



NHS Tayside: Child Weight Management
FINAL REPORT

July 2021

Digital Health & Care Innovation Centre

The Digital Health and Care Innovation Centre (DHI) is one of seven Innovation Centres (IC) in Scotland. DHI's focus is in harnessing innovation to seek and solve key challenges for the health and care sector; transforming great ideas into real solutions.

It is a collaboration between the University of Strathclyde and the Glasgow School of Art and is part of the Scottish Funding Council's Innovation Centre Programme. It is part funded by Scottish Government. DHI support innovation between academia, the public and third sectors and businesses in the area of health and care.

The DHI has worked with partners to harness and co-design digital innovations that benefit service delivery, with project expertise in uncovering transformational opportunities in a range of conditions. Over this period DHI has developed a design led Innovation process which is in line with Scottish Design standards.

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Executive Summary

NHS Tayside are in the process of reviewing the Child Healthy Weight Service (CHWS) offered by the board and have commissioned the Digital Health and Care Innovation Centre to map the current offering and carry out engagement to explore current challenges and possible service innovations. All engagement was moved from the initial intention of face to face to virtual with interviews and a workshop and focus group being successfully carried out over MS Teams with a a broad range of stakeholders involved. It was obvious from the level of engagement that both the professionals involved in the service and partners working with children in different roles see this work as vitally important for the future. The need for prevention and early intervention was consistently highlighted by stakeholders together with the lack of weight measurement data in children and the challenge of evidencing success. In addition a number of themes emerged which fell into the three broad categories of the Referrals process, the Service itself and suggested overarching improvements.

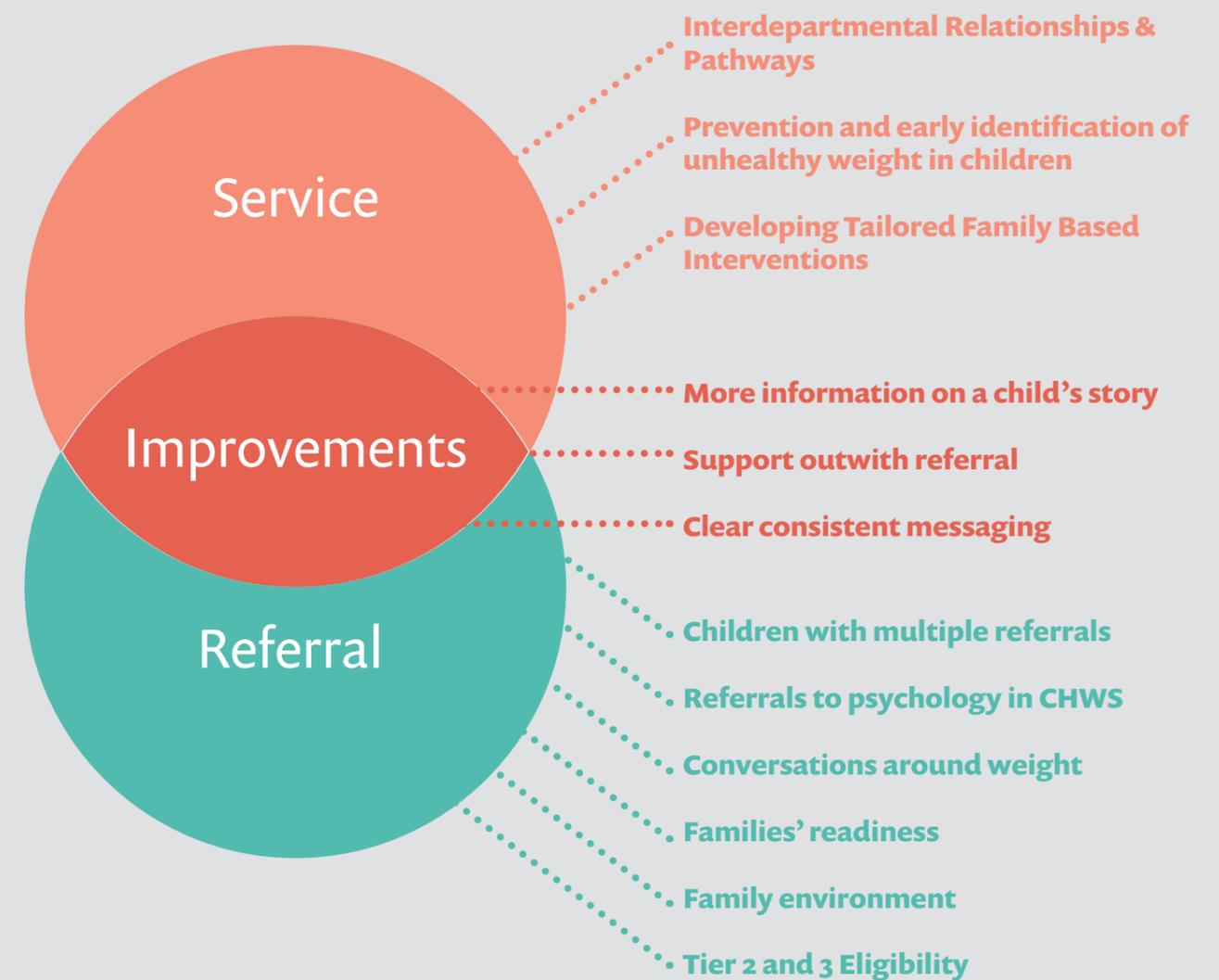
Referral: Several challenge areas around the referral to CHWS process were highlighted including the complexity involved in individuals with multiple referrals and the challenge of sharing information between those services. The challenge of having conversations around healthy weight and the importance of the family's readiness and family environment were all noted as areas which could be focused on. There was also discussion around eligibility for the service (Tier 2 and 3).

Service: Three main areas were discussed in the delivery of the service. These included the need to better coordinate interdepartmental relationships and pathways, the need for a family based interventions and focus on prevention and early identification of unhealthy weight.

Improvements: The improvements discussed included additional materials and support for allied organisations prior to referral. This could be used in some cases instead of a referral to the service. Clear consistent messaging would support this activity and ensure a unified coordinated approach. An agreement on fuller information on a child's story prior to referral would help CHWS once the referral has been made.

DHI are currently working on digital solutions for weight management in general and would be open to collaboration and sharing of findings with NHS Tayside going forward.

Overarching Themes



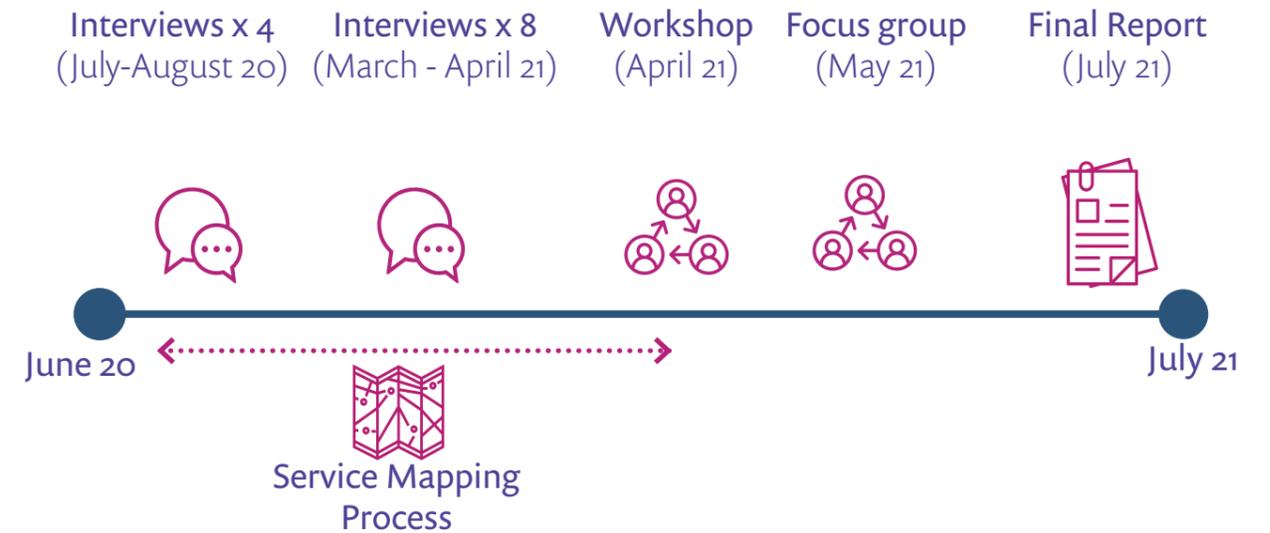
Methodology

The approach taken by DHI was informed by the experience of carrying out workshops for NHS Tayside as part of their activity as an early adopter within the Scottish Government strategy for prevention, early detection and early intervention of type 2 diabetes in 2019. This project used interviews, pop ups at clinics and workshops carried out with clinicians and service users to draw up patient pathways and to elicit a set of recommendations for change which were then described in a report for NHS Tayside. Building on this work, NHS Tayside commissioned a similar project focused on co-production of the child weight management clinical pathway offered by the board.

The DHI proposal was agreed at the start of 2020 by the NHS Tayside Dietetic Consultant in Public Health Nutrition. At this stage the work proposed included: a map of childhood and adult pathways and available resources, including commissioned services and free to access but paid services; a focus group of professionals to map the current service. This would also be used to consider how to measure and baseline the current service; a pop-up in one of the shopping centres or another suitable venue asking for feedback to a number of weight management support programmes; and a workshop with a range of stakeholders from Tayside, highlighting instances of best practice. The workshop would be used to:

- Sense check the mapping of the current situation and agree the areas to focus on.
- Review the findings from the Pop-ups.
- Consider the best practice shared.
- Capture a range of ideas which would then be considered, agreed and prioritised.
- Take the outputs and the feedback gathered to inform the transformation of the weight management pathway, and consider the potential of digital opportunities to enable sustainable service development in this domain.

As the start of the project coincided with the restrictions being imposed by the Covid-19 pandemic, the planned mapping exercise and focus group were successfully replaced with virtual interviews. The use of MS Teams by DHI and NHS Tayside greatly helped the move to this virtual engagement. Covid-19 restrictions prohibited the planned pop-up making this type of public engagement impossible. The project which ran from the spring of 2020 for a year was further affected by changes in key staff and by NHS Tayside staff being redeployed on to Covid-19 work leading to the project taking longer than had been originally anticipated.



Interviews

A set of initial interviews were carried out in order to draw up the current weight management pathway visualisations (Appendices A and B) and to elicit initial key themes (Appendix C). Virtual interviews took place with two members of staff who work only in adult service (bariatric and physiotherapy), two members of staff who work in both adult and CHWS (clinical psychology and dietetics) and one staff member who works only in CHWS (dietetics).

Prior to the workshop, a second group of interviews were carried out with the following groups in order to include the context for referral into the service and to review the pathways which had been compiled after the first set of interviews. The groups represented in these interviews included: Health visitors; Paediatrics Consultants; Child protection; Looked After Children; CHWS and CAMHS.

Workshop

A workshop facilitated by DHI, was delivered using MS Teams in April 2021 with participants from those interviewed as referrers to the service, the CHWS team and other relevant groups. This included representatives from Active Schools Angus, Dundee and Perth & Kinross, Health Visiting, GOGA, Dental, School Health, Education Services, N&D, Public Health, Social Work, The Corner, NHS Tayside and CHWS. The workshop was split into three sessions covering:

Session 1: Patient Pathways and Referral Process

Session 2: Aim and content of Tier 2 Service

Session 3: Strategies for Engagement with Service Users

During the workshop the themes which were gathered in the virtual interviews were shared, together with the pathways. There was discussion focussed around the challenges of Tier 1 delivery and there was then the opportunity to focus on Tier 2 delivery. Insights from the interviews were shared and have been included here in Appendix D and F. This initial research was aimed at gaining a better understanding of the barriers to engagement. Gaining engagement from those referred and maintaining it through delivery of the service was highlighted as a challenge in a number of the interviews. An online survey was undertaken by CHWS to get feedback about the service and this was shared at the workshop (Appendix E).

Focus Group

A subsequent focus group took place in May 2021 with staff from the Child Healthy Weight Service (CHWS). At this point the output gathered from the workshop was reviewed and there was a focus on ideas for Tier 2 delivery.

Introduction

Living with obesity increases the risk of diabetes, cardiovascular disease, hypertension, musculoskeletal conditions and some cancers. As well as the impact on physical health, living with obesity also has negative consequences on mental wellbeing and has been associated with anxiety and depression. Obesity has been described as one of the most stigmatising and least socially acceptable conditions in childhood. Children living with obesity are often bullied and have a greater risk of poor mental health. The total annual cost to the Scottish economy of overweight and obesity is estimated to range between £0.9 billion to £4.6 billion. This evidence makes it all the more concerning that two thirds of adults living in Tayside are overweight or obese and over one in five Primary 1 children in Tayside are at risk of overweight or obesity and that these levels have remained stubbornly stable over recent years.

All NHS Boards in Scotland provide a child health programme where children are offered reviews at different age stages. This includes a universal Primary 1 review/health check where height and weight measurements are recorded, however this data has not been captured in Tayside for 2 years. These measurements are recorded on the Child Health Systems Programme School (CHSP School) to derive estimates of the number of children in Primary 1 who are at risk of underweight, overweight and obesity. These statistics are published annually. The data for Tayside shows:

- In 2018/19 76.8% of Primary 1 children in Tayside were a healthy weight.
- In 2018/19, 12.3% and 10.1% of Primary 1 children in Tayside were at risk of overweight and obesity respectively.
- The BMI distribution has remained broadly similar over the period 2002/3 and 2018/19 with between 20-26% of children at risk of overweight and obesity combined (Figure 1).
- The prevalence of healthy weight amongst Primary 1 children decreases as deprivation increases (Figure 2). In the least deprived areas (Scottish Index of Multiple Deprivation (SIMD) quintile 5), 16.5% were classified as being at risk of overweight or obese in 2018/19 whereas in the most deprived areas (SIMD quintile 1) 27% were classified as being at risk of overweight or obese.
- The prevalence of healthy weight is slightly higher among girls than boys. In 2018/19, 77.8% of girls were classified as healthy weight in comparison to 75.9% of boys.

Obesity is wickedly complex and has a number of genetic, environmental, behavioural, lifestyle, economic, and environmental factors implicated in its development.

The Tayside Plan for Children, Young People and Families (2017-2020) ¹ prioritised the development of a Tayside Child Healthy Weight Strategy as part of the vision of ensuring that ‘Our children and young people will have the best start in life and Tayside will be the best place in Scotland to grow up’. Healthy weight is integral to achieving this vision. Furthermore, in July 2018 - Scottish Government published A Healthier Future - Scotland’s Diet & Healthy Weight Delivery Plan and A Healthier Future - Framework for the Prevention, Early Detection and Early Intervention of Type 2 Diabetes to halve childhood obesity by 2030 and, reduce the incidence of Type 2 Diabetes associated with obesity.

On 23 August 2018 an interactive public stakeholder engagement event was held in Dundee to begin the process of shaping the development of a Tayside Child Healthy Weight Strategy. The event was attended by approximately 80 people and aimed to:

- Identify ownership and commitment to support the implementation of the Tayside Child Healthy Weight Strategy
- Provide an opportunity for cross sector engagement and co-design
- Identify next steps in taking the work forward.

Following the event, in November 2018, a multi-agency Task & Finish Group was established to facilitate the development of the Tayside Child Healthy Weight Strategy.

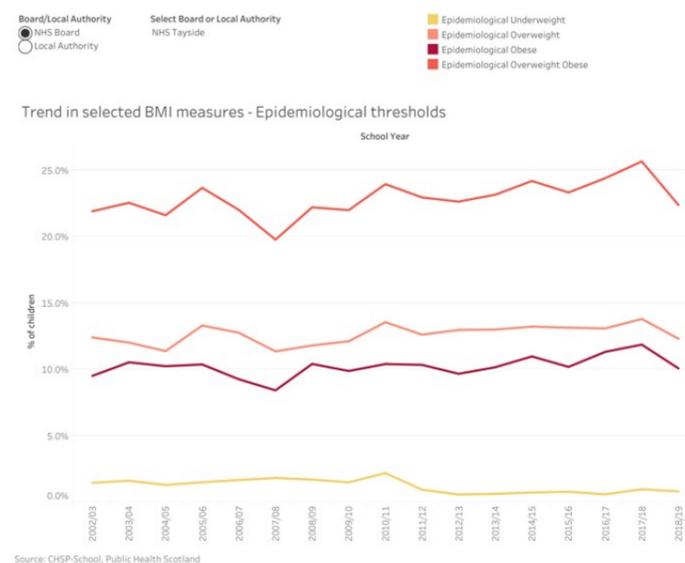


Figure 1. Proportion of children with a healthy weight, at risk of overweight and obesity, August 2020

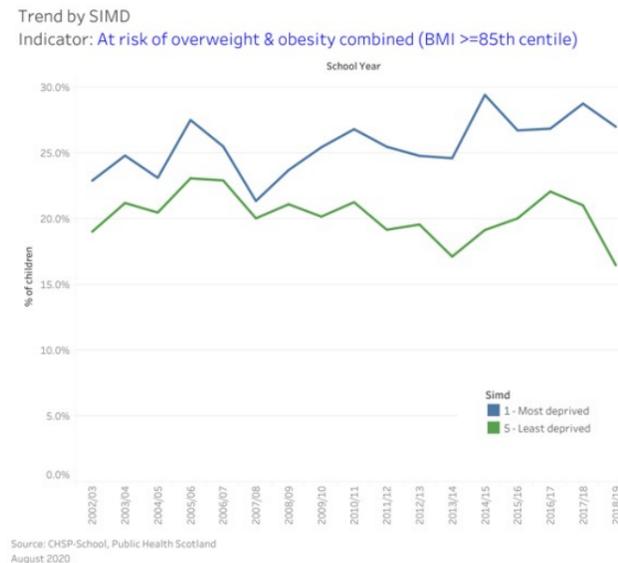


Figure 2. Proportion of children at risk of overweight and obesity by area deprivation, August 2020

A technical document was prepared outlining key data and evidence relating to Tayside Child Healthy Weight Strategy. All the outputs from the event were collated and five key ambitions emerged. These ambitions were tested, revised and re-tested with various community groups together with a number of key consultation questions to agree the final ambitions. The five ambitions are:

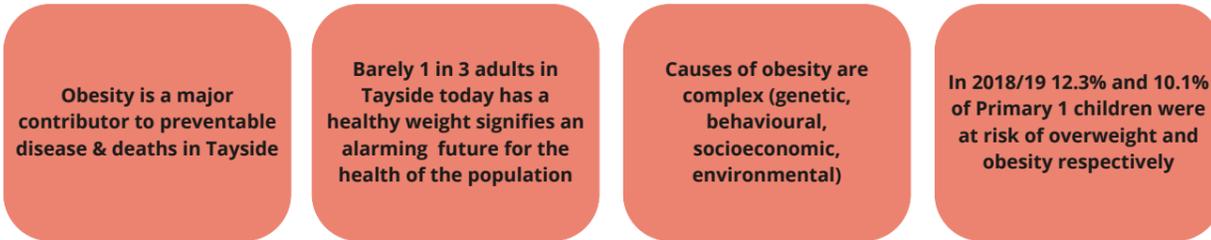
1. Child healthy weight is seen as a society wide issue. Children and young people will grow up in places where everyone helps them to have lifelong healthy habits wherever they are.
2. Children have the best start in life. Children and young people will grow up in places where everyone helps them to have healthy lifestyles right from the start.
3. Our environment supports healthier choices. Children and young people will grow up in places where nurseries, schools, businesses and, community and leisure facilities provide healthier food and drinks.
4. Families get helpful weight management support. Children and young people will live in places where their parents feel confident and get the right support after they are weighed and measured.
5. Families and communities in most need are our main concern. Children and young people will live in places where all families can afford healthy food and drink and fun activities.

A 3-month consultation took place between July 2019 and September 2019 to establish the initial calls to action for each of the ambitions. Each ambition includes the calls to action that are needed in Tayside’s journey to becoming a place that supports the health and wellbeing of children, young people and families. The final Child Healthy Weight Strategy was signed off by the TRIC Directors’ Group in July 2020 and a formal strategy launch event was held in June 2021.

Ambition 4 ‘Families get helpful weight management support’ includes a call to action for NHS Tayside to redesign its weight management services to make sure they are fit for purpose and meet the national healthy weight standards. DHI was commissioned as part of this process to support the co-production of new and improved services.

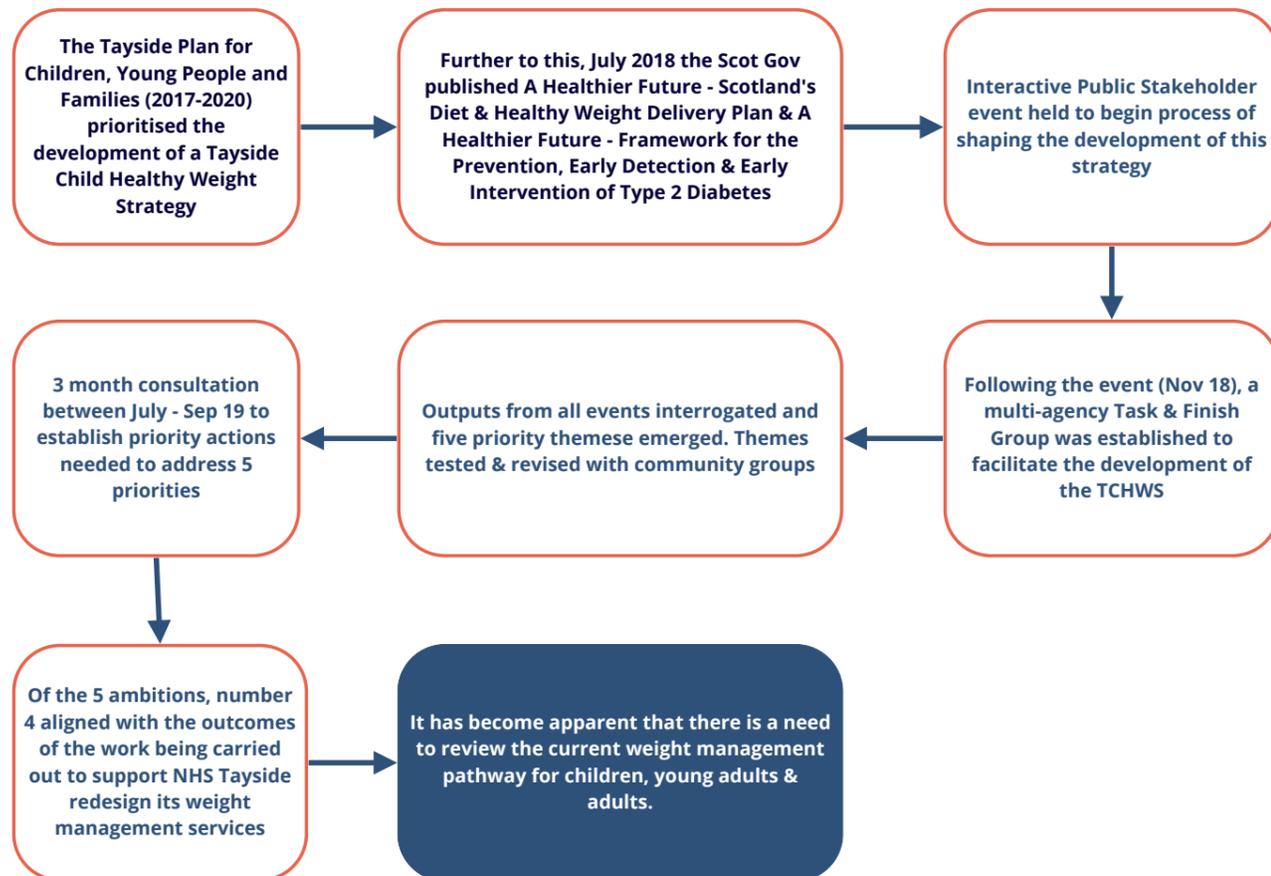
¹ <http://www.taycollab.org.uk>

BACKGROUND INFORMATION | TAYSIDE CONTEXT



The prevalence of healthy weight amongst primary 1 children decreases as deprivation increases

BACKGROUND | WORK TAKEN PLACE SO FAR



Key Findings

The themes which emerged in the initial interviews were borne out during the subsequent interviews, workshop and focus group and are described below:

The Service

A number of themes emerged around the delivery of the service which fell into three broad categories: relationships with other related services; prevention and early detection; and tailoring the service to the needs of a family.

Theme: Interdepartmental Relationships & Pathways

There are opportunities to build on relationships and pathways between services which refer into each other (CHWS, CAMHS & Endocrinology). Improved clarity on the role and offering of each service will improve referrals and ensure the right course of action is taken.

Understanding referral options

There is a need to better understand who to refer on to Endocrinology from CHWS and their role within the pathway, which highlights that working together to develop pathways between these services is important. The CHWS receives referrals from CAHMs but the relationship could be strengthened.

Linking all pathways together in one system

There is a need to develop pathways together. This includes Adult Weight Management Services, CHWS, Bariatric, Gestational Diabetes and Type 2 Diabetes being brought together in a whole system. Best practice could be learned from and consistency between pathways would be helpful.

Theme: Prevention and early identification of unhealthy weight in children

This theme covers the discussion around approaches to prevention and early identification of unhealthy weight in children including public health training, linking in

with for example, GDM pathways to ensure support from point of birth, understanding who has responsibility for identifying unhealthy weight and a current lack of data which is needed to work preventatively & get interventions right. Part of this theme highlights how inequalities play a role in likelihood of obesity, with children two times more likely to be of an unhealthy weight by age 5 if living in the most deprived areas versus least deprived.

Children entering CHWS are at an extreme weight

Children currently entering the CHWS are at an extreme weight. Could these referrals be picked up earlier? It was accepted that the reduced level of structured weight measurement in schools has reduced the points where weight could usefully be discussed. There may be an issue with parents themselves recognising unhealthy weight gains and seeking help. Having “those difficult conversations” with children regarding their weight earlier on, and approaching this in a sensitive way is a challenge. Many healthcare and education professionals struggle with this but could possibly be supported with additional materials and training.

Lack of early data to support preventative approach

It was recognised that it is a challenge to get interventions right and work in a preventative way if there is a lack of data from school age children.

Public health messaging

The value of public health training for everyone in order to ensure a whole systems approach was stressed. Key messages could put across at different learning points and then subsequently be reinforced.

Theme: Developing Tailored Family-Based Interventions

The need for a family-based intervention was discussed. It is common for members of the same family to be involved in different weight management programmes. Some adults may see their children’s appointments as separate to their own. Parents often prioritise their child’s health and do not recognise the need to address their own health needs alongside their child’s. There is an opportunity to co-design these services to ensure they are family/patient-centred and there is consistency in approach.

Lifespan Approach to Weight Management

It was highlighted throughout the process that taking a lifespan approach to the weight management services is more beneficial than an episodic approach. Possibly offering a menu of options throughout an individual’s life, and allowing them to choose what suits

them. The Scottish Government currently has a focus on reducing numbers for Type 2 Diabetes in adults and the CHWS may be seeing children at risk and have an opportunity to act preventatively.

Young Adults

Young adults may not want to be grouped along with young children in the paediatric service, but they also don’t necessarily want to be included with older adults in the adult service. In addition young adults have their own challenges which may not be so relevant at younger ages, for example peer pressure, exam stressors and social media. This group need to be offered support which respects their autonomy but also includes parents as appropriate.

Capturing impact

Currently, heights, weights and subsequently BMI are the only data which is collated. It is felt that by focusing on this in isolation, valuable data such as changes in household routine, improved fitness levels and improved self-esteem, are not being captured. By not gathering this qualitative data, the true impact of the service is missed.

Referral

The process of referral onto the Child Healthy Weight Service and the criteria for referral were considered in the second set of interviews with referral stakeholders. The referral pathways were drawn up and considered at the workshop. A number of themes emerged which are described below.

Challenges:

Children with multiple referrals

Children repeatedly being referred into the service with weight which has increased each time.

Referrals to psychology in CHWS

Knowing who to refer on to psychology can be a challenge. Currently clinical psychology works on a consultancy basis and only becomes directly involved with a small number of families. The complexity of many of the families often leads to there being an overlap between CHW psychology and CAMHS and navigating the young person to most appropriate service can be challenging.

Conversations around weight

It can be a challenge for those outside the service to have what will be difficult conversations around weight with children, young people & their families. Opportunistic conversations with the family around, for example, concerns over child’s

breathlessness, could provide a space for courageous conversations about a child's health & where a healthy weight fits in. The choice of who has the conversation may also be important, for example school staff may not feel comfortable directly referring a child to the service but could have a discussion with the head teacher and a referral could then be made through the school or parent.

Family's readiness

A family's support and readiness to change is an important factor in the success of any intervention. This is particularly important with younger age groups. Not all families are in a position where they are ready to change. It is important to make sure family's are absolutely clear what is entailed in a referral to the CHWS. The recently introduced triage conversations can help to make the referral clear to the family and to have a discussion about being ready to adopt change in the family. Unhealthy weight is often a multi-generational issue reinforcing the need to engage with the whole family.

Family environment

The environment in which young people are living can present huge challenges to successful weight management intervention. A significant number of young people referred to CHWS are living in care environments and often the circumstances which have contributed to this mean that they struggle to manage their weight. In general, the domestic environment can be a challenge as changes to families routines and behaviours are known to be required as part of a healthy weight intervention.

Proposed Improvements for CHWS:

More information on a child's story

Having more information on a child's story prior to referral allows for better targeted support for the child and family. It is helpful for example to be aware of how weight has impacted the child emotionally and socially.

Support out with referral

Community workers and others may have the opportunity to positively impact identified unhealthy weight in children without a referral to the CHWS. This would require support in the following areas:

Request for assistance

Encouraging professionals to seek help and advice from the CHWS (rather than refer).

Upskilling staff

There is a need for focused support for healthy eating and physical activity at Tier 1 (universal) to reduce the number of children at risk of entering in Tier 2 and Tier 3. There is an opportunity for all professionals to be upskilled on key health messages. For example, across Angus and Dundee training has recently been delivered on Food and Health CLPL to Primary Teachers and Early Years Practitioners. Upskilling builds confidence and competence for teachers and ensures consistent delivery of food & health instruction in schools which could be transformational in getting key messages across within and outside the educational context.

Collective support for child and family

There is strength in collectively supporting the child and family in a person-centred way. If, for example, school staff see a child with an unhealthy weight and this is impacting their quality of life, could there be a coordinated response from a range of groups supported by the CHWS?

Resources supporting weight and mental health

There is the possibility of making a video that talks about healthy weight and the links with good mental health. This could be offered to the child and their family by a person with an established relationship with them. Any future action could then be discussed helping the child and family to feel more engaged and in control.

Clear consistent messaging

There is the potential to work collectively across Tayside to develop key messages at both a universal and a more targeted level? This could include:

Physical activity

Messages illustrating what physical activity is and how it can be incorporated into daily life. The relationship with activity needs to be started early and normalised. Collective messaging is one part of the Physical Activity agenda that could be developed across Tayside.

Myth of puppy fat

Parents can still believe extra weight will go away without a more active lifestyle being adopted.

Portion sizes

There is a significant lack of understanding of what suitable portion sizes are.

Weaning

Weaning provides an opportunity to teach good food and mealtime habits.

Healthy relationship with food

Clear messages on what a healthy relationship with food is and signposting to appropriate resources such as: handsonscotland.co.uk/eating-too-much/ and handsonscotland.co.uk/eating-well/

Ideas for engagement

- Using local parents or children's voices could make materials more accessible and compelling with images, stories and language that people can relate to.
- Development of a 1st line referral pack which could include advice on portion sizes & useful resources & websites for people who are giving first line advice?
- Early targeted engagement with expectant mothers and partners, for example through their GP and midwife. 52% of women are overweight at 12 weeks into pregnancy and this is ideal opportunity to be engaging. This could include information and support for couples trying for a child and could open up discussions and promote healthier behaviours.
- Could we be including more physical activity components within parenting skills opportunities, such as buggy walking groups and outdoor groups?

How might we...?

During the workshop the themes, challenges and ideas were gathered into a number of "How might we?" questions. This approach is a systematic design method to prepare for ideation of innovative solutions which are based firmly on research insights and existing knowledge² captured in the interviews and workshop.

How might we break down barriers for entry onto service?

Cost is a potential barrier for families in accessing services, particularly for physical activity. There are numerous opportunities for physical activity but these are not viable for some families. How might we break down this cost barrier?

How might we use alternatives to weight as a criterion for referral?

BMI is currently used as a gauge for which the service is recommended however could a more holistic view be taken, for example, using a checklist of factors, if more than a certain number are met then this should proceed to referral? The current focus on weight could be replaced with a more holistic view including lifestyle, diet, and physical and mental well-being. Any change would however have to include a discussion around the measurement of success in order to meet national standards for child healthy weight.

How might we include school nurses?

Weight management does not currently fit within the remit of the school nurse as identified by Scottish Government pathways.

- Weight measurements may be taken by other professionals outside the CHWS for different reasons. Could this be an opportunity to offer weight management support?
- Could school nurses be part of a group of professionals supporting those children who have been referred, offering discussions around mental health for example.

How might we better engage children and families?

As noted before, there could be the opportunity for conversations within schools to encourage discussion (as part of the curriculum) about the impact of unhealthy weight. This could focus on an individual's quality of life, for example, struggling to breath or limiting ability to do exercise and be active which could then take a broad solution focussed approach. Family club was given as an example of support for families that is delivered within schools on evenings and holidays which features different stations on healthy eating and activity. This allows information to be shared with families in a way that does not overwhelm and allows for signposting once a relationship has developed.

How might we build on pre-existing relationships when delivering the service?

Supporting other groups or activities as a 'host' for weight management professionals so that support can be offered in a less formal environment. Once the relationship with parents and workers have been developed, the parents have the confidence to ask or identify other areas they would like support with, such as, income maximisation and smoking cessation. Could existing relationships, for example Get Out Get Active (GOGA) which is a programme that supports people living with and without a disability to enjoy being active together, give weight management support to a family within their bubble? This would be less daunting for the family and also encourage regular activities which considering range of abilities. There is a need to carefully consider who will partner and deliver these.

Ideation for Tier 2 interventions

The Focus group which was the last element of the engagement in this piece of work considered options for Tier 2 specifically and focussed particularly on the idea of supporting and enabling other groups to complement the Child Healthy Weight Service. There is currently no Tier 2 CHWS programme in place in NHS Tayside. Resource is a challenge within the CHWS team and delivery will not be possible alone. The service could offer training & upskilling to other groups in order to deliver portions of the service with the caveat that those organisations would also need to increase their staff levels.

Partners as vehicle for delivering Tier 2

This suggestion centres on equipping certain activity partners to compliment the service offered by CHWS. There is an opportunity to build a relationship where activity partners could help in engaging families rather than just being a referrer into the service.

Challenge:

There may be challenges with governance and data sharing between CHWS and such partners.

Other possible links:

- There are existing partnerships with Leisure and Culture Dundee, Live Active and Angus alive and other facilities in the board area.
- Active Schools sit within Leisure and Culture and have close links with family for example, School and Family Development Workers in Dundee. There would be a benefit in linking with such organisations as they are already embedded within schools and have established relationships so would be well placed to identify at risk families to access Tier 2.

Offering options tailored to age group

The Best Foot Forward (BFF) programme is being trialled as an option for CHWS delivery but is not currently an intervention option. This focuses on primary school children. BFF is jointly delivered with Active Schools. There is a need to identify groups to work with the under 5-year-olds as this is a priority area.

Other groups to consider:

- The Corner
- Young Carers
- Barnardo's
- Church groups

Weight and height measures

There is a need to adhere to the Scottish Government data gathering requirements (heights and weights). During the Covid-19 restrictions capturing this data has been difficult. There is a possibility that with training, individuals outside the service could carry out weight measurement.

As stated earlier in this report, weight measurements only give information on one aspect of an individual. It was suggested during the workshop that taking a more holistic approach using stories to measure progress would be a powerful way of sharing outcomes. It was noted that the use of any alternatives to standard weight measurements would need to be raised with Scottish Government and CHWS would need to show that they shouldn't be solely focused on weight for the best outcomes.

Engagement with young people around what they want

Direct engagement with young people about what they want from the service could be used to inform activities for different age ranges.

Schools can be inundated with requests for surveys so engagement needs to compliment other activity which is already happening. The engagement activity could also offer additional information and resources. During the workshop the use of pop-ups was discussed as a possible option. This could for example, be hosted in a school by a partner organisation (supported by CHWS) and could consider a question such as 'What do we think about weight?'

Next Steps

In addition to the recommendations and ideas contained in this report it is recommended that this work would benefit from digital options for both engagement and service delivery possibly building on current projects on weight management within DHI. There is ongoing work with NHS Grampian led by the DHI Chief Technology Officer who is open to discussing a trial of the solution prototype in NHS Tayside.

Glossary of terms

Abbreviation Full title

AWMS	Adult Weight Management Service
BFF	Best Foot Forward Programme
BMI	Body Mass Index
CAMHS	Child and Adolescent Mental Health Services
CHWS	Child Healthy Weight Service
CLPL	Career-Long Professional Learning
Covid-19	Coronavirus Disease
DHI	The Digital Health and Care Innovation Centre
ECS	Electrotechnical Certification Scheme
GDM	Gestational Diabetes Mellitus
GOGA	Get Out Get Active
GP	General Practitioner
IC	Innovation Centre
ISD	Information Services Division
NSS	NHS National Services Scotland
PSHE	Personal, Social, Health and Economic education
T2D	Type 2 Diabetes
TAWMS	Tayside Adult Weight Management Service

Appendices

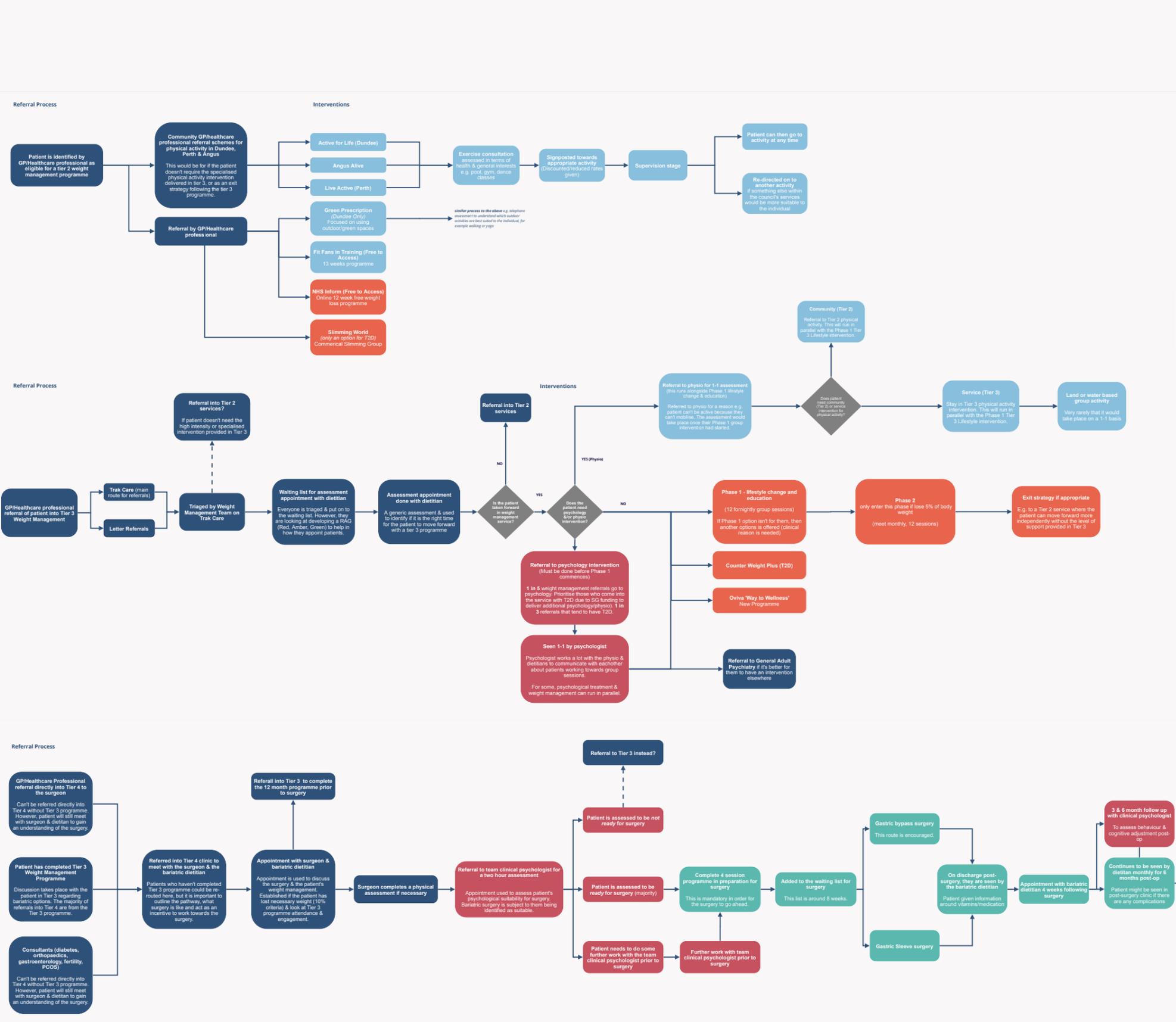
Appendix A: Tayside Adult Weight Management Service

Tier 1
Awareness raising, population based approach. Broad messaging, no tailoring. Public Health's remit.

Tier 2
BMI >30
Physical activity delivered in this tier is more community based

Tier 3
BMI >30 & co-morbidities
OR
BMI >35 with/without comorbidities

Tier 4
Bariatric Services
Patient must have completed the 12 month Tier 3 programme. Eligibility assessed on their weight loss and Tier 3 programme attendance & engagement.



Key

- Surgical Intervention
- Psychological Intervention
- Dietary/Lifestyle Intervention
- Physio intervention
- Referral Process
- Past, Current or Future Programmes / Initiatives / Approaches

Appendix B: Child Weight Management Service Pathways

Tier 1
 Universal prevention, awareness raising, population based approach. Public Health's remit.

- Child Healthy Weight Team
- Public Health
- Public Partners? E.g. Leisure Centres, Eat Well Play Well
- Schools (School Nurses)
- Health Visitors

Health visitors

Babies first visit is 10-14 days old to check growth percentile. There can be a lot of anxiety around feeding at this time for parents.

Core pathway visits are at 12 weeks, 16 weeks, 8-9 months, 1 year old, 2, then 4. Also up to School Entry (5+).

Early interventionist - weaning stage, healthy eating, portion sizes, information for mums, discussion around what child is eating.

National Screening

30 month screening is the last time a child's weight is recorded before they are weighed again in P7. However, P7 weight is not a routine measurement.

There is now a 4-5 month review measurement taken in place of the P1 measurement.

The Scottish Government layed out the requirements for the measurement to be taken again and flagged to health boards that this data must be collected.

Eat Well Play Well

The Dundee Healthy Living Initiative and Leisure and Culture Dundee are working together on the Eat Well Play Well project. Eat Well Play Well is a nutrition and play programme that has been developed for parents with children aged 0-5 years. The project will support community groups and voluntary organisations to become leaders in nutrition and play and help individuals to achieve and maintain a healthy weight.

Breast feeding groups

Breast Buddies as part of Home-Start Dundee with support from NHS Tayside and the Scottish Government, is set to increase the breastfeeding support in Dundee.

School nurses

A national change around the role of school nurses. They no longer see this sort of weight intervention as their remit. They do not identify children who are in an unhealthy weight range.

Daily activity initiatives

There are many examples of daily activity approaches. One example is The Daily Mile which a social physical activity, with children running or jogging for 15 minutes a day. The initiative takes places in schools and is above and beyond the recommended 2hrs PE per week.

Please note that many schools have alternative approaches in place. Sports clubs also offer regular activity.

Parenting & Family learning

Parenting & Family learning Perth and Kinross, Community Cookit, Play on Pedals are examples of parenting and family learning programmes taking place across Tayside.

Local Examples (no longer running)

Fun Fit Tayside, Healthy Happy Mealtimes, Fit Club Eat, Play Learn Well (all local examples)

Other related examples

Child Smile is a school initiative run by front line dentists and is accessible to all.

CFE Health Curriculum

The whole CFE Health Curriculum if followed correctly is vital as well as the Play Strategy for Scotland.

Tier 2
 Currently **no** Tier 2 programme. Used to be Get Going (group based weight intervention) and My Time Active (delivered by external partners).

Tier 2 should be aimed at children that do not require specialist intervention.

Group sessions could be Tier 2 but are currently Tier 3.

- Clinical Psychologist involved in regards to minimum standards
- Child Healthy Weight Team
- Sport Scotland: Active Schools Programme
- Child & Family Development Workers

Currently no Tier 2 Programme

Previous Tier 2 Programmes were: **Get Going** (group based weight intervention) and **My Time Active** (delivered by external partners).

MyTime Active (Previous Programme)

This is a social enterprise who were partnered with NHS Tayside and delivered a programme similar to Get Going. They delivered this intervention on the behalf of the CWMS.

This means when families were referred to the CWMS, there was an option to refer them to a MyTime Active group.

Health Behavior Change Training

Looking to develop some specific training for partners who can then deliver **Get Going**. Get Going is a group based weight intervention that is delivered by team of dietitians.

Opportunity for an alternative service to provided Tier 2 Services

E.g. swim, gym. Makes it more acceptable & accessible which would also reduce pressure on specialist service and increase scope to assist more families earlier.

Best Foot Forward

This is a healthy lifestyle intervention spread over 9 weeks, incorporates healthy habits within home & physical activity component. Activity partners are being trained on behalf of child healthy weight service & this will be delivered in schools.

Child and Family Development Workers

A new role that is based in schools. They support children & families who tend to come from disadvantaged backgrounds with complex issues.

Get Going (Previous Programme)

A group based weight management intervention for children, young people & their families. In the past, this has been delivered by staff within the CWMS team (dietitians, support workers, clinical psychology.)

Active Schools

Sport Scotland led programme. Aims to provide more opportunities to take part in sport and physical activity before school, during lunchtime and after school, to develop effective pathways between schools and sports clubs in the local community. CHW is providing 1 to 1 with families etc as some children unlikely to engage.

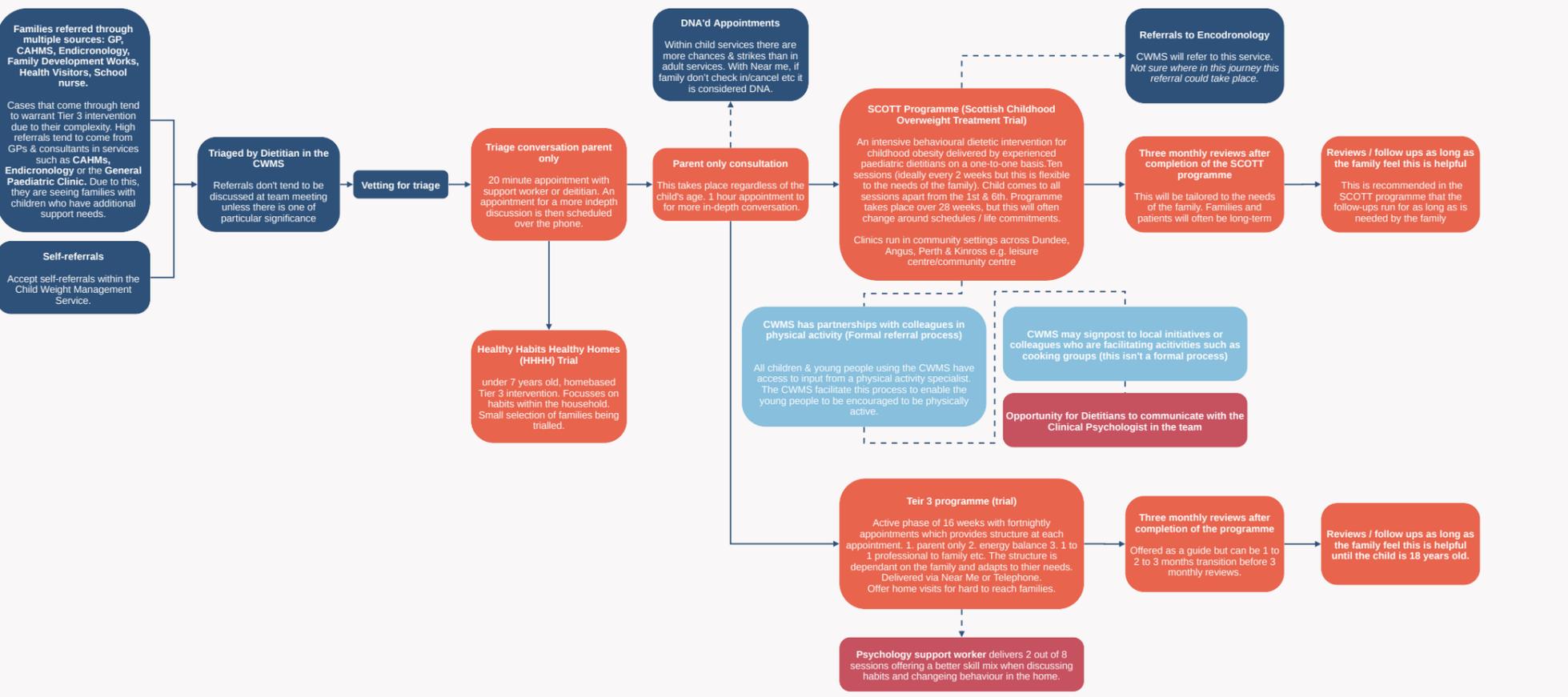
Looking to work with partners in leisure & culture backgrounds

Tier 3
 For children under the age of 18 (used to be 16) and with a BMI above the 91st percentile. Tier 3 programme called SCOTT (Scottish Childhood Overweight Treatment Trial) with a new trial service running as a replacement service.

Tier 3 interventions are aimed at children that require the support of a Multi-disciplinary team.

A family service - weight always considered in the context of the family.

- Clinical Psychologist involved in regards to minimum standards
- Child Healthy Weight Team (Dietitians AKA practitioners, clinical psychologist)



Key

- Surgical Intervention
- Psychological Intervention
- Dietary/Lifestyle Intervention
- Physio intervention
- Referral Process
- Past, Current or Future Programmes / Initiatives / Approaches

Appendix AC: Initial Key Themes

NHS Tayside Weight Management: Themes & Sub-themes

Themes & Subthemes	Description
Theme: Interdepartmental Relationships & Pathways	This theme is based on discussion during the interviews that highlighted that there are opportunities to improve relationships and pathways between departments which consistently refer to each other (CWMS, CAHMs & Endocrinology). Part of this is ensuring clarity of what each service's role is and understanding when referrals to another service is the right course of action.
Relationship between CAHMs/Endocrinology & the Child Weight Management Service	Due to the number of young people being referred between CWMS, CAHMs and Endocrinology, it was highlighted that working together to develop pathways between these services is important. The CWMS receives a lot of referrals from CAHMs but currently it is felt that there is a lack of a close working relationship. Additionally, CWMS receives referrals from Endocrinology and it was highlighted that developing pathways with this service was an opportunity e.g. asking the questions around what do Endocrinology do when they identify a child who is at risk of T2D?
Linking all pathways together in one system	A need to tie all pathways together, this includes AWMS, CWMS, Bariatric, GDM, T2D, brought together in a whole system.
Theme: Prevention and early identification of unhealthy weight in children	This theme covers discussion around approaches to prevention and early identification of unhealthy weight in children. This theme covers: basic public health training, linking in with GDM pathways to ensure support from point of birth, understanding who has responsibility for identifying unhealthy weight and a current lack of data which is needed to work preventatively & get interventions right. Part of this theme highlights how inequalities play a role in likelihood of obesity, with children 2 x more likely to be obese by age 5 if living in the most deprived versus least deprived.
Children entering CWMS are at an extreme weight	Children entering the CWMS are at an extreme weight. What is stopping these referrals coming in earlier? Less recognition outside of CWMS of weight that isn't at an extreme level. An issue with parents themselves recognising & health professionals raising the issue. Having conversations with children regarding their weight earlier on, and approaching this in a sensitive way. Many healthcare professionals struggle with this.
Lack of early data to support preventative approach	Hard to get interventions right and work in a preventative way if there is a lack of early data. School nurses and CAHMs are not taking the role of identifying children with unhealthy weight ranges. Previous national screening programme in P1 no longer taking place - point made that there needs to be a dialogue with health visiting and school nursing. High figures of children who are overweight by P7.
Public health messaging	A point made that it was felt that basic public health training is missing. Training everyone in order to ensure a whole systems approach. Providing the public health training to everyone in order for the key messages to get across and reinforcing them.
Theme: Developing Tailored Family Based Interventions	Needs to be options for a family based intervention. Many cases of adults in the adult service having children in the child's weight management service. Common to have multiple people from the same family involved in different weight management programmes. Occasionally adults will see their children's appointments as separate to their own. Important to co-design these interventions to ensure they are family/patient-centred.
Understanding barriers to engagement	There is a learning opportunity around the DNA rates for the tier 2 programme and tier 3 SCOTT programme, through understanding what the barriers were in the past preventing families from engaging. Issues with both My Time Active Programme & Get Going (Tier 2 programmes) in getting families to attend were challenges with the timing, the setting and additional support needs children may have.
Revised Approach to Tier 2 CWMS Programme	Currently no Tier 2 CWMS programme in place. An opportunity to develop this to identify cases before they become too extreme. Currently relying on parents raising an issue or an issue being identified at a health review e.g. asthma. Tier 2 doesn't need to be a specialist service e.g. delivered through a gym by a fitness coach, this could make the programme more acceptable & accessible. CWMS could be part of this in some way as they have the expertise. Perhaps part of the problem is that families think they don't need to be involved in a specialist service.
Multiple family members involved in different programmes	There is an emphasis on family intervention as much as possible, however this doesn't always make sense to parents. Example from dietitian who works across both adult & child service of seeing members of the same family in one day across the two services. They use a child-centred approach, but the adults are the enablers. Delivery of messages across adult & children's weight management services is different (key messages the same) & this can lead to conflict.
Capturing impact to the wider family unit	BMI is the standard deviation but this doesn't capture rich qualitative data. Capture the richer lifestyle information and how this impacts wider health and wellbeing / MH of the family unit - the wider contributing factors of dietitian intervention. Currently if BMI doesn't change then it is viewed as a failure, but the child might have joined sports club or reduced screen time and this is not measured as a success.
Theme: Lifespan Approach to Weight Management	It was highlighted several times during the interviews of taking a lifespan approach to the weight management services offering, rather than an approach of age/condition.
Young Adults	Menu of options throughout the patients lifespan, choosing what suits them. Not being prescribed to one area and having a choice e.g. young adult group is hard to fit into services as they do not want to be alongside young children in the paediatric service, but they also don't want to be alongside older adults in the adult service.
Theme: Referrals & Triaging in CWMS	This theme focuses on issues and opportunities raised around referrals into the CWMS. It highlights the issue of children who are repeatedly referred into the service with an increased weight each time, lack of clarity for dietitians on when to refer to clinical psychology and opportunities to consider who refers into the service and if they could benefit from support in having difficult conversations around weight.
Children with multiple referrals	Children repeatedly being referred into the service and weight has increased each time. Information they are provided with at each referral/within the programme is the same. Multiple referrals could be due to the context of the family, obesogenic environment, more vulnerable to this.
Referrals to psychology in CWMS	Lack of clarity of when to refer to clinical psychology, need a better understanding of when is the best stage to refer - this would be really helpful for the dietitians. Psychological assessment not properly built into the initial assessment that CWMS would do - something that could be looked at.
Referrers into the CWMS service	Is there an opportunity to consider how to support potential referrers to have these difficult conversations around weight with children, young people & their families.
Tier 3 Eligibility	It's difficult to determine who should go through Tier 2 or Tier 3 as it is not as straightforward as lighter children go through tier 2, heavier through tier 3. NHS Lothian have a model where they put all families through the Get Going programme as a first point of call, regardless of BMI. An estimate of around 95% of the children they see are above the 96th percentile for their BMI. So even though their service is for above the 91st, most are much higher than this. This again makes the Tier 2 Tier 3 criteria difficult.

Appendix D: Additional Interview Insights

Tayside Child Weight Management | Interview insights - societal

<p>Public health</p> <p>Bigger than health, political cycles are too short, need learning from other countries needed. Medicalising something that is a social problem – often happens in NHS.</p>	<p>Normalising weight</p> <p>Normalising weight would be such a move fwd, as part of a health assessment, until then we will always struggle to recruit to our interventions</p>	<p>Language</p> <p>Weight has a stigma and language around it is negative, people don't want to associate themselves with that service</p>
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Tayside Child Weight Management | Interview insights - service

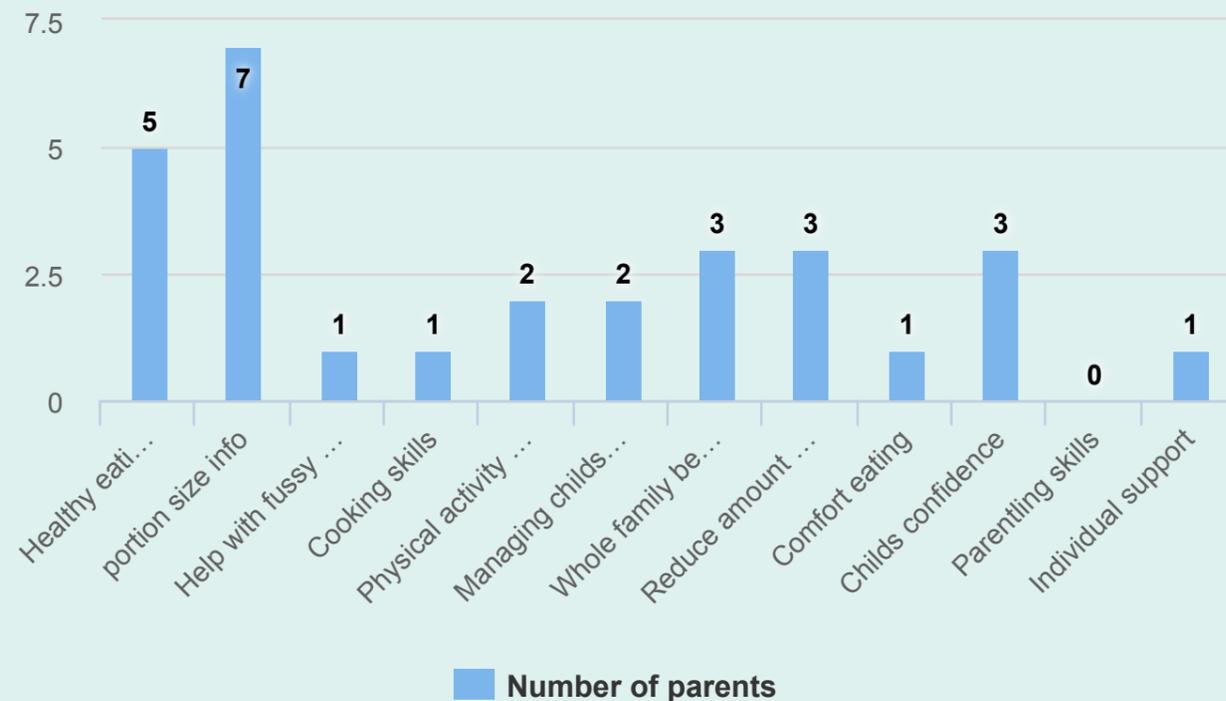
<p>Feedback</p> <p>After 4 years it is typical for health visitors to not receive feedback & strategies not shared. Health visitors are a resource after referral that would like to be kept in contact/in loop but not currently.</p>	<p>Referral Form/Reflections</p> <p>What info do they need to know? What have they done so far? What does criteria look like? Vulnerable – needs to be specific for referral, criteria and programme.</p>	<p>Capacity</p> <p>Not necessary or practical to have check before referral as there is a lack of capacity to do so.</p>
<p>Need better communication between services</p> <p>– increases confidence/trust building between Health visitors & Families.</p>	<p>Referral Form/Reflections</p> <p>What plans have been put in place in the past? Is it social issue? What has been tried and tested previously? Consider being open to social work? What other services are involved? All will aid the child's assessment.</p>	<p>Effective research & evaluation</p> <p>Children are affected & long-term problems will affect. Little evidence of effective solutions.</p>

Tayside Child Weight Management | Interview insights - service user interactions

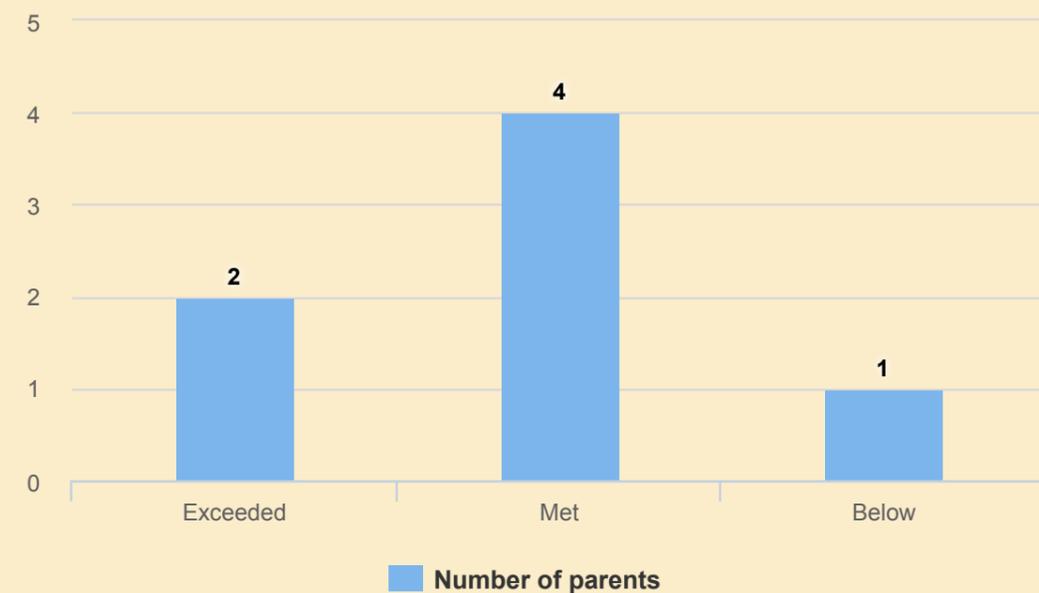
<p>Timing</p> <p>Timing is important but needs buy in at time that they are ready to work with trusted adult.</p>	<p>Courageous conversation</p> <p>Using SHANARRI indicators (8 indicators) or make timescales short to ensure constant review.</p>	<p>Supporting resources</p> <p>Supporting resources need to be more basic. Supermarket labelling etc would be very effective change but HV cannot do this.</p>
<p>Need consistent advice</p> <p>Importance of same advice & family being treated as a whole across services.</p>	<p>Understanding and engagement</p> <p>Majority of referrals to POST don't get far as clients don't opt in to service. Regularly have conversations with parents of young children who can see dietary lined problem but won't engage with service as they see it as 'puppy fat' etc.</p>	<p>Choice</p> <p>Not about the information, it is about getting the support to help them make the choices. Food is used sometimes the only thing they have been in control of in their young adult life, so it is a far more complex issue – offer them more choice so that they are still in control & let them know that they are allowed to fail.</p>
<p>Engagement</p> <p>Engagement is difficult to maintain, particularly with older young people. Need to keep things fresh, reinforcing the positives & giving incentives. They need someone they connect with who is understanding and flexible.</p>		

Appendix E: NHS Tayside survey results

What did you hope to gain from CHWS?



How well did CHWS meet your expectations?



Do you feel CHWS helped improve your knowledge about ways to create balanced healthy lifestyle for your family/child?

All parents did feel that their knowledge was improved.

Do you feel CHWS responded to the individual needs of your family/child?

All parents felt their individual needs were responded to.

Are there any aspects of CHWS that you particularly liked?

"Empathetic response, advice tailored to individual and family circumstances through consideration of Autism Spectrum Disorder."

"Great advice" "Approachable and friendly staff"

"Good rapport with (...) Health Worker."

Parents tier 3 Answers

Appendix F: Referral routes

