

POOR NUTRITION – A PROPOSAL TO TACKLE THE BIGGEST CAUSE OF DEATH AND DISABILITY IN THE UK

Nutritionally poor diets - too much salt, sugar and saturated fat; too little wholegrains, fruit, vegetables and fibre and drinking too much alcohol - are one of the biggest causes of death and disability in the UK.

- **Excess calorie intake** is associated with obesity, cardiovascular disease (CVD), type 2 diabetes, 13 different cancers and worse outcomes for COVID-19.
- Eating **too much salt** increases blood pressure, the major risk factor for CVD
- Eating **too much sugar** is associated with obesity, type 2 diabetes and is the leading cause of dental caries in the UK.
- **Low fibre intakes** are associated with poor gut health, increased risk of CVD, type 2 diabetes and colorectal cancer
- **Micronutrient deficiencies** are common in the UK, with serious consequences e.g. a lack of folic acid can lead to neural tube defects
- **Chronic alcohol consumption** impacts the immune system and several organs including the liver and pancreas

As stated in the Prevention Green Paper - prevention is better than cure, for health and the economy, yet investment in public health does not reflect this. **Reformulation to improve the nutritional profile of food and drinks, by gradually reducing salt, sugar and saturated fat while ideally increasing wholegrains, fibre, fruit and vegetables, is a powerful and cost-effective tool in the prevention of ill health.** Reducing salt, sugar and calorie intakes to Public Health England's (PHE) existing targets alone would save at least £7.5 billion and is predicted to prevent 50,000 premature deaths per year.

REFORMULATION: THE NEED FOR AN INDEPENDENT VOICE

Poor performance of the UK's current voluntary reformulation programmes are in part due to PHE's lack of independence, hampering their ability to make strong, national recommendations, provide transparent monitoring and evaluation and implement effective policies.

PHE are now set to be replaced and it is unclear who will enforce their crucial functions on a national and international level. This continues a trend of responsibility for nutrition being pushed from pillar to post over the last 20 years.

Strong and independent enforcement at a national level is vital for success.

OUR RECOMMENDATION

1. **PHE's national nutrition functions should be retained alongside harms reduction and mental health**
 - PHE, minus functions being transferred to the National Institute for Health Protection, must remain in place until end of 2021
2. **Policy must be cross-department and cross-party**
 - Collaboratively establish purpose-driven values on prevention that all parties agree to
 - Clearly assign roles to all departments to ensure values are achieved
3. **Set up an independent authority to oversee and measure progress, with:**
 - **Funding ringfenced** until at least 2030
 - Freedom to **speak to the evidence** without influence
 - Accountability to Parliament

Nutrition in the UK

In the UK, two thirds of calories consumed by families come from highly processed packaged foods, which are more often energy dense and nutrient poor: high in saturated fat, salt and/or sugar (HFSS) and low in fibre, fruit and vegetables. The diets of UK children are particularly worrying where 47% of primary school children's calories come from HFSS foods, 85% of secondary school children are not eating enough fruit and vegetables, more than 90% are not eating enough fibre and all are eating too much salt and sugar.

It is well established that suboptimal diets are a leading risk factor for death and disability, leading to 8 million deaths worldwide in 2019 (1).

- **Excess calorie intake** is associated with obesity, which affects 12 million people in the UK and is linked to cardiovascular disease (CVD), type 2 diabetes, 13 different cancers and worse outcomes for COVID-19. In 2018/19 there were **876,000 hospital admissions** in England where obesity was recorded as the primary or a secondary diagnosis (2)
- Eating **too much salt** increases blood pressure, the major risk factor for CVD in the UK. High salt intake is also linked to kidney disease, osteoporosis and stomach cancer.
- Eating **too much sugar** is associated with obesity, type 2 diabetes and is the leading cause of dental caries in the UK
- **Low fibre intakes** are associated with poor gut health, increased risk of CVD, type 2 diabetes and colorectal cancer
- **Micronutrient deficiencies** in the UK have serious consequences e.g. a lack of folic acid can lead to neural tube defects, diagnosed in 1,000 pregnancies a year (3)
- **Chronic alcohol consumption** impacts the immune system, several organs including the liver and pancreas, and raises blood pressure and cholesterol levels

The estimated combined costs of ill health caused by poor diet, directly to the NHS in treatment costs, is at minimum £40 billion per annum - not including the wider costs to society (4)

We live in an environment that makes it easy for us to gain weight, and very difficult to lose it. The more socially deprived are much more at risk of suffering from ill health; young people from poorer backgrounds are more likely to be obese, consume a range of less healthy products and be exposed to more adverts promoting unhealthy food. There is also a huge, often ignored personal cost; those living with obesity are more likely to suffer with their mental health and face stigma, worsening their prospects and productivity in all areas of life.

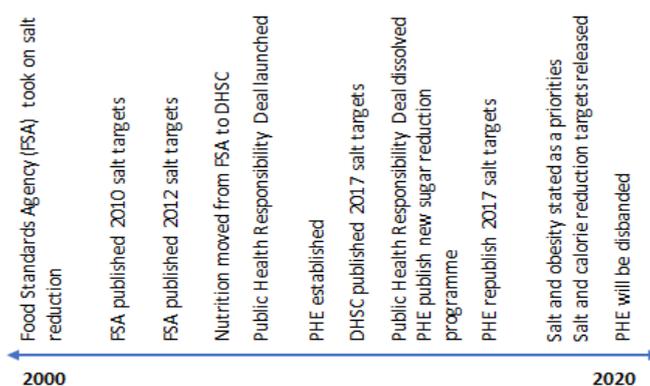
Reformulation in the UK

Efforts to improve diets have varying levels of success, with 'downstream' interventions such as front of pack labelling and large-scale public awareness media campaigns having much less success than 'upstream' policy interventions, such as reformulation targets and fiscal measures (ie the Soft Drinks Industry Levy). Reformulation to improve the nutritional profile of food and drinks, by gradually reducing salt, sugar and saturated fat while ideally increasing wholegrains, fibre, fruit and vegetables, is a powerful and cost-effective tool in the prevention of ill health.

Reducing salt, sugar and calorie intakes to the current targets alone would save at least £7.5 billion and is predicted to prevent 50,000 premature deaths (5)

However, in a tragedy which could have brought our entire nation into this pandemic in better health, reformulation programmes have been mismanaged, underfunded and prioritised according to Minister’s profiles and food companies’ profits, instead of the nation’s health.

Responsibility for nutrition has been pushed from pillar to post over the last 20 years, which ultimately has resulted in poor progress from the food industry:



Food Standards Agency 2000-2010

The UK’s reformulation programmes began with salt reduction. After being established in 2000 to be an independent Government department working across England, Wales, Northern Ireland and Scotland, salt reduction became the Food Standards Agency’s first nutritional policy. The FSA developed a public awareness campaign which ran between 2006 and 2009, helping to establish a need for salt reduction in the general public. Alongside that campaign, the FSA set voluntary targets for salt levels in food. Those targets were set for all processed food with added salt, covering more than 80 categories of food, and were intended to be regularly reset to progressively lower targets, leading to gradual reformulation of products. Targets were first released in 2006 to be achieved in 2008, and reset for 2012. More than 20 countries have since copied this model of target setting.

Between 2003 and 2011, salt intake fell from around 9.5g/day to 8g/day, which was accompanied by a decrease in average population blood pressure. We calculated that the programme resulted in around 18,000 cardiovascular events being averted, 9,000 of which would have been fatal. The National Institute for Health and Care Excellence (NICE) calculated that the fall in salt intake led to £1.5 billion healthcare savings per year.

Department of Health and Social Care 2011-2015

Following the 2010 General Election, in which the existing Labour Government was replaced by a Conservative-Liberal Democrat coalition, the nutrition functions of the FSA (established by Labour) were moved to DHSC. In 2011, DHSC launched the Public Health Responsibility Deal (PHRD), whereby the alcohol and food industries were made responsible for reducing alcohol consumption and improving nutrition, respectively, and likened to putting “*Dracula in control of the Blood Bank*”. The majority of non-governmental organisations that initially signed up to the deal subsequently withdrew over concerns that the interests of industry had been prioritised over public health and that no commitment was made on alternative actions if the pledges did not work. The food network was overseen by a high-level steering committee, who – after the withdrawal of the NGOs - was dominated by the food industry.

Several evaluations have revealed the failings of the PHRD, namely that the pledges made were driven by the interests of the food industry, goals were ambiguous and reporting was poor (6). Following the 2015 General Election, the PHRD was dissolved.

Public Health England 2016-2020

The 2012 Health and Social Care Act led to the creation of Public Health England in 2013, by combining 70 organisations to devolve health and wellbeing from central government, following criticism to the government's original intention to integrate public health functions into DHSC. At the time, the Government stated that PHE was intended to be 'an integral and authoritative part of a new system for protecting and improving the health of the people and reducing inequalities in health' (7).

Following SACN's Carbohydrates and Health report, published in 2015, which recommended that sugar intakes be halved, PHE published their Sugar Reduction Programme in 2016, aiming to reduce sugar levels in the categories that contribute most to children's diets by 20% by 2020. In 2017, the salt reduction targets were officially adopted by PHE and in 2018, they published ***Calorie reduction: the scope and ambition for action***. Calorie reduction targets were published in 2020, alongside a new set of salt reduction targets, but were significantly weaker than the 2018 proposals.

Poor performance of the current voluntary reformulation targets is in part due to PHE's lack of independence; their ability to make strong, national recommendations and implement transparent monitoring and evaluation has been hampered by Ministerial oversight. Now PHE are set to be replaced, we have an opportunity to be world-leading again, with the potential of developing and implementing mandated measures to replace the current voluntary programmes.

Strong and independent enforcement at a national level is vital for successful reformulation.

Functions of Public Health England

National preventive measures to improve public health are vital. PHE is able to draw on national and international expertise, including cross government departments, behavioural insights, marketing and analytical resources. PHE covers all harms reductions – recreational drugs, alcohol, tobacco, mental health and nutrition - all of which add up to more than the sum of their parts and should be retained together.

PHE's small dietary improvement team oversee approx. £200 million budget and hold extensive knowledge and expertise in nutrition improvement, data collection and analysis:

- Food reformulation programmes
 - Salt reduction
 - Sugar reduction
 - Calorie reduction
 - Infant food reformulation
- Health marketing campaigns (One You, Change4Life, Better Health, Healthier You)
- Nutrient Profiling Model (NPM)
- National Diet and Nutrition Survey (NDNS)
- National Childhood Measurement Programme (NCMP)

- School Food Standards
- Scientific Advisory Committee on Nutrition (SACN)
- Healthy Places
- Digital Weight Management & Toolkits

The Future of Prevention in the UK

DHSC's policy paper *The future of public health: the National Institute for Health Protection and other public health functions* outlined several options:

Option	Opportunities for Reformulation	Issues for Reformulation
1. Devolving functions to a more local level such as local authorities and/or integrated care systems	<p>Better monitoring of out of home sector</p> <p>Some programmes already carried out at local level</p>	<p>Programmes that work with national and multinational food and drink companies such as reformulation require national oversight and leadership</p> <p>Lack of funding and capacity</p>
2. Creating a separate national organisation dedicated to driving progress on prevention, health improvement and, potentially, public healthcare services	<p>Oversight and leadership of prevention across all harms reduction</p> <p>Free from Ministerial and industry pressures</p> <p>Able to make recommendations wholly based on evidence</p>	<p>Time taken to establish – PHE due to be dissolved in March 2021</p> <p>Potential lack of Ministerial support</p>
3. Retaining health improvement responsibilities within DHSC and/or other government departments	<p>In-depth knowledge of public health and prevention</p> <p>As PHE already report to DHSC, team with necessary skills and expertise could be transferred</p>	<p>Ministerial control, leading to public health policy being weakened due to government pressures</p> <p>NAO report revealed that DHSC have no sway with other departments (8)</p> <p>Public Health Responsibility Deal an acknowledged disaster</p>
4. Embedding health improvement responsibilities into existing health arm's length bodies such as FSA, NHS England and NHS Improvement	<p>FSA and NHS have independence</p> <p>NHS investing in prevention – saves money in long term</p> <p>FSA has food expertise and history of reformulation, and carries out those functions in devolved nations</p>	<p>Funding may not be ringfenced for necessary prevention</p> <p>Harms reductions could be separated, weakening the impact</p> <p>Lack of cross-departmental working and support</p>

Additional Considerations

Stability

Public Health England has been in place for seven years; the Health Protection Agency prior to this was in place for ten years. In contrast, the relatively independent FSA has been in place for 20 years. To ensure the best outcomes for public health, the UK requires a strong, stable organisation that will not be dissolved based on the objectives of the current government.

Independence

Questions over PHE's independence have been there since the development of the 2012 Health and Social Care Act. The PHE-DHSC Framework Agreement states "*PHE shall be free to publish and speak on those issues which relate to the nation's health and wellbeing in order to set out the professional, scientific and objective judgement of the evidence base.*" The reality differed significantly from this, with PHE's publications heavily dependent on Ministerial approval, this was even more evident at DHSC. A governance mechanism is of utmost importance, and an independent authority with the ability to transparently monitor and scrutinise progress is required to ensure policies achieve their desired impact.

Time

It takes time to establish a new organisation; in the meantime, health suffers. COVID-19 has exposed inequalities, addressing obesity necessary. Data has revealed that pre-existing health conditions such as obesity and high blood pressure, as well as inequalities, age and ethnicity, are all risk factors for severe illness and death as a result of COVID-19. Several mechanisms could explain the relationship between obesity and COVID-19, as obesity:

- Leads to larger quantities of ACE2, the enzyme exploited by the virus for cell entry
- Diminishes the immune response
- Reduces lung function (6)

CASSH Recommendations

1. **PHE's national nutrition functions should be retained alongside harms reduction and mental health**
 - PHE, minus functions being transferred to the National Institute for Health Protection, must remain in place until end of 2021 to ensure all elements of the Government's obesity plans are executed immediately as part of the COVID-19 response
2. Policy must be **cross-department and cross-party**
 - Given the importance of prevention, purpose-driven values for the future of prevention policy must be established that all political parties agree to
 - Clearly assign roles to all departments to ensure values are achieved and give necessary clarity on the responsibilities of each department
3. Establish a **national, independent authority** to replace PHE long term:
 - To ensure stability, it must have **funding ringfenced** until at least 2030
 - It must **report directly to Parliament** and work across all **devolved nations**
 - It must have the ability to make **open and transparent evidence-based recommendations** to ensure continued progress

About Us

Consensus Action on Salt, Sugar and Health (CASSH) is a registered charity dedicated to reducing dietary salt, sugar and calorie consumption to improve the health of populations in the UK and worldwide. The charity is formed of three research and advocacy groups: **Action on Salt**, **Action on Sugar** and **World Action on Salt, Sugar and Health (WASSH)**.

Action on Salt is supported by 22 expert scientific members and is successfully working to reach a consensus with the food industry and Government over the harmful effects of a high salt diet, and bring about a reduction in the amount of salt in processed foods as well as salt added to cooking, and the table.

Action on Sugar is supported by 21 expert advisors and is working to reach a consensus with the food industry and Government over the harmful effects of a high sugar diet, and bring about a reduction in the amount of sugars in food and drink products.

WASSH is a global network of more than 600 expert members in 100 countries and its mission is to improve the health of populations throughout the world by achieving reductions in salt, sugar and calorie intake. WASH provide resources and expert advice to enable the development and implementation of salt, sugar and calorie reduction programmes worldwide.

References

1. GBD 2019 Risk Factors Collaborators. Global burden of 87 risk factors in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet*, 2020; 369 (10258): 1223-1249
2. NHS Digital. Statistics on Obesity, Physical Activity and Diet, England, 2020. <https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-obesity-physical-activity-and-diet/england-20203>
3. Morris J, Rankin J, Draper E, et al. Prevention of neural tube defects in the UK: a missed opportunity. *Archives of Disease in Childhood* 2016;101:604-607.
4. Estimated combined costs to the NHS of ill health through poor diet - at minimum £42.5bn per year based on the following figures:
 - Hypertension = £2.1bn (<https://www.gov.uk/government/publications/health-matters-combating-high-blood-pressure/health-matters-combating-high-blood-pressure>)
 - Malnutrition (i.e. undernutrition) = £15.3bn (<https://www.bapen.org.uk/pdfs/economic-report-short.pdf>)
 - Obesity = £6.1bn (<https://www.gov.uk/government/publications/health-matters-obesity-and-the-food-environment/health-matters-obesity-and-the-food-environment--2>)
 - Type 2 diabetes = £6bn (<https://www.england.nhs.uk/blog/type-2-diabetes-and-the-importance-of-prevention/>)
 - CVD = £7bn (<https://www.england.nhs.uk/blog/the-long-term-plan-is-a-game-changer/>)
 - Alcohol = £6bn (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/733108/alcohol_public_health_burden_evidence_review_update_2018.pdf)
5. Estimated cost savings from reformulation, based on the following figures
 - Salt – NICE estimate that a 1g fall in salt intake leads to 6000 fewer CVD deaths and savings of £1.5bn
 - Sugar – PHE estimate that achieving a 5% in population sugar intake over 10 years could save 4,100 deaths and £484m each year
 - Calories – PHE estimate that achieving a 20% reduction in calorie intake over 5 years would prevent 35,370 premature deaths, save the NHS £4.5 billion healthcare costs
6. Knai C, Petticrew M, Douglas N, Durand MA, Eastmure E, Nolte E, Mays N. The Public Health Responsibility Deal: Using a systems-level analysis to understand the lack of impact on alcohol, food, physical activity and workplace sub-systems. *Int J Environ Res Public Health*, 2018; 15(12): 2895.
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