

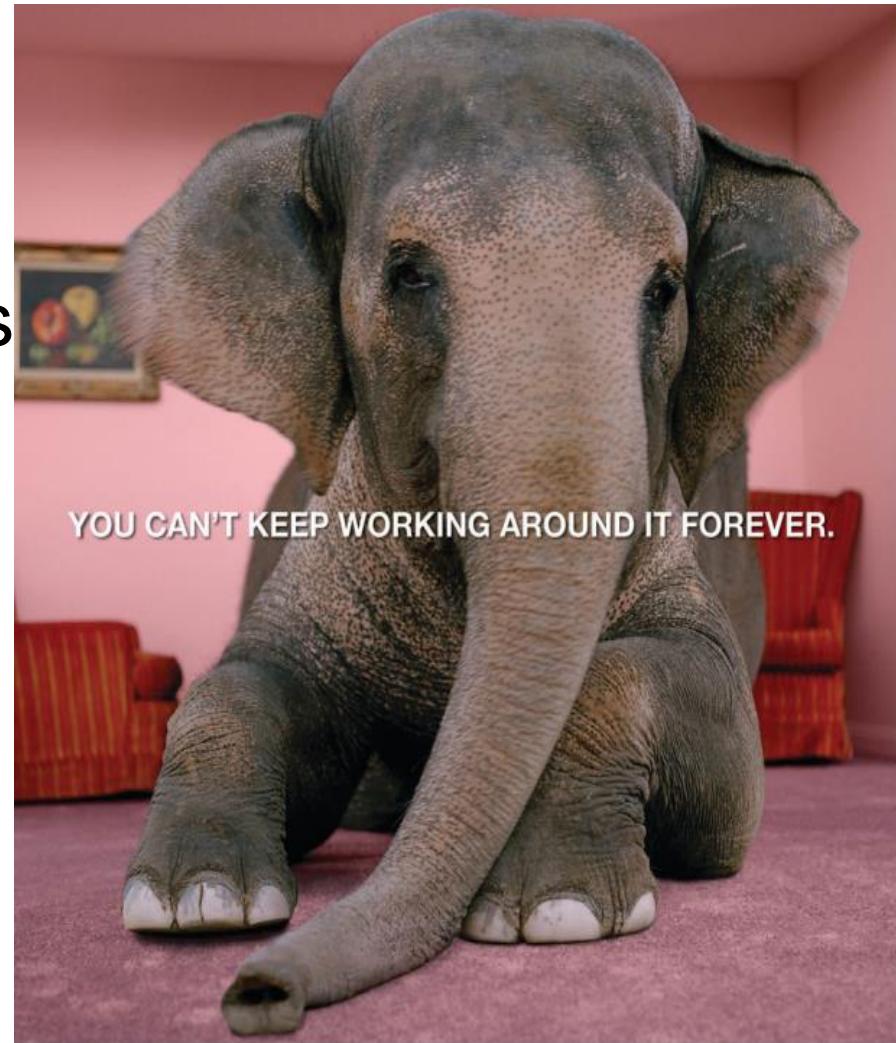
# Holistic Care of a Disordered Eating Child: The Pursuit of Optimal Weight Management

**Raphaella Rookes**

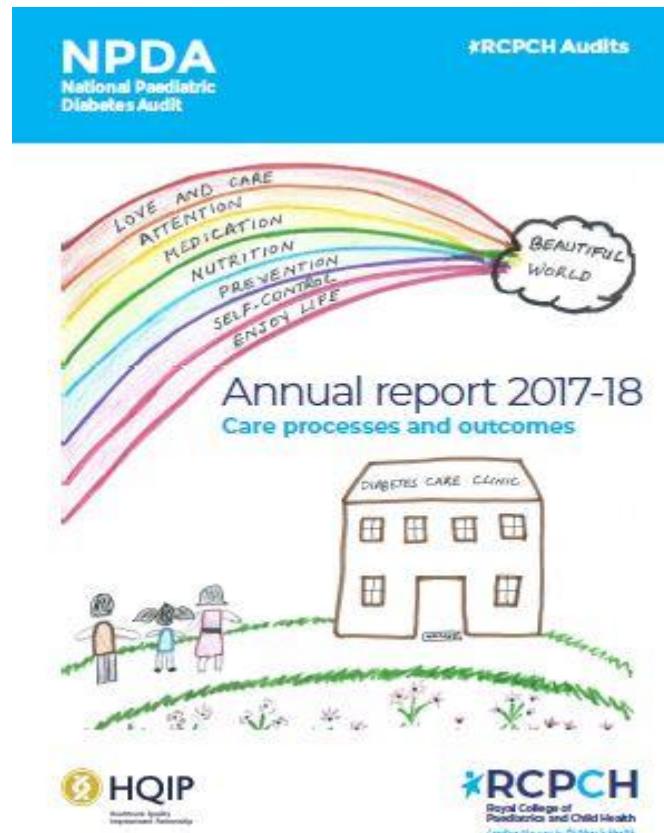
**Paediatric Diabetes Dietitian & Paediatric Team Leader**

# Overview

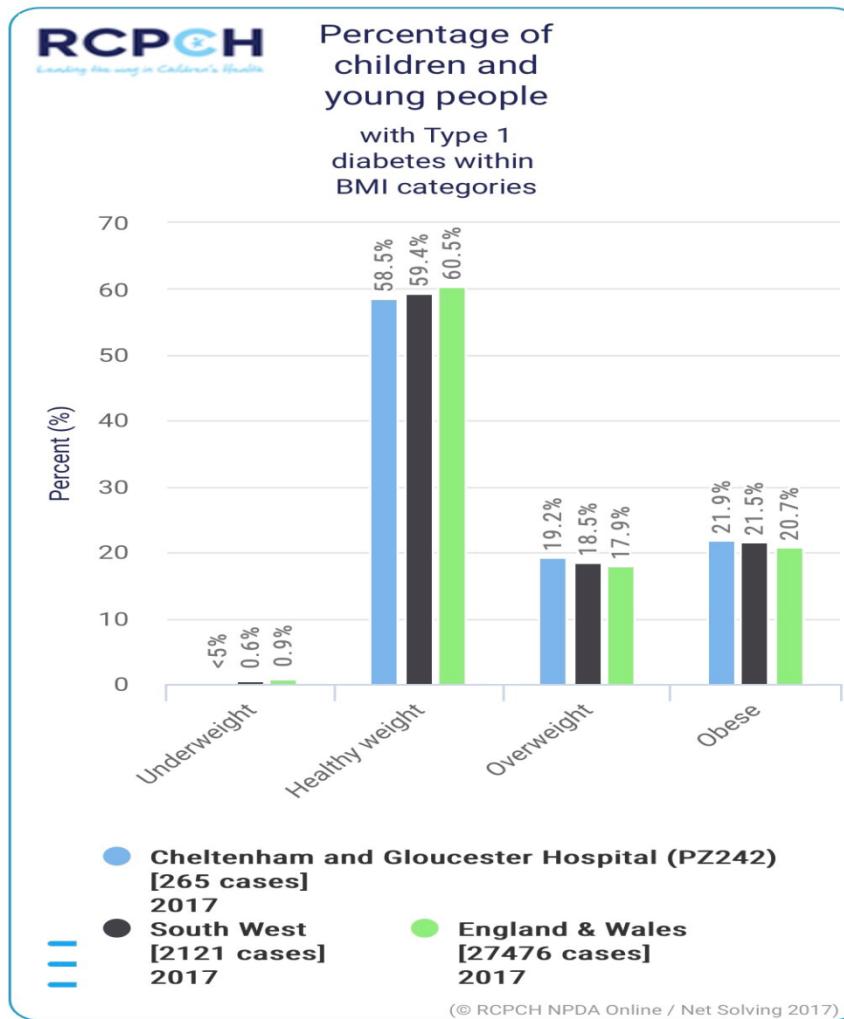
- Where are we now?
- Review of Co-morbidities
- Guidelines
- Staff feedback
- Focus areas
- Safeguarding



# Audit Data Locally and Nationally



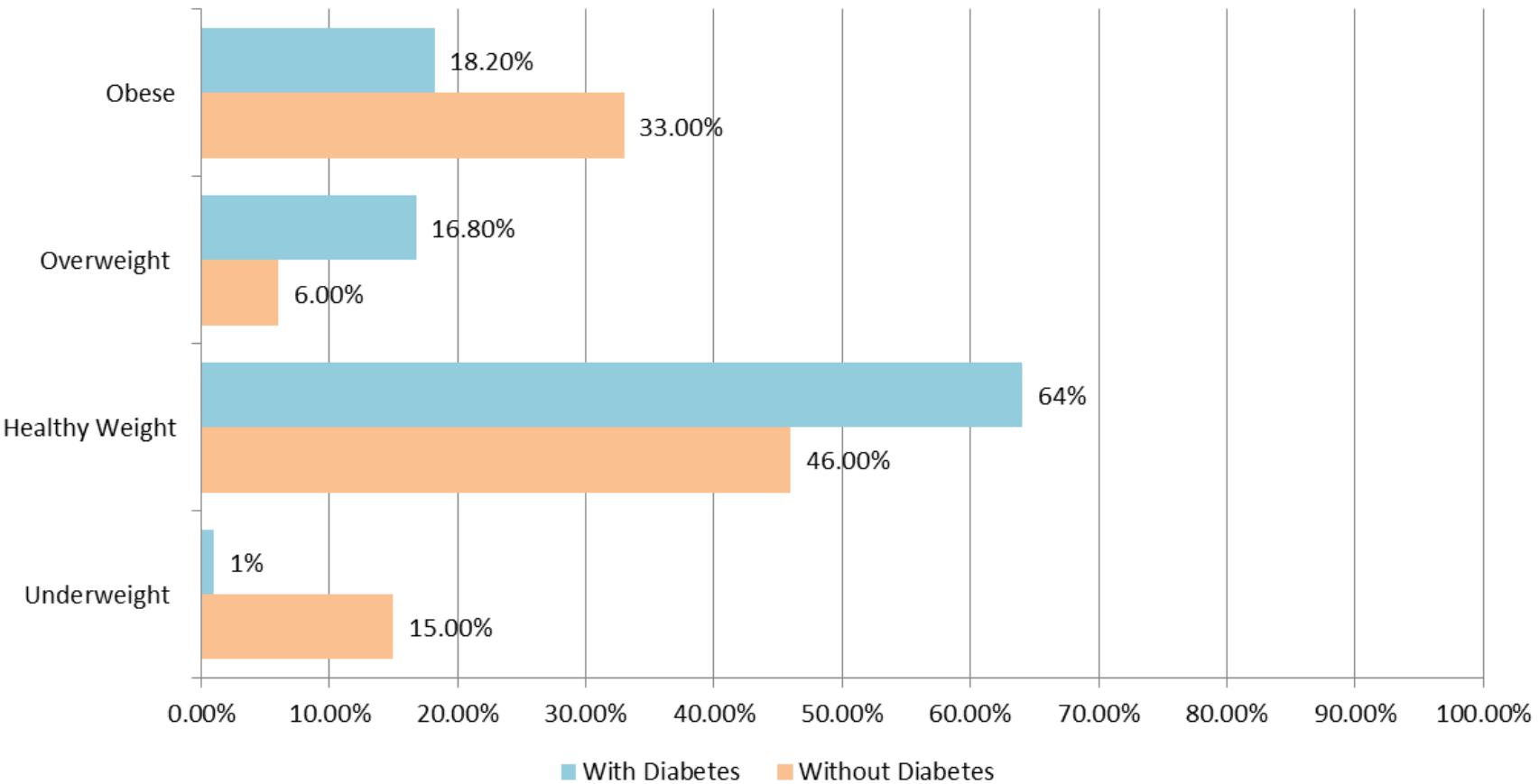
# Where are we now? National Comparison



# Where are we now? Clinic Comparison

NHS

Gloucestershire Hospitals  
NHS Foundation Trust



# Where are we now?

## A National Comparison

### 4-5 year olds

- In England **33.4%** of children Type 1 diabetes are overweight or obese compared to **22.6%** in the National Child Measurement Programme for England
- In Wales **39.4%** of children with Type 1 diabetes are overweight or obese compared to **26.2%** within the Child Measurement Programme for Wales

# Where are we now?

## *A National Comparison 10-11 year olds*



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- In England the prevalence of overweight and obesity was **35.3%** compared to **34.3%** in the National Child Measurement Programme in England
- Overall, children and young people with Type One Diabetes have a higher BMI than their non-diabetic counterparts

# Weight Management Key Concerns Associated Guidelines



**ISPAD**

International Society for Pediatric  
and Adolescent Diabetes

**NICE**

National Institute for  
Health and Care Excellence

# Why Worry?

- Striving for improved glycaemic control may further exacerbate weight gain
- Cardiovascular disease
- Dyslipidaemia and Atherosclerosis
- High Blood Pressure
- Reduced self-esteem and confidence
- Likely reduction in physical activity
- Potential difficulties in school



# What about Guidelines: NG18

- Literature review showed no evidence for any weight management approach/ strategy being effective
- ‘Support good working knowledge of nutrition and how it affects their diabetes’
- ‘Explain to patients and families that children with diabetes have same nutritional requirements’
- ‘At each clinic ensure height and weight plotted on appropriate growth chart’
- ‘Offer support to help optimise weight and blood glucose control’

# What about Guidelines: ISPAD 2018



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- Dietary recommendations are based on healthy eating principles suitable for all children and families with the aim of improving diabetes outcomes and reducing cardiovascular risk
- ‘Prevention of overweight and obesity is a key strategy of care and should involve a family-based approach’
- ‘The first year following diabetes onset is critical period to ensure excessive weight is not gained and to promote maintenance of a healthy body weight’
- ‘Review of insulin regimen to minimise hypoglycaemia and the need for large snacks’

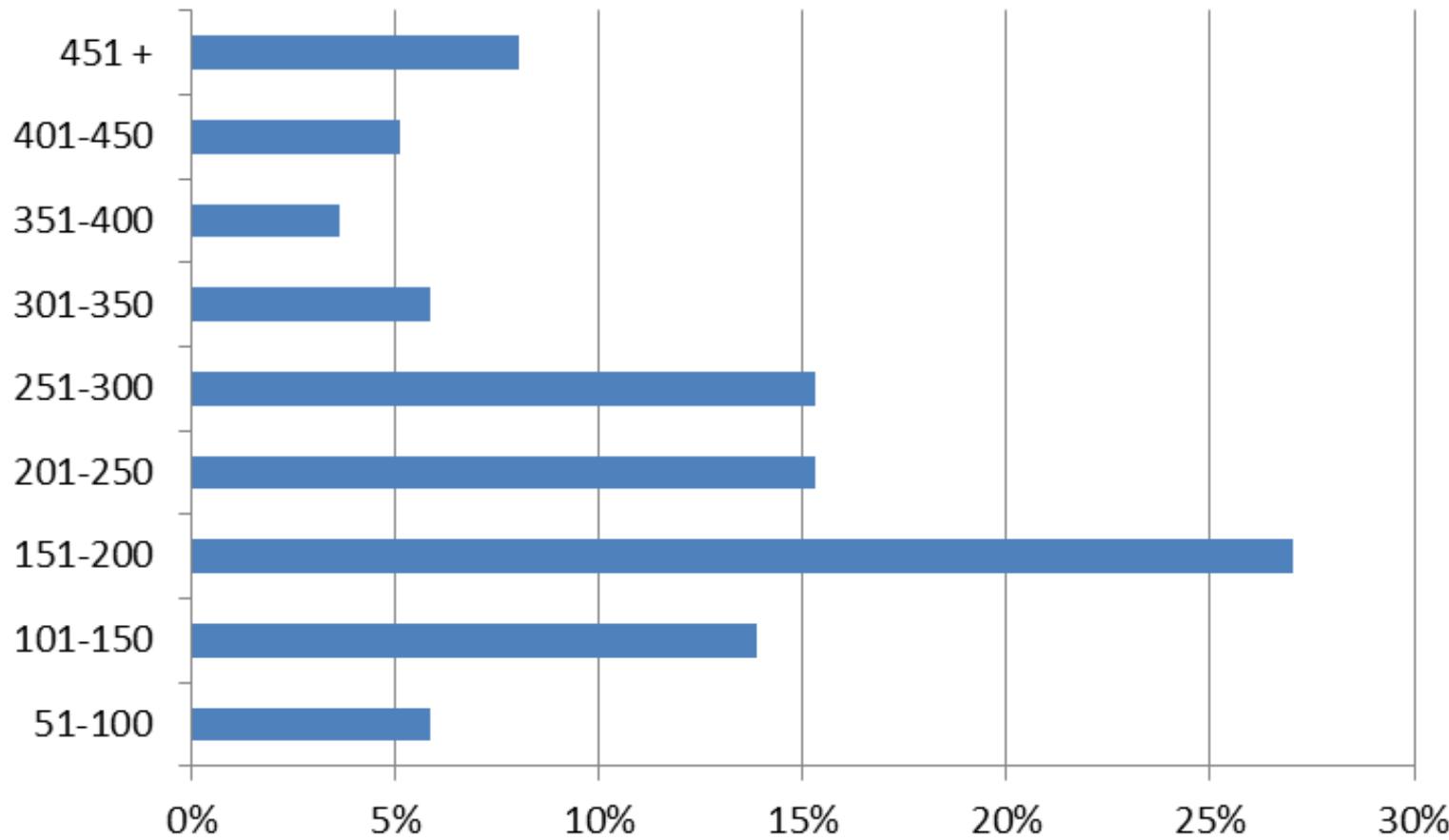
# Health Professional's Survey

n= 137



# Survey Participants

## Cohort Size



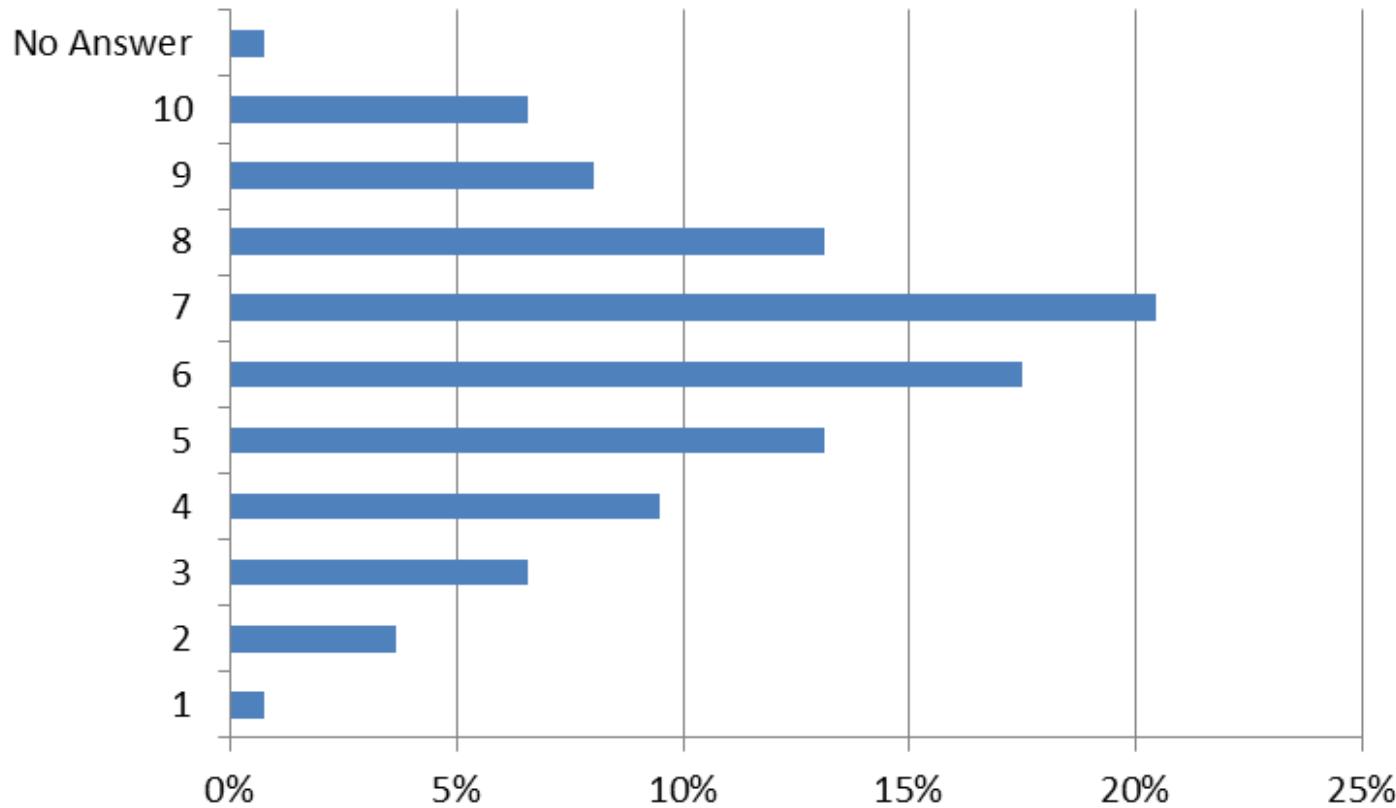
# Confidence



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**How confident do you feel in providing support for weight management in Children and Young people with T1DM?**

**With 0 being not confident at all and 10 being very confident.**

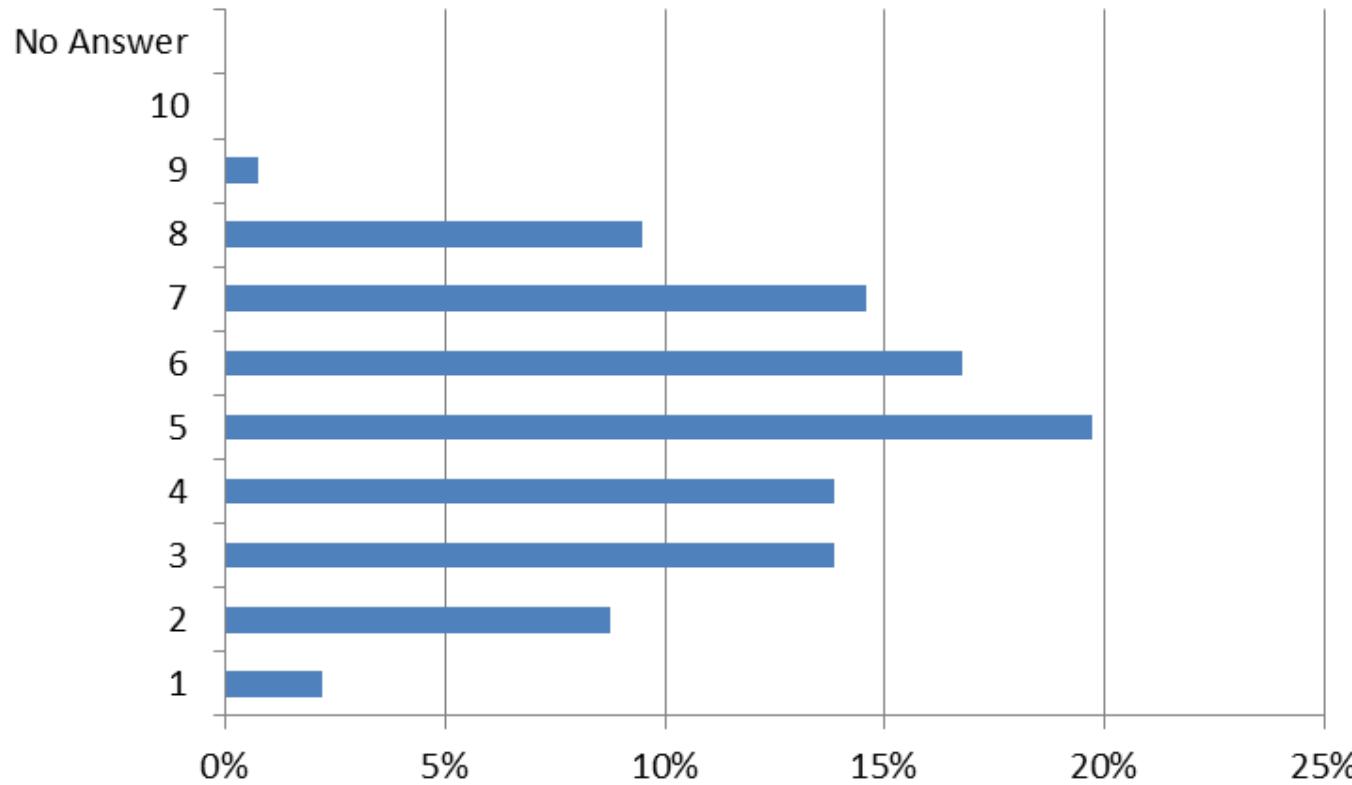


**Average Score = 6.27**

# Effectiveness

**How effective do you feel you/ your team are being in providing support for overweight/ obese children with T1DM?**

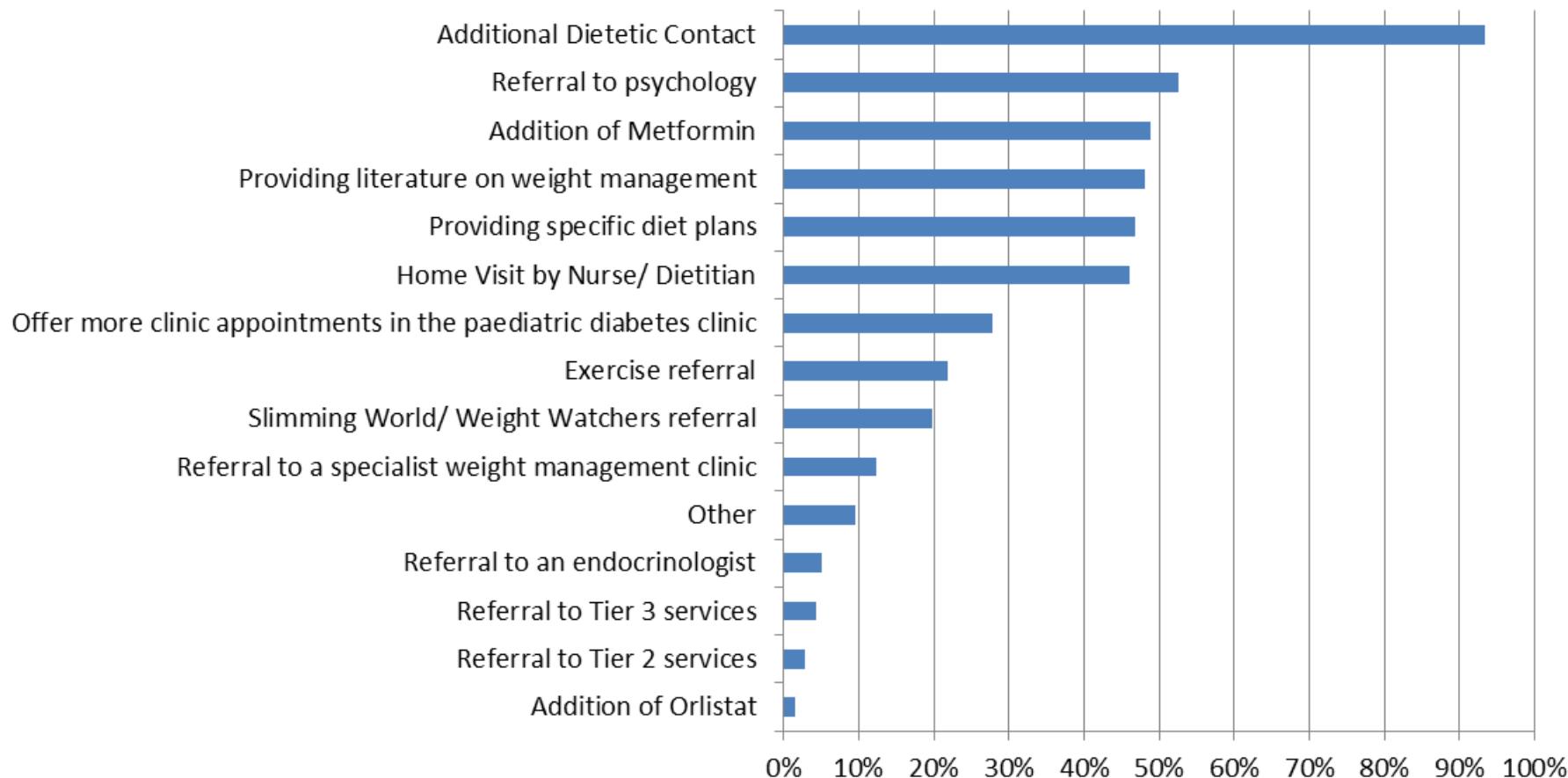
**With 0 being not effective at all and 10 being extremely effective.**



**Average Score = 5.01**

# Current Strategies

Which of the following strategies does your team currently use to provide support for weight management in Children and Young People with T1DM?



# New Initiatives

time all appointments  
children currently food psychology  
group gym tier  
activity services  
families young availability  
part provide based given patients  
home management like cooking  
referral team only tailored  
overweight clinics T1DM advice diagnosis  
whole type offer insulin available  
access HbA1c run control often issue diabetes  
help •  
dietitian rather fun CYP good Specific  
outcomes age world care dietetic around monitoring  
Additional eating being shopping diet • living people  
BMI watchers school exercise say approach  
sessions visits MDT funding service lifestyle  
physical focus difficult healthy prescription  
need specialist hunger  
input think groups community  
education psychological  
programmes other

# Key Challenges

management provide change  
weight services  
ipads own often  
about need  
already food feel  
psychology over other  
engagement area overweight eating  
problem many obesity advice  
MDT CYP control service  
clinic support dietetic rather Public specialist  
barrier months exercise knowledge skills  
months different T1DM set  
issues barriers like poor child just diabetes  
parents asking best space key long training address group  
attend approach being diet open available  
more within help appointments diet see  
always community all families team  
young really part refer subject  
family Patient patients people focus  
time motivation sometimes compliance  
healthy offer additional children availability difficult

# What is Needed?

In what way could your Professional Body / Regional Network support you in providing optimal weight management services and improved clinical outcomes?

Response	Total	%
A Regional/ National pathway for weight management services	99	72
Regional/ National literature to use focusing on weight management in T1DM	81	59
Further training in 'Motivational Interviewing' Techniques	78	57
Further training in the 'knowledge' aspects of weight management	70	51
Support to Diabetes UK/ JDRF to encourage more focus on weight management in paediatrics	61	45
Highlighting any shortfalls for this cohort of patients within peer review	59	43
Opportunity to shadow centres where Tier 2/3 Services are available	53	39
Further information on appropriate medications to use in this cohort	51	37
Availability of MSc course focusing on weight management in T1DM	40	29
Additional dataset within NPDA focusing on weight management strategies and outcomes	37	27
Further training in the role of a 'Clinical Educator'	36	26
Other	8	6

# Take Home Messages

## Focus Areas (6)



# Focus: Newly Diagnosed



PAEDIATRIC TYPE 1 DIABETES EDUCATION CHECKLIST

PAS label
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Date of Diagnosis:

Session	Content	Delivery	Signature & date
1. What is Diabetes? & complications	Simple explanation- use book for child/adult &/or body part model; key analogy; difference between T1DM & T2DM; Autoimmune disorder. Causes – not <u>well known</u> , possible causes; No one to blame – not eaten too many sweets. Treatment- lifelong insulin injections & why  Coeliac/Thyroid disease/Lipids –screening & investigations Microvascular Complications – retinopathy/nephropathy/neuropathy pathology & control	Consultant	
2. Insulin	What is insulin; Types/actions; explanation for the need for lifelong insulin and why	PDSN	
3. Blood Glucose Tests	Technique- how to test; blood glucose targets; when, where why test; common problems with testing- hand washing, use of gels	PDSN	
4. Expert Meter	What it does, how it works, brief introduction to insulin to carbohydrate ratios, insulin sensitivity factors, health events. Setting & checking time & date; when to calibrate meter, control solution lasts 3months once opened; Register Expert meter with company- why this is important including free control solution, batteries etc. when needed; Discuss spares	Dietitian/PDSN	
5. Carbohydrate Counting	What is a Carbohydrate using EatWell Plate; How to Carb count using Carbs & Cals book (free with Expert meter; app); Food Labels; Carb Counting Ready Reckoner; 'Explore Food' ( <a href="http://www.explorefood.foodafactoflife.org.uk">www.explorefood.foodafactoflife.org.uk</a> ); Scenarios at school, at grandparents, eating out etc. Diet Sheet(s) provided	Dietitian	
6. Injections	Pen devices, Needles, Sites, technique: use demo kit to demonstrate safe practice, encourage family to practice with demo kit. Outline who will be required to be competent to inject e.g. Parent/Carers, Child (age appropriate) Discuss needle/injection phobia if relevant to family.	PDSN	
7. Supervision of BG Test and Injection Techniques	Parent/carer observed as competent:	PDSN	
	Child observed as competent:	PDSN	
8. Care and Storage	Insulin: Cartridges to be stored in the fridge. Vials to be changed in pen device at least monthly. Demonstrate how to put cartridge into pen device. Use demo pens to simulate. Provide information on temperature and how it affects insulin. Prio bag leaflets to be given to families.  Sharps: Importance of safe disposal. Yellow bins, sharps on the move (at school/when out and about) disposal of yellow bins and	PDSN	

9. Healthy Eating for Diabetes	getting more bins.	
10. Lows (Hypoglycaemia)	Family focus, Principles of Healthy Eating with Diabetes- encourage appropriate appetite & growth short & long term; encourage slow release carbs, reduce high sugar foods/snacks, ensure NAS drinks, MUFA/PUFAs > SFAs; Cardioprotective considerations. Diabetes products.	Dietitian
11. Highs (Hyperglycaemia)	Family Diet History if time affords otherwise cover during dietetic meeting in first 6 weekly appointments	
12. Illness management	What is a low? Causes/symptoms/ testing and treatment	PDSN
13. Blood Ketones Testing	Causes/symptoms/treatment	PDSN/Dietitian
14. Activity/Exercise management	Discuss the general & effects of different illnesses on BG levels, how to manage this with illness/stress settings in expert meter, how to maintain hydration & BG, 2 hourly testing and ketone testing as required. Discuss the importance of keeping in contact with the diabetes team during illness/ and seeking advice out of hours. Having sugar free pain relief.	PDSN
15. Dose Adjustment	How/ when/ why: Provide family with ketone advice sheet & advise on when & who to call. Show family ketone meter and ketone strips, explain how and when to use it. GP supplies	
16. Psychology	How to manage BGs by testing before/during/after exercise to track changes in BG; how to manage high/low/overnight BGs following exercise, (Isotonic Drinks/water/exercise function on meter/pre-bed snack)	Dietitian/PDSN
17. Identification	Principles of dose adjustment; when to review BGs; expectations of parents/carers/children to self-adjust; Expectation to down load& frequency; how to set-up home download	Dietitian/PDSN
18. What will happen now?	Importance of ID, types, where to purchase	Psychologist
	6 weekly <u>appointments</u> to include dietetic appointment, glucagon training & new diagnosed group teaching session School/Nursery visit 3 monthly appointments Annual Review clinics with annual bloods, dietetic review, structured education	PDSN/Dietitian/Consultants

This checklist is for use by all MDT staff. Ward staff and members of the Paediatric Diabetes team should liaise as to the topics covered. Log comments when carers/parents/child has carried out specific tasks e.g. blood testing and insulin administration.

# Focus: Newly Diagnosed

NHS

Gloucestershire **NHS**  
Hospitals  
NHS Foundation Trust



## You Are Invited.....

The paediatric diabetes team in Gloucestershire would like to invite you to our 'Newly Diagnosed' Group Session. The session gives you and your family the opportunity to meet other families and children who have been diagnosed with diabetes in the last three months. You will have the chance to play games, have a go at our quizzes and ask any questions that you may have.



**When?** Wednesday 3<sup>rd</sup> October 2018 2-4pm

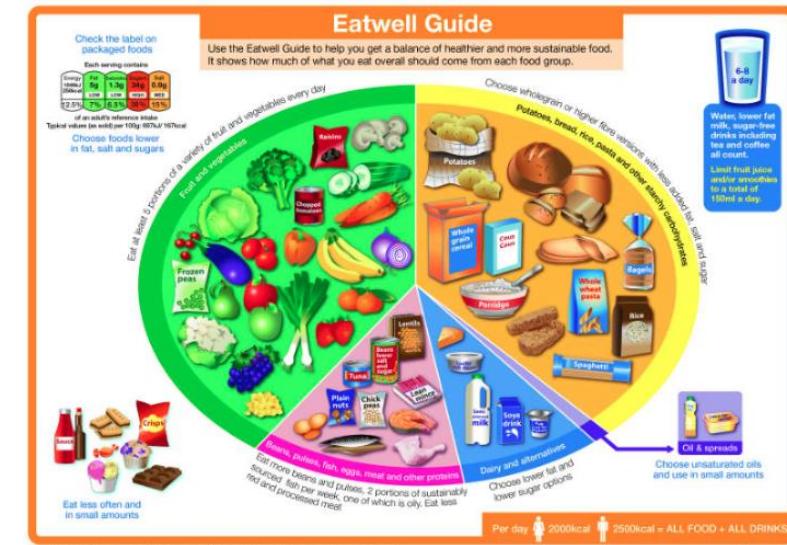
**Where?** F7, Redwood Education Centre, Gloucestershire Royal Hospital

**How to sign up** – To book your place please contact Raphaella (dietitian) by **Friday 28<sup>th</sup> September 2018** on 0300 422 5646 or by email [raphaella.rookes@nhs.net](mailto:raphaella.rookes@nhs.net)

# Focus: Intensive Nutritional Management

- **You can eat what you want just adjust the insulin'**
- Carbohydrate counting in context of healthy diet from diagnosis  
*Including Glycaemic Index/ Glycaemic Load/ Appropriate portion sizes*
- Meal-time routines with limitations on snacking
- Family-based approach
- Referral to additional agencies including Tier 2/3 services, commercial weight management programmes, exercise referral, use of activity advisor in conjunction with Public Health

Macronutrient	% Energy
Carbohydrate	40-50%
Moderate Sucrose Intake	Up to 10% Total Energy
Fat	30-35%
Saturated fat and trans fatty acids	<10%
Protein	15-20%



# Focus: Annual Review

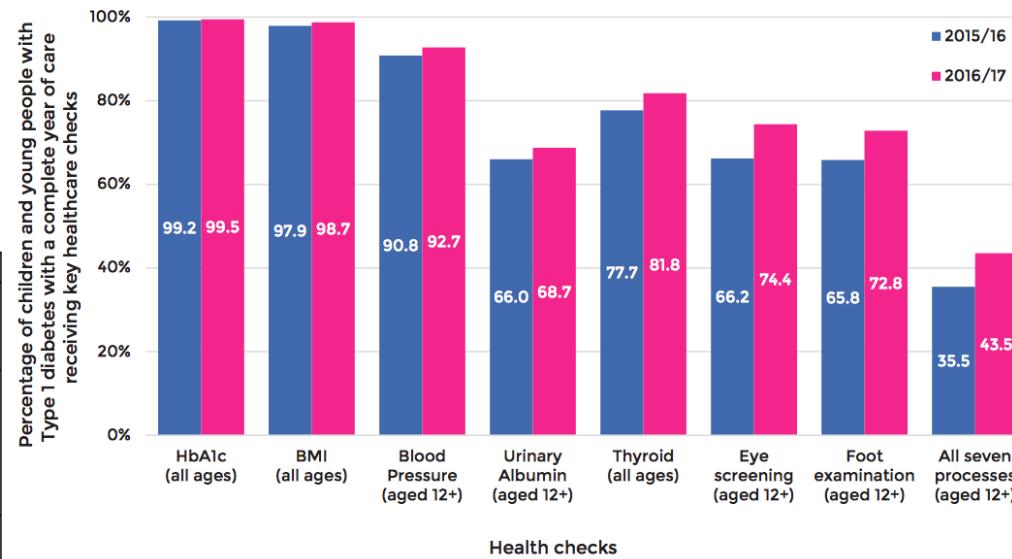
## Annual Review Session Plan – 2018

**Aim:** To provide structured education that meets the needs of the paediatric diabetes population and covers all aspects of paediatric diabetes care including clinical (hypo/ hyper management/ ketone testing/ illness/ DKA/ carbohydrate counting/ insulin action) and non-clinical (mental health and wellbeing / school management/ future aspirations and goals/ networking opportunities) entities.

**Resources Needed:** 1 x Nurse and 1 x Dietitian and (1 x consultant as available for peer support). Teaching space (SALT room at GRH and outpatients at CGH), speech bubbles with 'Would you Rather' Questions on – Sam to write questions on speech bubbles prior to event, Giant ~~Jenga~~ sets with questions on them, Patient Info Leaflets including ketone advice/hypo guidance/ events info/ contact cards.

### Lesson Plan:

Time	Activity
0-15 minutes	Introductions/ Housekeeping – <del>inc</del> toilets/ fire alarms/ mobile. Ask patients to introduce themselves and who they've bought with them to the session.
15-25 minutes	Ice-Breaker Questions. 'Would you Rather' e.g. Be chase by a bear sized duck or a duck sized bear? All questions written on speech bubbles face down on floor and all participants to pick one and then go round room answering would you rather and why?
25-55 minutes	Split total group in to children and adult participants and each group to have either a nurse or dietitian. Then play giant <del>Jenga</del> and answer questions on the <del>Jenga</del> blocks as appropriate. All questions have been devised by the whole paediatric diabetes team and include – Do you know anyone in public life with diabetes? Aim of questions is to generate discussion and cover clinical and non-clinical aspects of diabetes care.
55-60 minutes	Round-up and summary of session and signposting to further resources/ future events. Ask if any further burning questions. Complete evaluation forms.



# Focus: Role of Networks/ Professional Groups

- Establishing working groups focusing on weight management/ exercise and development of clear pathways
- Linking in with 'National T2DM Working Group'
- Liaising with external agencies e.g. schools/ commissioners for a multi-professional/ agency approach
- Role of psychologists within the Networks to guide appropriate behaviour change/ interview techniques being mindful of '**Red Flags**' / Resilience training for parents



**National Children & Young People's  
Diabetes Network**

# Focus: Quality Improvement and Identification of Risk

- Role of QI Programme to focus on weight management through QI project/ peer review?
- Management meetings – highlighting patient cohort as a risk
- Highlight shortfalls (if any) in community services and seek support/ funding to improve e.g. Tier 2/3 weight management services/ Exercise referral programmes/ Referral to Slimming World – **collaborative approach**
- Funding towards appropriate staff training

# Focus: Safeguarding

- Safeguarding is everyone's responsibility
- Linking in with social care teams or where possible employment of a dedicated social worker
- Overweight and Obesity is a safeguarding matter
- Role of early help and family support
- Role of psychology/ CYPs/ CAMHs

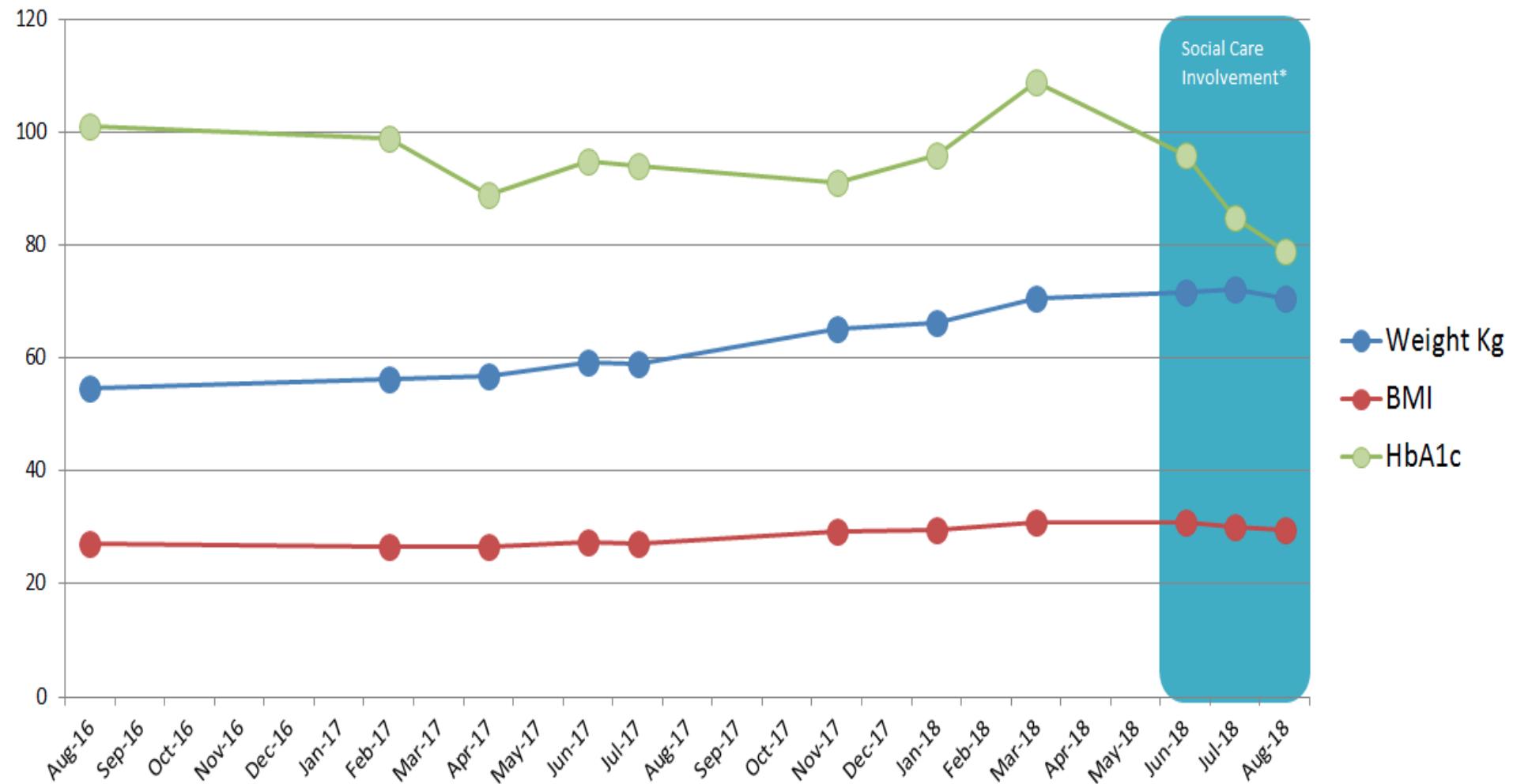


# Focus: Case Study

## 11 Year old Female

NHS

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NHS Foundation Trust



# Summary

- Causes of overweight and obesity are multi-factorial and complex
- Involvement of multi-professional agencies is essential for long-term success
- Weight management needs to be integral in conversation from diagnosis
- Team members need to be consistent in their advice
- Role of Networks/ QI projects/ patient feedback to manage resources effectively

# Questions?

