



BETTER HEALTH IMPACT:

A BIRDS EYE VIEW OF
THE HEALTH OF THE
NATION FROM 2010-20



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WELCOME FROM BIRDS EYE

As a UK nation we have come a long way in improving the quality of what we eat, yet there is much more to do to deliver better national health.

Our world is changing rapidly, and the combined realities of the climate crisis and the Covid-19 pandemic have shone a spotlight on the food we eat and some of the issues in our wider food system. It has never been more critical that we find ways to work together to make it easier for everyone to eat a nutritious, sustainable diet; to deliver better health outcomes and secure the future of our planet.

As one of the UK’s most trusted brands, Birds Eye is proud to be at the heart of family mealtimes providing great tasting, nutritious and affordable products that everyone can enjoy. We are committed to helping everyone eat well and make food choices that are more sustainable.

This report aims to provide an overview of the changes in the nutritional health of the nation from 2010 to 2020, as well as a snapshot of what UK consumers are saying about their health today. It also includes examples of how Birds Eye has been continually improving its products and will continue to do so.

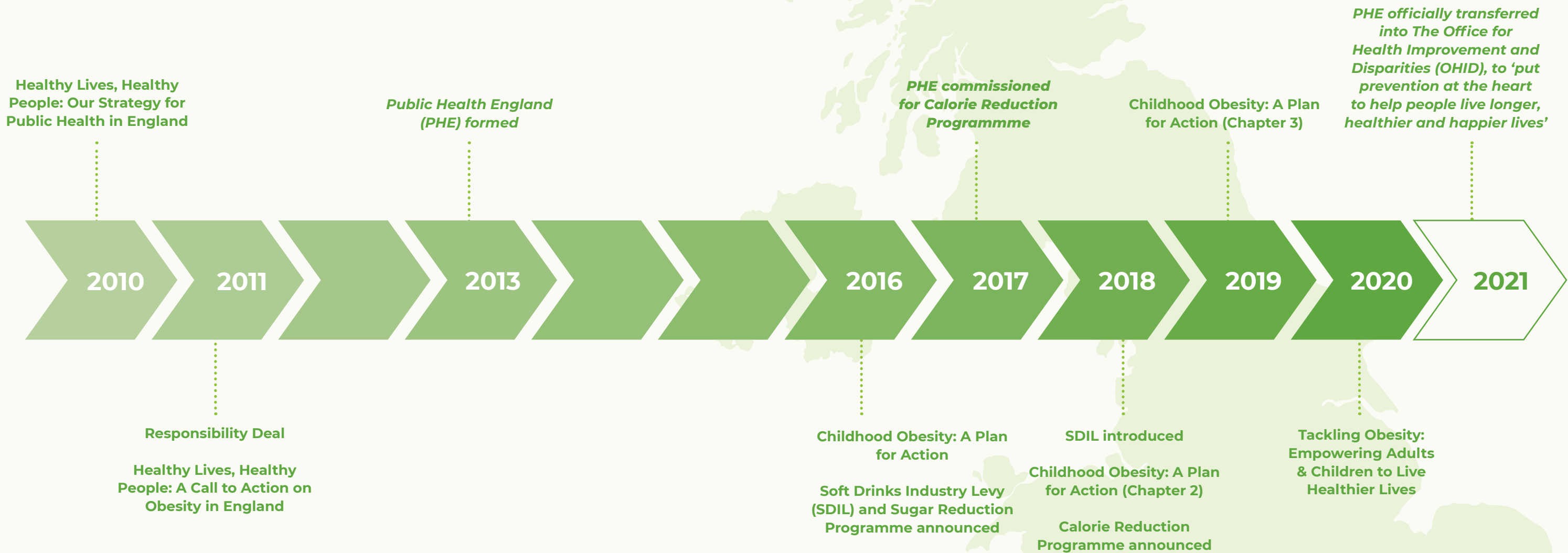
Steve Challouma
General Manager: Birds Eye Ltd



A DECADE OF CHANGE

GOVERNMENT OBESITY STRATEGIES

Over the past decade, the government has implemented a number of obesity and diet-related strategies to help improve the health of the nation.



Healthy Lives, Healthy People
Our Strategy for Public Health (2010) and A Call to Action on Obesity (2011)

- Acknowledged lower-socioeconomic status increases the risk of poor health
- Aimed to tackle the root causes of health inequalities to help to reduce population obesity
- Planned to help empower and support local governments to drive health improvement

The Responsibility Deal

- Aimed to share responsibility for health improvement between different aspects of society
- Focussed on five core areas, including food, physical activity behaviours and health in the workplace
- Pledges were created for businesses and other organisations to sign up to, including salt target commitments and provision of calorie information in out-of-home settings

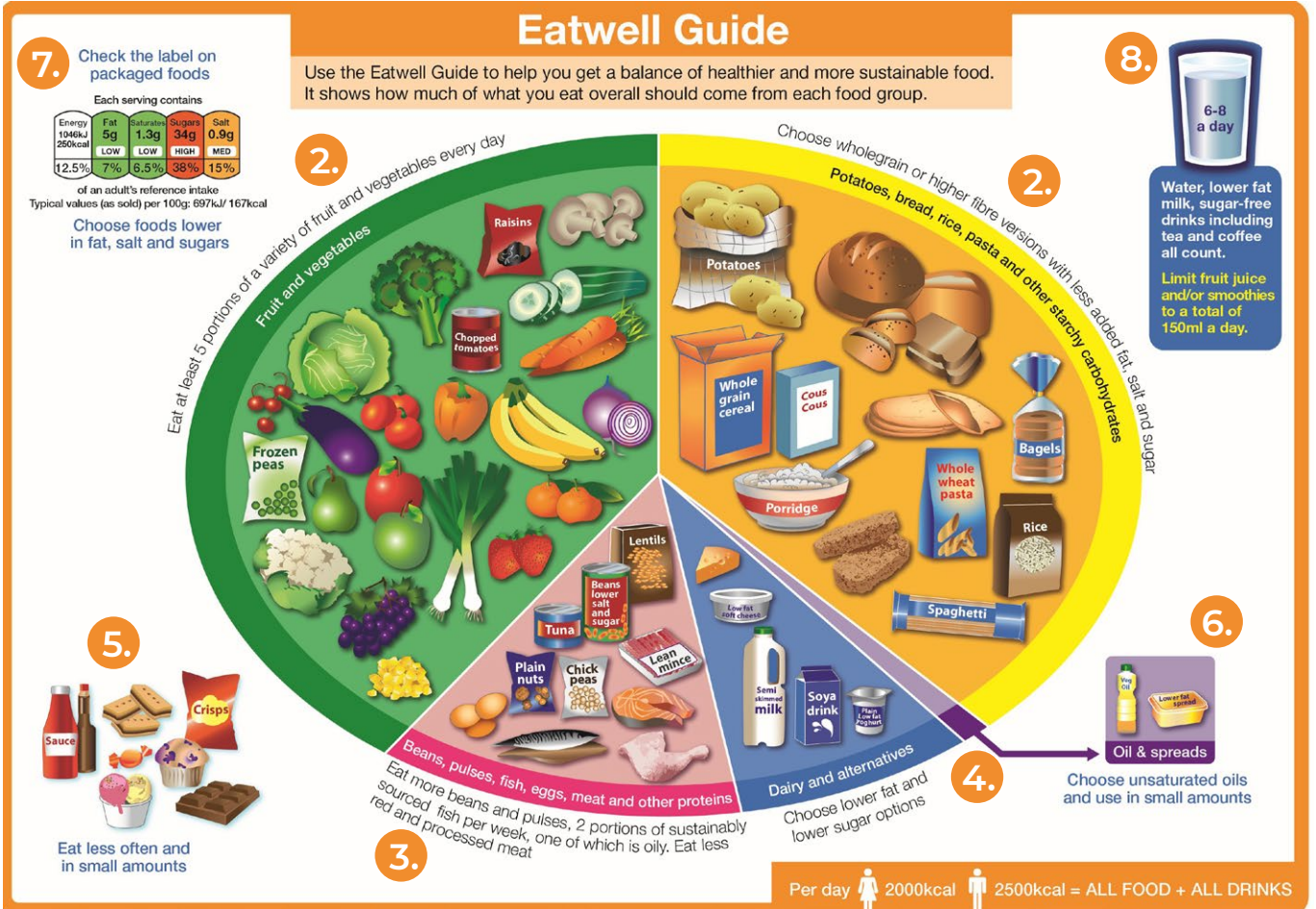
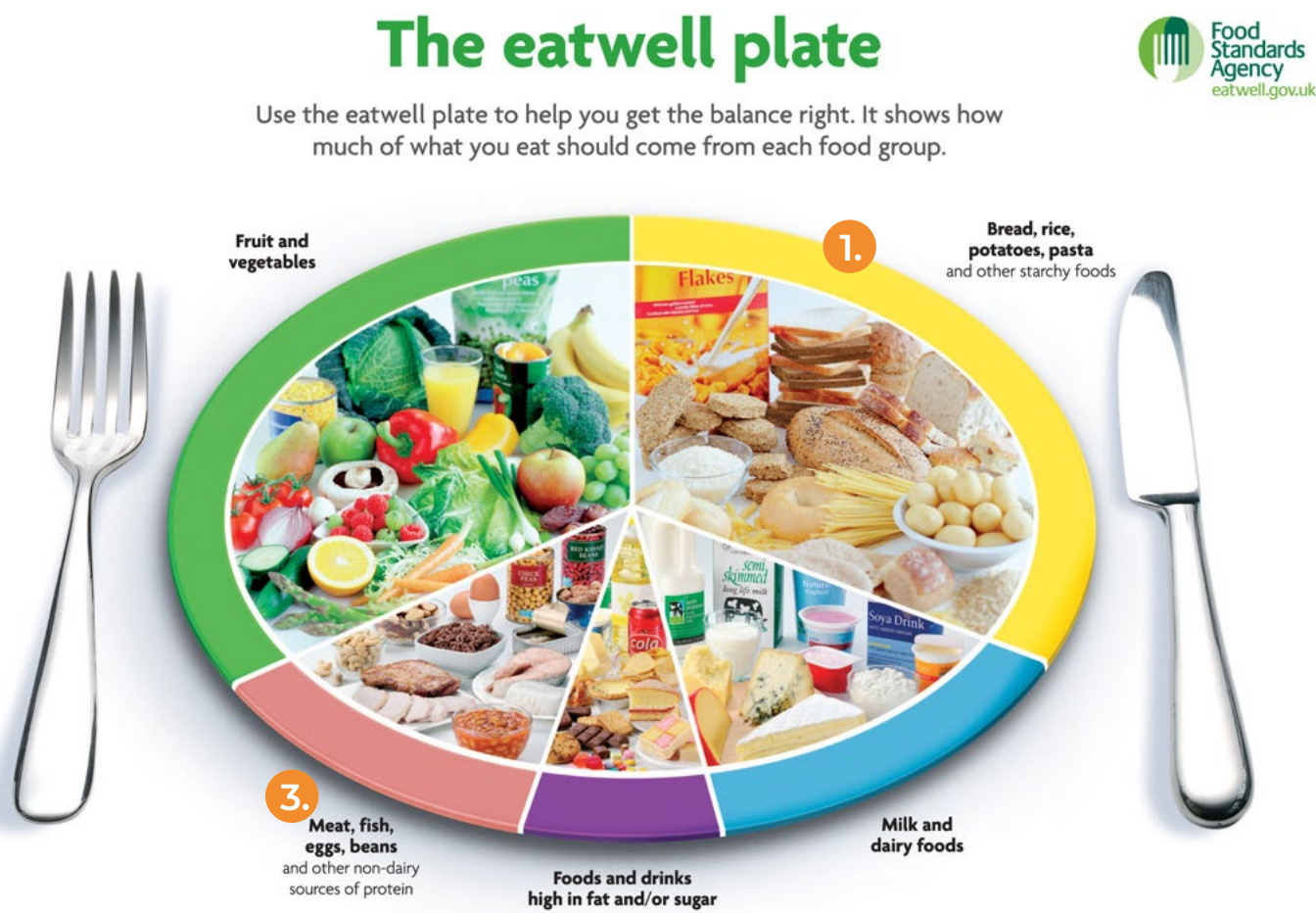
Childhood Obesity: A Plan for Action

- Government focus shifted to childhood obesity
- Key elements included the Soft Drinks Industry Levy (SDIL), and Sugar and Energy Reduction Programmes

Tackling Obesity: Empowering Adults and Children to Live Healthier Lives

- A more interventionist approach compared to earlier government strategies, recommending stronger regulatory and government controls on unhealthy foods
- High Fat Salt Sugar (HFSS) restrictions proposed for advertising and promotions

HOW THE UK'S NATIONAL DIETARY GUIDELINES EVOLVED ACROSS THE DECADE: FROM THE EATWELL PLATE TO THE EATWELL GUIDE



Main changes included the removal of foods high in fat, salt and sugar (HFSS) from the main segment of the guide, and an increased focus environmentally sustainable eating.

1. Change from The Eatwell Plate to the Eatwell Guide; use of graphics instead of images, removal of knife and fork to remove the potential inference that these recommendations should be met at each mealtime.
2. Increase in segment sizes for 'Fruit and vegetables' and 'Potato, bread, rice, pasta and other starchy carbohydrates', more firmly recommending that the diet should be based around these.
3. Protein-rich foods segment name updated from 'Meat, fish, eggs and beans' to 'Beans, pulses, fish, eggs, meat and other proteins' to encourage greater consumption of plant-based sources of protein. This change is a clear demonstration of the increased focus on sustainable eating in the Eatwell Guide.
4. Reduction in size of 'Milk and dairy foods' segment and inclusion of 'alternatives', to account for the nutritional needs of those following more plant-based diets.
5. Removal of foods High in Fat, Salt and Sugar (HFSS) from the main segments of the guide, sending a clear signal that these are not considered essential in the diet.
6. Reframing of 'Foods and drinks high in fat and/or sugar', which previously contained HFSS foods, to contain only 'oils and spreads', differentiating fats higher in unsaturated fats from those higher in saturated fats. Segment size significantly reduced.
7. Inclusion of multiple traffic light labelling to encourage consumers to read front of pack nutrition labelling to help inform healthier choices.
8. Inclusion of hydration messaging, encouraging consumption of no and low sugar drinks.

WHAT THE UK NATION SAYS



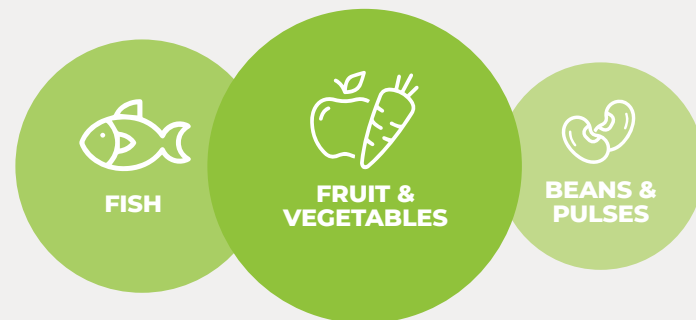
OVER 1/5 OF THE UK NATION WOULD RATE THEIR EVERYDAY DIET AS NOT VERY OR AT ALL HEALTHY

ENCOURAGINGLY, 1/3 BELIEVE THEY HAVE A HEALTHIER WEIGHT THAN 10 YEARS AGO

58%

COMPARED TO 10 YEARS AGO, 58% FEEL MORE OF A DESIRE TO EAT HEALTHILY AND THIS TRANSLATES TO 57% REPORTING EATING A HEALTHIER DIET

DESPITE REPORTING IMPROVING THE HEALTHINESS OF THEIR DIET AS A WHOLE, THE UK NATION BELIEVES THAT THEIR DIET IS MOST LACKING IN FRUIT AND VEGETABLES, FISH AND BEANS AND PULSES



JUST UNDER A THIRD REGULARLY EAT AT LEAST FIVE PORTIONS OF FRUIT AND VEGETABLES A DAY



WHILE A FURTHER 37% REPORT FINDING IT TOO DIFFICULT TO EAT THEIR 5-A-DAY

HFSS: CHANGES TO THE FAT, SALT AND SUGAR CONTENT OF OUR FOOD

REDUCING SATURATED FAT IN OUR DIETS

Since 1991, in the UK it's been recommended that no more than 10% of dietary energy should come from saturated fat, due to the association between high intakes and heart disease risk. This translates into a recommended maximum intake of 20g of saturated fats daily. A subsequent review by the Scientific Advisory Committee on Nutrition (SACN) in 2019 agreed that this recommendation should remain unchanged, and that a reduction in saturated fat from current UK population average intakes would be beneficial for health.

Despite efforts to reduce intakes, 75% of adults (19-64 years) are currently consuming more saturated fat than the 20g/day maximum recommended.

Fat is an essential and important component of a healthy diet, however the quality of the fats we eat is key. Put simply, fats are made up of fatty acids, and unsaturated fatty acids are 'good' fats, or the 'healthy fats', that we should eat the largest proportion of, while saturated and trans fatty acids are those that we should try to limit. Saturated fats are those which are solid at room temperature, and increased saturated fatty acid intake is linked to raised blood cholesterol levels, which is in turn linked to cardiovascular disease risk. Unsaturated fats can be split into monounsaturated fats and polyunsaturated fats. Monounsaturated fats can help maintain a healthy blood cholesterol level, while polyunsaturated fats include omega-6 and omega-3 essential fatty acids which have numerous health benefits.

Reducing saturated fat intake is important to reduce cardiovascular disease risk, while eating healthy unsaturated fats in moderation is beneficial for health.

i HFSS - or High Fat Salt Sugar - products are those which have an overall nutritional profile which is less healthy. To determine whether a product is HFSS or not, its energy, saturated fat, sugar, salt, protein, fibre and fruit, vegetable and nut content per 100g is considered. 56% of the UK nation is making more of an effort to minimise their intake of saturated fat, sugar and salt now compared to 10 years ago.

WHAT THE UK NATION SAYS

The new HFSS advertising restrictions can have a positive impact

52% believe that the new legislation will have a 'somewhat' to 'very' positive impact on children's general eating habits

Further awareness needed on fats

39% of the British public aren't confident that they know the difference between saturated and unsaturated fats. Despite this, encouragingly, only 6% said they didn't know that there was a difference between saturated and unsaturated fat. Worryingly, only 59% knew that saturated fat is worse for health and 14% in fact believe that unsaturated fats are worse for health than saturated fats - clearly more awareness is needed in this area over the coming decade.

CASE STUDY

Healthier switch: Across the decade, Birds Eye has moved to using mainly rapeseed and sunflower oils across its portfolio because of their healthy fatty acid profile. This company-wide approach to use lower saturated fat oils has improved Birds Eye products' overall nutritional profile, including Fish Fingers, Chicken Nuggets and Potato Waffles - all healthy family favourites.

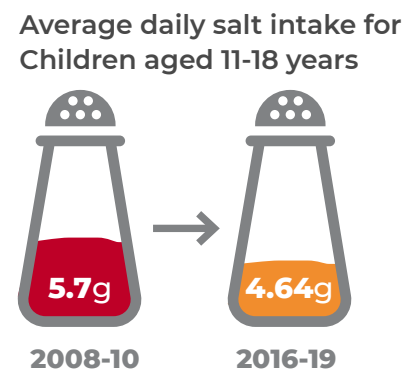


A BIRDS EYE VIEW OF THE HEALTH OF THE NATION FROM 2010-20

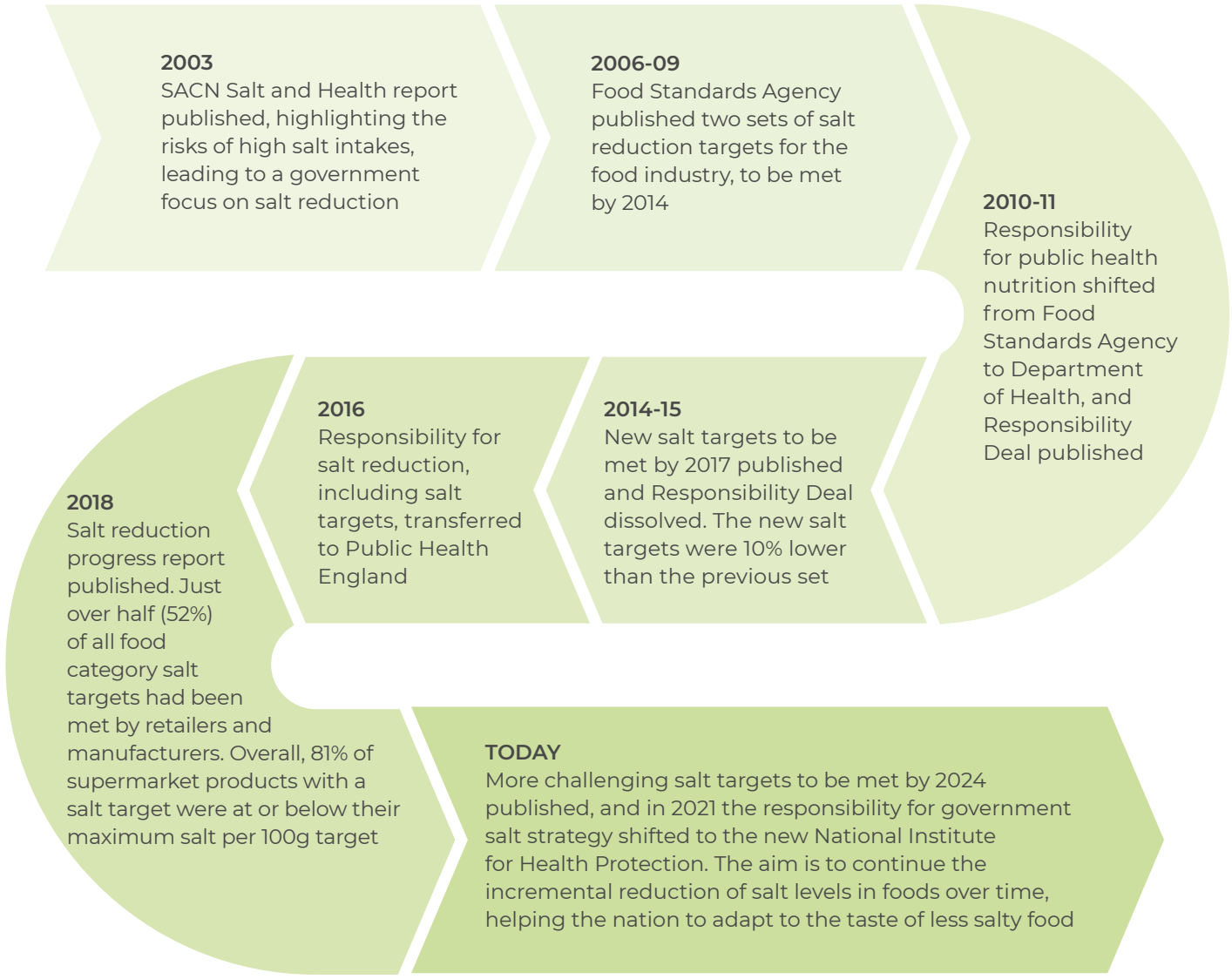
ALWAYS KEEPING AN EYE ON SALT

Over the last 10 years overall population salt intake has continued to exceed dietary recommendations (6g/day for those aged 11+ years, less for younger children), despite reductions in consumption over this period. Regular high intake of salt can increase the risk of developing high blood pressure, which in turn can also increase the risk of cardiovascular diseases such as heart disease and stroke.

Positively, according to data from the National Diet and Nutrition Survey (NDNS), consumption appeared to decrease over the decade for all child age groups - children aged 11-18 years had an average salt intake of 5.7g per day in 2008-10, but this decreased to 4.64g per day between 2016-19.



Over the past decade, there have been several initiatives to reduce population salt intake, with UK Government salt reduction targets forming a key part of this:



The UK salt reduction journey continues, and given that approximately 75% of salt consumed comes from pre-packaged foods, the food industry has a key role to play to help the nation reduce its salt intake.

CASE STUDY

Birds Eye has taken a number of steps to reduce salt in its products over the last 10 years. The company created a Salt Reduction Working Group comprised of Research and Development (R&D) colleagues, who acted as ambassadors for salt reduction. This approach has helped the company to deliver significant salt reductions across their portfolio, with key successes including Birds Eye's Cod Fish Fingers seeing a 21% reduction from 0.7g - 0.55g of salt/100g and Potato Waffles seeing a 28% reduction from 0.9 - 0.65g/100g throughout the decade.



Continuing to drive awareness of the health risks of a high salt intake and facilitating understanding front of pack nutrition labelling and the back of pack nutritional tables, are also important to empower consumers to make informed food choices.

Department of Health research shows that consumers who read front of pack nutrition labelling tend to have healthier shopping baskets, containing fewer calories, less salt, sugar and fat, and a higher fibre content too.



50%

HALF ADMIT TO ADDING ADDITIONAL SALT TO PRE-COOKED FOODS, WITH 14% SAYING THEY 'ALWAYS' DO THIS

30% DON'T EVER CHECK THE FOOD LABEL FOR SALT OR FAT CONTENT

3RD

SALT RANKS THIRD – BEHIND SUGAR AND FAT – IN THEIR TOP CONCERNS ABOUT THE CONTENT OF FOOD. ADDITIONALLY, SALT RUNS BEHIND SUGAR AND SATURATED FAT AS **THE NUTRIENT THE NATION ARE MORE AWARE OF THAN 10 YEARS AGO**

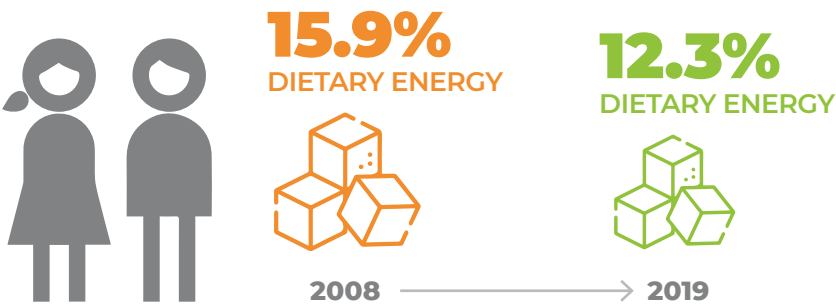
ACTIVELY DRIVING DOWN SUGAR INTAKE

Good news – there has been a downward trend in the intake of free sugars for all demographics for the UK nation. This trend could largely be attributed to the 2015 SACN Carbohydrates and Health report, which formed part of the snowball effect in driving action on intakes of free sugars by government, industry, non-governmental

organisations (NGOs), campaigners and consumers. The report recommended that the advised intake of free sugars should be no more than 5% of dietary energy, which translates into an average maximum recommended intake of 25g free sugars daily for adults and children over 11 years old.



Despite still having the highest intake of free sugars, children aged 11-18 years had the most notable decline in intakes across the decade, with total dietary energy from free sugars reducing from 15.9-12.3% between 2008-2019. For adults (19-64 years), free sugars contributed 9.9% of dietary energy in 2016-19; considerably lower than intakes earlier in the decade, and even between 2014-16, demonstrating how a strong focus and clear approach on sugar reduction has had a significant impact.



REDUCTION IN FREE SUGAR INTAKE OF CHILDREN AGED 11-18 YEARS

Sugar plays many functional roles in food, aside from simply taste, therefore reducing the sugar levels in certain foods can be very challenging. However, by approaching sugar reduction with an innovative lens, using a suite of approaches

and ingredients, the food industry is striving to minimise sugar levels in foods and drinks. In this way, the food industry contributes to the cumulative reduction in population intakes of free sugars.

BEYOND HFSS: HOW OUR CONSUMPTION OF FOOD HAS CHANGED

IMPROVING FRUIT AND VEGETABLES INTAKES

As a nation, intakes of fruits and vegetables are still not optimal, but action is underway.

The UK nation is still falling short of the recommended 5-a-Day daily fruit and vegetable intake and, in fact, there's been little positive change over the last decade. Worryingly, according to the Health Survey for England, the number of portions of fruit and vegetables eaten per day by younger children (aged 5-7 years) decreased from 3.4 to 2.9 between 2010 and 2018 in England. More encouragingly, intakes of fruits and vegetables in adults and children aged over 11 years have seen a small upward trend overall across the past decade, up to 4.2 and 2.9 daily portions respectively on average.

CASE STUDY

Different vegetables provide us with differing combinations and amounts of vitamins and minerals. Birds Eye's Steamfresh range helps consumers to eat a wider variety of vegetables in an accessible and convenient way, in addition to encouraging more overall vegetable consumption. Given its importance in helping the nation improve their vegetable consumption, Birds Eye has committed to driving availability of Steamfresh, investing in its communications and expanding the range to introduce exciting new varieties. Across 2021, more than 71 million individual portions of Steamfresh were purchased; a staggering 23 million more portions than sold throughout 2017, representing nearly a 50% increase in vegetable portions.



FRESH FROZEN

ONLY 12%

KNOW THAT THE RECOMMENDED DAILY INTAKE OF FRUIT AND VEGETABLES CAN BE ACHIEVED BY EATING FRESH OR FROZEN OPTIONS.

50%

INCORRECTLY ASSUME THAT FROZEN FRUIT AND VEGETABLES DON'T HAVE THE SAME NUTRITIONAL VALUES AS FRESH EQUIVALENTS, DEMONSTRATING THAT FURTHER AWARENESS OF THE NUTRITIONAL BENEFITS OF FROZEN VEGETABLES AND FRUITS IS NEEDED.

Increasing vegetable consumption is especially challenging, yet fundamental to bettering the health of the nation. A variety of organisations and charities, including the Food Foundation, have been working to increase consumption in the UK, as Government educational campaigns alone have not driven significant increases in the nation's intakes over time.

The Food Foundation launched Peas Please in 2017; an initiative to help the UK to eat more vegetables by working to secure commitments from pledgers across society to remove barriers to consumption including affordability, availability and acceptability.

CASE STUDY

Birds Eye is famous for its frozen vegetables and has the ambition to help increase the nation's vegetable intake to 300g per day by 2050; adopting a key recommendation of the EAT Lancet Planetary Health Diet. 300g of vegetables daily is optimal for both personal and planetary health globally. Since signing up to the Peas Please Pledge, Birds Eye has created new ranges of meals providing two of 5-a-Day, increased vegetable-based new product development, collaborated with the National Schools Partnership to develop vegetable-themed lessons, and contributed to the Eat Them to Defeat Them campaign. This campaign has been seen by 25% of the UK population.

Birds Eye was the proud recipient of the 2020 Peas Please Pledger Champion award for its achievements in helping to remove barriers to vegetable consumption.



INCREASING FIBRE FOR HEALTH



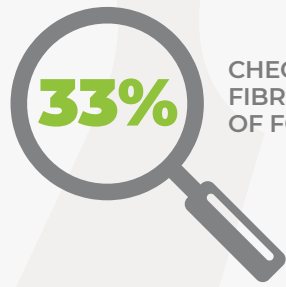
FIBRE AWARENESS HAS GROWN

48%

OF PEOPLE ARE MORE AWARE OF THE FIBRE CONTENT OF THEIR FOOD THAN THEY WERE 10 YEARS AGO, AND...

33%

CHECK THE FIBRE CONTENT OF FOODS



There is clear scientific evidence that dietary fibre intake can have a positive impact on health, including lowering incidence of cardiovascular disease, type 2 diabetes and colorectal cancer. A fibre-rich diet has also been associated with greater gut microbiota diversity, contributing to numerous associated health benefits. Therefore, in 2015, SACN advised to update the

recommended UK intake for fibre from 18g/day to at least 30g/day for adults; an action taken by government. However, the recent NDNS data showed that intakes were below recommendations for all demographics, with only small and inconsistent changes over time. Clearly, more action is needed.

CASE STUDY

Birds Eye created a Fibre Working Group that has championed fibre increase across the business, creating a Fibre Toolkit for R&D product developers to use to help create higher fibre products and increase the amount of fibre in current products. Additionally, Birds Eye has voluntarily included fibre in their products' back of pack nutrition tables for decades, helping consumers to make more informed choices. Aside from being more environmentally sustainable, plant-based eating can also increase fibre intakes. This is why it was important for Birds Eye, when developing their Green Cuisine meat-free range, that products delivered at least a source of fibre.



This year, Birds Eye are proud to be supporting the new UK Food and Drink Federation Action on Fibre commitment to 'close the gap' between fibre recommendations and intakes in the UK.

This food-industry-wide focus on fibre increase, awareness and education aims to benefit population level fibre intakes and create a more fibre-rich food supply for the UK.



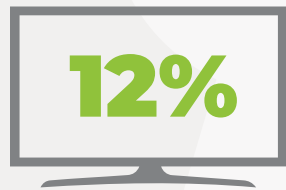
13%

AGREE THAT IF THEIR FAMILY/ FRIENDS WERE EATING MORE VEGETABLES, THEY WOULD BE ENCOURAGED TO DO THE SAME



30%

SAY THEIR FOOD CHOICES ARE INFLUENCED BY THEIR FAMILIES



12% OF PEOPLE SAID THAT IF THEY SAW AN ADVERT FOR HEALTHY FOOD, THEY'D BE MORE LIKELY TO EAT HEALTHILY (AND THE SAME IS TRUE OF UNHEALTHY FOOD, WITH 9% SAYING THEY'D BE INCLINED TO INDULGE)



ALMOST 30% OF PEOPLE'S FOOD CHOICES ARE INFLUENCED BY TV ADVERTISING AND SOCIAL MEDIA – SHOWING THE POWER OF THE INDUSTRY TO NUDGE PEOPLE TO EAT BETTER BY ADVERTISING MORE HEALTHY FOODS

OMEGA-3: AN ESSENTIAL FAT FOR HEALTH

To ensure we consume enough essential omega-3 fatty acids, it is recommended to eat at least two portions (140g each) of fish per week, with at least one being oily. Certain omega-3 fatty acids – found in fish and algae – are important for the maintenance of a healthy

cardiovascular system, vision and brain function. Other omega-3 fatty acids, found in various plant sources, help maintain normal blood cholesterol levels and contribute to normal child growth and development. Therefore, omega-3 is essential in the diet for many reasons.

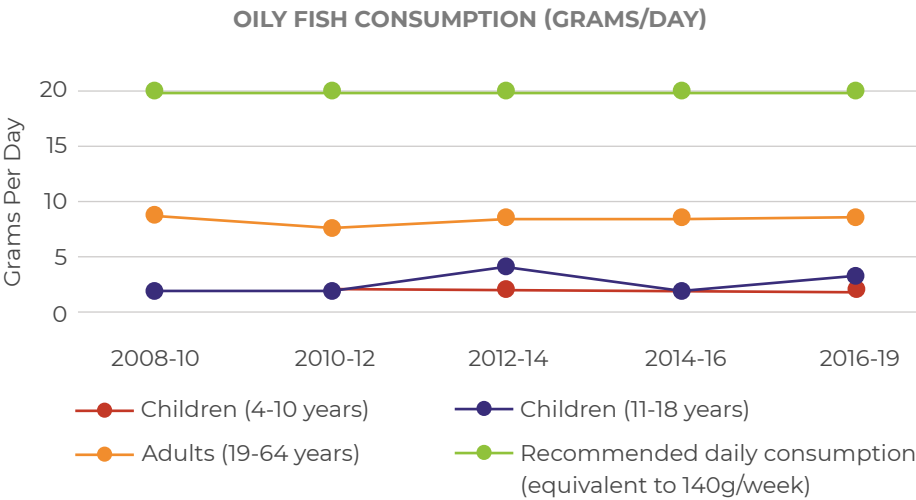


POSITIVE CHOICES

53%

ARE MAKING MORE OF AN EFFORT TO EAT POSITIVE NUTRIENTS, INCLUDING OMEGA-3, COMPARED TO 10 YEARS AGO

Oily fish is the best source of the omega-3 fatty acids which are cardioprotective and which maintain healthy vision and brain function. Over the past decade oily fish intake hasn't increased to meet recommendations, and so the UK nation isn't consuming enough omega-3. Over the coming years, increasing oily fish intake and finding novel ways to improve the nation's omega-3 intake will be key.



CASE STUDY

Birds Eye collected consumer insights which showed that many consumers faced barriers to consuming oily fish, but still wanted to increase their omega-3 consumption. Based on these insights, it decided to market its Pollock Fish Fingers as Omega 3 Fish Fingers instead. This helped to guide and signpost the key nutritional benefits of the Pollock Fish Fingers, which consumers may not have otherwise been aware are a good as source of omega-3 given it's a white fish.



Nutritious alternatives to oily fish also need to be developed for vegan, vegetarian and other non-fish-eating consumers. Birds Eye recently developed Green Cuisine Fishless Fingers as a plant-based alternative, which are a source of plant-derived omega-3.

MICRONUTRIENT NEEDS

THE RISE OF PLANT-BASED EATING AND ASSOCIATED MICRONUTRIENT NEEDS

As personal health, living more ethically and sustainability have increased in importance for the nation over the last 10 years, our dietary patterns have evolved considerably, with the rise of more plant-based eating. Plant-based food

sales have more than doubled, with shoppers putting 14% more meat-free and dairy-free options in their baskets. Nearly half of the UK population (49%) bought into the meat-free sector at least once over the past year.

28% >>> 39%

ACCORDING TO MINTEL, THE PROPORTION OF MEAT EATERS WHO REDUCED OR LIMITED THE AMOUNT OF MEAT THEY CONSUMED INCREASED FROM 28% TO 39% IN JUST TWO YEARS BETWEEN 2017-19, WITH THIS BEING HIGHER (45%) FOR CONSUMERS UNDER 45. Source: Mintel, 2020

£816 MILLION

SALES OF MEAT-FREE FOODS GREW BY 40% FROM £582 MILLION IN 2014 TO AN ESTIMATED £816 MILLION IN 2019 IN THE UK. Source: Mintel, 2020

Eating more plant-based foods has many associated health benefits. However, following a vegan or vegetarian diet can increase the risk of certain vitamin and mineral deficiencies, if not planned properly. Intakes of certain vitamins

and minerals are generally already poor in the UK population, making it crucial for people who choose to follow more plant-based diets to ensure that they are getting the right balance and sufficient amounts of nutrients.



CASE STUDY

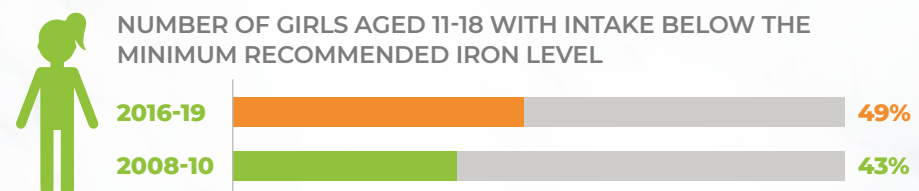
To cater for both meat lovers and vegetable lovers, Birds Eye developed two Green Cuisine sub-ranges - meat alternatives and meat-free products created using vegetables, grains and pulses. Across both ranges, provision of vitamins and minerals was central to the products' design and ingredient selection. To produce its Green Cuisine meat-free sausages, burgers and meatballs, Birds Eye harnessed the nutritional benefits of pea protein, which is naturally rich in iron and a source zinc - both nutrients which are normally found in meat equivalents and which risk deficiency when following a plant-based diet.



Iron, zinc, iodine, selenium and vitamin B12 are all micronutrients which, although still possible to consume enough of when following a plant-based diet, tend to be easier to obtain from foods of animal origin. As more people in the UK decide to adopt a more plant-based diet, there is a risk of declining intakes of these micronutrients, and in fact intakes of some of these are already showing a decline since 2010.

IRON

Iron is a very important mineral, which has many roles in the body including oxygen transport by our red blood cells. Iron intakes declined over the past decade, with intakes being particularly poor for girls aged 11-18 years.



One of the main contributors to iron intakes in the UK are meat and meat products. Therefore, awareness of iron-rich plant foods and availability of iron-rich and iron-fortified meat alternatives is important to avoid increasing prevalence of iron deficiency anaemia in the population as the UK continues to adopt a more plant-based diet.

Poor iron intakes can increase the risk of iron deficiency anaemia, which is already very common throughout the UK, so could become an even greater concern in the future if this trend continues.

ZINC

Zinc has a multitude of important roles in the body, and the main contributors of zinc in the UK diet are cereal and cereal products, meat and meat products, and milk and dairy. Intake declined slightly over the decade, however most age groups still met the average recommended intake. To ensure the nation continues to eat its recommended zinc intake, meat-free and dairy-free alternatives not naturally containing a source of zinc should be considered for fortification.

IODINE

Iodine is most known for its important role in thyroid function, and milk and dairy products are key sources of iodine in the UK diet, while fish and seafood are especially rich sources of this mineral. As more people choose to reduce consumption of animal products, increased availability of iodine-fortified nutritious plant-based dairy and fish alternatives will be important to reduce risk of deficiency.

SELENIUM

Selenium is important for immune health and cognitive function, and its main sources in the UK diet are cereal products, bread, meat and fish. Population intakes of selenium have not significantly changed over time, however adults and children aged 11-18 years are generally not meeting their recommended daily intake. Given that selenium deficiency is associated with poor immune function and cognitive decline, future fortification or biofortification of foods with selenium could potentially help to improve intakes, especially for those following plant-based diets.

VITAMIN B12

Vitamin B12 is an important vitamin whose major dietary sources are animal-based foods. Although population vitamin B12 status remained consistent overall throughout the decade, and the vast majority of the UK nation have healthy levels of this nutrient, evidence shows those following a vegan diet do have lower blood B12 levels. If veganism continues to become adopted more widely, it will be important to ensure people are aware of the importance of B12 supplementation and B12-fortified plant foods, as a lack of this vitamin can lead to anaemia and nerve damage.



A blended approach to eating post-Covid



2020: THE YEAR OF COVID-19

DIVERGENCE OF HEALTH-RELATED BEHAVIOURS

The Covid-19 pandemic has affected all aspects of the food system; from the lockdown closures of cafes and restaurants, to initial panic buying emptying supermarket shelves, and the enduring dominance of food delivery and home cooking. These factors, in addition to the other life-altering impacts of the pandemic, led to a divergence in all 46 health and diet related behaviours observed during the pandemic versus pre-pandemic, according to data from the UK ZOE study launched at the end of March 2020.

Encouragingly, it was found that some individuals with unhealthy eating and lifestyle behaviours before the pandemic improved their diet quality and weight, although other individuals included in the research experienced weight gain and a reduction in healthy eating behaviours since March 2020. Data from ZOE also shows polarisation in snacking habits, alcohol consumption and fruit and vegetable intake. Positively, a higher proportion of respondents increased their fruit and vegetable intake than those who decreased this, and sales of veg boxes more than doubled as a result of the pandemic.

According to a report by Demos and the Food Standards Agency, **51%** of respondents said they cooked more meals at home during the pandemic and **32%** reported they ate healthier main meals during this time.

CASE STUDY

In response to the initial UK March 2020 lockdown, Birds Eye launched its 'So, What's for Tea' campaign. This was created to help families cope during the early stages of the pandemic, presenting a series of 'life hacks' to support and entertain families, including healthy meal planning tips, teatime inspiration and recipes.



IMPACT ON FOOD POVERTY AND INEQUALITY

Socio-economic inequalities and deprivation in the UK, which are significant contributing factors to health, have worsened due to the pandemic.



IN THE SIX MONTHS FOLLOWING MARCH 2020, 14% OF ADULTS LIVING WITH CHILDREN REPORTED EXPERIENCING MODERATE OR SEVERE FOOD INSECURITY, COMPARED TO 11.5% BEFORE THE PANDEMIC.
Source: The Food Foundation, 2020



DURING THE INITIAL STAGES OF THE PANDEMIC, 12% OF ADULTS LIVING WITH CHILDREN REPORTED SKIPPING MEALS BECAUSE THEY COULD NOT ACCESS OR AFFORD ENOUGH FOOD, WITH 4% REPORTING HAVING GONE AN ENTIRE DAY WITHOUT EATING.
Source: The Food Foundation, 2020

Food banks felt the brunt, with the Trussell Trust reporting an 89% increase in demand for emergency food parcels in April 2020 compared to April 2019. Given the ever-growing number of families facing food insecurity, concerns have been raised around the short- and longer-term consequences of the pandemic on nutritional, physical and mental health. For example, as deprivation is closely linked with obesity, it is expected for obesity rates to increase in children from the most disadvantaged backgrounds.

Working to reduce these inequalities will only be achieved through the collaboration of all aspects of society, meaning that the food industry has a part to play.

Forging connections and collaborating with food poverty and redistribution charities is just one way the food industry can help to tackle food insecurity in the UK.

CASE STUDY

FareShare and Birds Eye joined forces in 2015, with the company donating products that can't be sold as originally intended. Surplus stock is delivered directly to all of FareShare's 11 regional UK centres that have freezer capacity. This means that good food that might otherwise go to waste can benefit vulnerable people across the UK. Birds Eye has provided enough surplus frozen food to FareShare to make over 243,260 meals for people in need since the start of the relationship.



Although 33% of the UK nation have donated to a food bank since March 2020, 65% of people are still not aware of FareShare and the vital work it does in the community.

HOW DID THE PANDEMIC SHAPE THE GOVERNMENT'S OBESITY STRATEGY?

The relationship between obesity and an increased risk of hospitalisation and severe disease from Covid-19 caused the government to re-evaluate its approach to obesity and public health in 2020.

The pandemic has highlighted the need to promote positive health-related behaviours and to improve the health of the entire population, rather than specifically focusing on childhood obesity. Therefore, in July 2020 the government launched *Tackling Obesity: Empowering Adults and Children to Live Healthier Lives*.

Compared to earlier strategies, this proposed an increase in deterrence measures and

stricter regulatory measures to tackle the UK obesogenic environment. A headline element of the 2020 strategy is the restriction in advertising and promotion of HFSS products from the end of 2022. This goes further than the existing ban on the promotion of HFSS products during children's TV and programmes with a high child audience, which was phased in from 2007, as the new restrictions ban the paid advertisement of all HFSS products online and all TV advertisement of HFSS products before 9pm. Additionally, in-store and e-commerce promotions and locations of HFSS products will be restricted. These new restrictions challenge the food industry to develop and promote healthier products.



OVER HALF (53%) OF THE UK NATION BELIEVE A BAN ON ADVERTISING HFSS PRODUCTS BEFORE 9PM WILL HAVE AN IMPACT ON THEIR BUYING BEHAVIOURS.



CONCLUSION

Over the last decade the proportion of our lives spent in poor health, due to varying factors, has gradually increased to approximately one fifth in England alone, excluding the recent impact of COVID-19. In 2018/19, 63% of UK adults - equivalent to an estimated 35 million people - were living with overweight or obesity. This high prevalence of overweight and obesity, coupled with poor nutritional dietary quality, are significant contributing factors to the high rates of cardiovascular disease and type 2 diabetes in the UK.

However, as we have seen in this report, the nutritional health of the UK nation has been impacted by many factors and has shifted in positive ways overall across the past decade. 57% of people have a desire to eat more healthily versus 10 years ago and nearly a quarter (22%) are now much more likely to try to minimise their intake of saturated fat, sugar and salt. More people are also considering adopting more plant-based diets, citing concerns about personal health, planetary sustainability and the ethical treatment of animals as key drivers to the acceleration of this trend. Therefore, there is a reason to be optimistic for better future national health.

The Covid-19 pandemic has highlighted the importance of a healthy diet and body weight, as, for the first time, the UK nation have actually seen the short-term impact of poor nutritional status. This has created increased motivation, and a renewed focus from government, to truly tackle the nutritional quality of the UK diet. Given that nutritional health is determined by many complex and interrelated factors, and is influenced at an individual, family, peer, community and societal level, this is not a simple task. However, what is clear is that we need to work together as an entire society to improve the health of the nation.

I am proud that we at Birds Eye are committed to doing our part, by providing great tasting, affordable and healthy choices to help everyone eat healthily and sustainably. I look forward to seeing what the next decade brings on the journey to better health.



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REFERENCES

Action on Salt (2021) UK Salt Reduction Timeline. Available at: <http://www.actiononsalt.org.uk/reformulation/uk-salt-reduction-timeline/>

Baraniuk, C. (2020) 'Fears Grow of Nutritional Crisis in Lockdown UK', BMJ 2020, 2020;370:m3193. Doi: <https://doi.org/10.1136/bmj.m3193>

Bath, S., C., Sleeth, M., L., McKenna, M., Walter, A., Taylor, A., Rayman, M., P. (2014) 'Iodine Intake and Status of UK Women of Childbearing Age Recruited at the University of Surrey in the Winter', British Journal of Nutrition, 112(10), pp. 1715-1723. Doi: <https://doi.org/10.1017/S0007114514002797>

Bath, S., Hill, S., Infante, H., G., Elghul, S., Neziyanya, C., J. and Rayman, M., P. (2017) 'Iodine Concentration of Milk-Alternative Drinks Available in the UK in Comparison to Cows' Milk', The British Journal of Nutrition, 118(7), pp. 525-532. Doi: <https://dx.doi.org/10.1017%2FS0007114517002136>

British Heart Foundation (2018) Taking Control of Salt. Available at: <https://www.bhf.org.uk/informationsupport/publications/healthy-eating-and-drinking/taking-control-of-salt>

Department of Health (1991) Dietary Reference Values for Food Energy and Nutrients for the United Kingdom. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/743786/Dietary_Reference_Values_for_Food_Energy_and_Nutrients_for_the_United_Kingdom_1991.pdf

Department of Health (2011a) Healthy Lives, Healthy People: A call to Action on Obesity in England. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/213720/dh_130487.pdf

Department of Health (2011b) The Public Health Responsibility Deal. Available at: <https://webarchive.nationalarchives.gov.uk/2011115014140/http://www.dh.gov.uk/en/Publichealth/Publichealthresponsibilitydeal/index.htm#jumpTo1>

Department of Health and Social Care (2010) Healthy Lives, Healthy People: Our Strategy for Public Health in England. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/216096/dh_127424.pdf

Department of Health and Social Care (2018) Childhood Obesity: A Plan for Action, Chapter 2. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718903/childhood-obesity-a-plan-for-action-chapter-2.pdf

Department of Health and Social Care (2020) Tackling Obesity: Empowering Adults and Children to Live Healthier Lives. Available at: <https://www.gov.uk/government/publications/tackling-obesity-government-strategy/tackling-obesity-empowering-adults-and-children-to-live-healthier-lives>

Department of Health and Social Care, Department of Health (Northern Ireland), The Scottish Government and Welsh Government (2020) Building on the Success of Front-of-Pack Nutrition Labelling in the UK: Consultation Document. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/905096/front-of-pack-labelling-consultation-document-english.pdf

Department of Health and Social Care, Department of Health (Northern Ireland), The Scottish Government and Welsh Government (2020) Building on the Success of Front-of-Pack Nutrition Labelling in the UK: Consultation Document. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/905096/front-of-pack-labelling-consultation-document-english.pdf (Accessed: 31st March 2021)

FareShare (2017) Our Work with Birds Eye. Available at: <https://fareshare.org.uk/giving-food/who-we-work-with/our-work-with-birds-eye/>

Gielsing, A., M., J., Crowe, F., L., Lloyd-Wright, Z., Sanders, T., A., B., Appleby, P., N., Allen, N., E. and Key, T., J. (2010) 'Serum Concentrations of Vitamin B12 and Folate in British Male Omnivores, Vegetarians and Vegans: Results from a Cross-Sectional Analysis of the EPIC-Oxford Cohort Study', European Journal of Clinical Nutrition, 64(9):933-939. Doi: <https://doi.org/10.1038/ejcn.2010.142>

Goisis, A., Sacker, A., Kelly, Y. (2016) 'Why are Poorer Children at Higher Risk of Obesity and Overweight? A UK Cohort Study', European Journal of Public Health, 26(1), pp. 7-13. Doi: <https://doi.org/10.1093/eurpub/ckv219>

Huang, Y., Lu, Y., Huang, Y., M., Wang, M., Ling, W., Sui, Y. and Zhao, H., L. (2020) 'Obesity in Patients with COVID-19: A Systematic Review and Meta-Analysis', Metabolism: Clinical and Experimental, 113, 154378. Doi: <https://dx.doi.org/10.1016%2Fj.metabol.2020.154378>

Kantar retail sales data, 52 w/e 13.06.2021

Lasko-Skinner, R. and Sweetland, J. (2021) Food in a Pandemic. Available at: <https://www.food.gov.uk/sites/default/files/media/document/fsa-food-in-a-pandemic-march-2021.pdf>

MacGregor, G., A., He, F., J., and Pombo-Rodrigues, S. (2015) 'Food and the Responsibility Deal: How the Salt Reduction Strategy was Derailed', BMJ 2015; 350: h1936. Doi: <https://doi.org/10.1136/bmj.h1936>

Marmot, M., Allen, J., Boyce, T., Goldblatt, P. and Morrison, J. (2020) 'Health Equity in England: The Marmot Review 10 years on'. London: Institute of Health Equity. Available at: https://www.health.org.uk/sites/default/files/upload/publications/2020/Health%20Equity%20in%20England_The%20Marmot%20Review%2010%20Years%20On_full%20report.pdf

Mazidii, M. et al (2021) 'Impact of COVID-19 on Health Behaviours and Body Weight: A Prospective Observational Study in a Cohort of 1.1 Million UK and US Individuals', Nature Portfolio. Doi: <https://doi.org/10.21203/rs.3.rs-179013/v1>

Miller, J., L. (2013) 'Iron Deficiency Anaemia: A Common and Curable Disease', Cold Spring Harbor Perspectives in Medicine, 3(7): a011866. Doi: <https://doi.org/10.1101%2Fcsfshperspect.a011866>

Mintel (2020) Plant-Based Push: UK Sales of Meat-Free Foods Shoot Up 40% Between 2014-19. Available at: <https://www.mintel.com/press-centre/food-and-drink/plant-based-push-uk-sales-of-meat-free-foods-shoot-up-40-between-2014-19>

Mozaffarian, D. (2016) 'Dietary and Policy Priorities for Cardiovascular Disease, Diabetes and Obesity – A Comprehensive Review', Circulation, 133(2), pp.187-225. Doi: <https://dx.doi.org/10.1161%2FCIRCULATIONAHA.115.018585>

National Child Measurement Programme (2020) National Child Measurement Programme, England 2019/20 School Year. Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2019-20-school-year>

NHS (2021) Vitamin B12 and Serum Folate. Available at: <https://www.glos.hospitals.nhs.uk/our-services/services-we-offer/pathology/tests-and-investigations/vitamin-b12-and-serum-folate/>

NHS Digital (2011) Health Survey for England – 2010, Respiratory Health. Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/health-survey-for-england-2010-respiratory-health>

NHS Digital (2019) Health Survey for England 2018 [NS]. Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2018>

NHS Digital (2020) Health Survey for England 2019 [NS]. Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2019>

Northern Ireland Department of Health (2020) Health Survey Northern Ireland. Available at: <https://www.health-ni.gov.uk/topics/doh-statistics-and-research/health-survey-northern-ireland>

O'Leary, F. and Samman, S. (2010) 'Vitamin B12 in Health and Disease', Nutrients, 2(3), pp. 299-316. Doi: <https://dx.doi.org/10.3390%2Fnu2030299>

Ofcom (2010) HFSS Advertising Restrictions: Final Review. Available at: https://www.ofcom.org.uk/_data/assets/pdf_file/0024/31857/hfss-review-final.pdf

Proagrica, February 2021 Study of 1,000 UK adults

Public Health England (2015) Scientific Advisory Committee on Nutrition (SACN) (2015) Carbohydrates and Health. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/445503/SACN_Carbohydrates_and_Health.pdf

Public Health England (2016) The Eatwell Guide. Available at: <https://www.gov.uk/government/publications/the-eatwell-guide>

Public Health England (2017) Salt Reduction Targets for 2017. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/604338/Salt_reduction_targets_for_2017.pdf

Public Health England (2018) Salt Targets 2017: Progress Report. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765571/Salt_targets_2017_progress_report.pdf

Public Health England (2019) National Diet and Nutrition Survey: Time Trend and Income Analyses for Years 1 to 9. Available at: <https://www.gov.uk/government/statistics/ndns-time-trend-and-income-analyses-for-years-1-to-9>

Public Health England (2020a) National Diet and Nutrition Survey Assessment of Salt Intake from Urinary Sodium in Adults (aged 19 to 64 years) in England, 2018 to 2019. Available at: <https://www.gov.uk/government/statistics/national-diet-and-nutrition-survey-assessment-of-salt-intake-from-urinary-sodium-in-adults-aged-19-to-64-years-in-england-2018-to-2019>

Public Health England (2020b) National Diet and Nutrition Survey: Results from Years 9-11 (2016 to 2017 and 2018 to 2019). Available at: <https://www.gov.uk/government/statistics/ndns-results-from-years-9-to-11-2016-to-2017-and-2018-to-2019>

Public Health England (2020c) Salt Reduction: Targets for 2024. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/915406/2024_salt_reduction_targets_070920-FINAL-1.pdf

Rayman, M., P. (2012) 'Selenium and Human Health', The Lancet, 379(9822), pp.1256-1268. Doi: [https://doi.org/10.1016/S0140-6736\(11\)61452-9](https://doi.org/10.1016/S0140-6736(11)61452-9)

SACN (2003) Salt and Health. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/876252/Report_England_Sodium_Survey_2018-to-2019_3_.pdf

SACN (2004) Advice on Fish Consumption: Benefits & Risks. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/338801/SACN_Advice_on_Fish_Consumption.pdf

SACN (2013) Statement on Selenium and Health. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/339431/SACN_Selenium_and_Health_2013.pdf

SACN (2015) Carbohydrates and Health. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/445503/SACN_Carbohydrates_and_Health.pdf

SACN (2019) Saturated Fats and Health. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/814995/SACN_report_on_saturated_fat_and_health.pdf

Scottish Government (2020) Scottish Health Survey. Available at: <https://www.gov.scot/Topics/Statistics/Browse/Health/scottish-health-survey>

The Food Foundation (2018) Veg Pledges. Available at: <https://foodfoundation.org.uk/what-is-a-veg-city/veg-pledges/>

The Food Foundation (2020) New Food Foundation Data: 14% of UK Families with Children have Experienced Food Insecurity in the Past 6 Months. Available at: <https://foodfoundation.org.uk/new-food-foundation-data-sept-2020/>

The Food Foundation (2021) About Peas Please. Available at: <https://foodfoundation.org.uk/about-peas-please/>

The Guardian 'What we eat matters' <https://www.theguardian.com/commentisfree/2019/oct/08/climate-change-food-global-heating-livestock>

The Trussel Trust (2020) UK Food Banks Report Busiest Month Ever, As Coalition Urgently Calls for Funding to Get Money Into People's Pockets Quickly During Pandemic. Available at: <https://www.trusselltrust.org/2020/06/03/food-banks-busiest-month/>

Theis, D., R., Z. and White, M. (2021) 'Is Obesity Policy in England Fit for Purpose? Analysis of Government Strategies and Policies, 1992-2020', The Milbank Quarterly, 99(1), pp. 126-170. Doi: <https://doi.org/10.1111/1468-0009.12498>

Veronese, N., Solmi, M., Caruso, G., M., Giannelli, G., Osella, A., R., Evangelou, E., Maggi, S., Fontana, L., Stubbs, B. and Tzoulaki, I. (2018) 'Dietary Fiber and Health Outcomes: An Umbrella Review of Systematic Reviews and Meta-Analyses', The American Journal of Clinical Nutrition, 107(3), pp. 436-444. Doi: <https://doi.org/10.1093/ajcn/nqy082>

Welsh Government (2020) National Survey for Wales. Available at: <https://gweddiill.gov.wales/statistics-and-research/national-survey/?lang=en>

Wheeler, A. (2020) COVID-19 UK Veg Box Report. Available at: <https://foodfoundation.org.uk/wp-content/uploads/2020/05/Food-Foundation-COVID-19-Veg-Box-Scheme-report.pdf>



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