



Birmingham

Nutrition situation analysis

This report compiles secondary data on the nutrition situation in Birmingham to inform the new partnership between Birmingham, UK and Pune, India on smart nutrition

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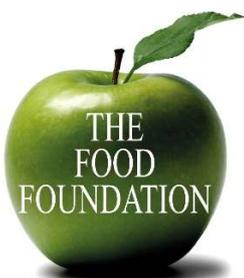


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About BINDI

BINDI – Birmingham India Nutrition Initiative is a ‘Nutrition Smart City’ initiative involves the development of policies and practices through a learning partnership between Birmingham, UK and Pune, India.

In the first 18-month phase, The Food Foundation will work with local authorities in both cities to design the partnership, based on citizen engagement and evidence from elsewhere around the globe. A platform will be created to enable joint learning, experience sharing and piloting of specific initiatives.

The initiative aligns with Sustainable Development Goals 2, 5 and 12 and the Smart City movement. Birmingham and Pune will work together to establish ‘Smart Nutrition’ as a key topic on the Smart City agenda.

The initiative is led by the Food Foundation and funded by the Tata Trusts and the UK Department for International Development (DFID) through its [Maximising the Quality of Scaling Up Nutrition Plus \(MQSUN+\)](#) project. MQSUN+ provides technical expertise in multisectoral nutrition policy and programming to DFID and Scaling Up Nutrition countries.

Background

Birmingham is the second largest city in the UK with a population of approximately 1 million. It is a growing city with a population forecast to rise to 1.3 million within 15 years. One of the principle reasons for Birmingham's growth is that it is the youngest city in Europe with an average age under-30. This is very substantially lower than any city in continental Europe. Birmingham is a very diverse city, and by 2025, its population will be more than 50% black and ethnic minority. Birmingham has always been a very welcoming city for newcomers and traditionally this has been driven by the attractiveness of its manufacturing industry and therefore the availability of jobs. From the late 1950s, Birmingham developed a large African Caribbean population and from the 1960s, this was supplemented by a substantial population from the Indian subcontinent. Now, aside from London, Birmingham is the preferred destination for many newly arrived migrants for example, Somali, Vietnamese and many Eastern European countries.

The economy of Birmingham has transformed in the last 30 years from being an economy founded on home owned manufacturing industries, particularly automotive and metal manufacture to a service based economy which has also developed a high tech manufacturing base aided by substantial overseas investment and partnerships with local Universities specialising in leading edge manufacture. Since Tata's investment, JLR (Jaguar Land Rover) has been able to compete for the first time in 50 years with quality overseas manufacturers through its broad and attractive range of luxury vehicles. Birmingham has always been a very entrepreneurial city and even today, it has more business start-ups per head of population than any other city in the UK. The Birmingham Commonwealth Association is prioritising India in its international partnerships with a view to strengthening trade links.

Whilst Birmingham has a growing service and high-tech manufacturing base it suffers from higher than average unemployment and also contains some of the poorest areas in the country within the City boundaries. Like all cities in the UK, there have been huge and continuing reduction in local government expenditure comprising social services, infrastructure and leisure services. Birmingham's funding has been reduced by 25% in the last three years with further reductions over the coming years expected and this has been compounded by the large equal pay settlement, which it had to pay out. The effect of these are several-fold, all services provided by the council are closely scrutinised and all essential services have been reduced or even cut completely (we can provide examples). Secondly, the public sector is forced to innovate through public private partnership and methods of funding for its services. Public Health and prevention services including weight management, food access, and nutrition/health education have been drastically cut. This is despite the fact that 1 in 4 children leave school obese and there is higher prevalence amongst lower income groups.

In 2015, Birmingham City Council signed the 'Milan Urban Food Policy Pact' (MUFPP) and through this became an active member of the [EUROCITIES WG Food group](#).

In 2017, MUFPP and [FAO](#) (Food and Agriculture Organisation of the UN) created a [monitoring framework](#) for cities signed up to the pact to assess progress made towards achieving more sustainable food systems. The monitoring framework process aims to assess the progress made by cities in achieving more sustainable food systems, and therefore in the implementation of the Pact.

Although the non-binding nature of the agreement, many MUFPP cities have in fact chosen to use MUFPP indicators and targets to monitor their progress. Following this request, the Municipality of Milan and FAO joined forces to work on a monitoring framework in line with cities' capabilities and administrative obligations.

Purpose of Document

The purpose of this document is to:

- 1) Present 'baseline data' reflecting indicators within the 'sustainable diets and nutrition' section of the MUFPP [monitoring framework](#) (see Appendix 1)
- 2) Consider other food related metrics that Birmingham could use to monitor healthier, more sustainable food environments
- 3) Present a picture of the current food environment in Birmingham (we have called this 'Brum's Foodscape')
- 4) Summarise current public health nutrition interventions and present recommendations for extending reach and impact (through case studies collected via international networks such as EURO CITIES and MUFPP)
- 5) Consider nutrition, food and health priorities for the next 10 years through stakeholder interviews.

What Should We Be Eating?

Dietary Guidelines from Public Health England¹ state that on average, the UK population consumes too much saturated fat, salt and sugar and eats too little fibre, fruit and vegetables and oily fish than recommended. We also know that some sections of the population have intakes of some vitamins and minerals below recommended levels.

Sustainable Diets and Nutrition in Birmingham

What information can we readily access at local authority level?

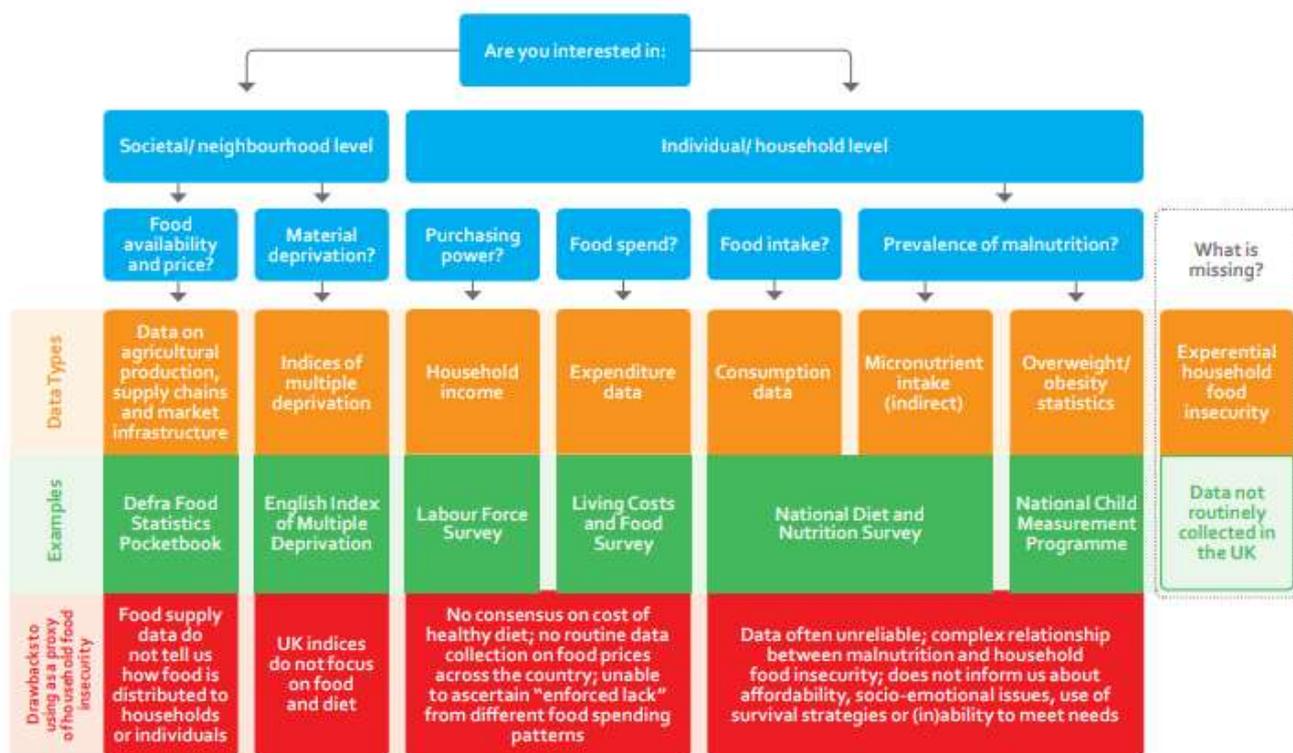
The indicators presented below are included in the MUFPP/FAO monitoring framework under the section 'sustainable diets and nutrition'. This presents a good starting point for understanding whether 'urban residents have access to affordable, sufficient, nutritious, safe, adequate, and diversified food that contribute to healthy diets and meet dietary needs'. More importantly the indicators and data associated with these highlight groups and areas of the city whose situation deviates from the average picture.

Percentage of food insecure households based on the [Food Insecurity Experience Scale \(FIES\)](#)

This data is not available at the city level in the UK. The only realistic way of achieving this is if national surveys, such as the [Health Survey for England](#) are adapted to include questions on food insecurity. The Food Foundation published [guidance on measuring Food Insecurity](#) and is currently advocating for [regular measurement of food insecurity](#), which was last measured a decade ago. The UN estimates, using two cross sectional surveys in the UK that 8.4 million people live in food insecure households. In the absence of national data, experiential household data can be collected at the city level. This has not taken place for Birmingham.

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/648744/healthier_and_more_sustainable_nutrition_principles.pdf

Figure 1. Food Insecurity: What data are available?



Number of individuals consuming a minimum of 400 g fruit and veg per day (5 portions, 80 g per portion)

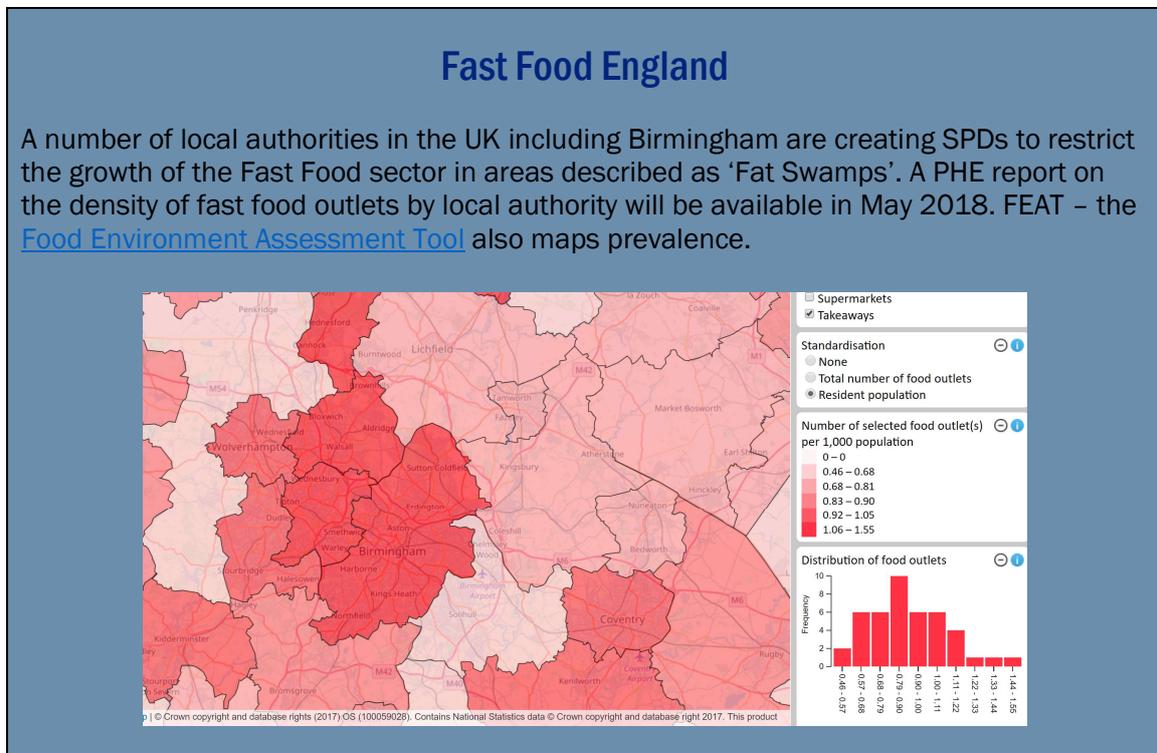
In 2015/2016 in Birmingham 51.8% of adults (compared to 56.8% England average) are 'meeting recommended 5-a-day'. The information for Birmingham is obtained from the [Public Health Outcomes Framework](#). The PHE figures are modelled from the Health Survey for England 2006 - 2008 and 2001 census. The data is being refreshed over the summer (2018) using new methodology. These data are likely to be a significant over-estimate. The National Diet and Nutrition Survey which provides a much more detailed assessment of dietary intake provides the following national level figures:

Table 1. Percent population achieving 5-a-day (PHE/FSA, 2016).

	% Achieving 5-a-day		
	2008-2010	2010-2012	2012-2014
Children aged 11-18 years	10	6	8
Adults aged 19-64 years	29	27	27
Adults aged >64 years	36	37	35

Number of households living in ‘food deserts’

An analysis for the Financial Inclusion partnership (utilizing Department for Transport Data) suggests that most people in Birmingham can walk to a food outlet within 15 minutes. There is no routine data around the nutrition quality of this food access.



Number of adults with pre-diabetes and Type 2 diabetes

The prevalence of diabetes in aged 17+ population is 8.4% versus 6.5% nationally (Source: NHS Quality Outcome Framework (QOF) 2016-17). [The number of people aged 17+ on GP registers with a recorded diagnosis of diabetes 78, 304.](#)

Data about pre-diabetes (non-diabetic hyperglycaemia) for those aged 16+ is available from [PHE fingertips](#) at CCG level (Clinical Commissioning Group).

- England 11.4%
- Birmingham South Central 11.6%
- Cross City 11.6%

Prevalence of stunting for children under five

Stunting data is not available in the UK due to very low prevalence. The National Child Measurement Programme which measures the height and weight of all children in Reception (aged 4-5) and all children in year 6 (age 10-11) reports levels of underweight and overweight.

Table 2. Underweight, 2016-17.

	Birmingham	England
Reception	1.32%	0.96%
Year 6	1.96%	1.34%

Source: NHS Digital, National Childhood Measurement programme (NCMP)

Prevalence of obesity

Overweight and obesity levels are presented in the tables below.

Table 3. Childhood obesity, 2016-17.

	Birmingham	England
Reception	11.5%	9.6%
Year 6	25.2%	20%

Source: NHS Digital, National Childhood Measurement programme (NCMP)

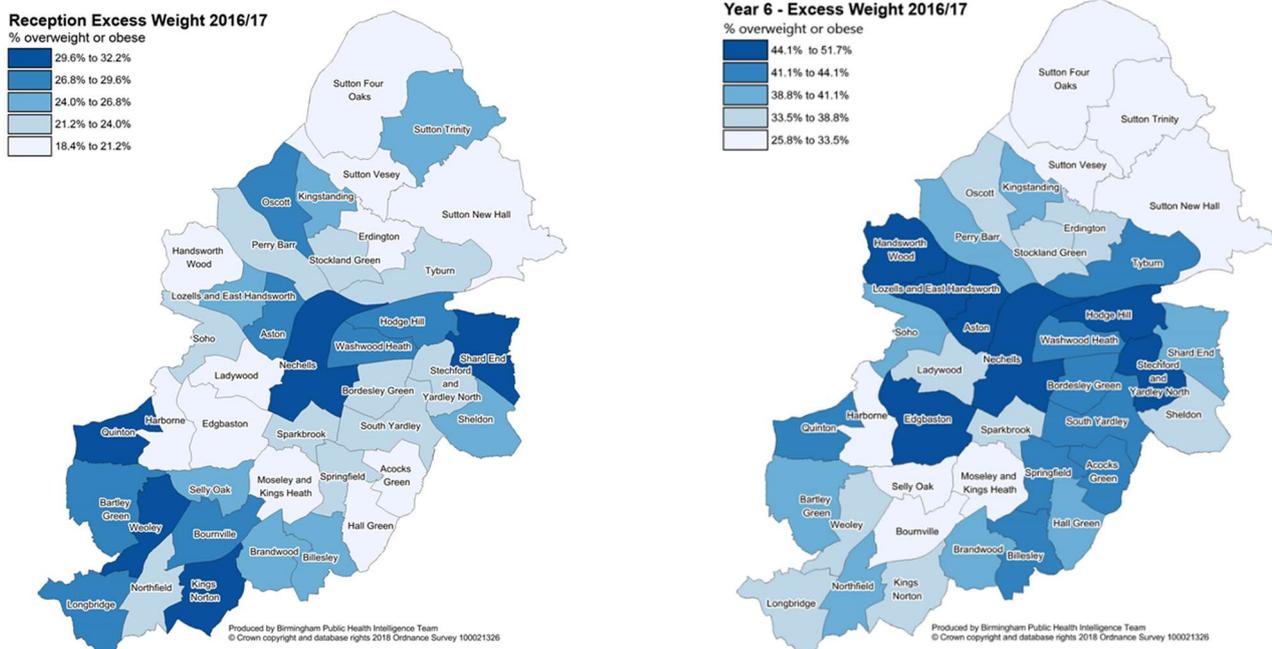
Table 4. Adult excess weight (overweight or obese).

	Birmingham	England
Adult aged 18+	61.2%	61.3%

Source: PHE Fingertips

Maps are also available for childhood obesity at ward level (Figure 2).

Figure 2. Childhood obesity at ward level, 2016-17.



Undernutrition in over 65s

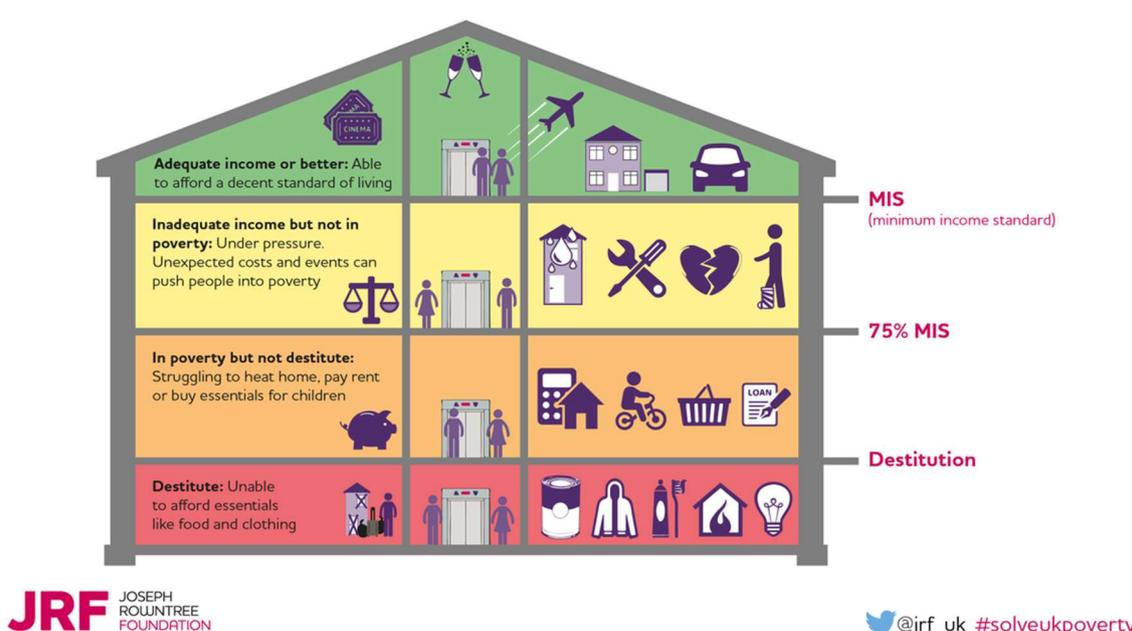
Undernutrition affects over 3 million people in the UK, of these 1.3 million are aged >65² years and 93% live in the community. Of those admitted to hospital in England, 33.6% of patients aged 65+ were

² <http://www.bapen.org.uk/malnutrition-undernutrition/introduction-to-malnutrition?showall=&start=4> TO BE VERIFIED

deemed malnourished³. Of those residents in care homes, it is estimated that 36% of older adults are malnourished. Data for Birmingham specifically are not available as far as we are aware.

Percentage of people supported by food and/or social assistance programmes (e.g. Healthy Start, Meals on Wheels, Food Banks).

Figure 3. Levels of poverty in the United Kingdom.



Approximately 17,000 people in Birmingham are entitled to Healthy Start – a national programme that provides vouchers for milk, fruit and vegetables to pregnant women and mothers of children under the age of four years on a very low income.

Between 1st April 2017 and 31st March 2018, the Trussell Trust distributed 111,386 3-day emergency meals in the West Midlands.

There are other organisations in the region offering this service including markets, food banks and charities. Survey work may need to be conducted for a comprehensive assessment.

50,000 (27%) of from reception to year 11 pupils were known to be eligible for Free School Meals across Birmingham at the last School Census data collected January 2017.

Micronutrient Deficiencies

We have used national data [[\(National Diet and Nutrition Survey \(2016\) Results from Years 5 and 6 \(combined\) of the Rolling Programme \(2012/2013\)-\(2013/2014\)](#)] and applied this to Birmingham population figures to understand prevalence of key micronutrient deficiencies e.g. nationally the percentage of girls aged 11-18 with an iron intake below the lower reference nutrient intake is 48%,

³ The cost of malnutrition in England and potential cost savings from nutritional interventions (full report) <http://www.bapen.org.uk/pdfs/economic-report-full.pdf> (accessed 28-03-2018)

equating to 27,616 girls in Birmingham. Birmingham figures are presented in Table 5. National figures are included in Appendix 4.

Table 5. The number of people with intakes of key micronutrients below the Lower Reference Nutrient Intakes, modelled numbers for Birmingham.

	Children	Boys			Men		Girls		Women	
Ages	1.5 - 3	4-10	11-18	19-64	65+	4-10	11-18	19-64	65+	
Vit A	2,401	4,150	8,568	36,941	2,597	6,674	10,356	27,276	3,232	
Iron	3,601	593	5,508	3,358	1,299	1,669	27,616	92,058	2,424	
Folate	0	0	3,060.2	6,716.5	1,298.6	0	4,603	13,638	3,232	

Vitamin D Deficiency

Data from the National Diet and Nutrition Survey (2014/15-2015/16) ¹shows that in the UK, 17% of adults aged 19 to 64 years, 13% of adults aged 65 years and over, 10% of young children (4-10 years) and 26% of children aged 11-18 years have low vitamin D status over the year as a whole. Comparing with results from the previous report (2012/13-2013-14), more young children and teenagers have low vitamin D status.

Groups with darker skin pigmentation of non-white ethnic groups are at a higher risk for Vitamin D deficiency. While the population of non-white ethnic groups in England is 14.6%, in Birmingham it is 42% (Census 2011). Although there is no data at local authority level, these figures suggest a much higher prevalence of vitamin D deficiency in Birmingham.

In acknowledgement of Birmingham's higher risk for Vitamin D deficiency, and in the face of the low uptake of the Healthy Start vitamins in England, the local authority has set up a Vitamin D scheme, which offers free vitamin supplements for women from the start of pregnancy until their child is 12 months old, and for all children under four. The campaign was implemented in 2006 and a gradual increase in the uptake of the vitamins amongst the eligible population has been reported – from 7% to 20% in children, and from 3.9% to 23% in pregnant women, between 2008/09 – 2012/13. ¹ In 2009, the 'My little ray of sunshine' ¹ campaign was implemented to further promote the uptake of vitamin D supplements. The universal provision of supplements was maintained, and coordinated activities were put in place to raise public awareness, train health professionals working with children and families, and further engage with Children's Centres and community pharmacies to distribute the Healthy Start vitamins¹. An assessment study of the impact of the scheme found that, between 2005 and 2010, the incidence of rickets in Birmingham was reduced by 59%¹.

McGee E, Shaw N. Vitamin D supplementation: putting recommendations into practice. *Journal of Health Visiting*. 2013 Mar 18;1(3):138-43.

Moy RJ, McGee E, Debelle GD, Mather I, Shaw NJ. Successful public health action to reduce the incidence of symptomatic vitamin D deficiency. *Archives of disease in childhood*. 2012 Aug 1;archdischild-2012.

Learn More

<http://www.bhamcommunity.nhs.uk/patients-public/children-and-young-people/services-parent-portal/birmingham-health-visiting/vitamin-d-campaign/>

http://webarchive.nationalarchives.gov.uk/20150116155840/http://www.foodwm.org.uk/resources/Healthy_Start_Transition_Briefing_Feb_2012_.pdf

Breast Feeding

Breastfeeding prevalence at 6-8 weeks after birth (2015/2016) is higher in Birmingham (51.5%) compared to the England average (43.2%) though data quality is not considered good enough according to the Health Profile for Birmingham. (PHE Fingertips)

Other Potential Food Metrics: Learning from New York

Birmingham and its neighbours are not reporting metrics related to nutrition, food and health in a systematic and useful way. In New York, a local law was created to ensure that metrics relating to nutrition, sustainability, access and equity are reported annually by an office (not a department) working in collaboration with departments across the municipality. The annual report shows what the city is doing:

1. To reduce food insecurity
2. To improve the food the city procures and serves with its own budget
3. To improve access to healthy food in neighbourhoods
4. To improve the sustainability and economic opportunity of the food system.

Nineteen metrics are reported on <http://www1.nyc.gov/site/foodpolicy/about/food-metrics-report.page> for detailed information.

The Director of Food Policy, Barbara Turk, says 'In general the report is a collection of everything we're doing as a city. It shows the breadth and depth of places where we can use food to leverage change, whether the goal is sustainability, economic development, public health or trying to alleviate the worst effects of poverty'. The report makes visible the full potential of the city and opportunity for change.

Metrics include:

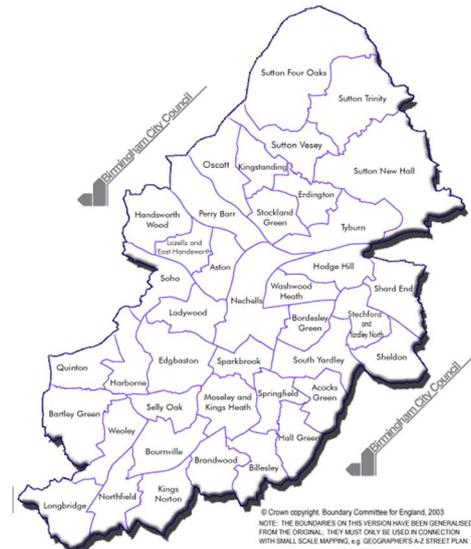
- Number of farms participating an agricultural programme and amount of financial support received from the city
- Total expenditure by department of education on local milk, yoghurt and produce
- Registered community gardens on city owned property
- Food manufacturers receiving monetary benefits
- Transport to and through a food market (i.e. how active is the market?)
- Number of grocery stores opening
- Grocery stores receiving benefits to promote fresh produce
- Number of grocery stores participating in health-related activity
- Number of food related job training programmes
- Number of meals served
- Compliance with food standards
- Number of vending machines and revenue generated
- Number of over 65s receiving food benefits
- Funds spent on food benefit enrolment
- Funds spent on nutrition education and activities including farmers markets etc. (that are closely linked to nutrition programmes)
- Salad bars in schools, health centres and hospitals
- Funds spent on bottled water
- Number of green cart permits including those accepting cashless cards
- Number of vendors at farmers markets.

Birmingham Foodscape

Birmingham has a thriving and exciting ‘food scene’ in parts.

The City Centre is host to the UK’s favourite food chains, smaller independents, a developing Street Food scene, a wholesale market (which is due to move to Witton) and an Indoor market which is used by diverse communities and businesses for e.g. fish, halal meat, Asian fresh produce.

Creating employment opportunities through food is important. The City Centre is adjacent to the [‘poorest place in the UK’](#). Although housing developments aim to move more affluent communities into poorer areas, there is the problem of ‘ghettoization’ which is inevitable unless efforts are made to support existing communities.



There are three significant food related businesses present in the region: Mondalez (formerly Cadbury in Bournville), [Mitchells and Butlers](#) (M&B) and [East End Foods](#). Mondalez supports ‘Health for Life’ – a healthy schools programme. M&B trains apprentices in culinary education and training includes a focus on nutrition and sustainability. East End Foods has previously been involved in prevention work (providing free health screening for communities in hard to reach areas) and is currently involved in exploring new technologies to support [urban growing](#).

East End foods has over 40 years’ experience as a leading supplier and innovator in the UK Indian food market with an annual turnover of over £180 million. The business started off serving local community shops and now supply major supermarkets. The quality is high and the price competitive. The South Asian and African Caribbean communities have established active high streets in areas like Handsworth and Sparkbrook.

These areas have also developed ‘restaurant scenes’ like the [‘Balti Triangle’](#) which receive national publicity. Fast food restaurants, hot food takeaways and ‘dessert shops’ are also prevalent in these areas. First and second-generation citizens opt for foods high in fat, saturated fat, sugar and salt rather than foods high in pulses, vegetables and wholegrains used by their parents or grandparents. However, the diversity of fresh produce in ‘ethnic minority’ shops is incredible.

This is in stark contrast to areas described as ‘traditional white working class’ including Erdington, Kingstanding, Northfield and Shard End, where thousands of stable manufacturing jobs have been lost. The Government previously responded to deprivation in these areas by developing housing and apprentice strategies but it there is evidence to show that those who need both most do not benefit from the schemes. The current attempts to create social mobility through apprenticeships is under review.

Birmingham City Council Priorities

More than one-third (37 per cent) of Birmingham children live in poverty, with many affected by welfare cuts. Birmingham is the sixth most deprived English district but poverty is also highly concentrated in parts of the city, leading to wide disparity in life expectancy. A growing and ageing population, social and lifestyle changes, widening cultural diversity and identity, intergenerational disparity, uneven urban growth, technological change, economic risk and social dislocation, climate breakdown and environmental damage all pose major long-term challenges for local authorities.

The Council priorities are as follows:

Making Birmingham a great place for children to grow up in

This includes creating an environment where our children have the best start in life. Key aspects include introducing a new Early Years Health and Wellbeing Service so children and families have greater opportunities to access good quality early education and health services.

Making Birmingham a great city to grow old in

This involves joining up health and social care services so that citizens have the best possible experience of care tailored to their needs. As well as preventing, reducing and delaying dependency on the council, so that citizens – with the support of their family and local community – can stay independent for longer.

Cross cutting measures

Include reduction health inequality and implementing a waste strategy to ensure that all rubbish is collected efficiently and disposed of properly and citizens recycle.

Nutrition, Food and Health in Birmingham is not an overarching priority but we need to raise awareness of how making this a focus can help to

- Promote community cohesion
- Tackle racism
- Create employment opportunities (building the economy, reduce inequality)
- Attracting tourists (building the economy, making Birmingham a fun and exciting place to live)
- Reduce diet related ill-health (strengthen the economy and reduce dependency on services).

The Public Health strategy needs to consider all of the above for City leaders and influencers to take Public Health Nutrition seriously and for people to experience a positive change in lifestyle so they are more likely to make healthier, more sustainable food choices.

Nutrition, Food and Health Initiatives in Birmingham (and the wider region) led by Local Authorities

Healthy Start: Increasing Vitamin D in pregnant women

Birmingham has introduced a citywide policy of free vitamin supplements for women from the start of pregnancy until their child is 12 months old, and for all children under four. Healthy Start Vitamins for Women and Children's Vitamin Drops are also available.

Fast Food Shift: Reducing total fat and saturated fat amongst teenagers

Shift aim to re-design the Fast Food environment to make every-day takeaways healthier.

<http://shiftdesign.org.uk/portfolio/stealthy-healthy-changes/#research>

Peas Please: Increasing fibre and micronutrient intake amongst general population, children and mothers

Birmingham Public Health has joined the Food Foundation's campaign to increase supply of and promote demand for veg. Pledges include increasing take-up of Healthy start voucher, including two portions of veg in every school meal, supporting street food vendors who offer veg and supporting retailers to incentivize vegetable purchases.

Nutrition, Food and Health Initiatives in Birmingham (and the wider region) Led by Other Organisations

Housing associations

Accord Housing led several initiatives focused on improving nutrition and reducing food poverty. For example, 'Holiday kitchen' and 'Make, Move and Munch' clubs. Approximately £0.5million was raised through applications for grants. They are collaborating with local authorities, CCG and community sector partners with a wider vision that includes a focus on linking into existing and emerging systems e.g. social prescriptions.

Community and voluntary sector

'Growing Birmingham' is an alliance of voluntary sector organisations promoting the benefits of food growing (and other initiatives that contributes to thriving green spaces in Birmingham). Founder members include Birmingham Botanical Gardens, Birmingham Open Spaces Forum, Birmingham Parks and Allotments Service, Federation of City Farms and Community Gardens, Growing Opportunities (Ideal for All), Martineau Gardens, The Conservation Volunteers (TCV Birmingham) and Winterbourne House and Gardens.

Businesses

There is a plan by Local Enterprise Partnerships to make the Midlands (including the East Midlands) 'an engine for growth'. There is an expectation that the Midlands Engine's food and drink sector will evolve to contribute to the nation's food security. Pepsico, Monadelz, Samworth Brothers, Branston and Weetabix are expected to play central roles.

Academic institutions

BCU, Birmingham University, UCB and Aston University are all involved in food research, innovation and evaluation (of e.g. existing public health programmes both here and elsewhere).

The wider region is also host to Universities including Warwick, Coventry and Harper Adams (previously known as the regional food academic) all involved in food security, sufficiency and sustainability related topics.

Think tanks

Birmingham Food Council is focused on raising awareness of food safety and food supply issues. They focus on informing key decision makers in the city.

The West Midlands strategic Food Board is accountable to the West Midlands ADPH (Associate Directors of Public Health). Formed at the start of the millennium, is chaired by one of the region's Directors of Public Health and reports on regional activity to ensure that work is aligned to PHE campaigns.

Developers

Urban Splash is building 1000 new homes and has engaged an EU sponsored project called Use-It! To create opportunities for 'Place' – making the space a place that people want to live. The Use-It! Programme wants to ensure that the existing community benefits from the plans and aims to create a 'Food Hub' where citizens can develop food related business skills. They require a business model which allows them to meet the rent demands place by the developer.

Training and education

The Harborne Food School has been exploring training and education opportunities for young people since establishing a partnership with M&B. M&B apprentices complete culinary training that also embeds nutrition and sustainability skills. They are paid higher than the apprentice wage and take part in training whilst working for M&B businesses. Chef Tutors have significant experience and have worked in leading food businesses. The Food School and head of skills and education at M&B are exploring opportunities for filling the skills shortage that the food service industry is experiencing this includes

- Responding to changes in immigration law/processes/systems (and Brexit) that means there is a skills shortage in a range of businesses including Indian restaurants and the chain restaurants described earlier
- Supporting public sector caterers who struggle to provide healthier, more sustainable food to their customers within a budget
- Responding to issues of racism and sexism that are prolific in the industry

Smart City Alliance/Innovation Alliance

A new Innovation Alliance for the West Midlands (WM) was launched on 30th January at iCentrum at the Innovation Birmingham Campus. The Alliance, which builds on the legacy of Birmingham Science City, has two principle objectives to build a thriving innovation ecosystem and catalyse collaborative innovation activity across the West Midlands. The Alliance is being sponsored by the Greater Birmingham & Solihull LEP and other partners. The Smart City Alliance is part of this and the BINDI project (Birmingham Indian Nutrition Initiative) is receiving support from this network.

Appendix 1

Monitoring Framework

Areas of recommended actions: The MUFFP Framework for Action identified 6 areas work streams: (1) governance, (2) sustainable diets and nutrition, (3) social and economic equity, (4) food production, (5) food supply and distribution and (6) food waste. For each of these areas one or more overarching impacts or outcome areas were identified through consultations.

Outcome/Impact areas or “desired direction of travel” are the types of changes that cities want to see in the future: i.e. changes that characterize a more resilient and sustainable food system. The impacts were defined in the MUFFP consultation process over the past years and will not be achieved quickly. Impacts are ultimate benefits that cities aim to obtain through their actions or development programmes. They may be measured on the level of a specific project or programme, although in most cases impacts cannot be attributed to a specific strategy or action, as many other factors play a role in achieving the listed benefits (e.g. improvement in food security status of specific population groups may be the result from targeted interventions, but will also be influenced by changes in food prices or increase in income that cannot be contributed to the interventions; in other words it will be often hard to isolate impacts from general trends).

Performance indicators provide information about the way a process is functioning (e.g. the implementation of different areas of action) and provide a basis for further improvements. The purpose of the indicators is to help measure the extent to which the desired changes are actually happening or to which extent outcomes are achieved. They thus also act as pointers to changes needed in strategies or interventions direction specially when monitored or tracked over a period of time. Indicators can also be used to establish a baseline from which to measure on-going progress/change over time.

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