



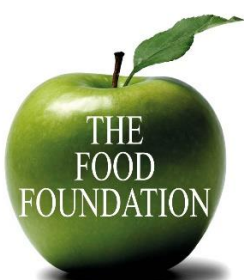
# Birmingham

## nutrition situation and stakeholder mapping

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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## About BINDI

The Birmingham India Nutrition Initiative (BINDI) is a 'Nutrition Smart City' initiative which involves the development of policies and practices through a learning partnership between Birmingham, United Kingdom (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. The BINDI will create a platform to enable joint learning, experience sharing and piloting of specific initiatives.

The initiative aligns with Sustainable Development Goals 2 (Zero Hunger), 5 (Gender Equality) and 12 (Responsible Consumption and Production) and the Smart City movement which involves a collaboration between local government, academic institutions and business towards creating more liveable cities. Birmingham and Pune will work together to establish 'Smart Nutrition' as a key topic on the Smart City agenda in both cities. The BINDI will share its learning experience through national and international networks including the Milan Urban Food Policy Pact (MUFPP), Core Cities (UK) and the Smart City Mission (India).

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 one million. It is a growing city with a population forecast to rise to 1.3 million within 15 years. One of the principal reasons for Birmingham's growth is that it is the youngest city in Europe with an average age under 30 years. This is very substantially lower than any city in continental Europe (Greater Birmingham Chamber of Commerce, 2018). Birmingham is a very diverse city, and by 2025, its population will be more than half black and ethnic minority (Birmingham City Council, 2018). Birmingham has always been a very welcoming city for newcomers, and traditionally, this has been driven by the attractiveness of its manufacturing industry and 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 (Birmingham City Council, 2008). Since Tata Motors' investment, Jaguar Land Rover (JLR) 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 strengthen trade links.

Whilst Birmingham has a growing service and high-tech manufacturing base, it suffers from higher than average unemployment and contains some of the poorest areas in the country within the City boundaries (Greater Birmingham Chamber of Commerce, 2018). Like all cities in the UK, there have been huge and continuing reductions 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 expected over the coming years, 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. Secondly, the public sector is forced to innovate through public-private partnerships 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 occurred despite the fact that 1 in 4 children leave school obese (PHE, 2017d), and there is a 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 Working Group Food Group](#).

In 2017, MUFPP and Food and Agriculture Organization of the United Nations (FAO) created a monitoring framework (MUFPP, 2018) 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 nature of the agreement is non-binding, 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](#) (Annex 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 ('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 EUROCIITIES and MUFPP).
- 5) Consider nutrition, food and health priorities for the next ten years through stakeholder interviews.

## What Should We Be Eating?

Dietary Guidelines from Public Health England (PHE; PHE, 2017a) 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. Some sections of the population also have intakes of some vitamins and minerals below recommended levels.

## Sustainable Diets and Nutrition in Birmingham

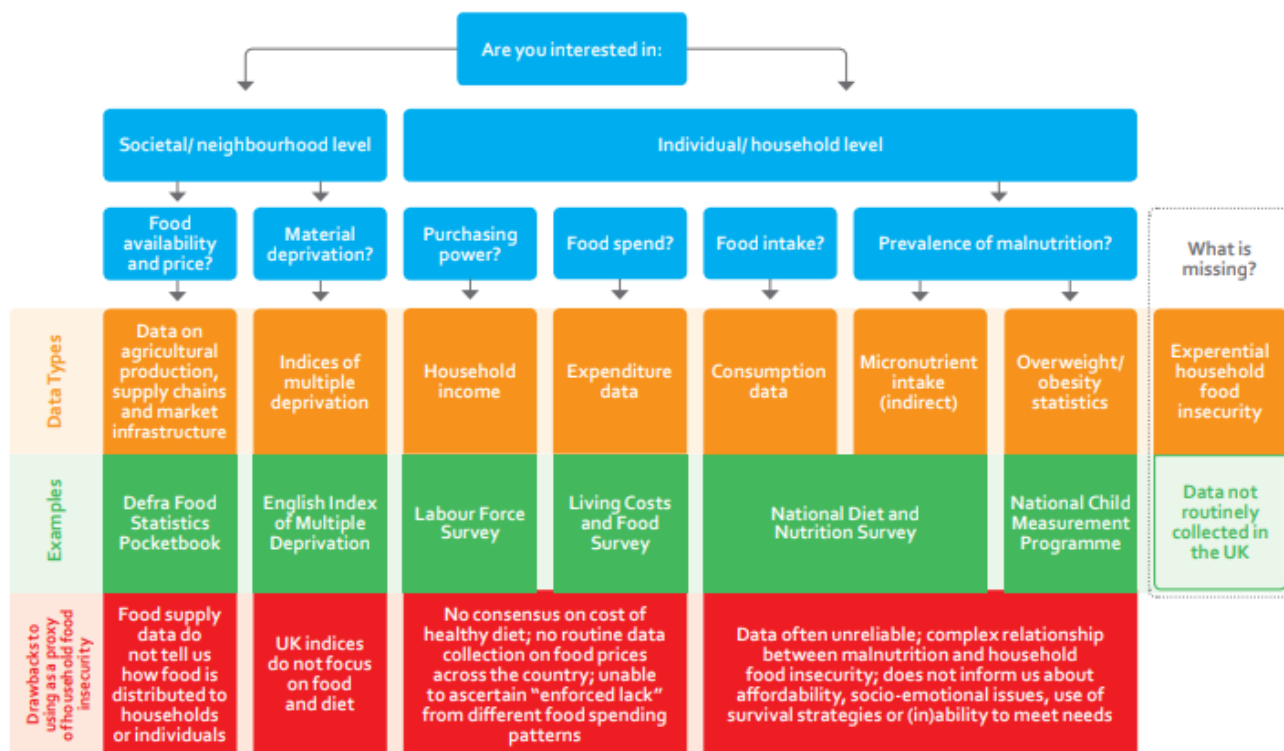
### What information is readily accessed at local authority level?

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 contributes to healthy diets and meets 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 (MUFPP, 2018).

### **Percentage of food-insecure households based on the Food Insecurity Experience Scale (FIES) (FAO, n.d)**

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 (NHS, 2017a) are adapted to include questions on food insecurity. The Food Foundation published guidance on measuring Food Insecurity (The Food Foundation, 2016) and is currently advocating for regular measurement of food insecurity (Taylor & Loopstra, 2016), which was last measured a decade ago. The United Nations 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.

Figure 1. Food Insecurity: What data are available?



### Number of individuals consuming a minimum of 400 grams (g) fruit and vegetables 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' (PHE, 2017b). 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-estimation. The National Diet and Nutrition Survey, which provides a much more detailed assessment of dietary intake, provides the national-level figures (Table 1).

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

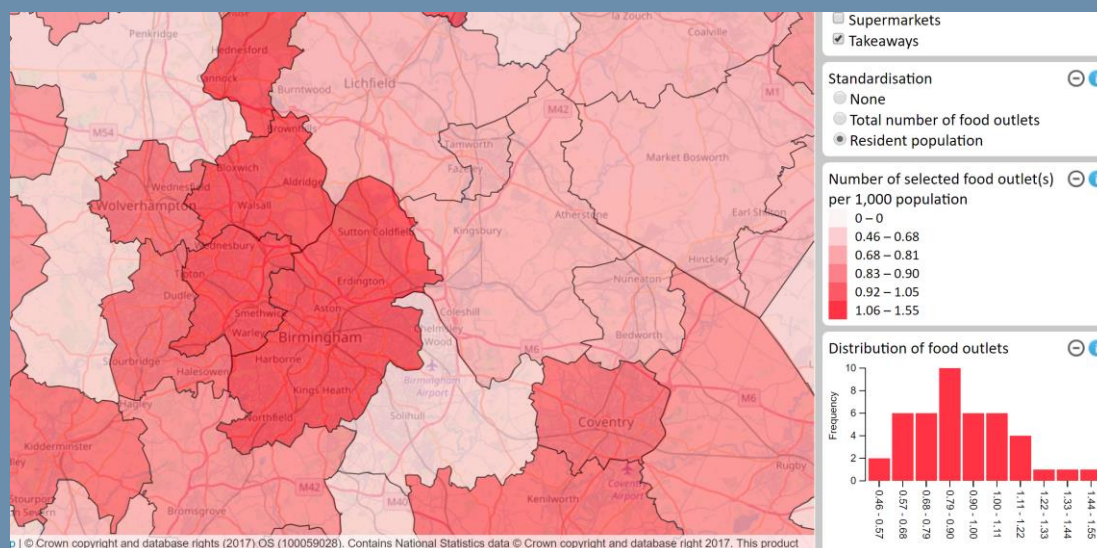
Source: PHE and FSA. National Diet and Nutrition Survey, 2008/10, 2010/12, 2012/14.

### Number of households living in 'food deserts'

An analysis for the Financial Inclusion partnership (utilising 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.

## Fast Food England

A number of local authorities in the UK, including Birmingham, are creating supplemental planning documents to restrict the growth of the Fast Food sector in areas described as 'Fat Swamps'. A PHE report on the density of fast food outlets by local authority will be available in May 2018. The [Food Environment Assessment Tool](#) (FEAT) also maps prevalence.



Source: FEAT, 2017.

## Number of adults with pre-diabetes and Type 2 diabetes

The prevalence of diabetes in the population above age 17 is 8.4% versus 6.5% nationally (NHS, 2017b). The number of people over age 17 with a recorded diagnosis of diabetes on general practitioner registers is 78,304.

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

- England, 11.4%
- Birmingham South Central, 11.6%
- Cross City, 11.6% (PHE, 2017c).

## 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 (ages 4-5) and all children in year 6 (ages 10-11), reports levels of underweight and overweight (Table 2).

Table 2. Underweight, 2016-17.

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

Source: PHE. National Childhood Measurement Programme (NCMP) and Child Obesity Profile, 2017d.

## Prevalence of obesity

Overweight and obesity levels are presented in Tables 3 and 4.

**Table 3. Childhood obesity, 2016-17.**

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

Source: PHE. National Childhood Measurement Programme (NCMP) and Child Obesity Profile, 2017d.

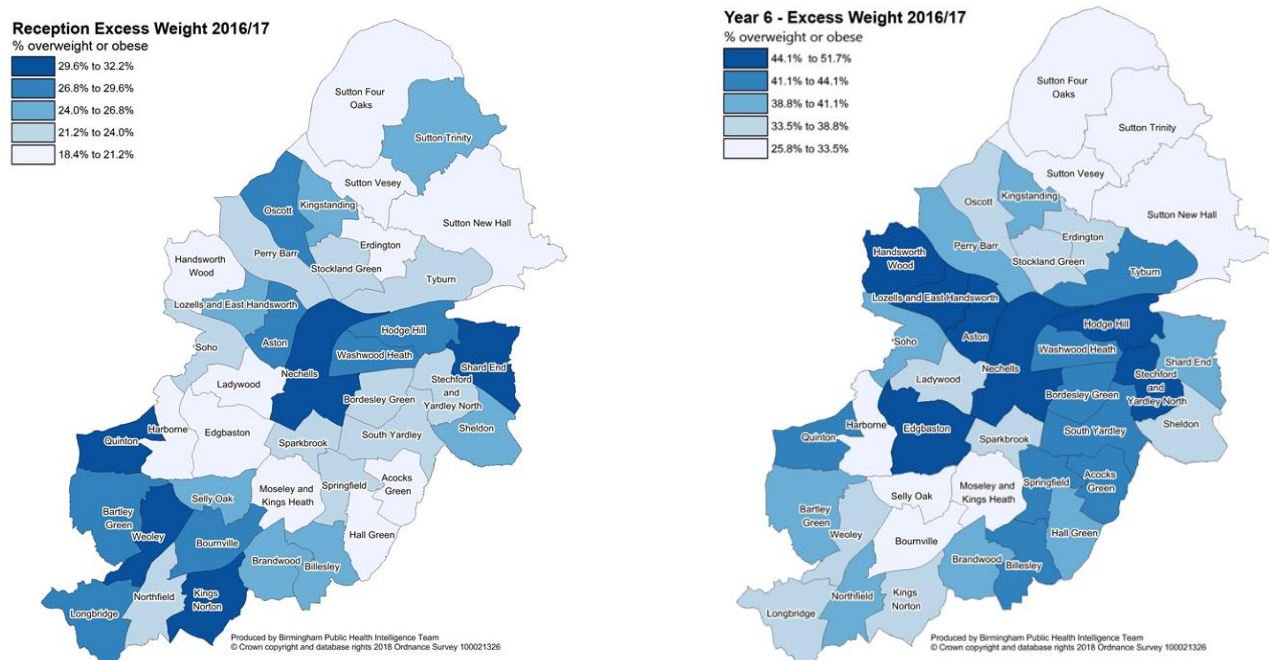
**Table 4. Adult excess weight (overweight or obese).**

	Birmingham	England
Adult aged 18+	61.2%	61.3%

Source: PHE. Public Health Outcomes Framework: Health Improvement, 2017b.

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

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



Source: Birmingham Committee Management Information System, 2018.

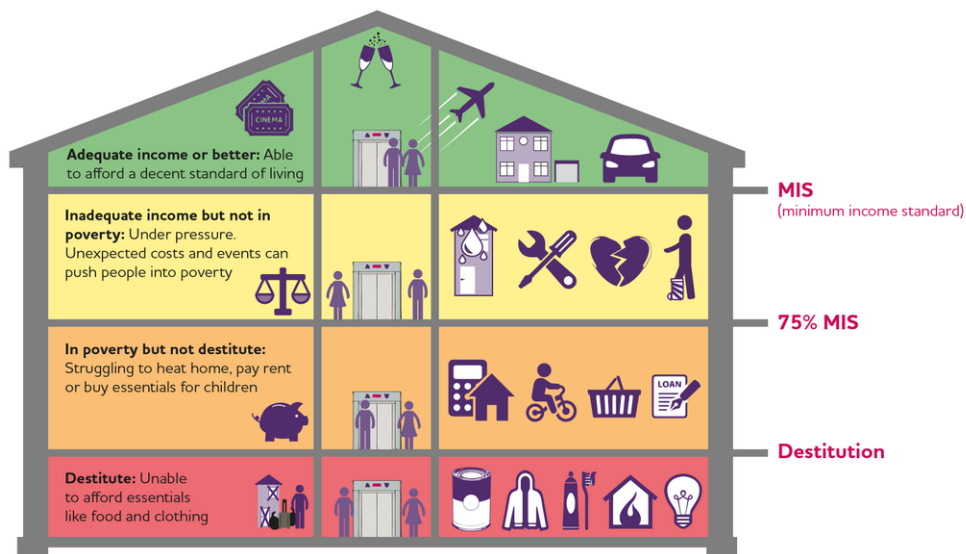
## Undernutrition in persons over age 65

Undernutrition affects over three million people in the UK. Of these, 1.3 million are older than 65 years and 93% live in the community (BAPEN, 2018). Of those admitted to hospital in England, 33.6% of patients aged 65+ were deemed malnourished. Of those residents in care homes, it is estimated that 36% of older adults are malnourished (BAPEN, 2015). Data for Birmingham specifically are not available.



## 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.



Source: Joseph Rowntree Foundation, *What is poverty?* Accessed from: <https://www.jrf.org.uk/our-work/what-is-poverty>

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 (Passmore & Walker-Kay, 2018).

Between 1 April 2017 and 31 March 2018, the Trussell Trust distributed 119,946 three-day emergency meals in the West Midlands (Trussell Trust, 2018).

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.

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

### *Micronutrient deficiencies*

National data was applied to Birmingham population figures to understand the prevalence of key micronutrient deficiencies. For example, the national percentage of girls aged 11-18 with iron intake below the lower reference nutrient intake is 48%—equating to 27,616 girls in Birmingham (PHE and FSA, 2015). Birmingham figures are presented in Table 5.

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

Ages (y)	Children		Boys			Girls		Women	
	1.5-3	4-10	11-18	19-64	65+	4-10	11-18	19-64	65+
Vitamin 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

Source: PHE and FSA. *National Diet and Nutrition Survey: Results from Years 5 and 6, 2012/3-2013/4.*

## Vitamin D deficiency

Data from the National Diet and Nutrition Survey (2014/15-2015/16) shows 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 (PHE and FSA, 2017). Comparing with results from the previous report, more young children and teenagers have low vitamin D status (PHE and FSA, 2015).

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%, it is 42% in Birmingham (Office of National Statistics, 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 that 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 between 2008/09 to 2012/13—from 7% to 20% in children and from 3.9% to 23% in pregnant women (McGee & Shaw, 2013). In 2009, the 'My little ray of sunshine' 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 vitamins. 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% (Moy et al, 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](http://webarchive.nationalarchives.gov.uk/20150116155840/http://www.foodwm.org.uk/resources/Healthy_Start_Transition_Briefing_Feb_2012.pdf)

## Breastfeeding

Breastfeeding prevalence at 6 to 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, 2017e).

## 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.

*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.*

Nineteen metrics are reported on (NYC Food Policy, 2018):

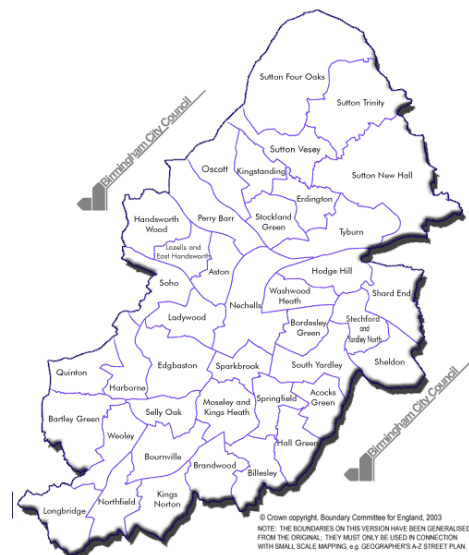
- Number of farms participating in an agricultural programme and amount of financial support received from the city.
- Total expenditure by department of education on local milk, yoghurt and produce.
- Registered community gardens on city-owned property.
- Food manufacturers receiving monetary benefits.
- 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 individuals over age 65 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 example, fish, halal meat and Asian fresh produce.

Creating employment opportunities through food is important. The City Centre is adjacent to the ‘poorest place in the UK’ (Collinson, 2017). 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.



Source: Birmingham City Council, 2003.

There are three significant food-related businesses present in the region: Mondelez (formerly Cadbury in Bournville), [Mitchells and Butlers](#) (M&B) and [East End Foods](#). Mondelez supports ‘Health for Life’—a

healthy schools programme (Mondelez, 2017). M&B trains apprentices in culinary education, and training includes a focus on nutrition and sustainability (Mitchells and Butlers, 2015). 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](#) (Food Chain, 2016).

East End Foods has over 40 years of 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 is 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 whole grains 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 evidence shows 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 percent) of Birmingham children live in poverty, with many affected by welfare cuts (Birmingham Child Poverty Commission, 2015). Birmingham is the sixth most deprived English district, but poverty is also highly concentrated in parts of the city—leading to a 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 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**

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

Nutrition, Food and Health in Birmingham is not an overarching priority but awareness needs to be raised on how making this a focus can help to:

- Promote community cohesion.
- Tackle racism.
- Create employment opportunities (building the economy and reduce inequality).
- Attracting tourists (building the economy and 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 (McGee & Shaw, 2013).

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

This shift aims to re-design the fast food environment to make every day takeaways healthier (Shift Design, 2018).

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

Birmingham Public Health has joined the Food Foundation's campaign to increase the supply of and promote demand for vegetables. Pledges include increasing take-up of Healthy Start voucher, including two portions of vegetables in every school meal, supporting street food vendors who offer vegetables and supporting retailers to incentivise vegetable purchases (The Food Foundation, 2018).

# 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 (Accord Group, 2018). 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, such as social prescriptions.

## Community and voluntary sector

'Growing Birmingham' is an alliance of voluntary sector organisations promoting the benefits of food growing (Growing Birmingham, 2017) (and other initiatives that contribute 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 (Midlands Engine for Growth, 2015).

## Academic institutions

Birmingham City University, Birmingham University, University College Birmingham and Aston University are all involved in food research, innovation and evaluation (for example, of 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 Associate Directors of Public Health (ADPH). Formed at the start of the millennium, the Board 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 1,000 new homes and has engaged a European Union-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 that allows them to meet the rent demands placed 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 (Mitchells and Butlers, 2015). 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 foodservice industry is experiencing, including:

- Responding to changes in immigration law/processes/systems (and Brexit), which means there is a skills shortage in a range of businesses, including Indian and chain restaurants.
- 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 was launched on 30 January 2018 at iCentrum at the Innovation Birmingham Campus. The Alliance, which builds on the legacy of Birmingham Science City, has two principal objectives to build a thriving innovation ecosystem and to catalyse collaborative innovation activity across the West Midlands. The Alliance is being sponsored by the Greater Birmingham & Solihull Local Enterprise Partnership (LEP) and other partners (GBSLEP, 2018). The Smart City Alliance is part of this, and the BINDI project (Birmingham Indian Nutrition Initiative) is receiving support from this network.

# Annex 1. MUFFP Monitoring Framework

## Monitoring Framework (MUFFP, 2018)

**Areas of recommended actions:** The MUFFP Framework for Action identified six 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 characterise 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 the 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. For example, 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 increases 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 especially 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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