



GLOBAL

UK AND GLOBAL MALNUTRITION: THE NEW NORMAL

INTERNATIONAL LEARNING SERIES / 1
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Canned beans

6

Cooking sauces

Rice

Pasta



MALNUTRITION IN THE UK

Recent international data show that a much higher percentage of children in the UK (10%) are living in severe food insecurity compared with other European countries, where the average is 4%

The UK is facing a rising tide of malnutrition that is damaging our children and threatening the economy. While the UK has the second highest rate of obesity in Europe, one in 10 children are living with adults who report experiencing severe food insecurity (UNICEF, 2017). Given that the UK is the fifth richest country in the world, after the US, China, Japan and Germany (World Bank, 2015), these statistics are a major challenge for policymakers.

The government does not collect routine data on food poverty and has largely left the charitable sector to deal with the consequences. Recent international data show, however, that a much higher percentage of children in the UK (10%) are living in severe food insecurity compared with other European countries, where the average is 4%. Children who are exposed to food insecurity are more likely to face adverse health outcomes and developmental risk including impaired academic performance, shame at being out of food and behavioural problems (UNICEF, 2017). While the scarcity of government data on food poverty in the UK means it is difficult to detect trends, the number of food parcels now distributed by the Trussell Trust per year continues to grow from 26,000 in 2008/09 to more than one million in 2016/17 (The Trussell Trust, 2017).

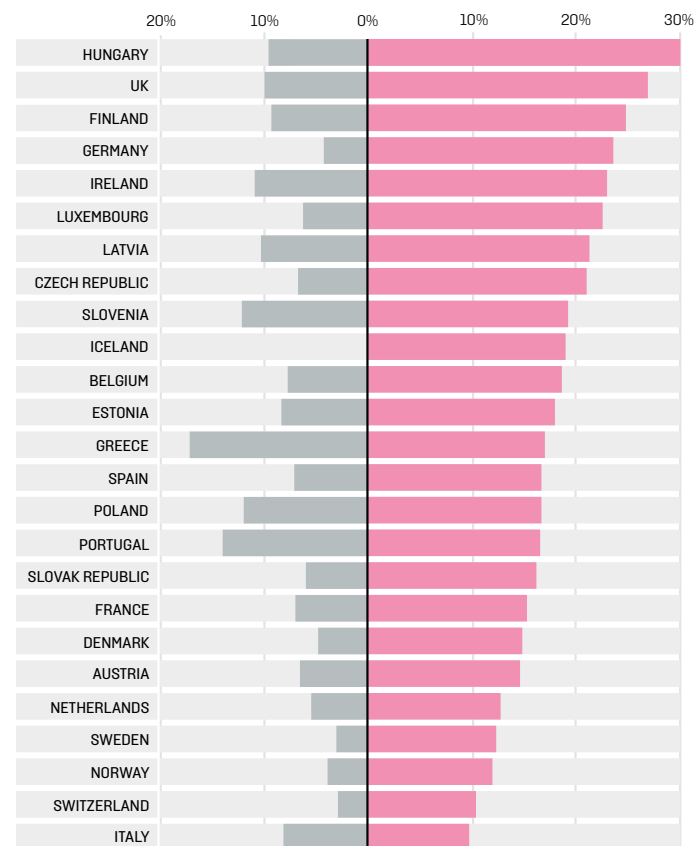
At the same time, more than 28 million adults and children in the UK are overweight or obese, which is fuelling a diet-related health crisis with spiralling rates of non-communicable diseases, including type 2 diabetes, cardiovascular disease and certain forms of cancer (OECD, 2017). Treating obesity and its consequences in England alone currently costs the NHS £16 billion every year, the majority of which is spent on type 2 diabetes (Simon Stevens, Chief Executive of NHS England quoted in Hughes, 2016). This is more than the £13.6 billion per year spent on the fire and police services combined. The wider economic toll of obesity and related conditions is estimated to be the equivalent of 3% of the GDP (Dobbs et al., 2014).

Vitamin and mineral deficiencies are also of concern. Although diseases such as scurvy and rickets have largely disappeared in the UK, significant numbers of people have marginal vitamin and mineral status indicative of deficiencies. Sixteen per cent of women are iron deficient while more than 10% of men and women have low levels of vitamin D and vitamin B6. Much of this is due to poor diets, which, while energy rich, are deficient in some essential nutrients. Vitamins and minerals are required in the body for a wide range of functions including maintenance of healthy red blood cells, connective tissue and the nervous system, protection of cells from antioxidants, absorption and utilisation of nutrients, protein processing and DNA synthesis. They are essential for the normal growth and development of children. Vitamin and mineral deficiencies can occur in both people who are overweight and in people who don't have enough to eat.

UK and global malnutrition: the new normal

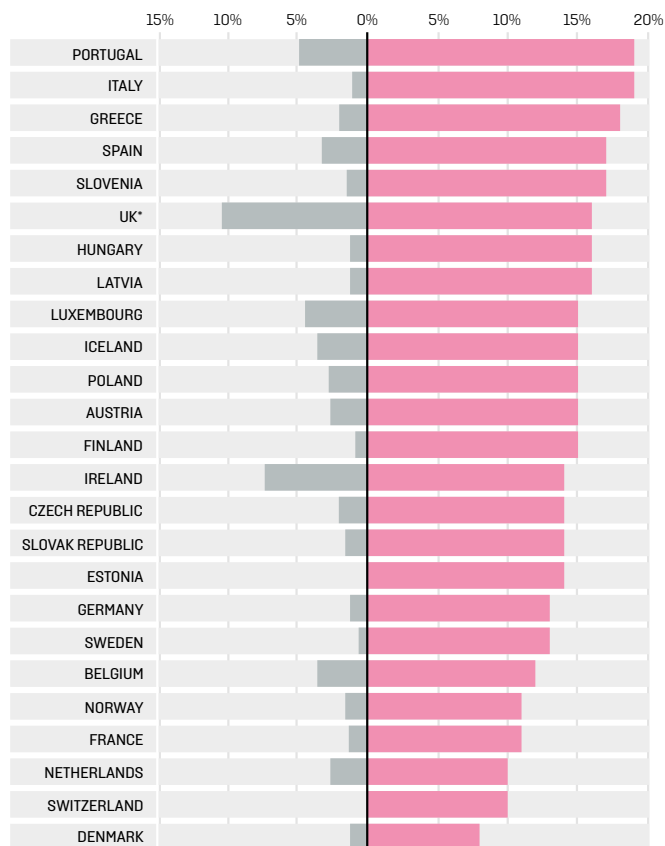
Figure 1: Malnutrition in Europe

Adult obesity, and moderate and severe food insecurity



■ Percentage of 13-year-old children overweight and obese
 ■ Percentage of children under 15 years of age living with a respondent who is severely food insecure. UK* Scotland = 17, Wales = 16, England = 15

Childhood obesity and severe food insecurity



■ Obesity in adults, 2015 or nearest year.
 ■ Percentage of individuals aged 15 or over in the national population who are food insecure.

Sources: OECD. 2017 Update. Obesity among adults, 2015 or nearest year. <http://www.oecd.org/health/obesity-update.htm>; FAO. 2016. Voices of the Hungry. Technical Report No. 1. <http://www.fao.org/3/c-i4830e.pdf>; WHO Regional Office for Europe. International Report from 2013–2014 Survey. Growing up unequal: gender and socioeconomic differences in young people's health and well being; UNICEF. 2017. Prevalence and Correlates of Food Insecurity among Children across the Globe. Innocenti Working Paper. https://www.unicef-irc.org/publications/pdf/IWP_2017_09.pdf

Over 60% of paediatricians surveyed throughout the UK in late 2016 said that food insecurity contributed to the ill health amongst children they treat

Poverty and inequality are strongly associated with malnutrition

The least privileged are the most likely to suffer from malnutrition and its long-term consequences. The most deprived white children measured across England in 2012/13 were on average more than a centimetre shorter in height by the age of 10 years than the least deprived children (Hancock C et al., 2016). These children are unlikely to catch up growth losses from their early years. Obese children in England are more than twice as likely to live in the most deprived areas compared with better-off areas and this gap is increasing over time (Lifestyle statistics team, 2016). Poor children are also more likely than better off children to suffer from poor health as a result of food insecurity. Over 60% of paediatricians surveyed throughout the UK in late 2016 said that food insecurity contributed to the ill health amongst children they treat (Royal College of Paediatrics and Child Health, 2017).

Poverty in older people is also associated with increased risk of malnutrition. One in seven pensioners in the UK now lives in poverty (Age UK, 2014) and social care services for older people are unable to meet demand. Spending on services such as home carers, meals on wheels and day care has dropped by more than £1 billion in the last five years (Age UK, 2017). It is estimated that 1.3 million people over the age of 65 living in the UK are suffering from, or are at risk of, malnutrition, and 93% of these are living in the community (Malnutrition Task Force, 2014). One third of the elderly people admitted to hospital are at risk of malnutrition. The factors that contribute to under-nutrition in older people are a mixture of physiological (including illness and disease, and decreased appreciation of food and drink) and/or social (including difficulties in accessing and affording food, social isolation and inability to prepare food (Malnutrition Task Force, 2014). Reductions in care services will exacerbate these problems and lead to an increased risk of malnutrition.

Malnutrition has become a new global norm

While malnutrition in the UK is a significant problem, we are not alone. Today, nearly one in three people in the world suffers from at least one form of malnutrition, including obesity, under-nutrition and/or vitamin and mineral deficiencies. Due to the rise in obesity, high-income countries are now home to the greatest number of malnourished people, but low- and middle-income countries are catching up fast. In Africa, the number of children who are overweight or obese has nearly doubled from 5.4 million in 1990 to 10.6 million in 2014 (Global Panel on Agriculture and Food Systems for Nutrition, 2016). Other forms of malnutrition have not gone away, either, and one quarter of children worldwide below the age of five are stunted due to malnutrition, while vitamin and mineral deficiencies continue to affect billions of people.



FRESH THINKING TO TACKLE MALNUTRITION IN ALL ITS FORMS

Given the changing nature of malnutrition globally, and its origins in unhealthy diets, fresh thinking is needed on how these problems are tackled. Three shifts in thinking are needed:

1. We need to consider how the food system can be incentivised differently to deliver affordable, healthy and sustainable food in favour of cheap, unhealthy and unsustainable food.
2. We must shift our attention to the early years and pregnancy. While we have been trying to improve the diets of school-age children, we have neglected the science, which shows that we must act much earlier to deliver the best nutrition and economic returns, and to break inter-generational cycles of inequality.
3. If we are going to tackle these problems effectively, international collaboration is essential. We all face the same challenges, and we need to pool our knowledge and ideas to solve them.

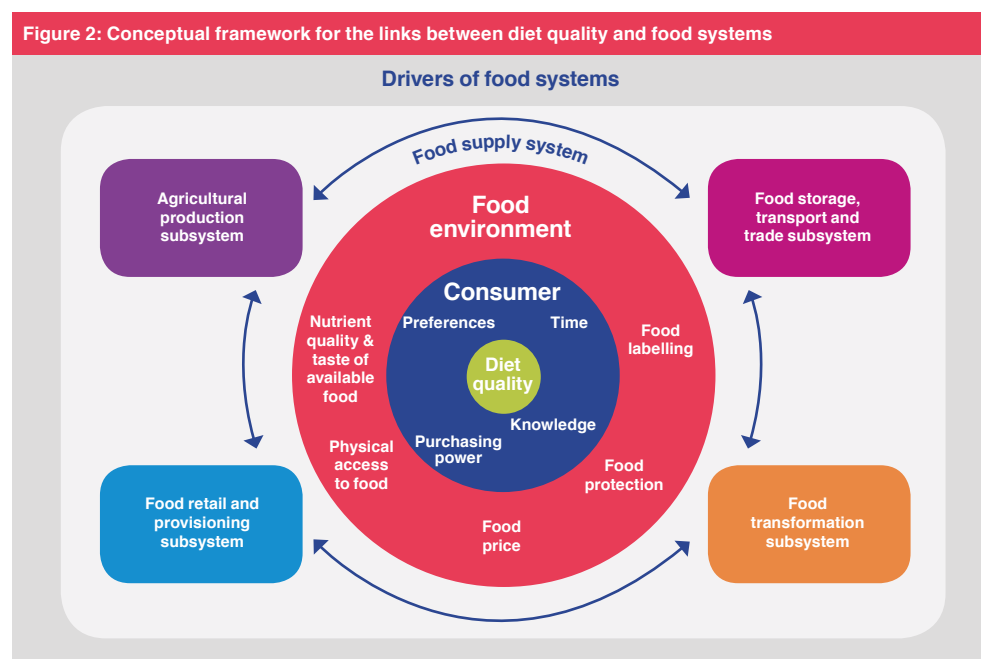
Poor-quality diets are part of a dysfunctional global food system that requires radical transformation to ensure that people are able to consume a healthy, nutritious and affordable diet throughout the year

1. Transformation of the global food system to deliver healthy nutrition and affordable diets

Diet is now the number-one risk factor for disease in the world – carrying a greater risk of ill health than smoking or drinking alcohol (The Lancet, 2013). The scale of the malnutrition crisis we face requires us to look beyond therapeutic measures to help those affected or dietary advice to better inform people about the risks they face, and instead look at the system that is driving this crisis.

Poor-quality diets are part of a dysfunctional global food system that requires radical transformation to ensure that people are able to consume a healthy, nutritious and affordable diet throughout the year. The food environment we experience results from what is produced on farms, how it is processed, marketed and moved around the globe, and how affordable it is (see Figure 2). In the UK, our food environment is a major driver of our malnutrition crisis, and any serious attempt to tackle poor diets in the UK must take a systems approach to identify the policy levers that can help to incentivise the system to deliver healthy and sustainable diets.

Figure 2: Conceptual framework for the links between diet quality and food system



Source: Global Panel on Agriculture and Food Systems for Nutrition, 2016. Food systems and diets: Facing the challenges of the 21st century.

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The UK is not a self-sufficient island, but part of a global food system with multiple moving parts. Thus, a policy in one part of the world can have profound effects on food being produced, processed and sold, in another part of the world. Governments need to work together to focus on aligning the global food system with the goal of attaining healthy diets and improved nutritional outcomes for all. This will require creating incentives for business throughout the food system to produce, manufacture and sell nutritious food that is affordable and desirable. It will require strong inter-governmental structures that bring governments together to plan and take action to improve the global food system. Finally, it will require a shift in thinking about the goal of food policies as not merely about feeding people, but about nourishing them as well (Global Panel on Agriculture and Food Systems for Nutrition, 2016).

If average diets among UK adults were healthier and conformed to WHO recommendations, their associated greenhouse gas emissions would be reduced by 17%

2. Investment in the early years and pregnancy to deliver the best nutrition and economic returns

A large body of scientific evidence shows that improving nutrition early on – in particular, during the critical 1,000 day window from a woman’s pregnancy to her child’s second birthday – has the potential to save lives, help children to develop fully and thrive, and deliver greater economic prosperity (Bhutta et al., 2013). It is also the critical period for addressing inequalities (GLA Economics, 2010).

A person’s nutritional path is set very early in life – in fact, before conception – and has an influence on the risk of malnutrition and non-communicable diseases later in life (Scientific Advisory Committee on Nutrition, 2011). The nutritional status of a mother at the start of pregnancy influences her ability to meet the demands of her baby as it develops. Inadequate nutrient intake during pregnancy or excessive weight gain influence birth weight. Low birth weight is associated with an increased risk of coronary heart disease and type 2 diabetes later in life. High birth weight is associated with an increased risk of certain cancers, especially breast cancer and of obesity in adulthood. Babies that are not breastfed are more likely to get diseases such as diarrhoea, and tend to have slightly higher blood pressure and serum cholesterol concentrations in adulthood. They are at greater risk of type 2 diabetes and are more likely to be obese in later life. Children who are obese when they start primary school are more likely to remain obese throughout their lives.

Investment in addressing malnutrition in the youngest children and pregnant women has two benefits. Firstly, it ensures that children grow to be healthy, economically active members of their community. Secondly, it avoids the costs of healthcare, lost employment, early retirement and dependence on welfare that arise from obesity-related conditions. It is estimated that, on average, every \$1 invested in nutrition during the first 1,000 days generates \$18 in economic returns (Hoddinott et al., 2013). Spending on effective early years interventions in the UK would deliver greater returns on investment than most other public programmes (GLA Economics, 2010).

In the UK, not enough is being done to support better nutrition during the 1,000-day window. The government needs to invest in ensuring that women are aware that an unhealthy weight at the start and throughout pregnancy will have an adverse effect on their babies in later life. Breastfeeding needs to be accepted as the norm and the healthiest way to feed babies. School food standards need to be extended to nurseries so that the youngest children have access to healthy food and develop healthy eating habits.

The rise of highly processed food

In the UK, less than 10% of secondary school children eat enough fruit and vegetables, and on average drink the equivalent of five and a half cans of fizzy drinks a week (Bates et al.,

2008). The increase in cheap, easily accessible processed foods is a major contributor to changing dietary habits. An average household in the UK now spends more than half of its

total food and drink budget on highly processed foods that are often high in energy, fat, salt and/or sugar (Food Foundation, 2016). Per capita sales of processed foods are highest in high-

income countries, but have levelled off in recent years. In contrast, sales have grown rapidly in middle-income countries (Global Panel on Agriculture and Food Systems for Nutrition, 2016).

Political commitment is required to ensure that all countries sign up to, act upon and report against global goals to reduce malnutrition. There are already frameworks and fora in place through UN processes, inter-governmental bodies and global movements

3. International collaboration to deliver global goals

Malnutrition is a global problem that requires a global response. Countries need to unite behind efforts to tackle malnutrition and food insecurity. The UK government has signed up to a number of international frameworks (see box, p9) that set out goals and targets to reduce malnutrition in all its forms. Currently, the UK government is not reporting against all the global targets that it has officially endorsed, making it difficult to record progress. UK data are available for only two (anaemia in women and low birth weight) out of six of the WHO targets, while data for 26% out of 80 indicators are not reported by the UK in the Global Nutrition Report (GNR, 2016), which aims to track progress and strengthen accountability in reducing malnutrition.

Political commitment is required to ensure that all countries sign up to, act upon and report against global goals to reduce malnutrition. There are already frameworks and fora in place through UN processes, inter-governmental bodies and global movements, such as the Scaling Up Nutrition Movement (SUN, 2014). These frameworks are not just for governments, but invite business, civil society and the scientific community to participate.

In addition to global and regional processes, countries can benefit from sharing their experiences. Countries throughout the world are facing similar challenges of malnutrition in all its forms. Sharing learning about successful policies and actions informs governments and others, and helps them to decide how to invest resources with the best returns. The UK has made some progress by establishing policies aiming to promote healthy nutrition. It also has a lot to learn from other countries in areas where it is making less progress. This paper is the first in the Food Foundation's international series, which will promote sharing of experience between countries on food policy innovation.

The price of a healthy food basket matters

The price of food is an important driver of our food choices, so when prices go up, the types and quantity of food that we consume changes. While the price of healthier foods is increasing in many countries, less healthy, processed foods are often getting cheaper. A study

of relative food prices in Brazil, China, Korea and Mexico found that the price of fruit and vegetables rose by up to 91% between 1990 and 2012, while some processed foods – like ready meals – dropped in price by up to 20% (Wiggins et al., 2015). Researchers at Cambridge University have also

analysed prices in the UK and shown that healthy foods were consistently more expensive than less healthy foods, and rose more sharply in price over the course of a decade (Jones et al., 2014). Low-income households suffer most when food prices increase because they spend a greater proportion

of their income on food (16% compared with 10.7% for the average household). The result is that they often turn to less healthy, cheaper foods. Fruit and vegetable consumption is where we see the biggest dietary differences between rich and poor (Bates et al., 2008)

INTERNATIONAL FRAMEWORKS

WHO GLOBAL NUTRITION TARGETS 2025

In 2012, the World Health Assembly Resolution 65.6 endorsed a comprehensive implementation plan on maternal, infant and young child nutrition, which specified a set of six global nutrition targets to be met by 2025.

Stunting: 40% reduction in the number of children under five

Anaemia: 50% reduction of anaemia in women of reproductive age

Low birth weight: 30% reduction in low birth weight

Childhood overweight: No increase in childhood overweight

Breastfeeding: Increase the rate of exclusive breastfeeding in the first six months up to at least 50%

Wasting: Reduce and maintain childhood wasting to less than 5%

NUTRITION 4 GROWTH COMMITMENTS 2020

In June 2013, a high-level summit was convened in London by the governments of UK and Brazil, together with the Children's Investment Fund Foundation. The aim was to encourage support to prevent at least 20 million children from being stunted and save at least 1.7 million lives by 2020. As a result of the summit, an initial 26 Governments and 27 business and science organisations made specific commitments to be met by 2020.

UK commitment to:

- triple investment in nutrition-specific programmes between 2013 and 2020;
- further additional investment in nutrition-specific programmes between 2013 and 2020, and help create a new catalytic fund;
- increase the proportion of spend in relevant sectors that are nutrition sensitive by 8% between 2013 and 2020;
- launch new business and science initiatives, including the launch of a Global Panel on Agriculture and Food Systems for Nutrition, to provide global research and policy leadership on nutrition-sensitive agriculture.

ROME DECLARATION ON NUTRITION 2014

In November 2014, the Second International Conference on Nutrition, a high-level inter-governmental meeting, was convened by WHO and FAO in Rome. It resulted in the Rome Declaration on Nutrition with 10 commitments for action and a Framework for Action with a set of voluntary policy options and strategies for use by governments.

Commitment 1: Eradicate hunger and prevent all forms of malnutrition worldwide, particularly undernourishment, stunting, wasting, underweight and overweight in children under five years of age; and anaemia in women and children among other micronutrient deficiencies; as well as reverse the rising trends in overweight and obesity, and reduce the burden of diet-related non-communicable diseases in all age groups.

UN Decade of Action on Nutrition 2016-2025

In April 2016, the United Nations General Assembly proclaimed a UN Decade of Action on Nutrition that will run from 2016 to 2025. It further endorsed the Rome Declaration on Nutrition, as well as the Framework for Action, and called upon the FAO and WHO to lead the implementation of the UN Decade of Action on Nutrition.

SUSTAINABLE DEVELOPMENT GOALS 2030

In September 2015, countries adopted a set of goals to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to be achieved by 2030. Twelve of the 17 goals contain indicators related to nutrition and food security.

Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

Indicator 2.1: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.

Indicator 2.2: By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under five years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons.

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In the face of rising food prices, growing food poverty, increasingly unhealthy diets and in the absence of coherent policies, there is a danger that food will become a political football to be kicked about by politicians

CONCLUSION

Food is fundamental to life. Everyone has to eat and vast quantities of food is grown, harvested, transported, cooked, served and eaten every day. Despite this, big business has largely been left to run the global food system without interference. When governments have intervened, it has often been on the basis of quantity (to ensure that more food is produced) rather than on the basis of quality (to ensure that more nutritious, affordable and sustainable food is eaten). The result is a global nutrition crisis that has reached catastrophic proportions. In the face of rising food prices, growing food poverty, increasingly unhealthy diets and in the absence of coherent policies, there is a danger that food will become a political football to be kicked about by politicians (Sandys, 2017). Instead of food being something that brings people together, it will become something that increasingly divides people.

Proactive government commitment and leadership is needed to tackle the complexities of the global food system and to reverse some of the negative nutrition trends. Signing up to global goals is not enough. Governments need to act and show themselves to be accountable by reporting on progress. They need to take a holistic approach that takes account of agriculture, health, education, among other sectors. Finally, governments have to act in concert. Food is a global challenge that requires global policies. It is unacceptable that malnutrition is now normal.

REFERENCES AND FURTHER READING

- Age UK, 2017. Don't Cut Care. Available at: <http://www.ageuk.org.uk/home-and-care/care-in-crisis/> [Accessed June 20, 2017].
- Age UK, 2014. *How we can end pensioner poverty*,
- Anon, 2017. Poverty and child health Views from the frontline Poverty and children's health: views from the frontline.
- Bates, B. et al., 2008. National Diet and Nutrition Survey: Results from Years 1-4 (combined) of the Rolling Programme.
- Bhutta, Z.A. et al., 2013. Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? *The Lancet*, 382(9890), pp.452–477.
- Dobbs, R. et al., 2014. Overcoming obesity : An initial economic analysis. *McKinsey Global Institute*, (November), p.120.
- Economics, G., 2010. *Early years : reducing health inequalities , what works ?*,
- Food Foundation, 2016. FORCE-FED Does the food system constrict healthy choices for typical British families?
- Global Panel on Agriculture and Food Systems for Nutrition, 2016. Food systems and diets: Facing the challenges of the 21st century.
- Green, R. et al., 2013. The effect of rising food prices on food consumption: systematic review with meta-regression. *BMJ (Clinical research ed.)*, 346, p.f3703.
- Hancock C, Bettiol S & Smith L, 2016. Socioeconomic variation in height: analysis of National Child Measurement Programme data for England. *Archives of Disease in Childhood*, 101(5), pp.422–6. Available at: http://www.unboundmedicine.com/medline/citation/26342096/Socioeconomic_variation_in_height:_analysis_of_National_Child_Measurement_Programme_data_for_England_.
- Hoddinott, J. et al., 2013. The economic rationale for investing in stunting reduction. *Maternal & Child Nutrition*, 9, pp.69–82.
- Jones, N.R. V. et al., 2014. The Growing Price Gap between More and Less Healthy Foods: Analysis of a Novel Longitudinal UK Dataset H. Zhang, ed. *PLoS ONE*, 9(10), p.e109343. Available at: <http://dx.plos.org/10.1371/journal.pone.0109343> [Accessed June 20, 2017].
- Laura Hughes, 2016. More spent on treating obesity-related conditions than on the police or fire service, says NHS Chief. *The Telegraph*.
- Lifestyle statistics team, 2016. National Child Measurement Programme: England, 2015/16 school year. *Health and Social Care Information Centre*, (November), pp.1–51. Available at: <http://www.hscic.gov.uk/catalogue/PUB16070/nati-chil-meas-prog-eng-2013-2014-rep.pdf>.
- Malnutrition Task Force, 2014. Prevention Programme | Malnutrition Task Force.
- OECD, 2017. Obesity Update 2017. , pp.1–16. Available at: www.oecd.org/health/obesity-update.htm.
- Rocha, C., Constante Jaime, P. & Ferreira Rea, M., 2016. *The 2016 Global Nutrition Report*,
- Sandys, L., 2017. MPs need to stop food becoming a political hot potato | News | The Times & The Sunday Times. *The Times*.
- Scientific Advisory Committee on Nutrition, 2011. The influence of maternal, fetal and child nutrition on the development of chronic disease in later life.
- SUN, Working together in the fight against malnutrition in all its forms.
- The Trussell Trust, 2017. UK foodbank use continues to rise.
- UNICEF, 2017. Prevalence and Correlates of Food Insecurity among Children across the Globe. Innocenti Working Paper.
- Wiggins, S. et al., 2015. The rising cost of a healthy diet Changing relative prices of foods in high-income and emerging economies.
- World Bank, 2015. GDP ranking.



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