



Protecting and improving the nation's health

PHE Board Paper

Title of meeting	PHE Board
Date	Wednesday 23 September 2015
Sponsor	Kevin Fenton
Title of paper	Update on action to tackle obesity

1. Purpose of the paper

1.1 The purpose of the paper is to provide an update on PHE's obesity work plan to support local and national action to tackle obesity. The paper includes an annex addressing the issues raised at the July 2013 Board meeting (**Annex 1**) and also details future planned work on obesity. The paper comprises of four elements:

- a) Background
- b) PHE's obesity work plan
- c) Next steps
- d) Conclusion

2. Recommendation

2.1 The Board is asked to

- a) **NOTE** the breadth of work on obesity.
- b) **COMMENT** on the breadth of work and also concerns regarding future planned work.
- c) **COMMENT** and discuss how PHE is responding to the items raised by the Board in July 2013.

3. Background

3.1 Obesity levels amongst adults and children remain unsustainable and PHE continues to prioritise action to tackle poor diets, physical inactivity, sedentary behaviour and excess weight. Obesity is a major risk factor for morbidity, including type 2 diabetes and early death, and is characterised by its impact on mental health and, in children, it is evident that there continues to be a widening in the inequalities gap between the most and least deprived.

3.2 PHE has identified tackling obesity in children and adults as one of seven priority areasⁱ and also committed to work with NHS England, to develop the commitments to tackling obesity set out in the NHS Five Year Forward Viewⁱⁱ. DH has committed to put forward plans for action in this area in a childhood obesity strategy before the end of the year.

- 3.3 In providing advice, earlier in the year, to the Health Select Committee Inquiry into the impact of physical activity and diet on health, PHE reasserted that there is no silver bullet solution to tackling obesity^{iii,iv}. It is clear from PHE assessments, which accords with the broader consensus, that sustained cross sector action at all levels of the system is required to support a life course and place based approach to help support families and communities modify their dietary and physical behaviours. Working across government and sectors to tackle the default choices and replacing with healthier options will help to tackle the obesogenic environment, which most of us currently live, work and play in.
- 3.4 PHE has partnered with NHS England for the recently announced £5 million investment to improve the health and wellbeing of the 1.3 million NHS workers. Two of the three pillars of this work directly contribute to the reduction and prevention of obesity of the largest workforce in Europe; roll out of a staff health improvement programme to an initial 10 NHS organisations, and national action to challenge and support catering contractors and Private Finance Initiative providers to raise the standards of food and nutrition.

4. PHE's obesity work plan

- 4.1 PHE's obesity work plan is summarised by the five pillars framework, which was produced building on input from Directors of Public Health (DsPH)^v, local and national government, voluntary sector and those involved in service delivery, including community practitioners and commissioners.
- 4.2 The current framework is based on five pillars; systems leadership; community engagement, monitoring and evidence base; supporting delivery; and obesogenic environment (**Annex 2**) and reflects outputs from the Foresight Tackling Obesities programme – it is ambitious and recognises the need to deliver a step change in action. The paper includes examples under each pillar (**Annex 3**), including information on the sugar evidence programme (with further detail in **Annex 4**) and the cross cutting themes of health inequalities and mental health.
- 4.3 The obesity framework is cross-PHE and provides a summary of detailed work plans, which deliver on action across the life course, embedding dietary, physical and mental health and health equity and inequalities.
- 4.4 The PHE Obesity Project Team leads the delivery of the cross-PHE obesity framework, of which its deliverables are regularly reported to the PHE Obesity Priority Programme Board (OPPB). The OPPB provides leadership, challenge and strategic oversight for the framework, the membership for which is broad across government, NHS, academia and third sector.
- 4.5 Tackling obesity is a shared agenda, for which many organisations have a responsibility to deliver upon and partnership working is key to delivering PHE's obesity framework. PHE is the expert science leader, delivery agency and an agent for change advising Department of Health (DH), NHS England and other government departments and supporting national and local action to tackle obesity, whilst also responding to parliamentarians. DH's role is as

overall steward for the system and leading on policy including regulatory affairs', legislation and engagement with the food industry. Strong leadership is needed to deliver on tackling obesity and PHE is working with DH to enable joined up approaches are in place, including with Department for Communities and Local Government, Department for Education, Department for Environment, Food and Rural Affairs and Department for Business, Innovation and Skills who have key strategic roles. Key to supporting local authorities is PHE's ongoing working relationship with the Local Government Association (LGA) and Association of Directors of Public Health (ADPH).

- 4.6 The aim of our collective action across PHE and the wider system is to increase the proportion of children leaving primary school with a healthy weight. Also to begin to see the reductions in adult excess weight and sustain action to tackle inequalities related to obesity and promote good mental health. An ambition PHE identified as one of seven priority areasⁱ in 'From evidence into action: opportunities to protect and improve the nation's health'.
- 4.7 For the purposes of this paper a selection of PHE's current and future activities are mapped against the Foresight Obesity^{vi} Systems Map (**Annex 5**). It is important to note that this is not an exhaustive catalogue of the products developed by PHE.

5 Next steps

- 5.1 Local and national stakeholders expect PHE to continue to develop its unique role in influencing a step change in action on obesity. PHE helps translate the evidence base into action and its future work needs to do this. Equally PHE needs to inform and help evolve the evidence base outside of its current boundaries, for example around whole systems approaches and behavioural insights. Key deliverables going forward include:
- Commissioning a 3 year programme of work (in collaboration with the LGA and ADPH) to support local authorities in implementing whole systems approaches to tackling obesity.
 - Publication of the PHE sugar evidence package.
 - PHE's on-going role in ensuring that the NHS Diabetes Prevention Programme continues to be grounded in evidence, and can contribute to the evidence base around implementation of diabetes prevention programmes. Alongside this, PHE will continue working on mechanisms for evaluating the programme in the short, medium and longer term.
 - Leading embedding of the *Everybody Active Every Day*^{xi} domains to build collaborations, the evidence base, and increasing the pace and scale of cross-section action at national, local and community levels to increase physical activity and reduce inactivity.
 - Working with PHE centres and local authorities, and utilising the mapping of weight management services, develop blueprint weight management specifications to better support local commissioning of services to facilitate increasing uptake, access, provision and equity of services.
 - Plans in place to further enhance the role of the NCMP programme focusing on 3 main priorities; to enhance support to local schools,

proactively engage with parents in NCMP and Change4Life throughout the school journey and to improve the breadth and depth of NCMP data which is provided to local areas.

- Supporting the Government's commitment to a childhood obesity strategy, including through the Change4Life January 2016 campaign.
- 'One You' which will launch in March 2016 and will target the 7 million 40 to 60 year old C2DE's in England. The campaign will promote healthy behaviours through a range of digital products, partner activity and local services.

6 Conclusion

- 6.1 Obesity prevalence remains too high and collectively across the system we need to do more if we are to help increase the proportion of children and adults with a healthy weight by 2020. Our actions will be carefully planned to support early local intervention, particularly in relation to children. Identifying and working to prevent the causes of excess weight is of critical importance and PHE will support action through the NCMP, NHS Health Checks, public health healthcare and action nationally and locally to increase physical activity.
- 6.2 PHE's Obesity Project Team has an important contribution to make in supporting systems leadership and tackling the obesogenic environment. Moving forward we need to proactively provide an agile and responsive way of working that continues to deliver on obesity. Forging deeper understanding and relationships with all PHE's partners will enable us to influence the direction of action. This will continue to be informed by connecting with and learning from the intelligence and practical experiences of PHE Centre colleagues, DsPH and obesity commissioner networks.
- 6.3 Collectively PHE has made progress in establishing a progressive and coherent work plan, which is built on local requirements. However, there is no room for complacency and clearly tackling obesity and moving towards a more 'preventative' model of action remains a significant undertaking, which requires sustained investment.

Jamie Blackshaw

Team Leader, Obesity and Healthy Weight

September 2015

Annexes

Annex 1: Table of actions and PHE response from July 2013.

Annex 2: PHE Obesity Framework

Annex 3: PHE Obesity Work Plan Examples

Annex 4: Details of the sugar reduction work programme

Annex 5: Examples of current and future activities by PHE mapped against the Foresight Report Tackling Obesity, Obesity Systems Map

ANNEX 1 Table of actions and PHE response from July 2013

These actions arose from the Public Health England Board meeting on the 22 July 2013 where the obesity board paper was presented. The observations and suggestions are exclusively those of the external panel members are not PHE policy, although they are considered carefully by PHE in reaching a considered position on each of the public health themes in its business planning process. The PHE Diet and Obesity, and wider national PHE teams that contribute to the obesity work plan have responded to the observations / suggestions below.

External panel observation	PHE Diet and Obesity response
<ul style="list-style-type: none"> • There is no PHE strategy on 'junk food' or soft drinks • Consider the French experience of government intervention to reduce obesity • Identify profitable avenues for the food industry which do not rely on promoting unhealthy foods • Engage with the Advertising Standards Authority to protect children from unhealthy food marketing 	<p>Actions with respect to these elements are either directly informed by the PHE sugar evidence package or will indirectly be picked up as part of broader discussions across government.</p>
<ul style="list-style-type: none"> • Coordination is needed across the health system tiers, with other government departments, and with schools/education 	<p>PHE is an active participant on an 'official' basis in regular networking and policy development meetings with DfE. PHE supports DH, as systems steward, in convening high level cross Government officials to develop obesity strategy.</p>
<ul style="list-style-type: none"> • A pilot opportunity was offered by East Midlands Academic Health Service Network for an obesity project. 	<p>Noted</p>
<ul style="list-style-type: none"> • Recognise the government's purchasing power in food. 	<p>PHE recognises the opportunities that public sector spend on procuring food and catering services offers. The public sector spends about £2.4bn per annum procuring food and catering services, which represents approximately 5.5% of UK food service sector sales.</p> <p>PHE directly supports implementation of healthier catering across the public sector, including hospitals, schools and local government, and more widely across a range of settings, through provision of catering guidance and supporting tools for example. These support those who must, or choose to apply Government Buying Standards for Food and Catering Services (GBSF)^{vii} which help ensure food is provided to higher sustainability and nutritional standards. Central government and their agencies are required to apply GBSF and others are encouraged to follow.</p>

<ul style="list-style-type: none"> • Revisit outdated research on pregnancy and birth weight 	<p>PHE recognizes that maternal obesity increases health risks for both the mother and child during and after pregnancy. Statistics on the prevalence of maternal obesity are not collected routinely in the UK. PHE continues to keep a watching brief on the evidence base and public health guidance in this area.</p>
<ul style="list-style-type: none"> • Encourage the use of local authority planning control to restrict food outlets near schools and to promote public parks. 	<p>PHE has helped advise government departments and local authorities on the opportunities and limitations of how the planning system might be used to support development of access to healthy food or by restricting the growth of fast food takeaways. For example, it published two briefings on Obesity and the Environment on promoting physical activity and active travel^{viii} and restricting the growth of fast food outlets^{ix}.</p> <p>PHE recognises the important role which public parks and access to green spaces can play in promoting health and helping people to maintain healthy weights. For example, in Sept 2014, it published an evidence review and briefing on the role of green spaces with the Institute of Health Equity.^x</p>
<ul style="list-style-type: none"> • Work with the Food Standards Agency to clarify roles on obesity 	<p>Roles with the Food Standards Agency are clear and defined in England.</p>
<ul style="list-style-type: none"> • Pay attention to micro level nutrition (for example vitamin D) in tackling wider health issues. • Clarify the role of the Scientific Advisory Committee on Nutrition (SACN), and of PHE, in relation to the recommended minimum intake of vitamin D.[Question from a member of the public] 	<p>The Scientific Advisory Committee on Nutrition (SACN) is currently considering the adequacy of the current UK Dietary Reference Values (DRVs) for vitamin D across all population groups. As part of this review, SACN is considering the evidence for the links between vitamin D and a range of health outcomes.</p> <p>The role of SACN is to review the DRVs for vitamin D intake and to make recommendations after considering the evidence. PHE will review its advice on vitamin D after considering the recommendations in the SACN report.</p> <p>As part of the series of PHE 'Evidence into Practice' events, the PHE Diet & Obesity team held an event in November 2014, built around new NICE public health guidance on improving implementation of current government recommendations for the prevention of vitamin D deficiency.</p>
<ul style="list-style-type: none"> • Recognise that public health benefits alone have not been sufficient to convince government to act: cost/benefit information is essential. 	<p>PHE Chief Knowledge Officers Directorate have established a programme of work to explore the existing evidence base relating to effective interventions and approaches and their cost effectiveness and potential return on investment.</p>

ANNEX 2: PHE Obesity Framework – Five Pillars

Where future generations live in an environment, which promotes healthy weight and wellbeing as the norm and makes it easier for people to choose healthier diets and active lifestyles

1. Systems Leadership

- Influence local & national leaders
- raise the national debate
- influence political ambition
- maximise communication

2. Community Engagement

- enable behaviour change through social marketing
- drive social investment through local action
- support communities with tools on healthy eating & getting active to help reduce health inequalities

3. Monitoring & Evidence Base

- enhance surveillance, analysis & signposting of data
- tailor evidence to meet local needs - PHOF
- support effective commissioning & evaluation
- develop & communicate research to inform strategy
- promote evidence of good practice

4. Supporting Delivery

- support the obesity care pathway
- work with DsPH & CCGs
- support commissioning
- practical tools to help deliver healthier places; enable active travel

5. Obesogenic Environment

- develop long term, evidence based strategy to deliver a whole system approach to tackle the root causes of obesity and address health inequalities

Tackle obesity, address the inequalities associated with obesity and improve wellbeing

ANNEX 3: PHE obesity work plan examples, presented under the five pillars

<p>Systems leadership</p>	<p>PHE has led the way in utilising the evidence base to drive the debate on physical activity and sugar. <i>Everybody Active Every Day</i>, the national physical activity framework^{xi}, was published in October 2015 following a nine month co-production process with over 1,000 local and national leaders. It synthesises international evidence on ‘what works’ to increase population physical activity through sustained cross-section action at all levels to increase physical activity.</p> <p>In July 2015 the Scientific Advisory Committee on Nutrition (SACN) published its final <i>Carbohydrates and Health</i> report^{xii}. This maintained the recommendation from the draft report that the average population intake of sugar should not exceed 5% of total dietary energy for those aged two years upwards (halving the previous recommendation); and that consumption of sugar sweetened drinks should be minimised by both adults and children. Advice which has been accepted by all UK Governments.</p> <p>PHE is looking at potential actions that could be taken to reduce sugar intakes, which includes a review of the international evidence on fiscal measures, marketing and promotions, targeted at reducing sugar intakes and the resultant impact on attitudes, consumption and health.</p> <p>PHE Centres provide leadership to local networks and continue to support local authorities through contributing towards the development and delivery of local obesity strategies.</p>
<p>Community engagement</p>	<p>Change4Life^{xiii} continues to enable families to engage with health promoting behaviours with more than 2.7m registrations to-date. In January 2015, more than 410,000 families signed up to cut-back on sugar with the Sugar Swaps campaign and in summer 2015 the Change4Life 10 Minute Shake Up with Disney had 385,000 families with around 700,000 children sign-up. PHE Centres play a pivotal role in facilitating these campaigns at a local level.</p>
<p>Monitoring and evidence base</p>	<p>The Obesity Knowledge and Intelligence team analyses and distils the wealth of obesity data including that from; the National Child Measurement Programme (NCMP); Local Authority Profile (Fingertips tools) and adult excess weight indicator to enable local areas to track and inform progress in tackling obesity.^{xiv} Expert support to translate emerging evidence into accessible briefings and tools to assess the effectiveness (including costs) of interventions, through for instance the ‘Making the case for tackling obesity – why invest?’ slide set^{xv}, supports local authorities present the case on tackling obesity to elected members and Health and Wellbeing Boards.</p> <p>PHE Centres assist and support the dissemination and implementation of data products, and enable PHE to co-produce and add value to</p>

	<p>approaches, through local engagement, for instance in relation to the Town and Country Planning Association's Healthy Weight Environment^{xvi} roundtables</p>
<p>Supporting delivery</p>	<p>PHE partnered with the LGA to pilot two delivery approaches to a child obesity peer challenge in five local authorities. Learning suggested that self-assessment works well and that such approaches are effective where child obesity is prioritised. Overall the peer challenge methods were well received but needed to be less resource intensive and flexible. PHE has subsequently developed a tool to help local areas prioritise their future action to tackle child obesity and are piloting this approach with 4 local authority areas in October 2015.</p> <p>PHE alongside NHS England, NICE and local commissioners have previously documented variations in commissioning across the obesity care pathway, which alongside reducing local resources continues to place pressure on the equitable provision of services. PHE is supporting the delivery of local obesity services and is developing a series of deeper explorations, across the life course, into what makes an effective weight management intervention. This programme of work builds on NICE guidance and along with outputs from mapping weight management service provision will inform PHE development of service blueprint specifications to support local commissioning.</p> <p>Most recently, in response to the NHS England's Five Year Forward Viewⁱⁱ, PHE has led on collating the evidence base concerning the effectiveness of the NHS Diabetes Prevention Programme for England^{xvii}. This forms part of PHE's role, in partnership with NHS England and Diabetes UK, in delivering a national programme to reduce the number of people identified as high risk (initially via NHS Health Check and GP registers), going on to develop Type 2 diabetes. PHE also plays a key role in supporting programme evaluation.</p> <p>PHE Centres support the dissemination of the NCMP feedback to local authorities and help to co-ordinate local implementation of the child obesity action learning sets and regional obesity networks. These are vital routes for sharing good practice and learning, and have brought together senior leaders to share challenges relating to child obesity and discuss solutions and learning. Such networks provide a source of local intelligence, which nationally PHE utilises to inform its strategy.</p> <p>PHE has a programme of engagement with schools to communicate the importance of food and health and the role that schools can play; providing resources and support through Change4Life and signposting to useful resources; promotion of the core food competence framework to encourage a whole school approach to food; making public health indicator data accessible at local authority level (with feasibility of data made available by ward level being explored) and increasing the capability of the workforce, for example through working alongside PSHE association with initial teacher education providers and collaborating with a range of partners to support the development of a professional competence framework for primary and secondary (food) teachers.</p>

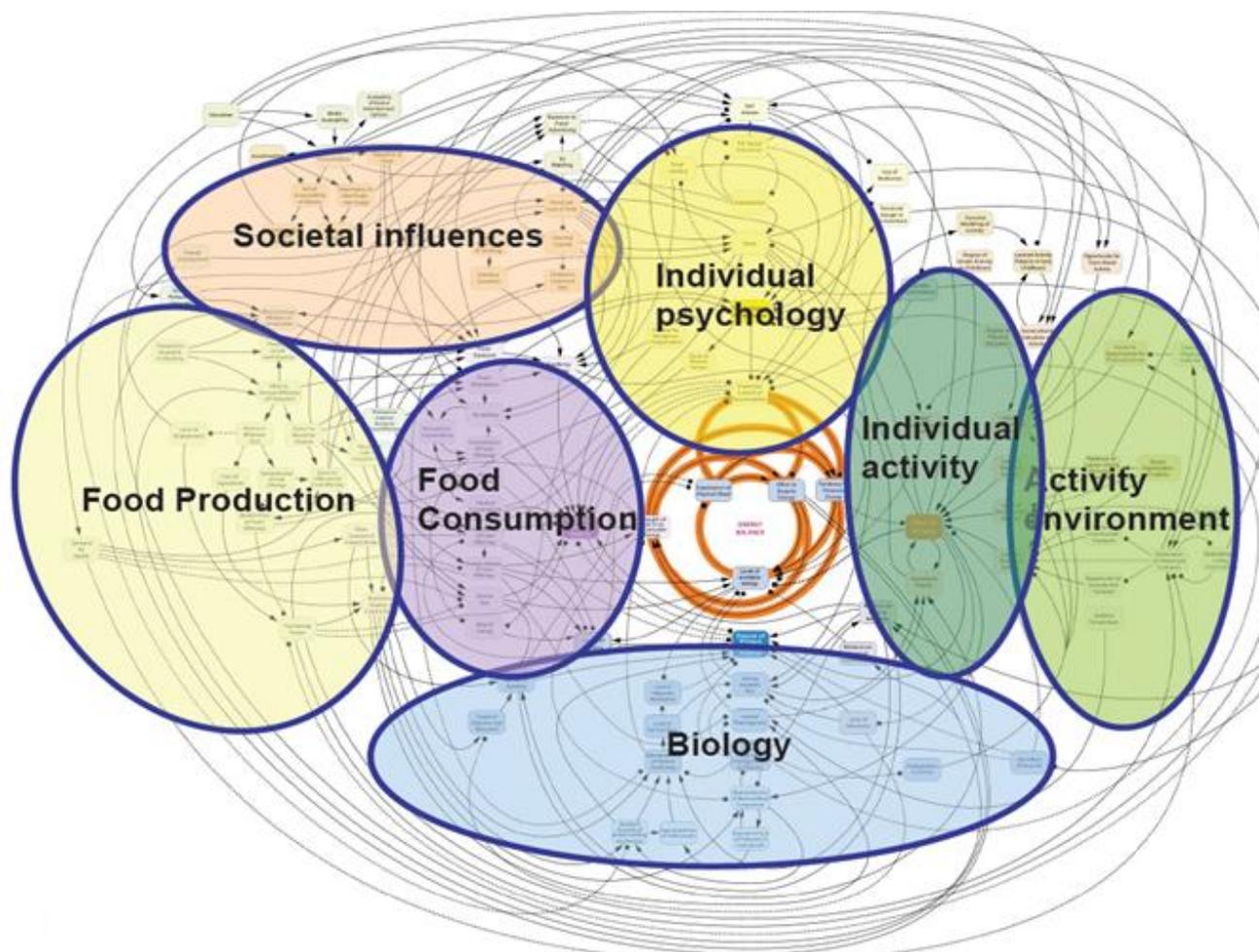
<p>Obesogenic environment</p>	<p>Local authorities have a key role in the design of the built and natural environment and the public realm which can promote or hinder physical activity, safe and active travel and access to healthy food. These in turn can help people to maintain a healthy weight. PHE is working with partners to support local authorities, through place based approaches to planning based on evidence which supports good design to help make healthy choices easier.</p> <p>PHE’s collaboration with the LGA, ADPH and local authorities, through its Centres, the DsPH obesity survey^v and support around child obesity, has provided a clear indication that holistic, whole system approaches are a priority. PHE is therefore developing a programme of work, with the ADPH and LGA, to investigate and co-develop, with local authorities, how to support local authorities implement whole system approaches to tackling obesity.</p> <p>PHE catering guidance and supporting tools, published in August 2014 to support delivery of <i>Healthier and More Sustainable Catering</i>^{xviii}, contribute to tackling poor diets and supports provision of healthier food across a range of settings. This guidance also directly supports government departments and others to meet government buying standards for food and catering services (GBSF), part of Defra’s Public Procurement Food Plan^{xix}. GBSF and PHE’s healthier catering principles are required standards for NHS hospitals and making healthier food available across the NHS. GBSF are also included in school food standards.</p>
<p>Cross cutting themes– Health Inequalities and Mental health</p>	<p>The PHE obesity work programme utilises a range of approaches to tackle health inequalities associated with obesity and includes ‘targeted’ work to supporting particular groups (such as children and families, young adults not in education or employment, and men) and more ‘universal’ work addressing the obesogenic environment and provision and access to weight management services.</p> <p>PHE applies internal assessment tools for health equity and mental health (based on the UK Mental Wellbeing Impact Assessment (MWIA) Toolkit^{xx}), to identify opportunities to further embed the cross cutting themes of health equity and mental health in to its work plans.</p>

ANNEX 4: Details of the PHE sugar reduction work programme

Since publishing *Sugar Reduction: Responding to the challenge* in June 2014 PHE has taken forward a programme of work to review the evidence around potential interventions to reduce sugar consumption. This package of evidence is now nearing completion and will be published later this year; it is already being used to inform the government's forthcoming strategy on childhood obesity. An update on progress to date is provided below.

- **Change4Life (C4L)** launched the “Sugar Swaps” campaign in January 2015 to encourage families to cut-back on sugar by swapping sugary drinks, cereals, snacks and puddings for healthier alternatives. Evaluation showed that more than 410k people registered and that the majority of mothers agreed the campaign made it easier to encourage their families to eat less sugar. In addition, to coincide with the publication of the SACN recommendations in July, C4L updated its messaging in line with the new guidance, a new Sugar Swaps leaflet and app were made available, all of which was accompanied by PR and social media activity.
- **5 a day:** Advice around consumption of fruit juice has been strengthened to limit fruit juice to no more than 150ml of unsweetened 100% fruit juice a day in total from fruit juice, fruit juice contained in smoothies, or both, and to consume at mealtimes to reduce the risk of tooth decay. This advice has been publicised through C4L activity and the NHS Choices website. Work is continuing to refresh the 5 a day campaign logo and assess how 5 a day might apply to composite foods (e.g. pizzas, ready meals).
- **Evidence reviews:** PHE and Teeside University have co-produced two mixed methods reviews of the impact of (i) marketing and promotions and (ii) fiscal measures on purchasing and consumption of high sugar foods and drinks and the impact on diet and health. This involved reviewing current published literature and a series of interviews with experts in relevant areas. PHE also commissioned Kantar Worldpanel to investigate price promotions offered in shops in Britain and any affects these may have on purchasing behaviour.
- **Reformulation:** A number of issues around the reformulation of food to reduce sugar levels have been considered including a review of why the salt reduction work was successful; a secondary analysis to assess the potential impact of reformulation on sugar intakes; a review of “sweetness” from published literature; an investigation in to whether the fat/sugar see-saw exists in processed food; and consideration of the potential for action within public sector catering.
- **Nutrition education and training for key workers:** As well as looking at how non-health professionals are trained in diet and nutrition, particularly with local authorities, the Association for Nutrition (AfN) has devised competence frameworks for providing such training to those working in the leisure, fitness and catering sectors.
- **Local authority good practice:** PHE worked to identify case studies of “good” local practice in improving the diet overall, and specifically in reducing sugar intakes, through different interventions and also supported one local authority working as a pilot ‘sugar champion’ taking action across a range of areas including in schools and local authority catering.
- **Food procurement and the public sector:** PHE published a range of healthier and more sustainable catering guidance and supporting tools in August 2014. Work is underway to review and update this guidance following the publication of the SACN report and pending reviews of Defra’s Plan for Public Procurement and the eatwell plate.
- **Eatwell Plate Review:** Work is underway to refresh the eatwell plate in light of the new SACN recommendations on sugar and fibre. This has included modelling using a range of approaches alongside consumer testing, which is now entering its final testing phase.

ANNEX 5: Examples of current and future activities by PHE mapped against the Foresight Report Tackling Obesity, Obesity Systems Map^{vi}



Examples of PHE activities under each theme:

- All
 - Whole systems approach programme of work
- Biology
 - Scientific Advisory Committee on Nutrition
 - National Child Measurement Programme
 - National Diet and Nutrition Survey
- Food Production
 - Government Buying Standards, Healthier Catering guidance
- Food Consumption
 - Sugar reduction programme , NHS Choices, Eatwell plate, 5-a-day
 - Workplace Wellbeing Charter
 - Regulating the growth of fast food outlets near schools
 - Support provision of healthier food within the NHS
 - Support the School Food Plan
- Societal Influence
 - Change4life campaigns
 - Start4life programme
 - Promote use of food competency framework
 - School and community based activities e.g. Social Landlords and Healthy Eating project. HITZ programme, Something to chew on programme
- Activity Environment
 - Town and Country Planning Association workshops on Healthy Weight Environments
 - Everybody Active Every Day framework
 - Workplace Wellbeing Charter
- Individual Psychology
 - Embedding mental health toolkit into programmes
 - Helping Overcome Obesity Pilot
 - Men’s Health Forum practitioners guide
 - Active for life
- Individual Activity
 - EAED framework
 - School and community based activities e.g.

References:

- ⁱ PHE (2014) From evidence into action: opportunities to protect and improve the nation's health
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/366852/PHE_Priorities.pdf
- ⁱⁱ The NHS Five Year Forward View, 2014. <https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf>
- ⁱⁱⁱ Public Health England Written Evidence for House of Commons Health Select Committee report on the Impact of physical activity and diet on health
<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/health-committee/impact-of-physical-activity-and-diet-on-health/written/16776.pdf>
- ^{iv} Government response to the House of Commons Health Select Committee report on the Impact of physical activity and diet on health, Sixth Report of Session 2014-15. <http://www.parliament.uk/documents/commons-committees/Health/Cm-9001-government-response-sixth-report.pdf>
- ^v Public Health England and Association of Directors of Public Health survey findings: tackling obesity – January 2014. Available at: www.gov.uk/government/publications/phe-and-association-of-directors-of-public-health-survey-findings-tackling-obesity
- ^{vi} Butland B, Jebb S, Kopelman P, et al. 2007 *Tackling obesities: future choices – project report (2nd Ed)*. London: Foresight Programme of the Government Office for Science.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/287937/07-1184x-tackling-obesities-future-choices-report.pdf
- ^{vii} <https://www.gov.uk/government/publications/sustainable-procurement-the-gbs-for-food-and-catering-services>
- ^{viii} <https://www.gov.uk/government/publications/obesity-and-the-environment-briefing-increasing-physical-activity-and-active-travel>
- ^{ix} https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296248/Obesity_and_environment_March2014.pdf
- ^x <https://www.instituteofhealthequity.org/projects/improving-access-to-green-spaces>
- ^{xi} Everybody active, every day: a framework to embed physical activity into daily life
<https://www.gov.uk/government/publications/everybody-active-every-day-a-framework-to-embed-physical-activity-into-daily-life>
- ^{xii} <https://www.gov.uk/government/publications/sacn-carbohydrates-and-health-report>
- ^{xiii} <http://www.nhs.uk/change4life/Pages/change-for-life.aspx>
- ^{xiv} <http://www.noo.org.uk/visualisation>
- ^{xv} <https://www.noo.org.uk/gsf.php5?f=313571&fv=21268>
- ^{xvi} <http://www.tcpa.org.uk/pages/planning-out-obesity-2014.html>
- ^{xvii} <https://www.gov.uk/government/publications/diabetes-prevention-programmes-evidence-review>
- ^{xviii} <https://www.gov.uk/government/publications/healthier-and-more-sustainable-catering-a-toolkit-for-serving-food-to-adults>
- ^{xix} https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/332756/food-plan-july-2014.pdf
- ^{xx} Cooke et al. 2011. Mental Wellbeing Impact Assessment Toolkit.
<http://www.apho.org.uk/resource/item.aspx?RID=95836>