

Impact of Born in Bradford on policy and practice



Air pollution.

BiB found that air pollution was associated with poor growth of babies in the womb, higher blood pressure in children and poorer brain development. One in three cases of asthma in children was related to air pollution.

Our evidence has led to one of the **most ambitious clean air zones in the UK** with over £30 million in funding to support the transition to less polluting vehicles.

Green space.

BiB found that families living in greener areas had healthier babies and better mental health in parents and in children.

Our evidence has led to millions of pounds of investment in improving urban green spaces across the city.

Perinatal Mental Health.

BiB identified that only limited information about the number of people with perinatal mental health needs could be easily identified from health service records because of the way information it was captured. NHS services responded to this by changing the way this information was recorded in health service records to help better understand perinatal mental health needs.

Further analysis by BiB of perinatal mental health needs recorded in health service records identified large differences in the identification and treatment of perinatal mental health, with women with little or no English and those from some ethnic minorities less likely to be supported. Services have been re-designed in West Yorkshire to to reduce these differences.

Early life.

BiB has demonstrated how important early life exposures are for the development of health and development. The roots of diabetes, heart disease, mental ill-health and educational attainment begin from when we are born.

BiB used this evidence to develop a highly innovative programme of science-based early life interventions for diet, physical activity, speech and language and parenting and with city partners secured £49 million of Big Lottery funding to develop Better Start Bradford and the world's first experimental birth cohort study.

BiB findings from the evaluation of Better Start Programmes have identified the services which are most useful in helping families with their health and wellbeing in the first few years of a childs life. These findings have helped inform which services are available for families across the Bradford District through Family Hubs and the Start for Life programme.

Physical activity.

BiB found that children in the city do not meet national guideline levels of exercise, and that there were inequalities in physical activity by gender and ethnicity.

BiB has pioneered new approaches to promoting exercise that include its Pre-schoolers in the Playground (PiP), Healthy Active Parenting in the early years (HAPPY) and Stand Out in Class programmes. BiB built on this track record to win a £11 million Join Us: Move Play Sport England award to increase physical activity in children living in some of the most deprived areas of the UK.



Arts and health.

BiB has forged strong links between arts and science through its extensive artists in residence programmes. Photographs from Ian Beesley and Carolyn Mendelsohn, poems from Ian McMillan, stage adaptations and fashion shows based on BiB evidence have brought dry science to bursting life.

BiB has led two successful bids to **Arts Council England** (the Leap and Digital Creatives) to bring almost £3 million of arts investment into the city and was at the heart of the success of the **Bradford 2025 City of Culture** award.

Autism.

BiB found a strong association between the reception teacher assessments and later risk of autism.

Working with schools our evidence led to the redesign of services to ensure children are picked up and supported much earlier. This programme has been rolled out in a number of centres nationally.

Genes and health.

BiB demonstrated the definitive evidence of risk of congenital anomalies associated with consanguinity and older motherhood.

BiB's genetic research has identified promising targets for drug development to tackle disabling metabolic and skin diseases. Our research with international groups has helped develop prediction tools for diabetes and heart disease and risk of severe illness from COVID-19.

Diet and nutrition.

BiB has found evidence that supports the importance of fruit and vegetable intake in protecting health. The study found evidence of how toxins in our diet can harm health, and how difference in early life diet (sugar and processed meat intake) may lead to later diabetes and cancer.

BiB has used this evidence to support policy makers develop international guidelines for dietary intake

Food insecurity.

BiB has shown how common food insecurity is in the city and how it is linked to worse mental health, but reduced with stronger social networks. Food insecurity is linked to childhood obesity due to low quality diet.

BiB has worked with schools and the local authority to introduce automatic enrolment for free school meals.

BiB for All.

The success of BiB has led to cities across the UK asking Bradford how they can set up their very own BiB. We have established a national network of birth cohort studies called Born and Brad in (BaBi) that has rolled out our ground-breaking model to Leeds, Wakefield, Doncaster, Hull, Manchester and London.

Prematurity.

BiB found that both prematurity and summer birthdays were associated with poorer educational attainment, with a 'double disadvantage' from being born both prematurely and in the summer.

BiB worked with schools and the local authority to allow parents of premature children born in the summer to delay school entry to the next school year.

Glasses in classes.

BiB found a link between poor eyesight and reduced reading ability. Children are entitled to free eye tests, but 30% of children who needed glasses had not been tested.

BiB provided free glasses in school for children who needed them and demonstrated positive impacts on reading ability. This initiative has been rolled out nationally by the **Department of Education.**



Supporting educational development.

BiB has found a clear link with reception class assessments and longer term educational attainment.

We have developed an **Electronic Development Support Tool** (EDST) to help teachers and parents monitor and support children effectively. This will be rolled out nationally after local piloting.

Community engagement.

BiB has been a leader in co-production of research with our families and provided expertise to studies around the world on how to set public priorities and share findings. Our community co-production sets new standards for best practice for research.

COVID-19.

BiB established the award-winning **Bradford COVID-19 Scientific Advisory Group** (C-SAG) to harness research expertise and infrastructure to support the local response to and recovery from COVID-19, working in partnership with the NHS and Local Authority.

BiB findings helped understanding of how the pandemic and restrictions were impacting on families in the District, their financial security, mental and physical health and levels of physical activity. These were used by the Local Authority and NHS to inform their response and address the differing needs of different communities and groups.

BiB undertook one of the first studies to understand people's relationship to health services and health information (and misinformation) and attitudes towards a COVID-19 vaccine in Bradford District, focusing on attitudes, trust, access and experience. This provided early insights about the the complexity of people's health beliefs around COVID-19, their experience of health services and the challenge of misinformation in Bradford. This enabled the NHS and Local Authority to better prepared to help encourage people to receive the COVID-19 vaccine when it became available and tackle vaccine hesitancy.

Oral health.

Through **BRUSH** (optimising toothBrushing pRogrammes in nUreries and ScHools), Dentists and researchers have been working with nurseries, schools, different parts of national Government, the NHS and Councils to understand the best ways to put in place supervised toothbrushing in nurseries and schools, helping prevent dental decay.

Our findings have informed the Labour Party's recent plans to implement a national supervised toothbrushing programme if they come to power, focussing on children living in the 20% most deprived areas in England.

The **BRIGHT** (Brushing Reminder 4 Good oral Health) project **worked with 23 secondary schools** in Yorkshire and Humber to deliver short dental health lesson plans embedded in the school curriculum and text messages to help prevent dental decay. The findings have been disseminated nationally.

Dental health.

BiB has highlighted the high levels of dental decay in the city and the inequalities in dental health.

BiB has developed novel approaches to preventing dental decay including school and nursery based tooth brushing interventions, training for health visitors, oral health promotion in schools and bespoke support for parents of children with autism.

Research-active local authorities.

BiB is a NHS study and initially focused mostly on clinical topics. Over time we have found that the influences on health are much wider and include housing, transport, schools, employment and crime.

BiB established the ground-breaking concept of **City Collaboratories** to take a whole, city-wide view of health and research. This has led to two successful £5 million NIHR Health Determinant **Research Collaborations** in Bradford and London.