

## Contributing to the evidence base of NHS England's Complications Related to Excess Weight clinics

Overweight and obesity affects one in three children in England and causes associated illnesses such as type 2 diabetes and having trouble breathing while asleep. Bristol's care of childhood obesity (CoCO) clinic is a major pilot site for future childhood obesity services in NHS England's Complications Related to Excess Weight (CEW) clinics.

### What translational research was done?

Research takes place at the CoCO clinic, looking at how modifying eating behaviours and improving patient experience can affect weight loss. We investigate how behaviour (including eating speed and meal mindfulness), hormones and our brains affect relationships with food. Research includes:



A feasibility study that demonstrated eating more slowly profoundly affects hunger hormone responses, improves 'memory of eating', and reduces the pleasure response to food at later meals, reducing calorie intake<sup>1</sup>.



Piloting population-based measurement of eating behaviour to demonstrate that how quickly and how much we eat are related to our genes<sup>2</sup>.



The ComMando pilot demonstrated moving complex interventions for childhood obesity into primary care is currently impossible to deliver, because of logistics and lack of reach to more at-risk populations.



Understanding young people's and their family's experience of the care pathway through interview studies to develop trials and service improvements.

### References

1. Hawton et al., *Nutrients*, 2019;DOI:10.3390/nu11010050
2. Wade et al., *Wellcome Open Research*, 2020;DOI:10.12688/wellcomeopenres.16091.1
3. Ford et al., *BMJ*, 2010;DOI:10.1136/bmj.b5388

### Translation into later phase research, clinical practice and patient benefit

Clinical trials in CoCO:



**Mandometer** demonstrated that young people living with obesity could learn to eat more slowly. This behaviour change continued after therapy and led to greatly improved weight loss<sup>3</sup>.



**COCO** showed it was possible to deliver a similar but cheaper service in primary care using tools such as the Bristol Online Obesity Screening Tool, but it also showed families were often reluctant to address the issue.

The clinic's research has:



Led to service reorganisation in 2017 to include psychology, social work and nurse mediator roles.



Defined key weight change requirements internationally in terms of reducing fat mass and metabolic health.



Been referenced in NICE guidelines and in developing England's CEW clinics. **Fourteen clinics across England** will deliver similar services to those provided by CoCO to around **1,400 children a year**.

The research lead advises NICE, NHS England, HQIP National Obesity Audit and the Department of Health and Social Care.