November 2015

Tackling the UK's childhood obesity epidemic

RSPH
ROYAL SOCIETY FOR PUBLIC HEALTH
VISION, VOICE AND PRACTICE

Key points

- The UK is currently facing a childhood obesity epidemic, with almost 1 in 5 children leaving primary school obese
- Only 1 in 5 parents say they received useful information or support from the National Child Measurement Programme (NCMP)
- Less than a third of children in England are achieving recommended activity levels
- 4 in 5 parents support introducing a daily hour of active 'fun and play' in primary schools
- Three quarters of parents support stronger regulation of junk food advertising online
- Sugary drinks account for 30% of 4-10 year olds' daily sugar intake
- A tax of 20p per litre could prevent or delay 200,000 cases of obesity in the UK

Calls to action

- Reform or scrap the 'fat letter' to primary school parents
- Introduce a daily hour of 'fun and play' in primary schools and measures to make walking and cycling safer for children
- Restrict junk food advertising to children online and on social media
- End junk food sponsorship of family and sporting events
- Reformulation of food and drinks high in sugar, including introducing a 'sugar tax' on sugar-sweetened drinks
- Improve training for health and other workers to offer advice to parents during pregnancy and early years

Background

The UK is in the grip of an obesity epidemic, and it is not just limited to the adult population; we have one of the highest levels of childhood obesity in Europe. [1] Prevalence of obesity in children aged 2-15 rose steadily in the UK from 1995 to 2005, when it reached its peak at around 18% for both boys and girls. [2] The most up-to-date figures show that 9.5% of Reception (4-5 year olds) and 19.1% of year 6 pupils (10-11 year olds) are obese. [3]

There is also a strong correlation between deprivation and prevalence of obesity, with rates of obesity on leaving primary school in areas in the most deprived decile at 24.7% compared with 13.1% in areas in the least deprived decile. [3]

Childhood obesity has significant consequences for children's physical and mental health and wellbeing, as well as the long-term future of the NHS. Obesity in children is associated with a number of physical health conditions including asthma and other respiratory problems, early puberty, some cancers and skin infections. [4] Obese children are twice as likely to develop type-2 diabetes. [5] In addition, childhood obesity is linked as both a cause and consequence of a number of psychological disorders such as anxiety, poor self-esteem, poor body image and eating disorders. [6] [7]

Obese children and young people are more likely to grow up to become obese adults [8] who can expect to have both significant excess morbidity and a markedly lower life expectancy than someone of a healthy weight. [9]

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A quarter of the adult population is already obese, [10] costing the NHS a staggering £4.2 billion per year. [11] It is expected that obesity rates will rise to half of all adults by 2050, more than doubling NHS costs to £10 billion a year and with wider economic costs to the nation of almost £50 billion. [12] Given the difficulty of reversing obesity in adulthood, it is crucial that prevention in childhood is prioritised.

The causes of childhood obesity are multifaceted, including behavioural, environmental and genetic factors [13]. Genetic causes of obesity are rare, and the rising prevalence of childhood obesity in stable populations suggests that behavioural and environmental factors must underlie the childhood obesity epidemic. [14]

Childhood obesity has proliferated in recent decades in part due to children living increasingly sedentary lifestyles where physical activity has declined and activities such as watching TV, playing video games and time spent on smart phones has increased. [15] In 1995, the average child spent 3 hours a day in front of a screen, compared to 6 hours today. [16] More time spent in front of a screen not only means less time spent being active but it has also been shown that watching TV increases cravings for food and energy intake in children [17] and that if children eat or drink while watching TV, they consume more calories. [18]

Rapidly changing dietary practices have also contributed towards the childhood obesity epidemic. Developed nations, such as the UK, are subject to an increased prevalence of high-sugar carbonated beverages, aggressive marketing practices by food companies, elevated purchasing power of the consumer and relatively low priced energy-dense foods that are freely available to children. [19] The ready availability of calorie dense food seems to have a clear correlation with obesity levels, and can currently be seen in rapidly developing countries around the world such as Mexico, Brazil and India. [20]

If concerted efforts are not made as a matter of urgency to reverse the trend of childhood obesity, then the NHS will be left to deal with the disastrous consequences of rising avoidable illness – a strain which the already over-stretched service will be unable to sustain. The calls set out below represent some important first steps.

What is RSPH calling for?

• Reform or scrap the 'fat letter' to parents

Established in 2005, the National Child Measurement Programme (NCMP) monitors trends in the body mass index (BMI) of children at population level in England. Data is collected annually by measuring the weight and height of children in Reception (4-5 year olds) and year 6 (10-11 year olds). There is no direct equivalent of the scheme in Scotland or Northern Ireland, but Wales has had a similar Child Measurement Programme since 2011. Since the English NCMP first reported in 2006-07, the proportion leaving primary school obese has continued to increase, from 17.5% to 18.9%. [3]

While originally designed as an epidemiological tool to monitor childhood obesity rates, the NCMP has taken on the additional purpose of providing parents with feedback regarding their child's weight. Although not mandatory, local authorities are encouraged to provide this feedback to parents via a letter, and signpost to healthy weight programmes if the child is overweight or obese. Different areas are implementing the letter according to their local circumstances; consequently there is widespread variation in the delivery of the fat letter. In some areas, all parents are automatically sent a letter with their child's results, while in others they may have to proactively contact their local NHS provider.

Evaluations of the NCMP, including the 'fat letter', have suggested some parents do not fully understand its purpose. Parental feedback has also suggested NCMP results could be more appropriately and sensitively relayed face-to-face or by telephone. [21]) This approach would also avoid potential problems with poor literacy among some demographics, with 16% of adults in England classed as 'functionally illiterate'. [22] Concerns have also been raised regarding the support on offer to parents subsequent to being provided with their child's weight information, particularly regarding lack of staff capacity, funding, and variation in the availability of weight management programmes for onward referral. [23] Only 20% of parents surveyed by RSPH said they had received useful information or support as a result of the NCMP programme. [24]

Surveys have also found roughly half (47%) of parents whose children are identified as overweight/very overweight disagree with the findings, reflecting poor levels of knowledge about healthy weight. [25] Common responses include suggesting their child can't be overweight as they eat healthily, or the myth that the excess weight is 'puppy fat' the child will grow out of. [26]

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While RSPH supports the continued use of the NCMP to gauge data about levels of childhood obesity, given that obesity rates are currently worsening during the primary school period, RSPH considers that the 'fat letter' could be improved. Improvements to the letter would ensure that parents are provided with support as well as information, and ensure the letter is seen as the beginning of dialogue with parents, not simply flagging whether a child is obese. Suggested measures that local authorities might consider to enhance the intervention may include:

- Healthy food vouchers provided to parents of overweight and obese children to incentivise better eating habits. This idea may need further research and pilot evaluation to investigate viability and efficacy.
- Exploring different means of providing feedback e.g email, text message, visual information.
- Better promotion and integration of the NCMP with other initiatives such as the Healthy Child Programme and Change4Life, so that letters sent to parents include useful guides on nutrition and exercise in children – although currently recommended, these are not mandated.
- NCMP providers phoning parents of obese children before they receive the letter to make sure they understand the programme and to answer any questions they may have. Pilot studies have shown this to be effective in engaging and reassuring parents and improving understanding of NCMP findings.

In addition RSPH believes that the data captured by the NCMP should be shared with schools, potentially on a 3 year rolling average to provide them with a picture on obesity rates and help augment what schools are already doing to address them.

- **Introduce a daily hour of 'fun and play' in primary schools and measures to make walking and cycling safer for children**

The Chief Medical Officer's guidelines in England state that every child should engage in moderate to vigorous intensity physical activity for at least 60 minutes every day. Exercise is extremely beneficial and has been shown to reduce the risk of chronic disease, boost self-esteem, improve psychological wellbeing and consequently, decrease the risk of depression and anxiety. [27] [28] Currently, only 28% of children in England are achieving the recommended activity levels. [29]

This is partially attributable to a decline in physical education in schools. Department for Education guidelines advise a minimum of 2 hours exercise in both primary and secondary schools, but this is no longer mandatory. RSPH believes an hour of physical activity a day should be a minimum in primary schools. However, there can be flexibility in delivery, with 'fun and play' in break times as well as traditional physical education lessons in curriculum time counting towards the requirement. A staggering 84% of parents we surveyed were supportive of an hour 'fun and play' for children of primary school age. RSPH advocates a radical change in approach to promoting physical activity in schools whereby break time activities with a focus on fun and participation, and no expensive specialist kit or equipment required, are used to complement physical education lessons. This would help to normalise physical activity from an early age.

A good example of this is the 'daily mile' scheme pioneered at St. Ninian's primary school in Stirling, and now rolled out across several other schools in the area. The scheme sees children taken out of the classroom for 15 minutes during the day to complete a mile of running or walking. Teachers have credited this with improving concentration in the classroom as well as children's fitness, and highlight that the children enjoy it, which makes it sustainable. [30] Similar schemes are already taking place in other parts of the country, and RSPH would like to see all primary schools in the UK adopt such schemes as a commitment to tackling childhood obesity.

Physical activity in school alone will not be enough to overturn the increasingly sedentary lifestyle of today's children. Rates of active travel must also be increased dramatically to make physical activity a normalised part of children's every day routine. As of 2012, only 47% of UK primary school children walked to school, down from 53% in 1997. [31] That compares with 80% of seven to eight year olds who walked to school independently in 1971. [32] This decline is at least partially attributable to parents' fears over increased traffic volume and danger. [33]

This trend can only be reversed by creating street environments that are safer and more welcoming for walking and cycling. This requires substantially increased investment in segregated walking and cycling infrastructure the foundation for which has been laid by the requirement for a Walking and Cycling Investment Strategy enshrined in the 2015 Infrastructure Bill. Safe walking and cycling also requires widespread 20mph speed limits, recommended by the WHO as a key pedestrian safety measure. [34] Evidence from existing 20mph schemes in the UK suggests active travel increases as a result, with walking and cycling rates rising by 12% in Bristol. [35] Lowering the UK's default urban speed limit to 20mph, as urged by the GO 20 coalition campaign, [36] would allow children across the country to benefit from greater opportunities for safe active travel.

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Infrastructure improvements can be supported by local engagement activities, such as Wiltshire Council's Beat the Street scheme. Beat the Street encourages children and parents to walk, run or cycle to school and collect points on cards that accumulate towards prizes. [37]

- **Restrictions on advertising and sponsorship from junk food aimed at children through social media**

In 2006, broadcast regulator Ofcom banned junk food advertising around children's programming on TV, including any programmes with a 'particular appeal' to those under the age of 16. These regulations recognised the high level of exposure children have to advertising for foods high in fat, salt and sugar, and the potential this has to bring pester power to bear on parents – 79% of whom say they have purchased a snack for their child when asked. [38]

RSPH supports calls to extend the TV restrictions to all programming before the 9pm watershed. However, with junk food advertisers now able to sidestep TV and access a young audience via the internet and social media, TV restrictions alone are not sufficient. 20% of 8-11 year olds and 65% of 12-15 year olds own a smart phone, while 71% of 5-15 year olds have access to a tablet computer at home. [39] Almost 3 in 5 children (59%) are thought to have used a social network by the age of 10, routinely ignoring age limits to sign up. [40] Junk food advertisers have been keen to exploit this by signposting to their websites on social networking sites aimed at children, with 75% of websites advertising products high in fat, salt or sugar now linked in this way. [41]

RSPH is calling for this avenue to be closed with a ban on junk food advertising aimed at children online and on social media. The Committee of Advertising Practice (CAP) will be launching a public consultation early in 2016 to consider such a ban, as well as in the press and on billboards and posters. This measure is backed by three quarters (75%) of UK adults who support stronger regulation. [42]

- **Ending junk food sponsorship of family and sporting events**

Major sporting events have the ability to reach huge numbers of people across the globe. The 2010 World Cup was watched by approximately 3.2 billion people for at least 1 minute. [43] This exposure makes them prime targets for sponsors looking to advertise brands and products. Junk food and drinks companies are no exception, and spend vast sums of money on advertising campaigns at the biggest sporting events in the world.

Links between sporting events and companies are entrenched and long-standing. Coca-Cola has been an Olympic partner since 1928 and McDonalds an official World Cup sponsor since 1994. [44] Since 2014 Coca-Cola has sponsored ParkLives – a series of 'free, family-friendly outdoor activities' in community parks across the UK. The positive active message of these events is in direct contradiction to the harm caused by the junk food and drinks companies that sponsor them.

RSPH calls for an end to junk food and drinks companies sponsoring family and sporting events, and is confident this could happen without jeopardising the sustainability of the events themselves. The Obesity Games report found corporate sponsorship accounted for less than 10% of the total funding for the 2012 Olympics, and less than 2% of this was from junk food sponsors. [45] Sporting events should be utilised to promote healthy messages regarding diet and physical activity, not bombard people, particularly children, with unhealthy food and drinks products.

- **Reformulation of food and drinks high in sugar, including introducing a 'sugar tax' on sugar-sweetened drinks**

High levels of sugar intake are a major factor in UK obesity levels, especially among children and young people. Current average sugar intake in all age groups is at least twice the recommended daily limit, and 3 times higher in 11 to 18 year olds, with the main sources being sugar-sweetened drinks (including fizzy drinks, juice drinks, energy drinks, squashes and cordials). These drinks account for 30% of added sugar intake among 4-10 year olds, and 40% among 11-18 year olds. [46]

Efforts to reduce sugar intake through education alone have so far proved powerless to stem the rising tide, meaning measures to modify the physical and economic environment to reduce the convenience and availability of high sugar drinks, as recommended by Public Health England (PHE) in their recent sugar reduction report, are essential. [47] RSPH is in favour of their removal from health promoting settings such as leisure centres, hospitals, and all schools, including academies and free schools.

RSPH supports calls for a 'sugar tax' on sugar-sweetened drinks. A tax of 20% or 20p per litre has been predicted to prevent or delay around 200,000 cases of obesity in the UK. [48] These estimates have been backed by evidence from Mexico, where a 10% tax was implemented on 1st January 2014. During the first year of the tax, sales of sugar-sweetened drinks dropped by 6%, and by 9% among lower income households that are most at risk of obesity. There are

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indications that the effect became even more pronounced towards the end of the year, and it is expected that this will start to impact on obesity levels. [49] The effect has been similar to taxes on tobacco and should be implemented on the same basis in the UK. RSPH envisions that the tax will incentivise the food industry to contribute to tackling obesity by reducing the sugar content of its products, including through reformulation.

- **Improve training for people working with families to offer advice during pregnancy and early years**

Early years are a critical period in development [50] and are the perfect opportunity to form healthy habits that will follow individuals throughout childhood and the rest of their lives, and keep them free from the health problems associated with obesity.

Health and early years practitioners are perfectly placed to have healthy conversations with expectant and new parents. However, they have indicated they lack confidence when it comes to raising sensitive issues regarding lifestyles in their work with young families. [51] [52] Equipping health practitioners and others working with families with the necessary skills to be able to support families during pregnancy and early years, when parents have regular contact and are responsive to help, is a vital component in tackling childhood obesity. [53]

Many non-health professionals who work with young families, such as nursery staff, also have the opportunity to have healthy conversations with new parents, and they can also benefit from training for this. Imperial College London's CHALK programme is one such example. [54]

RSPH would like to see training for health and non-health professionals in contact with expectant and new families to enable them to deliver key health messages that can help prevent the onset of obesity in the earliest years of a child's life. These messages would include:

- **Promotion of breastfeeding** – the health benefits of breastfeeding are numerous, including the prevention of infections, diarrhoea, diabetes and some cancers. Breastfeeding has also been shown to help prevent childhood obesity as babies regulate their own intake as opposed to finishing a set amount of formula from a bottle, thus forming healthy feeding habits at an early age. [55]
- **Nutrition and healthy weight advice** – parents must be made aware of what constitutes a healthy weight for a child, especially during early years. This means training and supporting practitioners to deliver this information in a way that works for individual families, particularly those from disadvantaged backgrounds whose children are most at risk of obesity.
- **Empower parents to set healthy examples** – the habits formed during early years are heavily influenced by parents, including food preferences and activity levels. [56] Practitioners should have the necessary training to confidently empower parents to set positive, healthy examples for their children. By taking a whole family approach to health interventions we can help to halt the endless cycle of poor outcomes played out over generations in deprived families. [57]

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