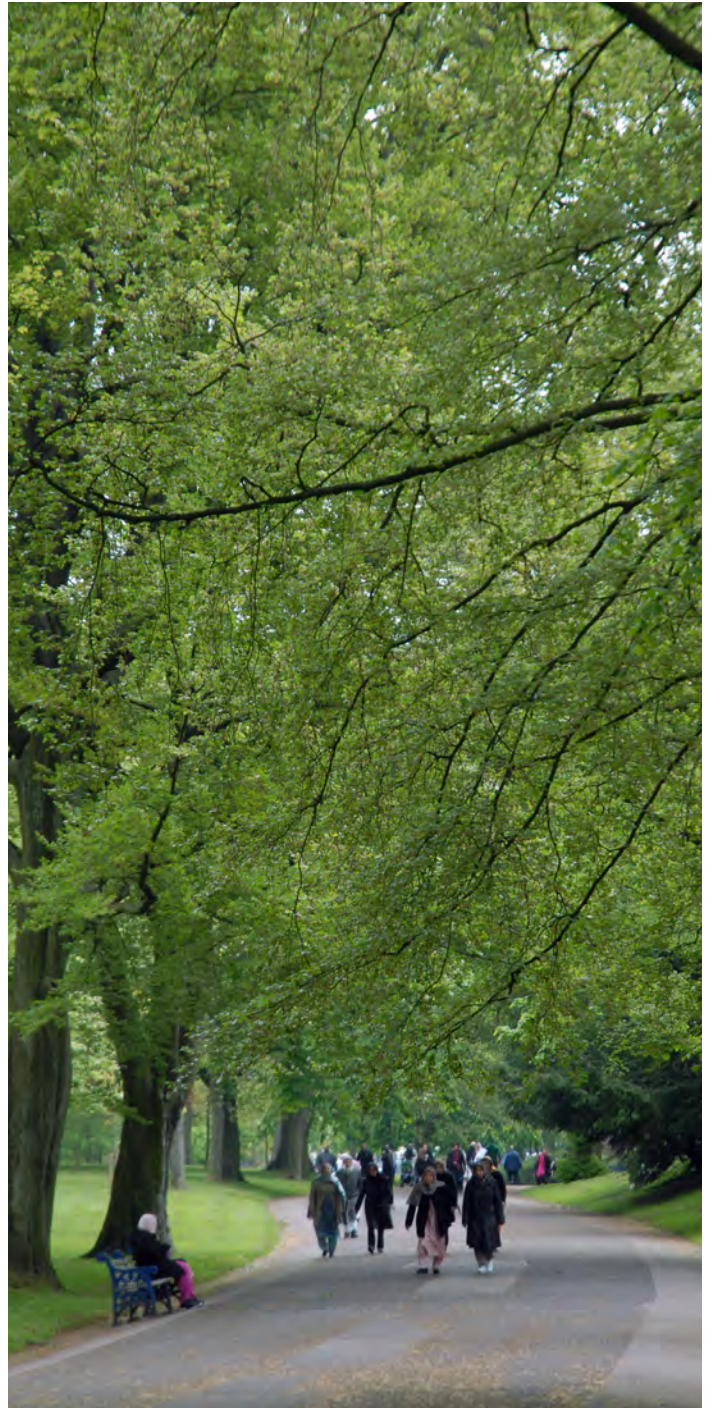
Region	Conception and outcome (N and rate per 1,000 women 15-17)			Teenage mothers
	Conception	Rate of conception	Rate of abortion	n (%)
England	14,019	15.7	7.1	3,664 (0.7)
Bradford	188	17.5	7.5	55 (0.8)
Tower Hamlets	46	9.2	8.4	-

Note. Values are suppressed for disclosure control reason for the proportion of teenage mothers in Tower Hamlets.

SUMMARY OF THE SECTION

On a number of measures, children in Bradford and Tower Hamlets are in poorer health than children nationwide. Infant and child mortality rates exceed the national rates in both areas. Children under 10 years old in these two areas have far higher rates of hospitalisation for asthma than do children nationwide. In primary school year 6, over 40% of children in Bradford and Tower Hamlets are overweight or obese, compared to 35% nationally.

Of course, local authority-wide figures mask variation within each area. We know for example that in Bradford, despite the vast majority of children reaching development milestones for ages 2–2.5 years, the share of children reaching these milestones in more deprived areas may be as much as 30 percentage points lower. In Yorkshire and Humber (the region in which Bradford is located) the infant mortality rate for Asian children exceeds that of other infants, while in London (the city in which Tower Hamlets is one Borough) infant mortality is highest among Black infants.



SOCIAL AND ENVIRONMENTAL INDICATORS OF HEALTH

Health is shaped by “social determinants”: social and economic circumstances that shape the environments in which people live and the opportunities they have (Marmot et al, 2008). Therefore, to better understand the root causes of health disparities in children and families in Bradford and Tower Hamlets, we examine inequalities in socioeconomic status. The following section presents the most recent data (up to 2021) on selected socioeconomic indicators (as specified in the Marmot Review policy objectives) in Bradford and Tower Hamlets, compared to the national levels.

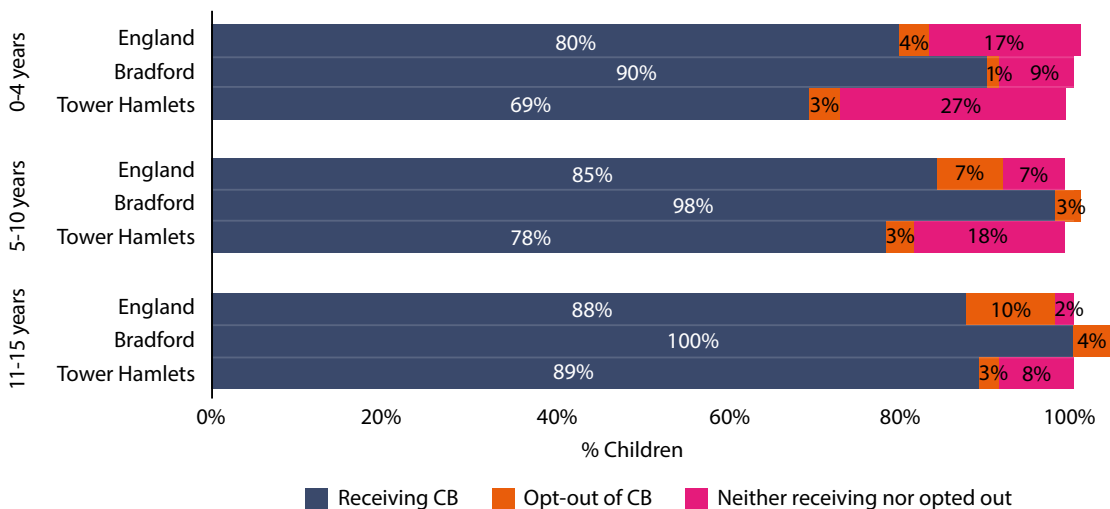
Child benefit

Child benefit (CB) is a payment received every 4 weeks that can be claimed by anyone who meets income eligibility and is caring for children younger than 16 years old and is an important tool for improving health equity. Conversely, low take-up of CB in an area may lead to health inequalities. The rate of CB take-up – the proportion of children eligible for CB who are registered by their parents – was 91% in 2019-20, a decline from 97% in 2006-07 (HMRC, 2022. Child Benefit Statistics) This decline may be due to the introduction of the High-Income Child Benefit Tax Charge (HICBC) in 2013, which requires individuals to repay some or all of their CB income if they or their partner earn more than £50,000/year. The preceding take-up figures include those who have chosen to register their child(ren) for CB and pay the tax charge incurred, while children not registered for CB – including because there would be no net increase in income HICBC – are in the group considered by this measure to not have taken up CB.

No take-up data exist at the local authority level. Moreover, the official take-up rate excludes families who are not eligible because of policies such as “No recourse to public funds” (Public funds, 2014) and the benefits cap. Therefore, the share of children in homes not benefitting from CB is likely to be larger than indicated by the take-up rate.

Figure 11 shows an estimate of receipt of CB that includes all children. The data come from the actual caseload of CB recipients as of August 2020 (20), and estimates of the population for mid-year 2020 (2). Because the population numbers are an estimate, and the caseload and population estimates are not from the same point in time, the share of children registered for child benefit is necessarily crude – as demonstrated by the fact that among older children in Bradford, more than 100% are registered for or opted out of receiving CB.

Figure 11. Proportion of children registered for Child Benefit, 2020, by age and area. Source: ONS 2021 and HMRC 2022 (2, 20).



Notes. These estimates were calculated as the actual caseload of child benefit recipients in August 2020 divided by the 2020 midyear population estimates, multiplied by 100. The estimates are therefore inherently crude, which is why totals are not always 100%.

Figure 11 shows two patterns. Firstly, a greater proportion of older children than younger children have been registered for CB – whether their caregivers are in receipt of payments or have opted out. Secondly, in all age groups, a smaller proportion of children in Bradford are not registered for CB than in England overall, whereas in Tower Hamlets a greater proportion of children are not registered for CB than in England as a whole.

The reasons for these patterns are unclear. In regard to age, it is plausible that the introduction of HICBC affected different aged children differently – children born before the policy introduction would already have been registered for CB and so their parents opted not to receive payment, while children born after the introduction of the policy were simply never registered.

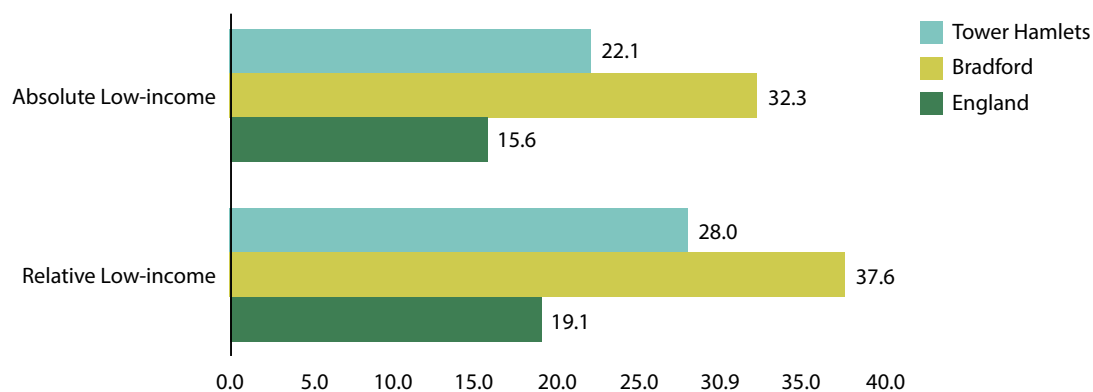
Public data do not allow us to explore the reason for the lower registration for CB in Tower Hamlets. If it reflects a population with a higher proportion of children whose parents are high earners affected by the HICBC, this may not have adverse health equity impacts. On the other hand, if this is due to a higher proportion of children in families affected by benefits caps or NRPF, then there may be negative health equity outcomes of families missing out on necessary financial support during children’s formative years.

Child poverty

There are several measures of child poverty prevalence in the UK. Poverty can be conceptualised in *relative* or *absolute* terms. Relative low-income describes a family with low-income Before Housing Costs (BHC) in the reference year. A family must have claimed CB and at least one other household benefit (Universal Credit, tax credits, or Housing Benefit) at any point in the year to be classified as low-income. According to the latest data from the Department for Work and Pensions (DWP), in the fiscal year ending in 2020, 38% of children below age 16 in Bradford and 28% of children in Tower Hamlets, compared to 19% of children in England, lived in relatively low-income families before housing costs consideration (Figure 12).

Absolute low-income describes a family in low-income BHC in the reference year in comparison with incomes in financial year ending in 2011. Similar to the relative low-income measure, a family must have claimed CB and at least one other household benefit (Universal Credit, tax credits or Housing Benefit) at any point in the year to be classified as low-income. The percentage of individuals in absolute low-income will decrease if individuals with lower incomes see their incomes rise by more than inflation. In the fiscal year ending in 2020, 32% of children in Bradford lived in absolute low-income families before housing costs followed by 22% in Tower Hamlets, and 16% of children in England (Figure 12).

Figure 12. Percentage of children < 16 living in low income families before housing costs (2020). Source: DWP 2022 (21).



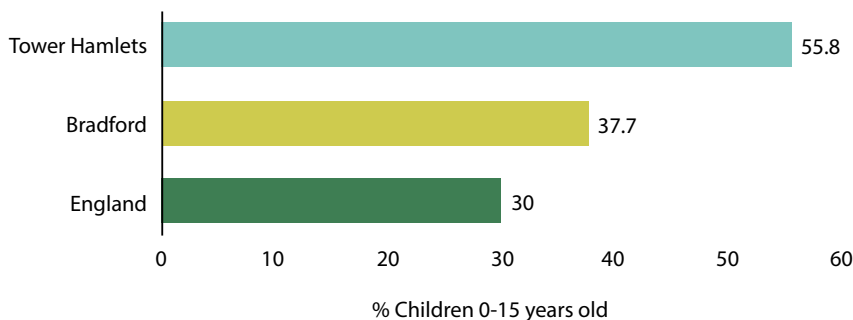
Notes. Relative low-income sets a threshold as a proportion of the UK average (median) income and moves each year as average income changes measuring the number and proportion of individuals who have income below this threshold (typically 60% of the median). Absolute low-income takes the 60% of median income threshold from 2010/11 and moves in line with inflation. This is designed to assess how low-income households are managing with reference to inflation. It measures the proportion of individuals who have incomes below this threshold.

Although relative and absolute low-income measures are commonly used to describe child poverty, one of the main limitations of using these measures is that they do not account for the barriers that may prevent families, especially those of ethnic minorities, from claiming social benefits (Reece, Sheldon, Dickerson, & Pickett, 2022; Cameron, et al, 2021) and therefore these measures may underestimate prevalence of child poverty in Bradford and Tower Hamlets.

Housing is often the single largest expense in a household budget, and housing costs can vary considerably for different types of households and by location. Therefore, another measure of poverty considers income after housing costs have been paid. Child poverty after housing costs (AHC) describes the proportion of children living in poverty after housing costs. In the fiscal year ending in 2020, after considering housing costs, 56% of children younger than 16 years old in Tower Hamlets lived in households with incomes below 60% median income, which was more than 20 percentage points higher than the national percentage of the children in poverty, indicative of high housing costs in London. In Bradford, the percentage of children living in poverty didn't change substantially (38%) compared to that BHC, indicating that the cost of housing may not be a major contributor to child poverty in the region (Figure 13). In contrast, the difference in the proportion of children living in poverty in Tower Hamlets before and after housing costs (28% vs. 56%) shows how factors such as high housing costs can exacerbate social inequalities.



Figure 13. Percentage of children living in poverty after housing costs, 2019-2020. Source: DWP, 2021 (22).

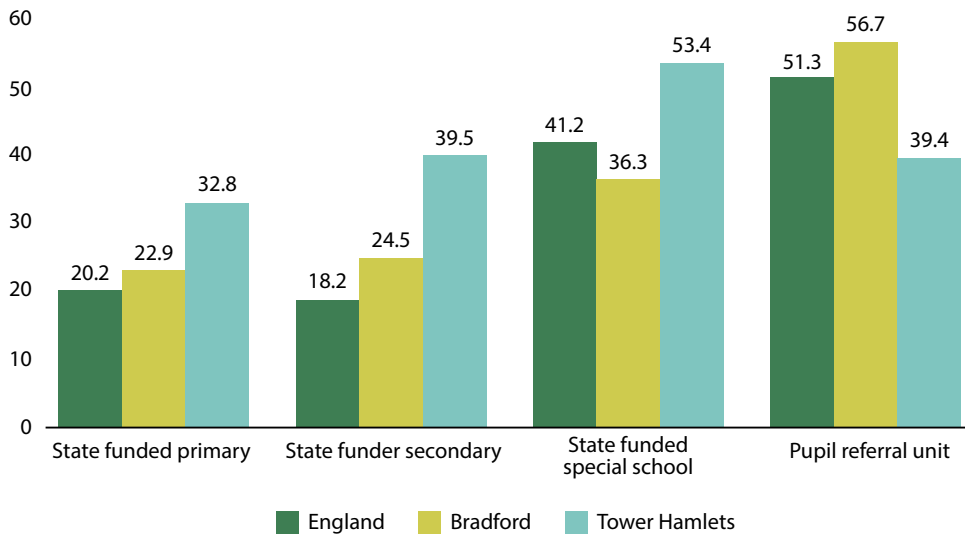


Note. These data provide the percentage of children aged 0-15 years who are living in households with below 60% median income after housing costs.

Eligibility for Free School Meals

Figure 14 presents the most recent data on eligibility for the free school meals (FSM) programme. In 2020/21 Autumn term, approximately 36% of all students in Tower Hamlets and 24% of students in Bradford were eligible to receive FSM, compared to 20% nationally, indicative of higher levels of disadvantage in Tower Hamlets and Bradford. In state funded primary (33%) and secondary (39%) schools, a higher percentage of students in Tower Hamlets were eligible for FSM. However, the percentage of students eligible for FMS in pupil referral units, which serve students who cannot attend mainstream schools, was higher in Bradford (57%) than in Tower Hamlets (51%).

Figure 14. Proportion of children eligible for free school meals: Autumn 2020/21. Source: Free School Meals, Autumn Term (23).



Notes. State-funded primary schools and state-funded secondary schools – Primary schools typically accept pupils aged 5-10 and secondary schools aged 11 and above, but there are increasing numbers of all-through schools, who take pupils of all compulsory school ages. These schools include academies and free schools and are included in the totals for secondary schools. Local authority-maintained establishments providing educational settings for pupils unable to attend mainstream schools and are often referred to as pupil referral units. State-funded special schools – these are schools which provide tailored provision for pupils with special educational needs.



Employment status

An economically active individual is defined as someone aged 16-64 who is either employed or registered unemployed. In 2020, 75% of individuals between 16 and 64 years old in Bradford, 79% in Tower Hamlets and 79% in England were considered economically active (Table 8).

Based on the Annual Population Survey data, anyone aged 16-64 who did some paid work in the reference week (before the survey) whether as an employee or self-employed, anyone with a job that they were temporarily away from; anyone on government-supported training and employment programmes; and anyone performing unpaid family work is considered in-employment. In 2020, approximately 70% of individuals in Bradford (77% male, 64% female) and 74% in Tower Hamlets (80% male, 68% female) reported being in employment compared to 75% nationally (79% male, 72% female). In all 3 regions, a lower percentage of females were in employment, however sex differences in employment were higher in Bradford (13 percentage points) and Tower Hamlets (12 percentage points) (Table 8). Employment data by ethnicity at the local authority level are only available for White vs all other ethnic groups, making it difficult to tease out the potential ethnic differences in employment levels in Bradford and Tower Hamlets compared to the rest of England.

Table 8. Employment status (January 2020 – December 2020). Source: Nomis, 2021 (24).

People aged 16-64, n (%)	England	Bradford	Tower Hamlets
All people	35,233,900 (62.3)	332,600 (61.4)	243,200 (73.3)
Males	17,625,700 (63.0)	165,700 (62.0)	130,200 (74.6)
Females	17,608,200 (61.6)	166,900 (60.8)	113,000 (71.8)
Employment Status			
All people, n (%)			
Economically active	28,694,000 (79.2)	254,800 (75.0)	189,100 (78.9)
In employment	27,309,000 (75.3)	239,600 (70.4)	174,500 (74.4)
Employee	NA	203,100 (60.2)	155,600 (65.4)
Self-employed	NA	36,100 (10.1)	22,900 (9.0)
Fulltime employees	NA	131,000 (66.5)	239,000 (78.4)
Parttime employees	NA	66,000 (33.5)	66,000 (21.6)
Unemployment	1,385,000 (4.8)	14,300 (5.6)	12,900 (6.7)
Economically inactive	7,232,000 (20.8)	82,900 (25.0)	49,800 (21.1)
Workless Households	NA	27,800 (18.0)	16,700 (14.8)
Male, n (%)			
Economically active	15,040,000 (82.8)	139,000 (82.7)	112,100 (84.2)
In employment	14,299,000 (78.7)	129,400 (76.9)	106,200 (79.7)
Employee	NA	104,000 (61.9)	91,900 (69.0)
Self-employed	NA	24,900 (14.7)	14,200 (10.7)
Unemployment	741,000 (4.9)	9,500 (6.9)	#
Female, n (%)			
Economically active	13,654,000 (75.6)	115,900 (67.3)	7,700 (72.1)
In employment	13,010,000 (72.0)	110,200 (63.9)	72,400 (67.6)
Employee	NA	99,100 (58.4)	63,600 (60.8)
Self-employed	NA	11,100 (5.5)	8,700 (ND)
Unemployment	644,000 (4.7)	5,700 (4.9)	#

Abbreviations: NA not available.

Notes. Numbers are for those 16 and over, % are for those aged 16-64.

Means the sample size is very small. Economically active, people who are either in employment or unemployed; in employment, people who did some paid work in the reference week (whether as an employee or self-employed); those who had a job that they were temporarily away from (eg, on holiday); those on government-supported training and employment programmes; and those doing unpaid family work; Employed and self-employed, the division between employees and self-employed is based on survey respondents' own assessment of their employment status. The percentage shows the number

in each category as a percentage of all people aged 16-64. The sum of employees and self-employed will not equal the in-employment figure due to the inclusion of those on government-supported training and employment programmes, and those doing unpaid family work in the latter. Economically inactive are those who are neither in employment nor unemployed including, for example, those who were looking after a home or retired.

Unemployment rate

In 2020, Tower Hamlets had the highest overall unemployment rate at 6.7% followed by Bradford at 5.6% compared to 4.6% at the national level. Examining unemployment rates by sex indicates that males experienced higher rates of unemployment than females. However, unemployment rates by sex were not available for Tower Hamlets due to small sample size, which make it difficult to tease out the gender gap in unemployment (Figure 15).

Figure 15. Percentage of people in unemployment, 2020. Source: Nomis, 2021 (24).



Notes. % Unemployment is for those 16 and over and a proportion of economically active. Unemployment rate is the % of economically active population. Unemployed refers to people without a job who were available to start work in the 2 weeks following their interview and who had either looked for work in the 4 weeks prior to interview or were waiting to start a job they had already obtained. Unemployment numbers are model based, as unemployed form a small percentage of the population, the APS unemployed estimates within local authorities are based on very small samples so for many areas would be unreliable. To overcome this ONS has developed a statistical model that provides better estimates of total unemployed for unitary authorities and local authority districts (unemployment estimates for counties are direct survey estimates). Model-based estimates are not produced for male or female unemployed.

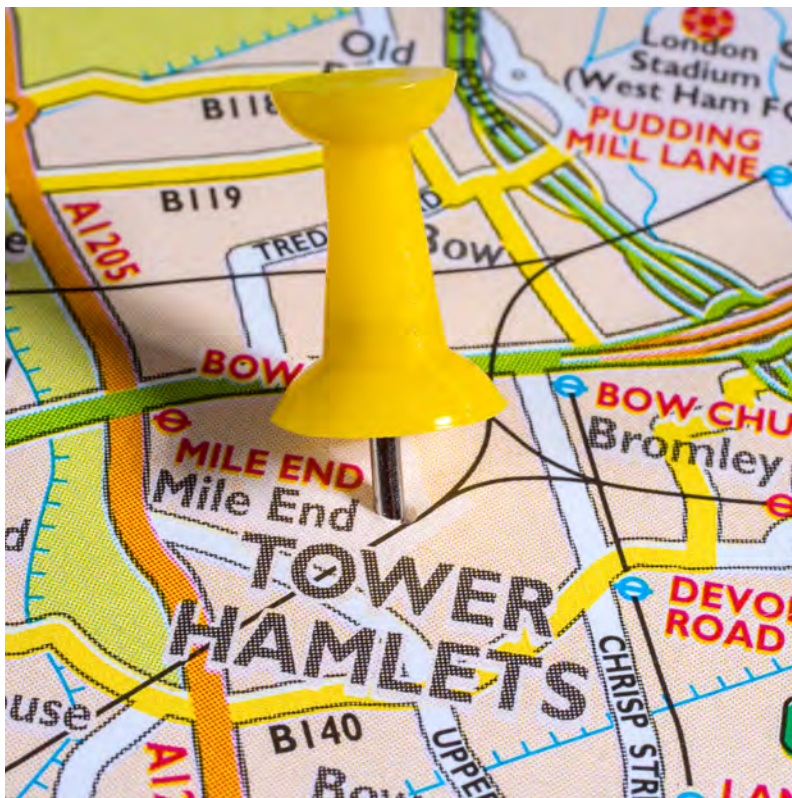
Claimant Counts

Claimant counts describe the number of people claiming benefits mainly due to being unemployed. This indicator is measured by combining the number of people claiming jobseeker’s allowance and national insurance credits with the number of people receiving Universal Credit due to being unemployed. Based on the latest data released by DWP in 2021, approximately 9% of people aged 16 and older in Bradford and 8% in Tower Hamlets claimed benefits due to being unemployed compared to 6% in England. In all three regions, a higher percentage of men than women (Bradford 11% vs. 7%, Tower Hamlets 9% vs. 7%, England 6% vs. 5%) and a higher percentage of young adults aged 18-24 than those 25-49 years old (Bradford 13% vs. 10%, Tower Hamlets 9% vs. 7%, England 7% vs. 6%) claimed benefits. However, the percentage of those 18-24 who claimed benefits was higher in Bradford and Tower Hamlets compared to the national percentage of claimants in the same age group (Table 9).

Table 9. Claimants’ characteristics, not seasonally adjusted, 2021. Source: Nomis 2021 (25).

	England n (%)	Bradford n (%)	Tower Hamlets n (%)
All people (16+)	1,946,790 (5.7)	29,545 (8.9)	19,505 (8.0)
Male	1,143,995 (6.3)	17,540 (10.6)	11,245 (8.6)
Female	802,795 (5.0)	12,005 (7.2)	8,260 (7.3)
Age 16 -17	3,200 (0.3)	45 (0.30)	5 (0.1)
Age 18-24	343,035 (7.3)	6,150 (13.3)	3,130 (8.7)
Age 25-49	1,129,380 (6.1)	17,040 (9.6)	12,025 (7.4)
Age 50+	421,125 (4.3)	6,305 (6.7)	4,340 (11.4)

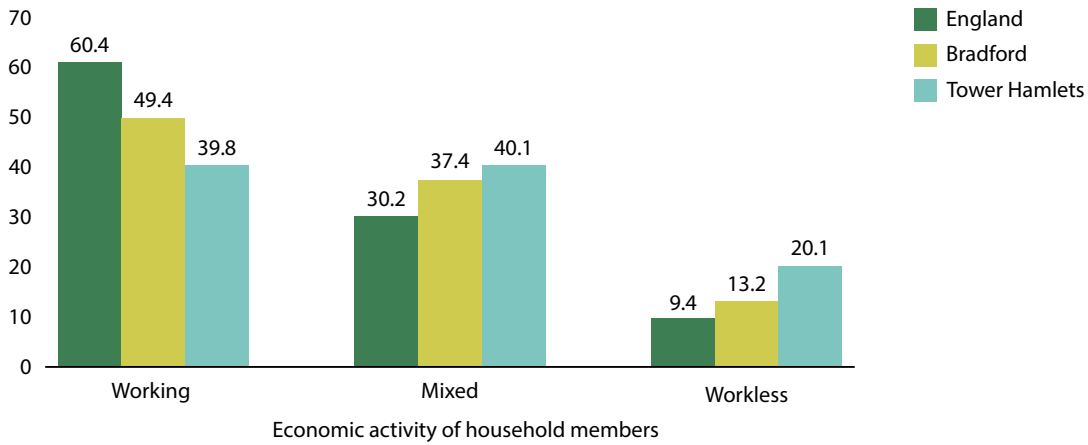
Notes. The measure of the number of people receiving Universal Credit principally for the reason of being unemployed is still being developed by the Department for Work and Pensions. Consequently, this component of the total Claimant Count does not yet correctly reflect the target population of unemployed claimants and is subject to revisions. For this reason, the Claimant Count is currently designated as Experimental Statistics.



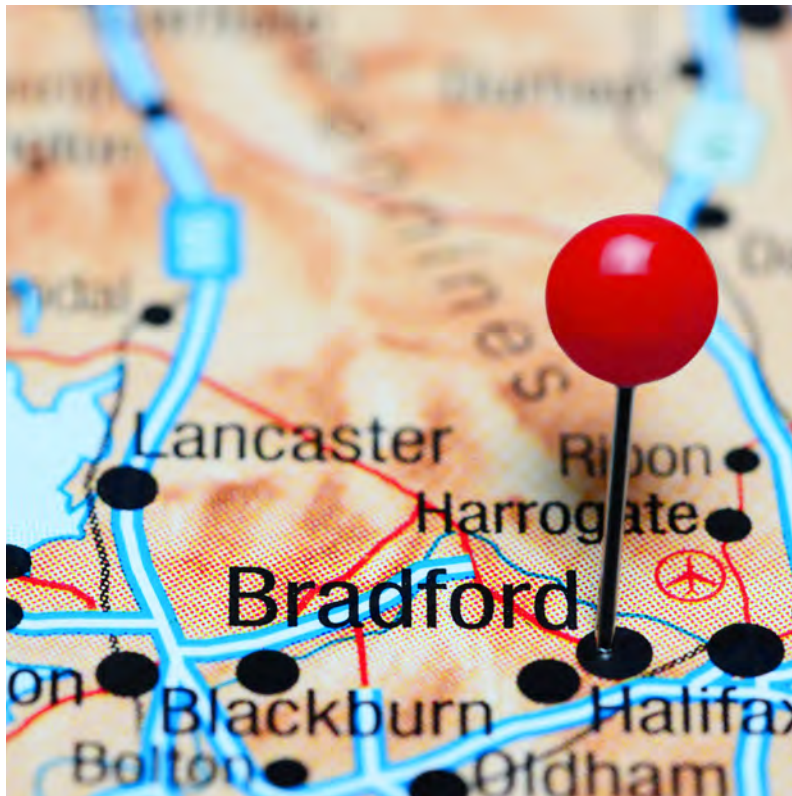
Proportion of children by the economic activity status of the household

Figure 16 presents the most recent data on the percentage of children by economic activity status of household members. Between January to December 2020, a higher percentage of children in Tower Hamlets (20%) and Bradford (13%) compared to England (9%) lived in households where all adults (16+) were workless (i.e. unemployed or economically inactive).

Figure 16. Percentage of children (0-15) by combined economic activity status of household members, January – December 2020. Source: ONS, 2021 (26).



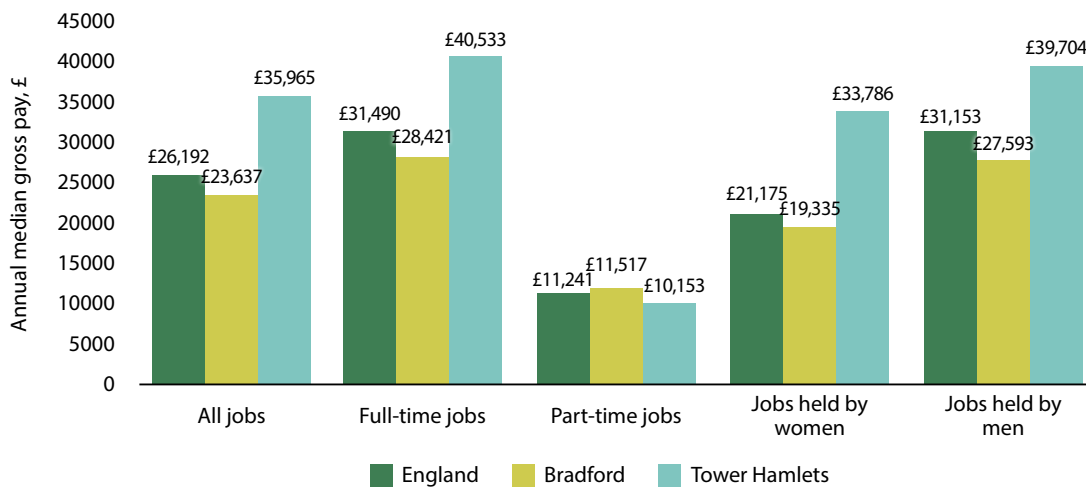
Notes. A household is defined as a single person, or a group of people living at the same address who have the address as their only or main residence and either share one main meal a day or share living accommodation (or both). Estimates only include those households where at least 1 person is aged 16 to 64; Workless household is defined as a household where no-one aged 16 or over is in employment. These members may be unemployed or economically inactive. Economically inactive members may be unavailable to work because of family commitments, retirement or study, or unable to work through sickness or disability.



Earnings

Earnings from employment are one of the most important sources of income for families. Figure 17 shows annual median gross earnings using data from the 2021 Annual Survey of Hours and Earnings. When considering all jobs, median earnings were substantially higher in Tower Hamlets than in England (£35,965/year vs £26,192/year) but lower in Bradford (£23,637). The same pattern was present when only full-time jobs are considered, and when disaggregating by sex. Within each area, men’s median earnings were higher than women’s, but the earnings advantage in Tower Hamlets meant that the median income for women in Tower Hamlets was higher than the median income for men nationwide (£33,768/year vs £31,153/year). The exception to this advantage for earners in Tower Hamlets was for part time workers: annual median earnings in Tower Hamlets (£10,153) were slightly lower than the national median (£11,241) while annual median earnings in Bradford (£11,517) were slightly higher.

Figure 17. Earnings by job type and gender, 2021. Source: ONS, 2021 (27).

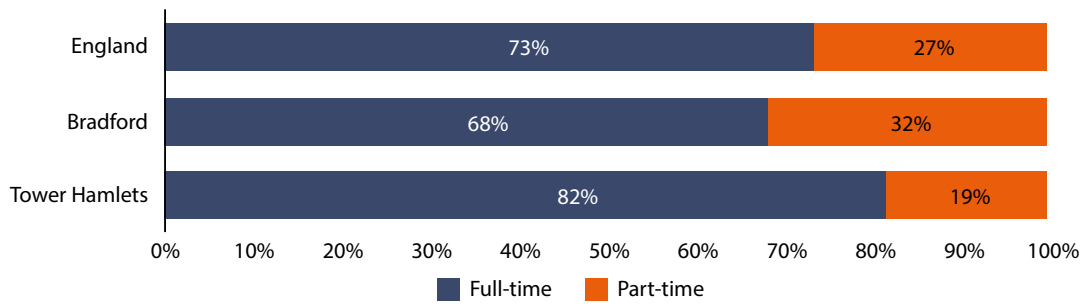


Not shown in Figure 17 are earnings disaggregated by both gender and job hours. For full-time jobs, both men (£45,598/year) and women (£37,887/year) in Tower Hamlets had annual median gross earnings higher than the national median gross earnings for men (£33,777/year) and women (£28,314/year) respectively, while median incomes in Bradford were below the national average for both men and women who worked full-time (£30,011 and £25,426). Men working part-time earned slightly more in Bradford (£12,383) than in England overall (£11,083) while men in Tower Hamlets working part-time earned less (£10,225). Estimates of the annual median earnings of women from Tower Hamlets working part-time were not available due to a lack of precision, but earnings were very similar between Bradford and England overall (£11,200 vs £11,310).

Despite jobs in Tower Hamlets attracting relatively high incomes, it is not the case that the population of Tower Hamlets necessarily benefits. The vast majority of jobs in the Borough are held by people who commute in, and residents earned on average £90/week less than people working in the area in 2019 (London Borough of Tower Hamlets, 2020a).

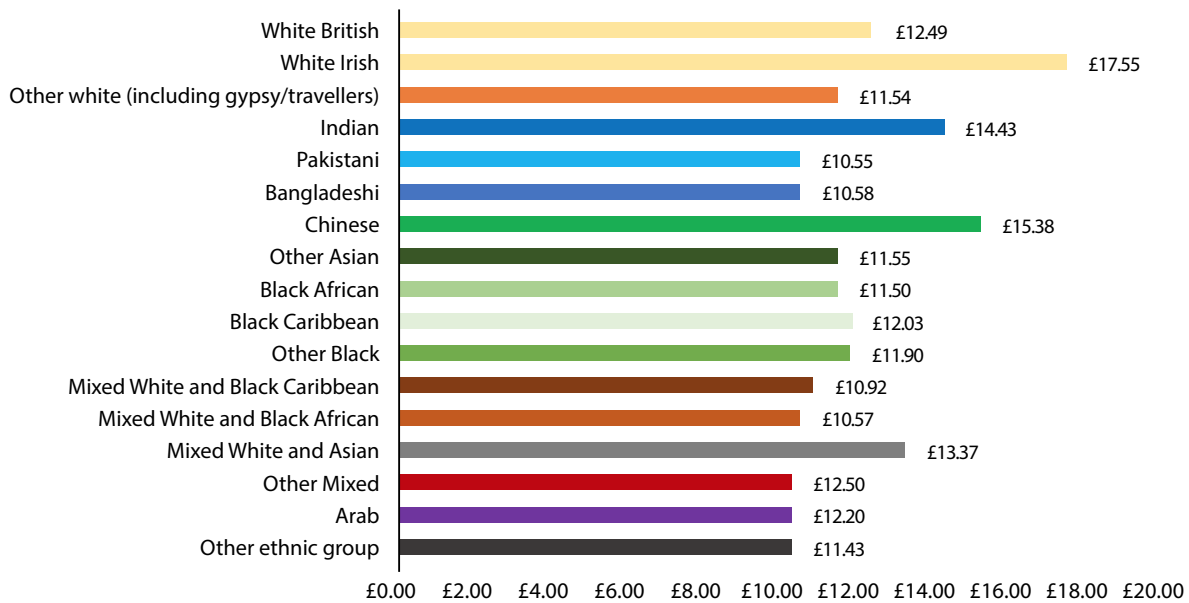
In general, then, residents of Tower Hamlets seem to have a large earnings advantage for full time work, but a small disadvantage for part-time work. Residents of Bradford have lower median incomes overall but men working part-time may have a slight advantage compared to national earnings. Having identified which groups are advantaged and disadvantaged in terms of earnings, it is also necessary to consider the prevalence of these groups in the three areas. Figure 18 shows the breakdown of part-time and full-time jobs in England, Bradford, and Tower Hamlets according to the same data used to calculate earnings. In Tower Hamlets, where median full-time earnings are high and median part-time earnings relatively low, 82% of jobs are full-time and 19% part-time. In Bradford, where part-time earnings are relatively high, 32% of roles are part-time.

Figure 18. Part-time and full-time jobs by area, 2021. Source: ONS 2021 (27).



Given the demographic diversity of Tower Hamlets and Bradford, another consideration is differences in earnings between different ethnic groups. No suitable data exist at the local authority level, but national data shows that there are indeed earning differences between the median wages of the three largest ethnic groups in Bradford and Tower Hamlets (Bangladeshi, Pakistani, and White British). As Figure 19 shows, people who identify as Pakistani or Bangladeshi earn almost £2/hour less than people who identify as White British.

Figure 19. Differences in median hourly pay for selected ethnic groups, 2019. Source: ONS, 2020 (28).

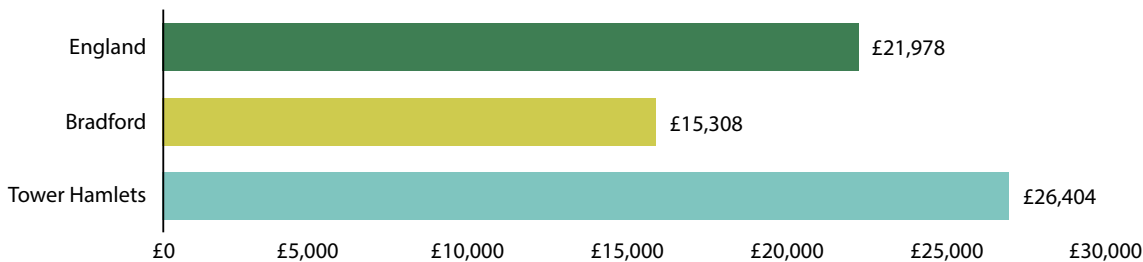


Disposable income

Although income from employment is important, it does not give a complete picture of whether households have enough financial resources to live healthy lives. One measure that incorporates income from most sources is Gross Household Disposable Income (GDHI), which is the amount individuals in a household have available to save or spend after taxes are paid and benefits received.

Figure 20 shows that in 2019, GDHI in Tower Hamlets (£26,404) was higher than for England overall (£21,978), while GDHI for Bradford (£15,308) is lower than for England overall. Of 179 local authority areas for which estimates are available, Bradford had the sixth lowest GDHI per capita, while Tower Hamlets had the 19th highest.

Figure 20. Gross disposable household income in Bradford, Tower Hamlets, and England, 2019. Source: ONS, 2021 (29).



Education

Understanding an area's education profile can help us understand the health pathways of children growing up in the area. The Department for Education categorised the various qualifications available currently or historically in the UK into 9 levels, from Entry Level to Level 8. Level 3 includes A and AS levels, advanced apprenticeship, and the International Baccalaureate diploma. For comparison, GCSEs and intermediate apprenticeships are classed as Level 2.

Unfortunately, some of the more intuitive summary indicators of educational attainment (for example, the proportion of an age cohort who achieved level 3 qualifications) are not available with ethnicity breakdowns at the local authority level, while indicators for which local authority ethnicity breakdowns are available are more complex (for example, the proportion of students achieving various levels of attainment in four different level 3 qualifications).

The average attainment 8 score (a score out of 90 which measures pupils' results in 8 GCSE-level qualifications) is used as an indicator for educational attainment. In school year 2020-2021, the overall average score for GCSEs was approximately 5 points lower in Bradford and 1 point higher in Tower Hamlets compared to the national average.

To look at ethnic differences within Bradford and Tower Hamlets, we have to rely on data that use coarser ethnic categories, combining Bangladeshi and Pakistani into an "Asian" category along with several other groups which may mask the real differences between ethnic groups. As shown in Table 10 in school year 2020-2021, there were ethnic differences in the average scores where Chinese students in all three areas had the highest scores compared to other ethnic groups in all three areas. After Chinese students, Asian students in both Bradford and Tower Hamlets outperformed their peers while, students from Mixed ethnic backgrounds in Bradford and white students in Tower Hamlets had the lowest GCSE scores. (Table 10)



Table 10. Average attainment 8 scores out of 90 (GCSE results) by ethnicity, 2020-2021. Source: DfE, 2022 (30).

Region	All	Asian	Black	Chinese	Mixed	White
England	50.9	55.8	50.0	69.2	51.3	50.2
Bradford	45.9	48.0	47.0	64.9	43.4	44.5
Tower Hamlets	51.7	55.0	49.1	75.3	47.9	47.5

At the national level, available data on educational attainment broken down by specific ethnic groups indicate that Bangladeshi students, who form a large share of students in Tower Hamlets, outperform Pakistani and White British students while there is little difference between the scores of Pakistani and White British children or between these groups and the overall average. These patterns are repeated when considering boys and girls separately (Table 11).

Table 11. Average attainment 8 scores out of 90 in England by gender and ethnicity, 2020-2021. Source: DfE, 2022 (30).

	All ethnicities	Bangladeshi	Pakistani	White British
Boys	48.1	53.0	47.9	47.4
Girls	53.9	58.3	53.4	53.1

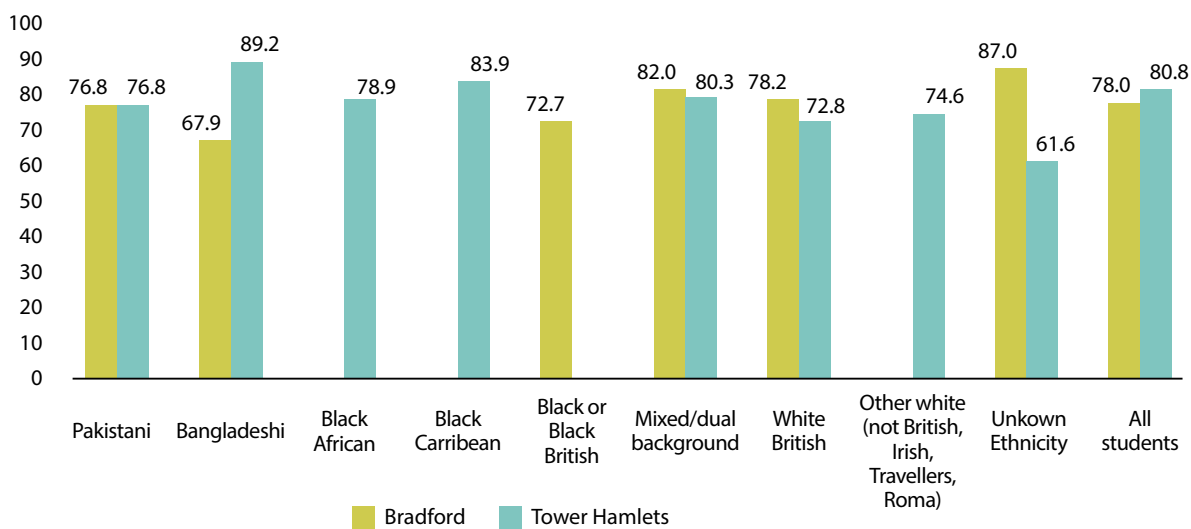
As shown in Figure 21, in the cohort turning 19 in the 2020-21 school year, the differences between areas in the percent of individuals achieving level 2 qualifications were less pronounced than differences in the achievement of level 3 qualifications. In Tower Hamlets, more than 73% of 19-year-olds had earned level 3 qualifications, compared to 60% in England as a whole and 51% in Bradford. In this cohort, students in Tower Hamlets who had earned level 2 qualifications were more likely to go on to level 3 than their counterparts in Bradford or in England overall.

Figure 21. Percent of people turning 19 in academic year 2020-21 with minimum level 2 and level 3 qualifications, by area. Source: DfE 2022 (31).



Data on level 3 qualifications broken down by ethnicity are only available separately for each type of level 3 qualification. Figure 22 shows the percentage of students turning 19 in academic year 2019-20 who achieved at least two A levels. Not all ethnic groups are shown in the chart, and some ethnic groups are shown only for one of the two areas because of small numbers. Looking at all students, Bradford and Tower Hamlets are similar, with 78% and 81% respectively achieving two or more A level results, though ethnic differences exist within each area. In Tower Hamlets, nearly 90% of Bangladeshi students achieved two or more A levels, compared to only 62% of students whose ethnicity was unknown. In Bradford, this pattern is reversed, with students whose ethnicity is unknown being the most likely to have two or more A levels (87%) and Bangladeshi students the least likely (68%). Pakistani students and students with multiple ethnicities were similar in both areas. Bangladeshi students in Tower Hamlets were more likely than their counterparts in Bradford to have two or more A levels, while Black African and Black Caribbean students in Tower Hamlets were more likely than Black/Black British students in Bradford to have reached this level. White students in Tower Hamlets were among the least likely to have achieved two or more A levels in Tower Hamlets, but not in Bradford.

Figure 22. Percent of students achieving 2 or more A levels in Bradford and Tower Hamlets, by ethnicity in year 2019-20. Source: DfE, 2021 (32).



Disadvantage gaps in educational attainment

Disadvantage gap at the local authority level is measured by comparing the educational attainment between disadvantaged students in the area relative to the national mean ranking of their peers who are not persistently disadvantaged. More detail on calculation of this measure is available (Hutchison, Reader & Akhal, 2020, Technical Appendix, 2020). Disadvantaged students are students who have been eligible for FSM at any point during the last six years as defined by the Department for Education. According to the 2020 annual report on education in England (Hutchison, Reader & Akhal, 2020), in 2019, the size of the 'disadvantage gap' in educational attainment was 4.6 months for early years education, 9.3 months for primary school (based on KS2 scaled score in reading and maths) and 18.1 months for secondary school (based on average GCSE English and maths grades) respectively.

At local authority level, 12% of children in Bradford and 32% of children in Tower Hamlets were reported to be persistently disadvantaged (being on FSM for >80% of their school life). These children were behind their peers in secondary level English and maths GCSE by approximately 21 months in Bradford and 6 months in Tower Hamlets in 2019 (Table 12). These findings indicate that experiencing persistent poverty can negatively affect the educational attainment of disadvantaged children compared to their non-disadvantaged peers.

Table 12. Size of disadvantage gap at secondary level (English and maths GCSE), 2019. Source: Education Policy Institute, 2020 (33).

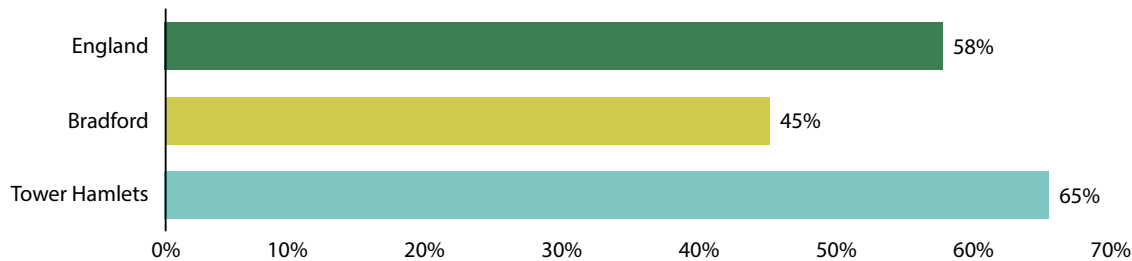
Local authorities	Mean % of pupils' school lives for which they are disadvantage	% Persistently disadvantaged	Disadvantage Gap
Bradford	20.2	12.3	21.5
Tower Hamlets	43.7	31.7	5.9

Note. Persistently disadvantaged children were defined as those who were on free school meals for >80% of their school life.

Another way to look at educational attainment in an area is to consider what proportion of the adult population has reached a given level. Official statistics at local authority level are available for the proportion of people aged 16 to 64 with qualifications equivalent to Level 3 or above.

Figure 23 presents data from the Annual Population Survey (34) to compare the proportion of people aged 16-64 with at least a Level 3 qualification in Tower Hamlets and Bradford with the proportion in England. In Bradford, a smaller share of the population has at least Level 3 qualifications (45%) than in England overall (58%) while in Tower Hamlets the share is larger than the national average at 65%. Not only is Bradford below the national average, but it is also ranked 144 out of 151 local authorities on this measure.

Figure 23. Percent of adults aged 16-64 with at least Level 3 qualifications, 2017-2019. Source: Department for Education, 2022 (34).

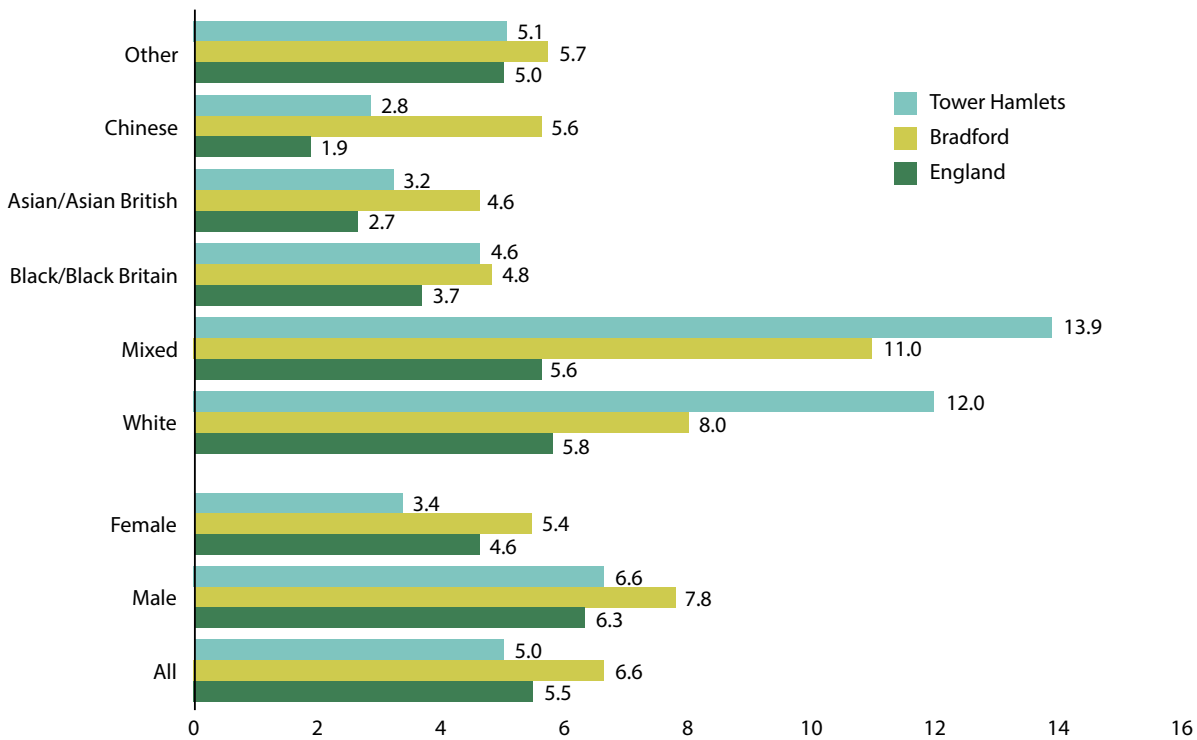


Individuals not in education, employment, or training (NEET)

Figure 24 presents the latest data on individuals not in education, employment, or training (NEET) in 2020/21 by sex and ethnicity. Local authority level data for the percentage of NEET individuals are only available for those aged 16-17 years old. Between December 2020 and February 2021, 7% of individuals in Bradford and 5% in Tower Hamlets were classified as NEET compared to 5.5% nationally. In all three regions a higher percentage of males compared to females were classified as NEET, with Bradford having the highest percentage of male NEET (8%) followed by Tower Hamlets (7%) compared to the national levels.

At the national level, the highest percentage of individuals aged 16-17 years classified as NEET were from the White ethnic background (5.8%). However, in Bradford (11%) and in Tower Hamlets (14%), the highest percentage of those classified as NEET were from mixed ethnic background. A higher percentage of individuals from Asian or Asian British background in Bradford (4.6%) and Tower Hamlets (3.2%) were reported as NEET compared to the national level (2.7%) (Figure 24).

Figure 24. Percentage of individuals 16 -17 not in education, employment, or training (NEET), 2021. Source: DfE, 2021 (35).



Notes. Values are the average of December 2020, January 2021, and February 2021. Proportions include those with unknown activities. From September 2016 Department for Education relaxed the requirement on authorities to track academic age 18-year-olds. LAs are now only required to track and submit information about young people up to the end of the academic year in which they have their 18th birthday i.e. academic age 16 and 17-year-olds.

Housing prices

Between June 2020 and June 2021, housing prices increased nationally as well as in Bradford and Tower Hamlets. Within the three areas, the highest increase was seen nationally at 13% followed closely by prices in Bradford at 12%. The London Borough of Tower Hamlets had only 4% increase in annual housing prices from 2020 to 2021, nevertheless it had the highest annual housing prices in 2020 and 2021 compared to England and in Bradford (Table 13).

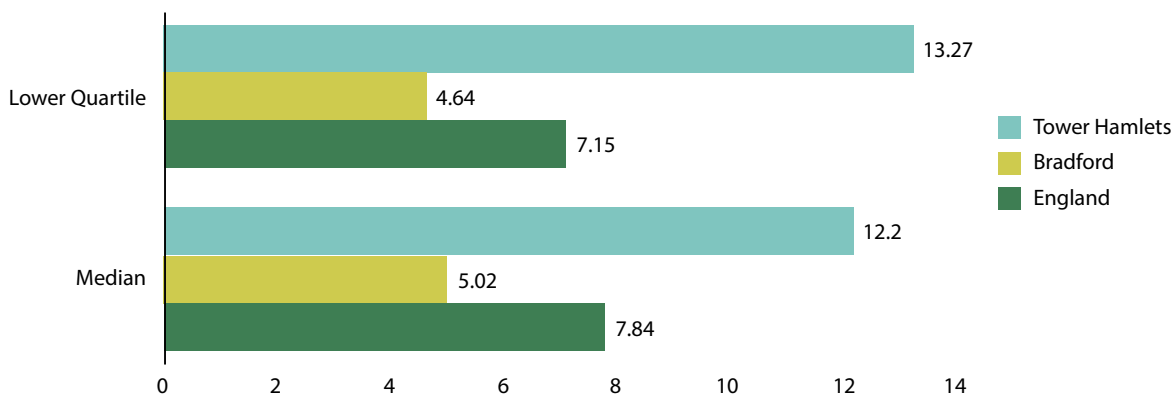
Table 13. Annual housing-price change (2020-2021), Source: UK Home Price Index, June 2021 (36).

Region	June 2021	June 2020	Difference
England	£284,029	£250,739	13.30%
Bradford	£149,798	£133,887	11.90%
Tower Hamlets	£468,117	£449,103	4.20%

Housing affordability

Housing affordability is not straightforward to measure, especially when there is a mix of tenures in any one area. One approach is to consider the affordability ratio which is calculated by dividing the annual median/lower quartile housing prices by gross annual median/lower quartile residence-based earnings. As shown in Figure 25 in 2020, full-time employees in Tower Hamlets could expect to spend more than 12 times their annual median earnings for a house while for full-time employees in the lower quartile, the housing price would be more than 13 times their annual earnings. The affordability ratio in Tower Hamlets was much higher than in England as a whole where the affordability ratio for median earners was 7.8 and 7.1 for the lower quartile earners respectively. In contrast, in Bradford the affordability ratio was lower than in the rest of England, at 5.02 at the median and 4.64 at the lower quartile. Despite the relatively high incomes in Tower Hamlets, a greater salary multiple is necessary to buy a house there, suggesting that housing in Tower Hamlets is less affordable.

Figure 25. Affordability ratio for home purchases, 2020. Source: ONS, 2022 (37).



Note. The house price statistics come from the House Price Statistics for Small Areas, which report the median and lower quartile price paid for residential property and refer to a 12-month period with April in the middle (year ending in September).

The largest source of support for housing costs for low-income households is Housing Benefit. Housing Benefit is nominally set at the 30th percentile for rents in the local area. However, this level was frozen from 2016 to the beginning of the Covid pandemic in 2020, resulting in housing benefit being inadequate to cover rent at the 30th percentile in 97% of local areas in England during that period (Shelter, 2020). At the beginning of the pandemic the freeze was temporarily lifted, but rents have increased in many areas while the freeze has been reinstated.

Looking specifically at Tower Hamlets and Bradford, there were mixed effects of this freeze. For the purposes of calculating housing benefit rates, Tower Hamlets is split between the Central London and Inner East London “Broad Rental Market Areas” (BRMA), while Bradford is split between the Bradford and South Dales and Leeds BRMAs. Table 14 shows that in Central London, for most home sizes households receiving housing benefit would have a shortfall compared to the 30th percentile of rent in the area. In Inner East London, housing benefit is adequate to pay rent at the 30th percentile of the local market, while in Bradford and South Dales it is inadequate for larger homes.

Table 14. Difference between LHA rates and the 30th percentile of local rents for different housing types in parts of Tower Hamlets and Bradford in April 2022. Source: Valuation Office Agency (38).

BRMA	CAT A	CAT B	CAT C	CAT D	CAT E
Central London	12.31	-71.12	-132.79	-306.09	-464.88
Inner East London	11.88	7.82	20.71	4.6	10.36
Bradford & South Dales	1.22	-10.35	0	-5.76	-8.06

Note. Categories A-E describe properties of different sizes.

High housing costs can have implications for social housing. In Tower Hamlets, 20 households per 1,000 households lived in temporary accommodation in 2020 (Trust for London, 2020). Furthermore, in 2019 Tower Hamlets was ranked as the 24th most deprived local authority area in England with respect to housing deprivation and had the 3rd highest housing waiting list in London and 8th highest nationally while 40% of households on the housing waiting list were living in overcrowded conditions. Furthermore, minority ethnic households comprised 78% of the housing register with 60% being Asian, predominantly Bangladeshi (London Borough of Tower Hamlets, 2020 b).

Overcrowding

The 2019/20 English Housing Survey (EHS) provides the latest data on overcrowding by bedroom standards in England. According to EHS, between 2017/18 and 2019/20, 3.5% of all households in England lived in overcrowded conditions. Specifically, 8.7% of all social-renting households, 6.7% of all private-renting households, and 1.3% of owner-occupying households were overcrowded (Wilson, Barton, 2021).

Overcrowding was more common among ethnic minority households compared to White British households for all three occupancy conditions across England between 2015/16-2018/19. In particular, 24% of Bangladeshi, 18% of Pakistani, and 16% of Black African households were overcrowded compared to 2% of White British households. Furthermore, overcrowding data by region indicate that London, including Tower Hamlets, had the highest percentage of overcrowded households (8.3%) while Yorkshire and Humber, including Bradford, had 2.2% overcrowded households between 2016 to 2019 (39).

Food insecurity

The Family Resources Survey (40) provides household food security status for households in England and at regional level in the 30 days prior to the survey interview. According to the 2019-2020 survey results, the majority of households in England (97%) were food secure. Nevertheless, 13% of households in West Yorkshire and Humber region and 15% of households in Inner London reported marginal, low, or very low food security in the last 30 days prior to the survey interview (Table 15). These indicators, however, may not provide a clear picture of the extent of food insecurity in Bradford and Tower Hamlets.

Table 15. Levels of food insecurity (2019-2020). Source: DWP, 2021 (40).

Region	Household food insecurity status, %				
	Total sample size	High	Marginal	Low	Very low
England	13,503	87	6	4	4
Yorkshire and Humber	1,514	86	5	4	4
London	1,580	86	6	5	3
Inner London	566	85	6	5	4

Notes. Household food security status: A new series of questions was added to the 2019/20 FRS on the topic of food security. This series of questions is asked of the person in the household who knows the most about food purchasing and preparation. There are a range of questions, asking about the household, adults within the household, and the person answering the questions. The questions do not directly ask about the food security status of children. Answers are used to generate a household food security score. The score is equal to the number of 'positive' answers: 'yes', 'often true' or 'sometimes true' (or '3 days or more', depending on the question). Taking all answers together, households are assigned a food security status, based on their score: 0 = High food security (food secure); 1-2 = Marginal food security (food secure); 3-5 = Low food security (food insecure); 6-10 = Very low food security (food insecure).

More recent data published by the University of Sheffield (41) describe food insecurity at the local authority level in terms of hunger (feeling hungry at least once in the past month and being unable to get food), food struggle (having to cut back on food or skip meals, receiving support from their community, not being able to get to the shops or get deliveries, or were too ill to get food), and worrying about food. In January 2021, 8% of households in Bradford and 4% of households in Tower Hamlets experienced hunger. Similarly, 20% of households in Bradford and 17% in Tower Hamlets experienced food struggle while 12% of households in Bradford and 17% in Tower Hamlets reported worrying about being able to adequately supply food for themselves and their families (Table 16).

Table 16. Indicators of food insecurity at the local authority level, 2021, Source: University of Sheffield (41).

Region	% Households experiencing hunger, 95% CI	% Households experiencing struggle with food insecurity, 95% CI	% Household experiencing worry about food security, 95% CI
Bradford	8.20 (0, 20.87)	19.87 (8.41, 31.32)	11.83 (3.06, 20.60)
Tower Hamlets	3.67 (0, 15.99)	17.04 (4.35, 29.72)	16.87 (1.67, 32.07)

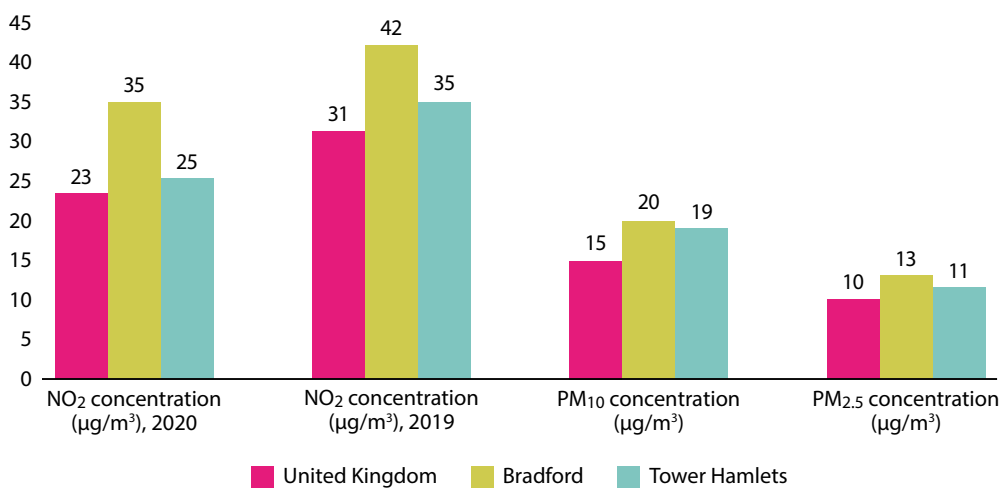
Note. The estimates present 3 different measures of food insecurity in Jan 2021.



Air pollution

The 2018 World Health Organization air quality guidelines for annual mean levels of pollutants including nitrogen dioxide (NO₂), and particulate matters (PM) is set at 40 µg/m³ for NO₂, 20 µg/m³ for PM₁₀, and 10 µg/m³ for PM_{2.5} with the goal of gradual reduction from high to low for all three pollutants (WHO, 2018). In 2019, Bradford reported the highest levels of NO₂ (42 µg/m³), PM₁₀ (20 µg/m³) and PM_{2.5} (13 µg/m³) followed by Tower Hamlets (NO₂ = 35 µg/m³; PM₁₀ = 19 µg/m³; PM_{2.5} = 11 µg/m³) compared to the annual average levels of the three pollutants in the UK (NO₂ = 31 µg/m³; PM₁₀ = 15 µg/m³; PM_{2.5} = 10 µg/m³) and the levels set by the WHO (Figure 26).

Figure 26. Annual mean concentration of pollutants, 2020: Source: DEFRA 2022 (42); City of Bradford 2020 (43); London Borough of Tower Hamlets 2020 (44).



Notes. The NO₂ concentration is measured at Tower Hamlets Roadside and Bradford Mayo Avenue. The PM₁₀ and PM_{2.5} are the average value of the three sites in Tower Hamlets including Blackwall, Millwall Park, and Victoria Park. The PM₁₀ and PM_{2.5} are the average values of the two sites in Bradford including Shipley Airedale Road and Tony Street. The 2018 WHO Air quality guideline for annual mean levels is set at 10 µg/m³ for PM_{2.5}, 20 µg/m³ for PM₁₀ and 40 µg/m³ for NO₂.

SUMMARY OF THE SECTION

When it comes to the social and environmental determinants of health, Bradford and Tower Hamlets have some differences but ultimately face similar challenges. On most of the social, economic, and environmental indicators we have explored in this report, Bradford is less advantaged than England overall. In contrast, by some measures, Tower Hamlets is more advantaged than England overall and is one of the more advantaged areas in the country: incomes in Tower Hamlets are higher than elsewhere in the country, more adults have at least Level 2 education than elsewhere, and students in Tower Hamlets tend to perform well in their education. However, closer examination reveals that these apparent advantages are not equally distributed across the Borough. Tower Hamlets, like Bradford, has a large share of its children in poverty. Additionally, housing in Tower Hamlets is particularly unaffordable, and air pollution is high.

CONCLUSION

This report brings together data from a broad range of health outcomes and socioeconomic indicators for Bradford and Tower Hamlets (two areas of high child poverty) to create a comparative picture between these areas and England as a whole. Compared to the rest of England, Bradford and Tower Hamlets have younger populations and in both regions the population of Asian/British Asian individuals identified as Pakistani (in Bradford) and Bangladeshi (in Tower Hamlets) are higher than the rest of the country.

Perhaps not surprisingly, we found that children residing in Bradford and Tower Hamlets experienced worse health outcomes than their peers in England as a whole. Differences observed in socioeconomic indicators in Bradford and Tower Hamlets compared to the rest of the country could explain some of the variation in poor health outcomes of children in the two regions. We found stark differences in levels of poverty, educational attainment, food insecurity, employment status and housing for families living in Bradford and Tower Hamlets compared to the rest of the country. For instance, high costs of housing in Tower Hamlets led to high levels of child poverty in Tower Hamlets compared to England as a whole, despite relatively high average wages. Furthermore, discrepancies in housing affordability, ethnic differences in pay and differences in employment rate, together, will further widen the economic inequalities seen in Bradford and Tower Hamlets compared to the rest of the country.

We were able to report some socioeconomic indicators and health outcomes by deprivation and demographic characteristics of individuals within each area. For instance, we found that children eligible for the FSM programme (an indication of disadvantage) fell behind their peers in secondary school level English and maths by several months. We also found that families living in rented housing compared to owned housing were more likely to experience poor housing conditions.

However, data by demographic characteristics were unavailable for many of the health outcomes and socioeconomic indicators, making it difficult to tease out specific discrepancies seen in the regional data. Considering that Bradford and Tower Hamlets have large populations of ethnic minorities as well as high levels of child poverty, this is an important gap in the data. Identifying which local communities are affected by economic inequalities and to what extent, will be vital for ensuring that resources are allocated effectively to better address specific needs.

Notwithstanding data gaps, this report sets a baseline for the current state of child health in these regions and highlights the differences in socioeconomic indicators in each region compared to the rest of the country. It is necessarily a static picture, despite a rapidly changing context. The COVID-19 pandemic and its aftermath, as well as a cost-of-living crisis have and will undoubtedly affect many of health outcomes and the social and economic indicators presented here.

DATA SOURCES

We developed a list of child health outcomes and socioeconomic indicators using the Marmot Review and Public Health England (PHE) Maternal and Child Health Profile. Region-specific data were collected from various sources including PHE Fingertips data, the Office of National Statistics, NHS Digital, and documents published by the councils, and other reputable organisations. Descriptive tabulations of data for different indicators and health outcomes are provided. Where available, we also present tabulation of data by sex, ethnicity, and levels of deprivation.

Figure 1.

1. ONS, 2022. Population and household estimates, England and Wales: Census 2021; dataset "census2021firstresultsenglandwales1.xls". Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationandhouseholdestimatesenglandandwalescensus2021>
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Migration Flow

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Figure 2.

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Figure 3.

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Figure 4.

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Table 1.

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Figure 5.

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Figure 6.

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Table 3.

11. NHS, 2021. Digital Childhood vaccination coverage statistics, 2019-2020. Available at <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-immunisation-statistics/england--2019-20>

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14. PHE, 2021. Public health profile: Asthma. Available at <https://fingertips.phe.org.uk/search/asthma#page/3/gid/1/pat/15/par/E92000001/ati/166/are/E38000232/iid/93137/age/249/sex/4/cat/-1/ctp/-1/cid/4/tbm/1/page-options/car-do-0>

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Figure 10.

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Table 6.

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Figure 11

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Figure 14.

23. Autumn Term 2020/21 Free school meals: Autumn term. Available at: <https://explore-education-statistics.service.gov.uk/find-statistics/free-school-meals-autumn-term/2020-21-autumn-term>

Table 8. Figure 15

24. Nomis, 2021. Official labour market statistics Employment and unemployment (Jan 2020 - Dec 2020), <https://www.nomisweb.co.uk/reports/lmp/la/1946157124/report.aspx?town=Bradford#tabrespop> and <https://www.nomisweb.co.uk/reports/lmp/gor/2092957699/report.aspx>

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APPENDIX

Population breakdown by sex and age in England, Bradford, and Tower Hamlets. Source: ONS Population and Household Estimates 2021(1, 2).

Characteristics	England		Bradford		Tower Hamlets	
	Total n	% pop	Total n	% pop	Total n	% pop
	56,489,800	100	546,400	100	310,300	100
Sex						
Male	27,656,300	49.00	267,500	49.00	155,800	50.00
Female	28,833,500	51.00	278,900	51.00	154,500	50.00
Age (years)						
0 to 4	3,077,000	5%	36,100	7%	19,100	6%
5 to 9	3,348,600	6%	39,600	7%	17,700	6%
10 to 14	3,413,100	6%	41,400	8%	17,400	6%
15 to 19	3,218,900	6%	37,800	7%	18,400	6%
20 to 29	7,129,800	13%	67,600	12%	76,500	25%
30 to 39	7,748,000	14%	76,200	14%	70,500	23%
40 to 49	7,183,000	13%	69,500	13%	40,100	13%
50 to 59	7,714,000	14%	66,500	12%	24,700	8%
60 to 69	6,023,600	11%	52,900	10%	14,500	5%
70 plus	7,633,700	13%	58,900	11%	11,300	4%