

**Cyflwynwyd yr ymateb i ymgynghoriad y [Pwyllgor Iechyd a Gofal Cymdeithasol ar Atal Iechyd gwael - gordewdra](#)**

**This response was submitted to the [Health and Social Care Committee](#) consultation on [Prevention of ill health - obesity](#)**

**OB19 : Ymateb gan: Children's Centre - Swansea Bay University Health Board |  
Response from: Children's Centre - Swansea Bay University Health Board**

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**Prevention of ill health – obesity**

The promotion of healthy lifestyles and prevention is one of the priority issues identified in the [Committee's strategy for the Sixth Senedd](#).

**Paragraph 1.**

My name is Dr Sian Moynihan and I'm a Consultant Community Paediatrician. I am clinical lead for two Weight Management Services for Children and Young People. The Cardiff and Vale University Health Board AFAL (Active Families Active Lives) service and Swansea Bay University Health Board Lighthouse Weight Management Service for Children and Young People.

**Paragraph 2**

I would like to comment on behalf of both multidisciplinary team AFAL and Lighthouse on the following terms of reference:

The effectiveness of Welsh Government strategy, regulations, and associated actions to prevent and reduce obesity in Wales, including consideration of:

1. gaps/areas for improvement in existing policy and the current regulatory framework (including in relation to food/nutrition and physical activity);
2. interventions in early childhood to promote good nutrition and prevent obesity;
3. people's ability to access appropriate support and treatment services for obesity;
4. international examples of success (including potential applicability to the Welsh context).

**Paragraph 3**

The purpose of commenting would be to help:

- committee members to inform their inquiry;
- to identify where additional exploration of information provided in this submission would be useful to the committee members. We would be delighted to have the opportunity to explain points raised where felt necessary.

#### Paragraph 4

##### With regards to terms of reference 1 and 2

I would like to bring the committee's attention to the need to include up-to-date evidence base on the importance of looking after our gut microbiome (bacteria and other species) within our intestines. Our gut microbiome is really important for health and optimal management of weight from pre-birth and across the lifespan. This is relevant to pre-conception nutrition for both men and women, nutrition in pregnancy and early years and through our lifespan.

The American Gut Project<sup>1</sup> and the Predict studies<sup>2-7</sup> are notable in evidence base in communicating that people with the healthiest metabolism and weight have a good amount of good bugs and lesser amount of bad bugs in their gut.

Professor Tim Spector, Kings College London, has supported the development of Early Years and Key Stage 1 and Key Stage 2 curriculum to be delivered in schools. This can be accessed on the website

[bellybugs.co.uk](http://bellybugs.co.uk).<sup>8</sup>

The Belly Bugs programme takes the latest research on the gut microbiome and translates it into an enchanting story for children. Children are fascinated to discover that they have their own unique gang of Belly Bugs (gut microbes) living inside them for real who use the fruit and vegetables we eat to do their jobs. Children straightaway want to feed and look after their Belly Bugs like pets.

The Belly Bugs curriculum was first piloted in 2023 among 650 pupils in 7 primary schools in Sunderland across all demographic groups. It was an 8-week course across EYFS, KS1 & KS2 using a Classroom, Canteen, Corridor approach i.e what the children learnt about Belly Bugs in the classroom was reflected in what they were offered in the canteen. Conversation was encouraged in the corridor about the which of their Belly Bugs the pupils would be helping each day. Behaviour change was instant. One cook remarked, 'They all came in and ordered salad straightaway'.

The increased consumption of fruit and vegetables was sustained across the 8 weeks of the trial. The programme is now being picked up by other primary schools in England. The lessons cover all the information children and their families need to understand the gut microbiome and how eating your way through the rainbow of colours of fruit, and vegetables, as well as seeds, nuts, pulses and whole grains supports a healthy gut microbiome. Alongside is the evidence base that Ultra Processed Food (type 4) encourages a bad profile of gut microbiome that crowds out the good microbiome.

We need to enable children to learn this evidence base in a fun way. The 'Belly Bugs' curriculum offers this. Uniquely, children feel in control. No one is telling them to eat their broccoli or carrots. Children work out for themselves what their own Belly Bug gang needs and ask for healthy choices without having to be told. One Sunderland pupil summed it up as

follows. ‘When I have a snack, I think of my Belly Bugs and if it’s healthy for them.’ This is a gamechanger.

With Belly Bugs, children and families approach eating by understanding how 30 different plants a week<sup>1</sup> supports metabolic health, optimal weight management, mental health and gut health. If we look after our microbiome, it looks after us by producing amazing chemicals such as short chain fatty acids.

The Belly Bugs curriculum makes complex science easy to engage with, learn and apply. It includes songs and visuals and work plans that teachers need.

Implementing early education in schools would mean that children learn why good food choices make a big difference to their health. The Belly Bugs programme extends beyond schools into the NHS. We need this vital knowledge to be delivered widely across Wales to make a significant impact on the future of Healthy Weight, Healthy Wales.

The Belly Bugs education curriculum would dovetail well with other strategies to improve food sustainability and eating more fruit and veg. Crucially it’s different to the advice of just eat more fruit and veg. It includes the evidence base explaining the ‘why?’ – look after your Belly Bugs and your Belly Bugs will look after you. The wider ‘Follow the Belly Bug Road’ initiative takes children on a journey from 0-11 yrs old: from pregnancy & weaning to KS2 biology lessons. By the time Welsh children leave primary school, they would have become the most nutritionally knowledgeable in the world and experts at their own health self-management.

There is currently nothing else on the market that has been produced to such a high level as Belly Bugs that supports children’s understanding of complex science and latest evidence base around health. We know from our work at level 3 weight management service that a high proportion of children living with the most severe difficulties with weight management also are living with learning differences and neurodiversity. As a service we can support a pilot of Belly Bugs curriculum alongside engagement with a school that supports children with additional needs – Neurodiversity and Learning difficulties to look for their feedback on the programme too.

The education material is produced for free to download and can be developed according to individual requests to education and NHS.

I attach the evidence base of effectiveness of change in behaviour through implementation of this curriculum through primary schools<sup>9</sup>.

## Paragraph 5

What’s needed to implement:

- This would need for the Belly Bugs curriculum to be translated to Welsh – The Belly Bugs team is very happy for this to be done and would support the platform being available in Welsh.

- Look for several schools across Wales including special school for children with additional needs and neurodiversity to join in the pilot.
- Need to consult with Education about engagement with schools. I can offer an opportunity for evidence base to be presented to Education in Cardiff and Swansea.
- Offer an opportunity for the Belly Bugs team and evidence base to be presented to the committee.

## Paragraph 6

### With regards to terms of reference 3 and 4

Childhood obesity is increasing in Wales. Since the implementation of level 3 weight management service for children with BMI >98<sup>th</sup> centile in 2021 we have identified that the capacity for the professional resource to assess is up to 200 children a year per health board at level 3. In Cardiff and Vale for example there are 3500 children who would benefit from our service. We must find value Based health care strategies that enable scaling and sustainability of planned secondary care for children living with weight management difficulty, supporting weight reduction, alongside their journey of health self-management enabling discharge.

As a weight management specialist for 2 years, benefitting from working across two health boards the learning is similar and consistent. We cannot scale our excellent multiprofessional assessment teams to meet the population based problem that we have with Obesity in Wales. We must learn new ways of working and innovate to work differently in planned care. While 'The Healthy weight Healthy Wales strategy' suggests that children should be enabled with 1 -2 years follow up. More and more children will be failed in being able to access services where less than optimal follow up is possible. While multidisciplinary teams provide excellent assessment service for identifying boundaries to weight loss. We can enable problem solving to roadblocks to implementing lifestyle changes, however two follow ups 6 months apart is aspirational for the 200 children a year we see because of the demand on new assessments.

Therefore we engaged with the Bevan Commission Planned care improvement Project and completed a project in 2023 identifying a value based alternative that is better and cheaper, with scalability and sustainability with no change to current professional resource envelope. We can offer more frequent follow ups and this new way of working can be scaled to thousands with better clinical outcomes. The project is called Connection-Cysylltiad Project. It had Research and Development permission from Cardiff and Vale UHB, Data Protection Impact Assessment sign off and commendation from Value based health care Director for Wales, Dr Sally Lewis. Both Cardiff and Swansea Bay Executive boards commends the project but in this current climate it will need a small amount of investment to enable the big changes in planned care for weight management. This investment is challenging with current demands on health board saving needs. This small investment dwarfs the cost obesity is destined to cost the economy and each child in Wales.

Public Health Wales has previously estimated the cost of obesity to the NHS in Wales as £73m. By 2050, this is estimated to rise to £465m. The broader cost to society and the

economy in Wales by 2050 is estimated at £2.4bn. According to a very recent systematic review and metanalysis the average lifetime cost of obesity per child, is approximately £126,396.<sup>10</sup> If we can support 220 children optimally to improve their lifestyle, self-manage and reduce their weight that would be an economic lifetime saving of £27,807,120 for those 220 children alone. The economic report by CEDAR demonstrated that the Connection-Cysylltiad project was cheaper than our current service. The vision is to offer the innovation at next level increasing from 10 to 220 children over 1<sup>st</sup> year and thereafter increase to 1000. With three health boards still struggling to start a level 2 or 3 service for children in Wales and also adult services struggling to support a level 3 service in Swansea , this is a flexible and sustainable model for those services across Wales: for children, adult and type 2 diabetes services.

## Paragraph 7

### What moving forward could look like

- We would like to offer an opportunity to share the evidence we have collected:  
AFAL Connection-Cysylltiad Project: 20 minute presentation with 5 powerful patient stories
- Look to the committee for any advice on appropriate funding streams that could be suitable to apply for.
  - Attachments:
    - AFAL Connection-Cysylltiad power point with patient stories
    - Bevan Commission outcome report
    - CEDAR economic Evaluation report
    - Business case

Thank you for this opportunity to contribute to the Consultation process on **Prevention of ill health – obesity**

Dr Sian Moynihan

Consultant Community Paediatrician and Medical lead for :

AFAL weight Management Service for Children and Young People Cardiff and Vale UHB

Lighthouse Weight Management service for Children and Young People Swansea Bay UHB

28/5/2024

## References

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8. Bellybugs.co.uk
9. Sunderland City Council 'Belly Bugs' Primary School Pilot 2023
10. Ling J, Chen S, Zahry NR, Kao TA. Economic burden of childhood overweight and obesity: A systematic review and meta-analysis. *Obes Rev*. 2023 Feb;24(2):e13535.

## Appendix

1. AFAL Connection-Cysylltiad power point with patient stories
2. Bevan Commission outcome report
3. CEDAR economic Evaluation report
4. Business case
5. Sunderland City Council 'Belly Bugs' Primary School Pilot 2023