

An initiative in which health visitors took the lead role in identifying childhood obesity and introducing interventions has proved effective and popular with parents

Health visitors tackle childhood obesity

In this article...

- › **Infants' risk of obesity can be identified during routine checks**
- › **Health visitors in healthy weight team offer one-to-one support**
- › **Home visits encourage parents to increase a child's activity**

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One of Public Health England's priorities is to tackle obesity, particularly in children. Health visitors are ideally placed to identify and support families of children at risk from obesity, but research shows they lack the training and confidence to do so. This article describes a short-term local scheme that offered support by a specially trained health visitor to families in their own homes. The health visitor was trained using a family partnership model that teaches how to work with parents and carers to help them implement their own solutions.

One of Public Health England's seven priorities for improving public health is to tackle obesity, particularly among children (Public Health England, 2014).

The Department of Health's healthy child programme sets out an action plan to reduce obesity, including through pregnancy and the first years of life (Department of Health, 2009). This includes delaying weaning until six months of age, introducing healthy foods and controlling portion sizes. It also recognises families at risk, including those with overweight parents, children with rapid weight gain and inactive lifestyles.

The National Institute for Health and Care Excellence (NICE) says studies of interventions to prevent and manage obesity in children and adults have been short in duration, with little or no follow-up

(NICE, 2006). It recommends follow-up at least 12 months post-intervention to establish continued behaviour change, and maintain or improve healthier weight.

Reducing obesity in children requires support for families. Health visitors are ideally placed to initiate intervention in the early years, when parents have more contact with health professionals. However, research suggests many lack the training and guidance to do so.

Redsell et al (2013) studied how 30 health visitors identified and intervened where children were at risk of obesity, and what they thought their role was in obesity prevention. Health visitors were aware of some of the modifiable risks and felt they had a role advising parents on diet. However, they did not formally identify or intervene with larger infants because they considered it sensitive and difficult to raise with parents. Some believed the parents prefer larger infants and are unaware that their feeding practices increase their children's obesity risk. Nevertheless, they felt they did not have the skills or guidance to target infants at risk of obesity.

Current practice

Health visitors see children during the early years (birth to five years) at a frequency and venue generally determined by parents and carers. Formal health and development reviews are carried out at one and two years (DH, 2009). Growth is a good predictor of a child's health and wellbeing. It is measured and assessed if there is a professional or parental concern, including risk of obesity (DH, 2009).

This is a skilled task that must be done by trained practitioners, using the right equipment and plotting it on the

5 key points

1 Tackling obesity, particularly among children, is a public health priority

2 Health visitors are ideally placed to identify and help families of infants at risk from obesity

3 Help for families with infants at risk is best delivered in their own homes by specially trained health visitors

4 Health professionals can use a family partnership model to sensitively approach the topic of obesity

5 Long-term follow up is needed to achieve and measure sustained change



Health visitors advise on early years diet

appropriate charts (DH, 2009). The one-year assessment measures height and weight, and interprets the relationship between height and growth potential, using current and earlier growth charts (DH, 2009). The result is explained to the parents and interventions discussed.

Children are further assessed at two years and, if obesity is a risk, talks are initiated with the parents or carers about growth, sugar intake and dental caries, as well as other components in the healthy child programme (DH, 2009).

Primary schoolchildren are assessed again as part of the National Child Measurement Programme (NCMP), whereby Public Health England monitors and publishes obesity data for children country-wide (Bit.ly/NCMP-UK). Unless parents opt out, this takes place in reception and year six and involves calculating children's body mass index (BMI) and informing parents of the results.

Healthy weight team

In 2010, Bromley Healthcare set up an initiative to support families of infants and children at risk of obesity. This involved:

- » Supporting a two-day core training programme for health visitors, nursery nurses, and professionals working with children under five in Bromley on health, exercise and nutrition for the really young (HENRY) (Hunt and Rudolf, 2008);
- » Supporting an eight-week parenting programme for families and carers on HENRY;
- » In 2011 it included a specialist health visitor to trial a 1.5 day-a-week home support programme for parents with children under five at risk from obesity. Home visits started in April 2012.

Initially, it was expected that health visitors would refer children of concern to the health visitor in the healthy weight team. However, referrals were few and intermittent, so it was decided to identify children at risk using height and weight measurements from the two-year health review.

Children above the healthy weight range were identified by electronic calculation of their BMIs once health reviews were completed. Parents were informed of this at the review and asked for permission to send them the results. Most accepted, which allowed healthcare professionals to start detailed talks about food portion sizes, balanced food groups and dairy intake.

Activity levels were also discussed. Parents and carers were encouraged to aim for the recommended three hours of activity a day for children under five (DH, 2011).

BOX 1. CASE STUDY

Jonah, aged three, was referred to the healthy weight team health visitor by the family's health visitor, who was concerned about his weight. A joint home visit was agreed with his mother. Jonah had not had a two-year health review, but received home support because of delayed development. They lived in a privately rented room with shared facilities, while awaiting leave to remain in the country. This room was entirely taken up by two double beds.

Jonah's height and weight was measured. His BMI was above 25. The healthy range for a three-year-old using the old UK90 charts is 14-18 (between the second and 91st centile lines). Risk factors were observed from his first-year weight chart; again his weight was above the personal child health record chart (PCHR) and unable to be plotted.

Conversations with Jonah's mother about diet and lifestyle showed he had at most one hour of activity a day, well below the recommended three hours (DH, 2011). He spent most of his day in the bedroom with his mother watching TV or playing. His daily average milk intake was more than 900ml – three times the 300ml needed to meet his calcium requirements. Vegetable and fruit intake was low, and carbohydrates a little high. Energy intake through food far exceeded output, causing weight gain.

An 11-point care plan was agreed with his mother. This included rebalancing food groups, gradually halving milk intake and adding in vitamins A, C and D. This was recorded in his PCHR and reviewed at each visit. There were no banned foods and no calorie-controlled diet. Jonah's mother was encouraged

to replace sugar-rich foods with lower-sugar alternatives and increase activity levels.

Jonah was seen again after three months. He was lively and trying hard to talk and communicate, whereas previously he had been passive. His mother was smiling and positive – a marked contrast to before. Jonah's activity levels had reached the target of three hours a day, including football in the park, and his diet was much improved. His BMI had also dropped dramatically to 22 and three months later fell to below 21 (the healthy range is 14 to just below 18).

Six months after meeting Jonah, he started nursery, but his size and development delay meant the nursery could not give the individual support he needed and he was asked to leave. Three months later his BMI centile had worsened. The mood of Jonah and his mother was low, and visits to the park had stopped as it was next to the nursery. Jonah's mother felt her son had been rejected and the situation was hopeless.

The healthy weight team health visitor gained his mother's consent to arrange extra social support to help her child back into nursery. At a final home visit, 15 months after starting home support, Jonah and his mother were in good spirits, and his BMI centile was stable, at around 22. Activity was back to two and a half to three hours a day and his diet was balanced, although still short on fruit and vegetables. He was also back at nursery, with one-to-one support, allowing his mother to focus on further improving their diet and lifestyle.

The training and parenting programmes follow the HENRY approach (Hunt and Rudolf, 2008) – an evidence-based family partnership model that trains healthcare professionals to work with parents and carers to help them identify and decide the aspects of their child's lifestyle they wish to change (Davis and Day, 2007).

Health professionals reflect back to parents that they understand and accept what they want to change, even if this does not always mirror their own professional goals. It is also about helping families find and implement their own solutions, and to stay motivated by focusing on what works, rather than what does not. HENRY is cited in key documents such as *Tackling Obesity*

Through the Healthy Child Programme (Rudolf M, 2009), and is one example of training that can help health professionals approach the sensitive subject of weight with parents of young children.

The core training in Bromley is led by a multidisciplinary team that involves a paediatric dietitian, the health improvement service, health visiting and education. Around 90% of health visitors and nursery nurses in Bromley have attended the core training. All those who have completed the course have the HENRY toolkit and have practised using it. There are also practical update days for the health visiting teams.

Families of children at risk of obesity were offered up to four home visits of

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between 30 to 90 minutes by the healthy weight team specialist health visitor over a 12-month period. These included detailed discussions on diet, such as rebalancing food groups using the HENRY toolkit, and raising activity levels (Box 1 and Figure 1).

Outcomes

Between April 2012 and March 2014, 72 children and families accepted significant amount of home support (two or more home visits). The success rate was measured by a reduction in BMI centiles over the period they were seen, and currently stands at 92%. Improvements vary from minor to significant, and some children have moved from “overweight” or “very overweight” into the healthy weight range.

Behaviour changes were measured by parental reporting of average hours of daily activity undertaken, portions of fruit and vegetables consumed, and improved dietary balance in terms of dairy intake – this was in most cases reducing the amount consumed but occasionally increased dairy intake was required. The extent of behavioural change using these three variables varies from 43% to 79%.

Reviews of children’s electronic records show staff from health visiting teams across the borough are now documenting more detailed discussions with parents about past and current growth measurements, food intake and activity levels. More children are also being recalled for reviews three months after their two-year health review. Child health clinics are also being used to identify children at risk, and nursery nurses suggest parents speak to the health visitor if the growth chart for weight in a child’s first year suggests an obesity risk (Hunt and Rudolf, 2008).

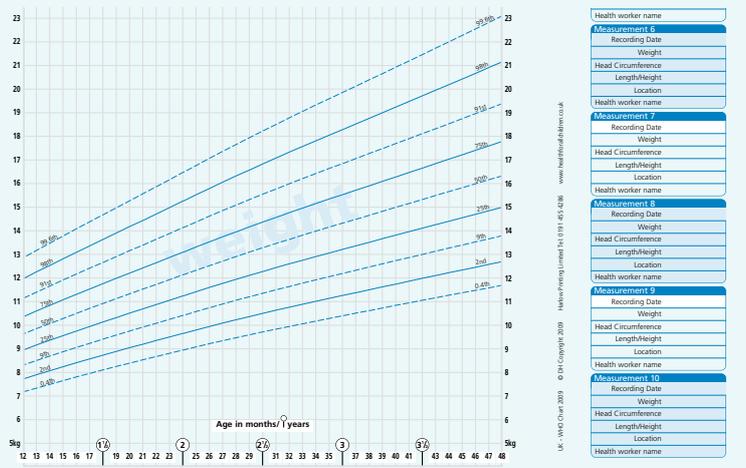
By telling parents and carers that BMI was being calculated for all children in the borough, healthcare professionals found it easier to initiate difficult discussions on lifestyle and diet. This discussion is now an element of the two-year health review.

All families received an evaluation form to complete anonymously. This form was changed in early 2014 to include asking if families who received home support would recommend the service to family and friends. At the time of writing, all 11 received with the new format say “yes”.

The reasons for preferring one-to-one support at home are ease of use, privacy, confidentiality, and feeling the child is individually assessed and supported in an environment where all parties can speak freely and honestly. Many said they felt respected as parents and that staff were non-judgemental in their contact with them.

FIG 1. BMI CENTILES FOR CHILDREN AGED ONE TO FIVE

Figure shows a section of the BMI centile chart currently used in practice. This replaced the UK 90 chart which was used to plot Jonas weight



Individual approach

Some parents and carers said that without the home service they might not have participated or felt able to talk openly and truthfully. Staff taking the time to build a relationship with the family and their non-judgemental approach was essential in building trust and confidence. Parents and carers also valued the individual approach to their child and felt this could not have been as easily achieved in a group setting.

This is illustrated by our case study (p21). The family described in the study would probably not have engaged in a group session, as the child had speech delay, the mother was depressed and they lacked motivation to get up early. Their situation was also sensitive because the child was delayed developmentally and they were socially isolated, and had limited funds.

However, by offering one-to-one support at home, the healthy weight health visitor was able to build trust and open constructive communication with the mother, and agree an individual care plan. The strength of this relationship also enabled them to work through the setbacks created by the child’s exclusion from the nursery and devise a plan that helped the family get back on course. This was helped by a coordinated approach involving the wider team, including the local health visitor and education professionals.

NICE (2006) recommends long-term follow-up to achieve sustained change from early intervention strategies. Local or national obesity prevention interventions in the preschool years (ages two to three) by health visitors could be followed using data from the NCMP scheme in reception to measure long-term success and behaviour change, at no extra cost other than administrative support. This would allow further interventions at a time when parents and

children are still receptive to change and before children have developed unhelpful attitudes to food and activity.

Conclusion

This small project with limited numbers of children and families identifies a way to support some families with young children at risk of obesity. It offers this support in their own homes, by specially trained health visitors adopting a partnership approach, supported by the wider health-care team. Long-term follow-up is needed to achieve and measure sustained change in early intervention strategies. **NT**

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