

FOOD FOR THOUGHT:

OUR DIET, NUTRITION AND OBESITY RESEARCH – AT A GLANCE



1-in-4 - children overweight or with obesity leaving primary school

20% - families experiencing food insecurity



6,060 - mother-child pairs in our BMI study

310 - pregnant Muslim women shaped Ramadan research



169 - community food assets identified

20% - food assets tailored to cultural preferences

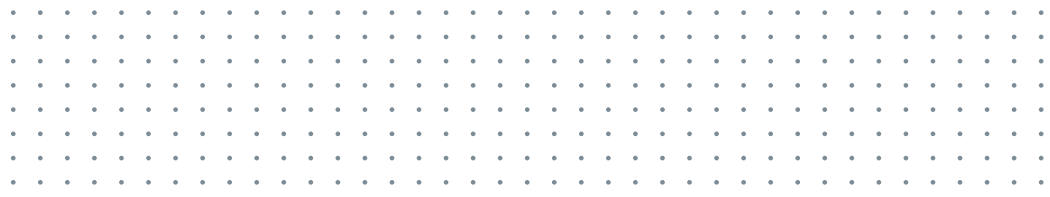


2,000 - children asked about school food and level of hunger

1-in-4 - children with hunger don't receive free school meals



5 - priority recommendations for policy makers



EVIDENCE BRIEFING

DIET, NUTRITION AND OBESITY A GROWING APPETITE FOR CHANGE



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WHAT IS THE PROBLEM?

About **1-in-5 children** are already defined as **being overweight** or **living with obesity** when they start primary school - and this increase to about **1-in-4** by the time they leave primary school.

Similar to many other areas, many children in Bradford consume **too much sugar, fat** and **not enough fibre, vitamin D, or fruits and vegetables**.

Unfortunately, rates are **much worse** in families living in the **most deprived areas** and food insecurity levels are **amongst the highest in the whole of England** (*20% of families experience food insecurity in Bradford*).

This tells us that the environments that children grow up in **play a substantial role** in either **supporting a healthy diet** or **preventing access to healthy, tasty and affordable** food.

Bradford has a **rich culture of food** that should be embraced - but is unfortunately **flooded with many fast food outlets** – over **twice as many** as the average as other areas in England.

Schools provide **an excellent opportunity** to provide children with

nutritious food, but many tell us that they are **simply too busy with other demands**, or that their **“hands feel tied”** due to feeling stuck in catering contracts that they feel powerless to change.

WHAT HAVE WE FOUND?

Born in Bradford has conducted extensive research exploring what factors **influence growth, diet and obesity** in infancy and childhood.

We have used this information to guide the development of programmes to **support families with children**.

We have also explored **patterns of food insecurity** in families over time so that we can consider strategies to share with **local government** and have identified **community**



organisations that could play an important role in providing emergency food and support to those most in need.

We have found that food insecurity is linked to financial insecurity and worse mental health (Ref 1-2)

Food bank use in the UK is increasing yet it is unknown who is using them and what effect food insecurity has on health.

- In a survey completed by 1280 women in Bradford, **14% were reported to be food insecure**, which was more likely among White British (19%) than Pakistani (10%) women.
- Receipt of **means-tested benefits** and self-perception of **financial difficulties**, were strongly associated with food insecurity.
- Data show that food insecurity **increased the risk of mental health disorders** before, during, and after giving birth.
- Pakistani women may be “protected” from food insecurity due to **stronger social networks**.

We have found that childhood obesity is linked to mother’s obesity (Ref 3)

- Among 6,060 mother-child pairs, mother’s body mass index (BMI) was found to be **positively associated** with child’s BMI.
- Pakistani children are **taller and lighter** than White British children with **similar fatness** - suggesting that Pakistani children are relatively fatter.

Working in partnership with other large European studies, we have found that Toxins found in air pollution, tobacco smoke, and diet reduce birth weight, but



fruit and vegetable intake could protect against this (Ref 4-5)

- Exposure to toxins found in air, tobacco smoke, and diet are linked to an **increased risk of cancer**.
- Higher levels of toxins were associated with a **lower birth weight**, which could be protected by eating fruits and vegetables high in Vitamin C.
- Exposure to toxins can also be reduced through decreasing intakes of **processed meats** and decreasing **body weight**.

We have found that fasting during Ramadan does not increase risk of preterm birth or low birth weight babies (Ref 6-7)

- One of the five pillars of Islam is to fast during Ramadan; pregnant women are exempted but **many still choose to fast**.
- Women who conceived during Ramadan (n=479) did not have babies that **were any different in terms of size or risk of preterm** birth compared to women who did not conceive during Ramadan (n=4677).

We found that there are some differences in the types of foods eaten by families of different ethnicities (Ref 8-9)

- At aged 12 and 18 months, **Pakistani children** in BiB

ate more commercially-available sweet baby foods, more chips/roasted potatoes, more fruit, more sugary drinks, and fewer processed meat products that **White British infants**.

- The most common foods found in our BiB family homes when the children were infants were fruits, vegetables, and snacks present, with apples, potatoes, and crisps/tortillas. Similar to diet, households of Pakistani origin were more likely to have more **sugary drinks**, but also **more vegetables** that White families.

Food insecurity is associated with increased BMI and poorer dietary intakes (Ref 10-11)

- Food insecurity has been associated with obesity and diet but has **not been explored by ethnicity** in the UK.
- Mothers completed questionnaires to determine their **food security status**, and their children's dietary intakes and heights and weights were determined.
- White British mothers reported more food insecurity than Pakistani-origin mothers; food insecure mothers were also **more likely to be overweight**.
- BMI increased more **among those food insecure** over a two-year period, but results were mixed for White British mothers and children.
- Food insecurity was associated with **dietary intakes of poorer quality** with fewer vegetables and more sugar-sweetened beverages.

In a recent study conducted in Bradford and other areas of the UK, we found what were the most important factors influencing child food at school

- We spoke to **over 100 people** working in or using primary schools (including children) and created a picture of all of the factors they told us **influenced child food choice**.

- The **two biggest factors** were the degree to which school head teachers **prioritised food and child preferences**.

- Many other factors were shown to influence food choice and child food preferences, including the **eating environment** and wider **influences from home**.

We explored all of the community food organisations that supported people during the COVID-19 lock-down in Bradford (see bit.ly/3gvzuj9)

- Between August and November 2020, we identified **169 community food assets** operating in the Bradford District, of which 139 were operational throughout the lock-down period.
- **Schools were key** to providing food for children and families during school closure.
- **Only 20%** of food assets were able to tailor their food to cultural preferences, often due to an over-reliance on donated food.

We found that many children experience hunger whose parents don't meet the eligibility cut-off for free school meals (Ref 12)

- We asked over 2,000 children across the country about their **school food** and **levels of hunger**.



- Children who were food insecure had a **higher probability of poor mental health**.
- Almost a **quarter of children** who experienced hunger **did not receive free school meals (FSM)**.
- A **concerning number** of children are experiencing food insecurity in families with higher/professional levels of education who are likely to be **above the eligibility threshold** for FSM.

WHAT HAS CHANGED AS A RESULT?

Our findings have been shared **locally, regionally and nationally** to help decision-makers think about ways to

support families living in deprivation, to develop resources to help schools.

We meet with partners in the local council at least monthly to help them consider approaches that are based on evidence and to support them to evaluate their initiatives.

We have received **additional funding** to explore whether community food organisations may play a role to **help families move away from needing emergency food** (*for example, by providing employment or benefits advice*) and are also working with primary schools in Bradford to help them consider whether our resources support them to **enhance their school food environments**.

RECOMMENDATIONS FOR POLICY MAKERS BASED ON EVIDENCE

- **Current eligibility criteria** for free school meals are **failing families** and **need to be increased**, at least in line with those recommended by the National Food Strategy (*family income less than £20,000*).
- Community food organisations may play a key role in supporting families but are **often overly reliant on donations** and need **additional support** to ensure they are **sustainable and culturally appropriate**.
- Schools are facing many **competing demands** and often place food **lower on the list of priorities**. They need support, especially extra funding, to encourage the use of whole school approaches to food to support health and learning and to ensure that **children can thrive**.
- Factors influencing obesity are **many and complex**. Interventions which focus on individual behaviour change **do not provide long-term impact**. Those that target the **wider environment**, particularly those that **influence**

areas of highest deprivation, are likely to have the **biggest effect**. We do not support the scaling back of the national obesity strategy - particularly as the planned interventions are aimed at targeting socio-economic and environmental determinants of health that are needed to reduce inequalities in obesity prevalence.

- Any food based intervention should consider the **needs and cultural appropriateness** for the population. Rather than developing policies/initiatives and then seeking consultation, **start by setting priorities with families, children and young people**.
- Working in partnership with national campaigns, such as the Food Foundation's [Feed the Future](#) initiative, we are urging **all people in receipt of Universal Credit** to be eligible for free school meals. We are also pushing for **automatic enrolment** in this recommendation - and are actively exploring with Bradford Council ways of achieving this as a **trail-blazing pilot site**.

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