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NEWS

NEWS ANALYSIS

What's behind reduced child obesity in Leeds?

Newspapers and researchers are eager to credit a parenting programme, but are they premature? **Jacqui Thornton** investigates

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The city of Leeds in Yorkshire, UK, was roundly congratulated on 1 May with the news that it had succeeded in cutting the prevalence of childhood obesity—a feat achieved only by a few other cities, such as Amsterdam.[1]

A paper in *Pediatric Obesity* analysing figures from England's National Child Measurement Programme over 2009-17 found that the proportion of children entering primary school (ages 4 and 5) who were obese fell from 9.4% in 2009-10 to 8.8% in 2016-17.[2]

The reduction was chiefly among the most deprived children—from 11.5% to 10.5% over the period—where the problem is worst, but also occurred among affluent children (6.8% to 6.0%). In terms of numbers, the results equated to 625 fewer reception class children who were obese in 2016-17 than in 2009-10.

No similar reduction in obesity was seen in other cities or England as a whole. In older children, at year 6 (ages 10 and 11), prevalence of obesity was unchanged in Leeds but increased elsewhere.

One of the authors, Susan Jebb, professor of diet and population health at the Nuffield Department of Primary Care Health Sciences in Oxford, presented the "startling" research at the European Congress on Obesity in Glasgow to great acclaim. "Everybody is going around saying Amsterdam is doing something amazing. Well, actually, Leeds is too," she told the congress.

Obesity strategy

Jebb said the team did not know exactly what made the difference in Leeds but suggested that it could involve a programme called HENRY that the city introduced as the core of its obesity strategy in 2009.

But there is concern that linking the reduced obesity rates to HENRY may be premature. HENRY (which stands for Health, Exercise, Nutrition for the Really Young) focuses particularly on the youngest children and poorest families. It supports parents in setting boundaries for their children and taking a firm stance on issues such as saying no to sweets and junk food and enforcing sensible bedtimes (box).

Newspapers jumped on the link to the programme, with the *Guardian* declaring, "City's Henry programme gives children choices while helping parents maintain boundaries,"[3] while the *Times* ran the headline "Lessons for parents in Leeds put child obesity into reverse."[4]

England's health and social care secretary, Matt Hancock, tweeted the *Times* article, saying that the parenting classes showed the pivotal role of parents in tackling childhood obesity.[5] He added that it was a "terrific step forward we must build on if we're to protect health of future generations."

Caution urged

But others were less sure of any firm evidence that the HENRY programme reduced obesity rates. They noted that one of the six authors of the *Paediatric Obesity* article was a founder of HENRY, another was the chief executive, and a third was its policy and communications officer.

Max Davie, officer for health improvement at the Royal College of Paediatrics and Child Health, said it was "plausible" that the HENRY programme had played a part in the obesity reduction but urged caution in assuming causation. He said, "We have seen from emergent research that there are recurrent patterns between obesity, behaviour, and sleep, and these important links are further captured within this study.

"However, to influence childhood obesity, we need to see concerted effort across services and local environments. It would be a mistake to assume that simply adopting this single programme elsewhere will repeat Leeds's success."

The Royal Society for Public Health said that the results in Leeds were "fantastic, and really promising news for the local obesity strategy, HENRY." But Louisa Mason, its policy and communications executive, said that without further research it was not possible to say what was responsible for these trends.

"It is a combination of population-wide measures—including HENRY, and access to affordable healthy food and opportunities for physical exercise—that must be implemented urgently to ensure we tackle childhood obesity."

Greg Fell, director of public health in Sheffield, said that Leeds deserved a "well done, great effort" plaudit for its achievement and that HENRY was a good programme that was based on a whole family coaching approach.

Whole system approach

But Fell added that though it was "alluring" to think that an approach targeting obese individuals could solve the problem, what was needed was a "whole system approach."

"You are not going to solve the obesity crisis one person at a time. You need an environmental approach. It's hard to nail," he said.

Sheffield had previously used the HENRY programme but stopped it because of cost and now uses another similar programme. "I know there's more to the Leeds childhood obesity programme than the HENRY programme," Fell said.

One of the paper's authors, and HENRY chief executive, Kim Roberts, said that the programme's approach to supporting families with young children in adopting and maintaining healthier lifestyles was evidence based.

HENRY has supported more than 6000 families in Leeds, a city of 800 000, since 2008. Nationally an estimated 20 000 families have been supported.

Roberts added, "Practitioners working with young families were all trained to support families to provide a healthy start in life, and programmes for parents and young children were delivered in community settings.

"Most programme delivery took place in Children's Centres in more disadvantaged areas of the city, and by working closely with the council we have been able to provide HENRY interventions support to families where it will make the most difference."

Evidence behind HENRY

The HENRY approach is based on interventions involving children aged from birth to 5 years and including family support, practitioner training, and building community resilience.[6] It was established in 2008 and is used in 35 local authority areas. It has been used in Leeds for eight years.[7]

Its leaders say that HENRY has the strongest evidence base currently available for any UK early intervention programme designed to support a healthy start in life. In January the charity the Early Intervention Foundation awarded HENRY an evidence rating of 2 out of a possible highest score of 4, 2 being the maximum possible effectiveness score for interventions without a published randomised controlled trial.[8 9]

A study protocol for a randomised controlled trial has been published,[10] and plans for it are proceeding.[11]

The HENRY programme has been studied in 10 academic studies[12] and has been evaluated independently by Tom Willis of the University of Leeds. In one study he found that after an eight week course significant changes were observed, with most changes sustained at follow-up.[13] Parents reported being more able to encourage good behaviour, and fruit and vegetable consumption increased among adults and children, while sweets, cakes, and fizzy drinks reduced. There were also positive changes in eating behaviour, such as less eating in front of television.

Such findings were replicated in a larger, longer study over 24 months, in which 788 parents in 86 locations completed five or more programme sessions and 624 (79%) filled in questionnaires.[14] This study concluded that the HENRY approach seemed to have a beneficial effect on families of preschool children to adopt a healthier lifestyle even when delivered at a wider scale in non-selected locations. Such changes, if maintained, might serve to protect against later obesity, it said.

HENRY practitioner training can be commissioned for £125 per participant a day, and its Healthy Families programme can be delivered locally for a total cost of £320 per family.[15] The Early Intervention Foundation said that HENRY was cheaper to set up and deliver than other interventions it reviewed.[8]

1 Sheldon T. Whole city working against childhood obesity. *BMJ* 2018;361:k253410.1136/bmj.k2534.
2 Rudolf M, Perera R, Swanston D, Burberry J, Roberts K, Jebb S. Observational analysis of disparities in obesity in children in the UK: Has Leeds bucked the trend?*Pediatr Obes* 2019:e12529. 10.1111/ijpo.12529. 31022330
3 Boseley S. Leeds becomes first UK city to lower its childhood obesity rate. *Guardian* May 2019. www.theguardian.com/world/2019/may/01/leeds-becomes-first-uk-city-to-lower-its-childhood-obesity-rate.
4 Smyth C. Lessons for parents in Leeds put child obesity into reverse. *Times* May 2019. www.thetimes.co.uk/article/lessons-for-parents-in-leeds-put-child-obesity-into-reverse-2fbrzc8mc.
5 Hancock M. @MattHancock 1 May 2019. twitter.com/MattHancock/status/1123500703639584768.
6 Roberts K. Growing up not out: the HENRY approach to preventing childhood obesity. *British Journal of Obesity* 2015;1:87-92.
7 Henry. Why choose HENRY. www.henry.org.uk/whychoosehenry.
8 Early Intervention Foundation. HENRY. Jan 2019. https://guidebook.eif.org.uk/programmes/henry.
9 Early Intervention Foundation. EIF evidence standards. Sep 2018. https://guidebook.eif.org.uk/eif-evidence-standards
10 Bryant M, Burton W, Cundill B, etal . Effectiveness of an implementation optimisation intervention aimed at increasing parent engagement in HENRY, a childhood obesity prevention programme - the Optimising Family Engagement in HENRY (OFTEN) trial: study protocol for a randomised controlled trial. *Trials* 2017;18:40. 10.1186/s13063-016-1732-3 28115006
11 HENRY. Our evidence base. www.henry.org.uk/evidencebase.
12 HENRY. Academic evaluation. www.henry.org.uk/evidencebase/clinicalstudies.
13 Willis T. Let's Get Healthy with HENRY: impact of a parent course upon parental self-efficacy, family dietary intake and eating behaviours. HENRY. www.henry.org.uk/sites/www.henry.org.uk/files/2017-12/8.Let%E2%80%99s_Get_Healthy_with_HENRY-National_evaluation_report%E2%80%93summary.pdf.
14 Willis TA, Roberts KPJ, Berry TM, Bryant M, Rudolf MCJ. The impact of HENRY on parenting and family lifestyle: a national service evaluation of a preschool obesity prevention programme. www.henry.org.uk/sites/www.henry.org.uk/files/2017-12/6.The_impact_of_HENRY_on_parenting_and_family_lifestyle-A_national_service_evaluation_%282016%29.pdf.
15 HENRY. Value for money and return on investment. www.henry.org.uk/valueformoney.