



**SUBMISSION TO JOINT  
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**Contribution of Dietitians to  
the prevention, management  
and treatment of childhood  
obesity.**

*The purpose of this document is to present the current evidence for the role of dietitian led provision of good nutritional care which lead to improved healthcare outcomes in paediatric obesity.*

*Included in this document is a comprehensive list of references and appendices incorporating relevant diagrams and tables depicting evidence for dietetic intervention*

## WHO WE ARE

Founded in 1958, the Irish Nutrition & Dietetic Institute (INDI) is the Professional Body representing the interests of over 700 qualified and registered Dietitians in Ireland. Regulated by the Health and Social Care Regulator (CORU), Dietitians are clinicians who operate across clinical and scientific areas encompassing the spectrum of public and private healthcare provision.

## WHAT IS A DIETITIAN?

A Dietitian is a health professional who has a Bachelor's degree specialising in foods and nutrition, as well as a period of clinical placement in a hospital and a community setting. It takes at least four years of full-time study at a university to qualify as a Dietitian, furthermore 20% of the profession in Ireland hold Masters or Doctoral degrees. Dietitians apply the science of nutrition to promote health, treat and prevent malnutrition and provide therapeutic dietary guidelines for patients, clients and the public in health and illness. There are only two routes to qualifying as a Dietitian in Ireland, one is through the 4-year Trinity College Dublin (TCD)-DIT BSc in Clinical Nutrition and Dietetics and the other is a postgraduate MSc in University College Dublin (UCD), also in Clinical Nutrition and Dietetics. The title Dietitian is protected and it is not possible to qualify as a Dietitian in Ireland or England and meet the state regulation requirement through a part-time course.

## WHAT DO WE DO?

*“Dietitians are autonomous healthcare professionals who assess specific nutritional requirements of populations or individuals throughout the life span. They translate this into interventions which maintain health, reduce risk of poor health or restore health. Using evidence-based approaches, dietitians work to empower individuals, families and groups to provide or select food which is nutritionally optimal, safe, tasty and sustainable. Beyond healthcare, dietitians improve the nutritional environment for all through governments, industry, academia and research”* (Adapted from European Federation of Associations of Dietitians, 2016).

Dietitians are trained to scientifically critique research papers and make evidence based recommendations. The NHS (<http://www.nhs.uk/explore-by-career/allied-health-professions/careers-in-the-allied-health-professions/Dietitian>) describes one of the major skills of a Dietitian as translating scientific and medical decisions related to food and health into simple language to inform the public. Dietitians are interested in science, people and food and are

## DIETITIAN IMPACT STATEMENT

Prevention and treatment of paediatric overweight and obesity require system level approaches as well as consistent and integrated messages and environmental support across all sectors of society, with the dietitian being actively involved as an integral part of the obesity management team throughout the entire spectrum of prevention and treatment. Dietitians, as the experts on nutrition, are uniquely equipped to make a significant positive impact in the areas of screening, assessment, programme and policy development, environmental changes and evaluation and revision of all aspects of above. There is some evidence that multifaceted, school based interventions are cost effective at preventing adult obesity. However, further work is necessary in order to establish the most cost effective approach to preventing and treating this disease<sup>1</sup>.

Investment in dietetics is needed as there is significant mismatch between the low level of staffing in dietetics and the high level of work commitment required to:

- **Implement** evidence based weight management intervention programmes nationwide to treat childhood obesity in a multidisciplinary team (MDT).
- **Deliver a** national programme of standardised and accredited brief intervention training on childhood obesity to all health professionals
- **Lead** national policies, service development and engagement with key stakeholders to address the issue of childhood obesity.
- **Support** weight management in maternity services
- **Incorporate work-based research** into practice

## HEALTH CHALLENGES OF CHILDHOOD OBESITY

Childhood obesity can cause social, psychological and health problems and is linked to obesity later in life and poor health outcomes as an adult<sup>2</sup>. In Ireland, one in four children is overweight or obese<sup>3,4</sup>, associated with critical stages in the lifecycle:

- Maternal obesity has been found to be the most significant factor leading to obesity in children<sup>5</sup> and almost half of all pregnant women in Ireland are overweight (43%), with 13% of these women obese and 2% morbidly obese.
- Breastfed babies are less likely to become overweight or obese<sup>3</sup>
- Babies weaned onto solids early (before 4 months of age), adjusting for birthweight, are more likely to become overweight or obese<sup>3</sup>
- Children who experience rapid weight gain in the early years are more likely to become overweight or obese<sup>3</sup>
- 80% of children who are obese at age 10-14 will be obese adults.

Ireland is set to have the highest rate of obesity in Europe by 2030, with 85% of women and 89% of men overweight or obese, with direct healthcare costs reaching €5.4 billion<sup>6</sup>. The EU Action Plan on Obesity 2014-2020<sup>7</sup> estimates that across Europe, 7% annual health budgets are being spent on diseases linked to obesity each year. This report prioritises children and young people as a focus for action; given that obesity in childhood is an important predictor of adult obesity, and the risk increases the later obesity persists into adolescence.

## CHILDHOOD OBESITY: NATIONAL AND INTERNATIONAL POLICY AND GUIDANCE

Such is the extent of the global problem of childhood obesity, researchers and experts around the world have issued guidance on its prevention and management. Many of these recommendations compel the role of a dietitian.

“**A Healthy Weight for Ireland – Obesity Policy and Action Plan 2016- 2025**” contained several strategies to help overcome the rising incidence of Childhood Obesity in Ireland. Although there was no specific description of roles for Dietitians they have been involved in the implementation of following aspects of the policy:

- National Healthy Eating Guidelines 2017
- Calorie Posting Legislation
- Development of a Nutrition Policy
- The INDI has supported the introduction of a Sugar Levy to encourage a reduction in the rates of consumption of sugar-sweetened beverages
- Dietitians continue to engage with stakeholders to develop a voluntary industry Code of Practice re food advertising, promotion and marketing.

The **World Health Organization’s** (WHO) 2016 report on ‘Ending Childhood Obesity’<sup>8</sup> makes six recommendations, five of which include a role for a dietitian (Appendix 1).

The **American Academy of Nutrition and Dietetics** published their position paper on ‘Interventions for the Prevention and Treatment of Paediatric Overweight and Obesity’<sup>9</sup>, concluding that the unique role of the dietitian spans a spectrum from developing obesity-related policies to serving school wellness committees to functioning as part of a medical team for obese children, and involves screening assessment, programming, family based nutrition education, dietary counselling, parenting skills behavioural strategies and physical activity promotion.

In the UK, the **National Institute for Health and Care Excellence** issued their public health guidance in 2013<sup>10</sup>, making recommendations for lifestyle weight management services among children and young people highlighting the unique role of the dietitian in lifestyle weight management programmes as part of the MDT.

In Ireland, the **National Clinical Programme for Paediatrics and Neonatology** developed a model of care to guide service delivery for children, acknowledging the need to appropriately plan for new morbidities such as increasing incidence of obesity<sup>11</sup>. This will guide service delivery in Ireland including the development of the new Children’s Hospital. The **HSE’s Integrated Care Programme for Children**<sup>12</sup> acknowledges nutrition as key for child health. The government led, national policy framework ‘**Healthy Ireland-A Framework for Improved Health and Wellbeing 2013-2025**’<sup>13</sup>, sets out to increase the number of children with a healthy weight by 6%. The Department of Health is currently working on a National Policy on Obesity, and earlier this year launched the **National Maternity Strategy ‘Creating a better future together’**<sup>14</sup>, which will be delivered through the National Women & Infants Health Programme. There are a number of Health Service Executive (HSE) Priority Programmes which may positively influence children’s weight:

- Nurture Programme
- Healthy Eating and Active Living (HEAL) Programme,
- Self-Management Programmes for Chronic Disease Prevention

- Making Every Contact Count.

**Children's University Hospital, Temple Street** has also recently been accredited as a Paediatric Collaborating Centre of Obesity Management for 2018 by the EASO (European Association for the Study of Obesity), which is a resounding endorsement of the service provided by the Multi-disciplinary Team .

The **Royal College of Physicians of Ireland** convened a Policy Group on obesity, and in October 2015 published '*An expert report on how to clinically manage and treat obesity in Ireland.*'<sup>15</sup> Over half of the policy recommendations pertaining to the management and treatment of children who are overweight or obese directly include a unique role for a dietitian as outlined in Appendix 2.

In 2013 the **Irish Nutrition and Dietetic Institute (INDI)** published a vision for childhood obesity and services in Ireland<sup>16</sup>, in which recommendations were made to government and the HSE around policy and programmes; academia, parent education, schools, retail and advertising settings and highlighted the requirement for dietetic involvement across all settings.

Dietitians are uniquely skilled to provide multifaceted approaches to prevention and management of obesity in children. Dietitians support and implement health promotion programmes, deliver one to one education and structured weight management clinics in both primary and secondary care centres and deliver comprehensive multidisciplinary intervention programmes in tertiary centres<sup>17,18</sup> (Appendix 2).

## PREVENTING CHILDHOOD OBESITY: THE ROLE OF THE DIETITIAN

The international evidence base for strategies that government, communities and families can implement to prevent obesity, and promote health, has been accumulating but remains unclear<sup>19</sup>. The Cochrane review on 'Interventions for Preventing Obesity in Children' concluded that interventions in the school, home and wider environments show most promise in the prevention of childhood obesity<sup>19</sup>.

**Table 1: Cochrane review; promising policies and strategies to prevent childhood obesity:**

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|---|--|
| <ol style="list-style-type: none"><li>1. <b>School curriculum</b> that includes healthy eating, physical activity and body image</li><li>2. Increased sessions for <b>physical activity</b> and the development of fundamental movement skills throughout the school week</li><li>3. Improvements in <b>nutritional quality of the food supply</b> in schools</li><li>4. <b>Environments</b> and cultural practices that support children eating healthier foods and being active throughout each day</li><li>5. <b>Support for teachers and other staff</b> to implement health promotion strategies and activities (e.g. professional development, capacity building activities)</li><li>6. <b>Parent support</b> and home activities that encourage children to be more active, eat more nutritious foods and spend less time in screen based activities</li></ol> | <i>Interventions for Preventing Childhood Obesity<sup>19</sup></i> |
|---|--|

In Ireland, a national review of health promotion programmes in the HSE was carried out in 2013, and updated in 2015. In total, 114 programmes were being delivered in the areas of nutrition, weight management, child health, chronic diseases and capacity building (Bennett T, personal communication). This review highlighted that many of the recommendations outlined in Table 1 above are being implemented in Ireland.

### Dietitians in the school setting:

#### Policy development

In line with the evidence from Cochrane, at a national level, Dietitians are involved in the review and roll out of national healthy eating guidelines/food pyramid. Dietitians have also been integral in the development of national food and nutrition guidelines for pre-, primary- and post-primary schools<sup>20,21,22</sup>, and also in the development and roll out of a nutrition assessment tool for preschools<sup>23</sup> and a 3-week menu plan-a resource for pre-schools<sup>24</sup>. Food and nutrition guidelines are however not mandatory, which would suggest that methods to encourage the provision of nutritious food in this setting must be pursued<sup>24</sup>.

#### Capacity building and environment support

Professional support is recognised as one of the key factors in the successful implementation of a non-obligatory school initiative<sup>25</sup>. It is recognised that health professionals should provide reasonable assistance with, and oversee adaptations to, a health promotion programme in line with health goals identified by school staff<sup>26</sup>. In line with these recommendations, community Dietitians facilitate pre-, primary- and post-primary schools to develop healthy eating policies and work with health promotion officers, teachers, parents and pupils in developing a 'whole school approach' to promoting health. Dietitians also act as nutrition advisors in schools and provide nutrition training to staff and parents, both within the school and as part of the Department of Education and Skill's Summer Courses for teachers.

In the midlands of Ireland, the *Healthy Incentive for Pre-Schools* (HIP) project was developed as an incentivized intervention to promote healthy nutrition and health-related practices in the pre-school setting, through the use of a specifically developed and validated evaluation tool and accompanying educational resource<sup>24</sup>. Following pre-intervention data collection, staff training was delivered and post-intervention data collected. This provision of training was proven to improve nutrition- and health-related practices in relation to environment, food service, meals and snacks in the preschool setting<sup>27</sup>.

In primary schools, the *Schools Activity Confidence Eating (ACE)* project<sup>28</sup> reported an increase in health awareness and improved weight and behaviour management in pupils, through the facilitation and empowerment of schools in developing their own health policy, integrating this health policy within the school curriculum and sustaining the policy and its objectives.

## Dietitians in the community:

### Policy development

Dietitians have contributed to national policies such as the Health Service Executive (HSE) Healthier Vending Policy<sup>29</sup> and the Calorie Posting Policy<sup>30</sup>, which arose following the directive in 2013, from the then Minister for Health James Reilly, to commence calorie posting in all HSE facilities targeting staff and patients to help them make the healthy choice the easier choice. Both of these are important initiatives supporting two key policy priority programmes, Healthy Eating and Active Living and Staff Health and Wellbeing.

### Capacity building and environment support

Dietitians have developed and delivered training to community workers, health professionals and teachers to deliver healthy eating/cookery programme courses like *Healthy Food Made Easy*<sup>31</sup> and *Cook it!*<sup>32</sup>. These programmes, originally a recommendation from the National Obesity Taskforce Report 2005<sup>33</sup>, are designed to deliver practical workshops around reading food labels, food hygiene, portion sizes and benefits of particular nutrients, as well as shopping for, preparing and cooking healthy food. They have been shown to increase participants' skills, knowledge and confidence around healthy eating<sup>34,35</sup>. In 2015, 236 people completed a HSE-led healthy eating/cookery programme in the south east of Ireland alone.

## Dietitians in the health service setting

### Resource development

Community Dietitians have developed a national resource on infant nutrition for health professionals<sup>35</sup> and have been involved in writing HSE publications such as *Feeding Your Baby*, *Moving to Family Meals*<sup>36</sup> and the nutrition section of *Caring for Your Baby /Child*<sup>37,38,39</sup>.

### Capacity building and professional development

Training has been developed and delivered by Dietitians to empower health professionals in the following areas:

1. **Infant Nutrition:** encompassing nutritional aspects to antenatal and postnatal care, infant feeding from birth and best practice in introducing family foods.
2. **Growth monitoring:** Dietitians were involved in the national working group around the implementation of the UK/WHO growth chart which was adapted for use in Ireland for all new births from 1/1/2013. Using these growth charts as a national standard was the first step in

measuring and identifying childhood obesity in Ireland and Dietitians continue to deliver this training on an ongoing basis.

3. **Childhood obesity:** encompassing the accurate definition of childhood obesity using relevant growth chart, the use of evidence based brief intervention methods that can be incorporated into routine practice to encourage and support parents, use of HSE/Irish College of General Practitioners (ICGP) algorithm for weight management in children<sup>40</sup> and referral pathways to the local community dietitian for children that have been identified as overweight or obese.

## MANAGEMENT OF CHILDHOOD OBESITY: THE ROLE OF THE DIETITIAN

Lifestyle intervention is considered an effective first step in treating obesity in children<sup>41</sup>. Early intervention and referral to community dietetic clinics has been shown to treat childhood obesity and reduce the risk of becoming obese in adulthood<sup>42</sup>. Looking specifically at the benefit of the role of the dietitian within a comprehensive weight management intervention, one study showed the probability of success exceeded 78% with greater than or equal to one dietetic visit/month versus 43% with minimal dietetic exposure over a six month period<sup>43</sup>.

In July 2015, free general practitioner (GP) care was given to all children under the age of six years, including a requirement for weight and height checks at the ages of two and five, thus giving GP's the tools to correctly identify childhood obesity. The HSE/ICGP weight management algorithm for children<sup>40</sup> complements these checks and outlines onward referral pathways where applicable, where the dietitian has an integral role in the provision of one to one sessions to children and their families, and/or onward referral to a group programme.

Dietitians are involved in the development, co-ordination and delivery of evidence-based group weight management programmes, as part of the MDT. *W82Go*, a paediatric weight management programme initiated in the Children's University Hospital, Temple Street, Dublin<sup>44</sup> was established in 2005 and is family based. It is delivered by a MDT comprised of a paediatrician, dietitian, nurse, chartered physiotherapist and a clinical psychologist. Twelve month data revealed a reduction in body mass index (BMI) versus a gain in BMI in the control group. *W82Go* is now being rolled out in community settings, showing encouraging results<sup>45</sup>. A reduction in BMI has been observed post intervention, with greater participation associated with greater outcomes. Appendix 4 has case studies from people who participated in *W82Go* programmes highlighting the benefits of the programme and the positive role of Dietitians<sup>15</sup>.

*Up4it*<sup>46</sup> is a cross-border prevention and management childhood obesity programme which provides two multi-component programmes that have been developed by Health Professionals with expertise in Nutrition/Dietetics, Physical Activity, Psychology and Wellbeing. The prevention programme targets parents with children aged 0-5 years. The management programme targets parents with overweight children aged 8-11 years of age. Both programmes aim to support families in making healthier lifestyle choices so as to avoid/reduce the incidence of long term chronic diseases i.e. obesity, diabetes and heart disease in our children's future.

Other multidisciplinary programmes with a specific dietetic component, such as *MEND* (Mind, Exercise, Nutrition... Do it!)<sup>47</sup>, *Strong4Life*<sup>48</sup> and *GOALS* (Getting Our Active Lifestyles Started)<sup>49</sup> have been proven to



be effective in reducing children's BMI, using strategies such as customized healthy eating advice, reading food and drink labels, guided supermarket tour, fruit and vegetable sampling, preparation of healthy meals and healthy recipes to try at home.

The dietitian has a critical role in nutrition counselling in the form of behaviour change or motivational interviewing (MI). There is a large body of evidence to support the behaviour change approach in achieving change and MI has been shown to show significant reductions in BMI in children and can be an important and feasible part of addressing childhood obesity<sup>50</sup>. Dietitians use these techniques to facilitate children and their families to identify the reasons why they are struggling to manage their weight and how to overcome them, empowering them to make diet and lifestyle changes. In this patient-centred approach, Dietitians support children and their families to develop skills such as self-monitoring, avoidance techniques and identifying hunger to successfully manage their weight.

## ECONOMIC EFFICACY OF DIETETIC INTERVENTION IN CHILDHOOD OBESITY

In their 2015 report, the Royal College of Physicians Policy Group on Obesity stated that, 'individuals suffering from overweight/obesity require a fully resourced model of care to manage their condition and co-morbidities and to prevent further serious health and healthcare costs.'<sup>15</sup>

The 'INDI Key Recommendations for Nutrition Service Delivery for 2014'<sup>16</sup>, outlined how, currently there are 100,000 obese children in Ireland and the estimated cost per child of an evidence-based obesity intervention programme (such as *W82Go*) is €600 per child. Conversely, the estimated cost of treatment of an un-treated obese child with co-morbidities is €5000 in an acute setting. Implementing intervention programmes nationwide could lead to a net potential saving per child of €4,400 plus a multiplier effect of benefits to the family, the broader economy and society.

70% of children who are obese have childhood health problems/co-morbidities, such as fractured bones, mental health concerns, high blood pressure, high cholesterol<sup>51</sup>. Therefore, the provision of evidence-based national obesity intervention programmes could provide a potential cost saving of €0.3bn (70,000 X €4,400).

In 2017 the National Dietetic Advisor to the HSE, supported by the HSE Paediatric clinical care programme as part of their model of paediatric care and to support the implementation of the HSE Nurture programme, sought 9 Senior paediatric posts but didn't receive anything. This would have equated to 1 post per Community Health Area.

The Obesity programme have not yet agreed a model of care for childhood obesity in community so the National Dietetic Advisor worked off the international consensus guideline that 2 paediatric Dietitians per 50,000 are required to manage all aspects of paediatric dietetic care. 1 post would focus on child health (weaning, feeding issues, growth monitoring, allergies, overweight/obesity, constipation) and 1 would focus on malnutrition (faltering growth, tube feeding). We have approx. 90 health and social care networks in the country. Within the Acute setting, the programme in Temple St currently has .5 of a Wholtime Equivalent attached to it. There is no doubt that there is an urgent need to increase services over the next 10 years as the current staffing and resource levels in hospital and community fall far short of what is required to meet the needs of children with obesity in Ireland.

## CONCLUSION

The unique mix of skills, professional knowledge and competence in nutrition and dietetics which Dietitians possess from undergraduate and postgraduate qualifications, enhanced by a national programme for behaviour change training (led by the INDI with support from the HSE), and practical experience of delivering weight management services, should be harnessed by the HSE and the Irish government. All national policies, projects and campaigns aimed at addressing obesity should include dietitian representatives. There is evidence for direct dietetic interventions at each stage of the childhood obesity lifecycle with improved health outcomes for children (skills development, personal empowerment, self-monitoring and BMI reduction). The role of the dietitian in prevention and management of obesity has the potential to significantly reduce healthcare costs and improve the future health of our nation.

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APPENDIX 1: THE WORLD HEALTH ORGANIZATION'S REPORT'S SIX MAIN RECOMMENDATIONS 2016<sup>8</sup>



## APPENDIX 2: SUGGESTED STAGED APPROACH TO WEIGHT MANAGEMENT FOR CHILDREN AND ADOLESCENTS<sup>17</sup>

Stage	Components	Where Implemented	Implemented by Whom and Skills Needed	Frequency of Visits/Duration Before Moving to Next Stage
1. Prevention plus	Recommend ≥5 servings of fruits and vegetables per day, ≤2 h of screen time per day, no television in room where child sleeps, and no television if <2 y of age. Minimize or eliminate sugar-sweetened beverages. Address eating behaviors (e.g., eating away from home, daily breakfast, family dinners, and skipping meals). Recommend ≥1 h of physical activity per day. Amount of physical activity may need to be graded for children who are sedentary; they may not achieve 1 h/d initially. Involve whole family in lifestyle changes. Acknowledge cultural differences.	Primary care office	Primary care provider or trained professional staff member (e.g., registered nurse)	Visit frequency should be based on accepted readiness to change/behavioral counseling techniques and tailored to patient and family. Provider should encourage more-frequent visits when obesity is more severe. Advance to more-intensive level of intervention depending on responses to treatment, age, health risks, and motivation. A child in this stage whose BMI has tracked in same percentile over time with no medical risks may have low risk for excess body fat. Clinicians can continue obesity prevention strategies and not advance treatment stages.
2. Structured weight management	Develop plan with family for balanced-macronutrient diet emphasizing small amounts of energy-dense foods. Because diet provides less energy, ensure that protein is high quality and sufficient to prevent loss of muscle mass. Increase structure of daily meals and snacks. Reduce screen time to ≤1 h/d. Increase time spent in physical activity (≥60 min of	Referral to dietitian; primary care office	Registered dietitian or physician/nurse practitioner with additional training, including assessment techniques, motivational interviewing/behavioral counseling (may need to provide specific information with environmental change	Monthly visits should be tailored to patient and family, based on family's readiness to change. Advance to more-intensive level of intervention depending on responses to treatment, age, health risks, and motivation.



	supervised active play per day). Instruct patient and/or parent in monitoring (e.g., screen time, physical activity, dietary intake, and restaurant logs) to improve adherence. Perform medical screening (e.g., vital signs, assessment tools, and laboratory tests).		and reward examples), parenting skills and managing family conflict, food planning (including energy density and macronutrient knowledge), physical activity counseling, and resources/referrals.	
3. Comprehensive multidisciplinary intervention	Distinguished from stage 2 by more-frequent patient/provider contact, more-active use of behavioral strategies, more-formal monitoring, and feedback regarding progress to improve adherence. Multidisciplinary approach is essential. Components of multidisciplinary behavioral weight control programs include (1) moderate/strong parental involvement for children <12 y of age; parental involvement should decrease gradually as adolescents increase in age; (2) assessment of diet, physical activity, and weight (body fat) before treatment and at specified intervals thereafter to evaluate progress; (3) structured behavioral program that includes at least food monitoring, short-term diet and activity goal setting, and contingency management; (4) parent/caregiver training to improve home food and activity environments; and (5) structured dietary and physical activity interventions that improve dietary quality and result in negative energy balance.	Primary care office can coordinate multidisciplinary care; weight management program (community), pediatric weight management center, or commercial programs with the following components: age-appropriate and culturally appropriate treatments; nutrition, exercise, and behavioral counseling provided by trained professionals; and weight loss goals of $\leq 2$ lb/wk. Use	Multidisciplinary team with expertise in childhood obesity, including behavioral counselor (e.g., social worker, psychologist, trained nurse practitioner, or other mental health care provider), registered dietitian, and exercise specialist. Alternative could be dietitian and behavioral counselor based in primary care office, along with outside, structured, physical activity program (e.g., team sports, YMCA, or Boys and Girls Club program). For areas without services, consider innovative programs (e.g., telemedicine).	Frequent follow-up visits (weekly for a minimum of 8–12 wk is most efficacious) and then monthly follow-up visits. If not feasible, then telephone or other modalities could be used, with weight checks no less than once per month in local health care provider office (e.g., primary care provider or health department). Advance to more-intensive level of intervention depending on responses to treatment, age, health risks, and motivation.



		primer 1 to evaluate commercial programs.		
4. Tertiary care intervention	Continued diet and activity counselling plus consideration of meal replacement, very-low-energy diet, medication, and surgery.	<p>Pediatric weight management center operating under established protocols (e.g., clinical or research) to assess and to monitor risks and outcomes; residential settings (camps or boarding facilities with appropriate medical supervision).</p> <p>Use primer 2 to evaluate centers.</p>	<p>Multidisciplinary team with expertise in childhood obesity, including behavioral counselor (eg, social worker, psychologist, trained nurse practitioner, or other mental health care provider), registered dietitian, and exercise specialist. For areas without services, consider innovative programs (e.g., telemedicine).</p>	According to protocol

**APPENDIX 3: ROYAL COLLEGE OF PHYSICIANS OF IRELAND'S POLICY GROUP ON OBESITY RECOMMENDATIONS 2015<sup>15</sup>**

<b>High level recommendations:</b>	<b>Role of the dietitian</b>
<b><i>Six in total; three of which demonstrate need for dietitian</i></b>	
Ensure children and adults who are overweight or obese have access to an integrated obesity treatment and weight management service within community, primary and secondary care settings providing evidence-based models of care according to their need.	Dietitians have an integral role in these treatment and weight management services
Educate all healthcare professionals on the management of obesity at undergraduate and postgraduate levels and educate all relevant government department and non-governmental organisational staff.	Dietitians develop and deliver childhood obesity training
Resource adequate levels of healthcare staff and appropriate equipment to deal with individuals who are obese in all healthcare facilities.	Investment needed
<b>Recommendations for Primary Care and Community</b>	
<b><i>Ten in total; five of which demonstrate need for dietitian</i></b>	
<b>Recommendation</b>	<b>Role of the dietitian</b>
Resource primary care teams so they can effectively and sensitively manage patients presenting for support in the management of overweight/obesity. The primary care team managing overweight and obesity in adults and children should consist of, or have access to, when clinically required: General Practitioner, Practice Nurse, Public Health Nurse, <b>Community Dietitian</b> , Physiotherapist, Psychologist, Community Pharmacist, Paediatrician, Medical Social Worker, Occupational Therapist, Child, Adolescent and Adult Psychiatrist.	Role of dietitian highlighted in recommendation
Implement the HSE/ICGP Weight Management Treatment Algorithms for Children and Adults so that all individuals who require it have access to a suitable model of care.	Dietitians have a key treatment role in these algorithms and also are involved in staff training around the algorithms.
Resource and promote necessary support services outside primary care including: Self Help Peer support groups, GP exercise referral, Weight management support by phone and video conference with qualified health professional, Physical Activity Specialist, Workplace wellbeing initiatives.	Dietitians have the unique opportunity of working in both health promotion and primary care settings, and, as part of their work, link service users into local supports.
Support evidence-based commercial weight management programmes, particularly those that operate in tandem with the public health system. The state must play a leading role in providing adequate overweight/obesity treatment services to all members of society, however, because of the high burden of overweight/obesity among	Dietitians are ideally placed to develop, co-ordinate and deliver evidence-based group weight management programmes.

lower socio-economic groups who may not be able to afford self-funded programmes.	
Promotion of specialised diets or very low calorie diets should be carefully considered in individual cases, by health care professionals, to ensure they are utilised appropriately, effectively and safely. They should not be promoted directly to individuals nor should they be used routinely to manage obesity.	Dietitian is uniquely skilled in management of specialized and very low calorie diets.
<b>Recommendations for Secondary Care</b> <b><i>Five in total; three of which demonstrate need for dietitian</i></b>	
Develop six specialist weight management centres, one within each HSE Hospital Group throughout the country as a priority, ensuring equity of care regardless of geographical region. Specialist centres should be consultant-led dedicated weight management centres with full multidisciplinary teams modeled on the existing two adult centres, St Columcille's and Galway University Hospital.	Dietitians are integral parts of these teams.
Resource paediatric weight management teams in each hospital group. Existing childhood obesity interventions such as Temple Street's W82GO Healthy Lifestyle Service should be evaluated and effectiveness of their implementation in the community setting assessed.	Dietetic resources needed
In adolescents, access to bariatric surgery should be via a single centre, most likely the National Children's Hospital, with appropriate psychological, paediatric endocrine, <b>dietetic</b> and child and adolescent mental health services assessment prior to surgery.	Role of dietitian highlighted in recommendation
<b>Recommendations for Infants, Children and Adolescents</b> <b><i>Five in total; four of which demonstrate need for dietitian</i></b>	
Encourage healthy infant feeding practices and provide adequate resources to improve Irish breastfeeding rates.	Dietitians develop and implement National training programmes for health professionals in infant nutrition and breastfeeding
Further growth assessment in addition to that at age 2 and 5 along with discussion with parents is advised between 5-9 years, 9-11 years and 12-17 years as per recommendations by the American Heart Association and American Academy of Paediatrics.	<b>Dietitians deliver training to health professionals</b> in growth monitoring
Provide paediatric multidisciplinary expertise in primary and secondary care services throughout the country. The associated costs will be considerably less than the escalating costs of treating the many potentially avoidable complications of obesity, including cardiovascular disease, diabetes and malignancy.	Dietitians have a key role in multidisciplinary programmes for childhood obesity

Recognise that the issue of weight in young people requires careful and sensitive assessment and monitoring with due regard to the many physical and emotional factors, including Eating Disorders, that can underpin overweight/obesity.	Dietitians have unique set skills, including behaviour change and motivational interviewing training, to sensitively work with children and families. Dietitians also involved in developing and delivering training to other health professionals around behaviour change and motivational interviewing, 'Making Every Contact Count'.
<b>Recommendations for Pre-Pregnancy, Pregnancy and Postnatal</b> <b><i>Four in total; all of which demonstrate need for dietitian</i></b>	
Encourage all women and their partners to have their BMI calculated accurately before they plan their pregnancy. This is best undertaken in primary care. At this time all women who are overweight/obese should be actively encouraged to manage their weight prior to (see amended line in latest draft) prior to becoming pregnant and provided with information on folic acid supplementation. Appropriate weight advice is also required for partners. Advice on nutrition and physical activity during pregnancy is needed and encouragement given to breastfeed.	<p>Dietitians have role in individual counseling around weight pre-pregnancy, in pregnancy and postnatally</p> <p>Dietitians deliver training to other health professionals around weight monitoring, motivational interviewing and brief interventions.</p>
Advise women who are obese to take high dose folic acid for at least three months before conception and for three months after conception if they are trying to conceive or at risk of conceiving.	Dietitians include this message in training to other health professionals and in clinics.
Measure weight and height of all women and their partners at their first antenatal visit. At this time all women should be actively encouraged and supported in breastfeeding and provided with accurate information on healthy weaning practices.	Dietitians provide training and support to antenatal care providers.
Calculate the BMI of all women and their partners postpartum, ideally in a primary care setting during the first primary immunisation visit, with follow up visits to provide opportunities for review and brief intervention.	Dietitians include this message in training to other health professionals and are also available in clinic to provide follow up dietary advice on referral.
<b>Recommendations for Education and Training</b> <b><i>Six in total; all of which demonstrate need for dietitian</i></b>	
Ensure training and ongoing continuing professional development of all health professionals in the causes, measurement and treatment of obesity at undergraduate, postgraduate and in-service levels.	Dietitians are involved in training and have recently updated and are implementing a national resource and training for health professionals on Infant Nutrition.
Encourage professionals involved in disseminating information regarding obesity to use patient-first language and avoid pejorative or accusatory	Dietitians have unique set skills, including behaviour change and motivational interviewing

language when discussing obesity with professionals, clients and the general public.	training, to sensitively work with children and families. Dietitians also involved in developing and delivering training to other health professionals around behaviour change and motivational interviewing, 'Making Every Contact Count'.
Train Health Professionals on how to raise and discuss the issue of overweight/obesity in a non-judgmental and empathetic manner. Ensure that all professionals are trained in evidence-based behaviour change methods such as motivational interviewing.	Dietitians have unique set skills, including behaviour change and motivational interviewing training, to sensitively work with children and families. Dietitians also involved in developing and delivering training to other health professionals around behaviour change and motivational interviewing, 'Making Every Contact Count'.
Raise awareness of risk factors of obesity such as the food and physical activity environment as well as genetic and biological determinants of energy balance and satiety. This will lead to reduced obesity stigmatization in health care settings	Dietitians deliver training to health professionals in weight management
Train all Health Professionals on basic anthropometric measurements, accurate techniques and equipment.	Comprehensive training programme delivered by Dietitians to health professionals in 2013
Educate all relevant government department and non-governmental organizational staff on overweight/obesity to increase understanding and improve public health campaign design and delivery.	Training offered by Dietitians, but need more resources.

**Annette Forde, mother of Matthew aged 12 who attended the W82GO Healthy Lifestyle Service**

Matthew is a success story. He now has a perfect BMI of 20. He lost the weight within one year and enjoyed the programme. It was a wakeup call for him and for me.

Now he is very careful about what he eats, he checks the labels for fat content for example.

He made changes to his life and sticks to them and now they are part of his daily life.

He was being bullied about his weight. We went to see the GP and within 3 months we got the first appointment at W82GO.

"Since then he has cut out weekend treats, he has a regular exercise schedule and is playing rugby in secondary school. Matthew found the group situation really good, it was very important for him - that made him feel like he wasn't the only one.

He really wanted to make changes, he wanted to do that for his own self esteem and it has made a huge difference.

"The W82GO programme is great because it is joined-up so you are seeing a team of specialists. It has been brilliant for Matthew".

**Grace Collins, mother of Abbie aged 9 who attended the W82GO Healthy Lifestyle Service**

The Programme involved attending the dietitian once a week and I took on board everything they said, about portion size, exercise and about treats. It was really, really very difficult but we got there in the end. Abbie is now a normal weight. I appreciate everything they did for us.

Abbie always had a big appetite and never had that feeling of fullness in her stomach. It was partly my fault because I was the one who was feeding her. So we just changed what we were doing at home so that Abbie never knew that she was on a diet, it just became part of her daily routine. I was overweight as a child myself and I was always on a diet and I never wanted that for Abbie. We had smaller plates, a treat once a week and lots of fruit. "smaller plates worked brilliantly. I had to be firm and tell grandparents and aunties that she couldn't have sweets and to give her fruit instead. It can be difficult to be firm in front of other people.

It was very hard when the ice cream van came around when the children are all playing outside. I could see other mothers in the clinic and they would be saying how difficult it was and how they would give in to the tears and that they couldn't get their children out to play. I felt like telling them: 'this is what you have to do. It's not easy but it does work.' Now, Abbie never has sweets during the week. She has breakfast, lunch and dinner and something small before going to bed.

We have a movie night on a Saturday after all their activities and I give them a treat and she really looks forward to that".

***"Abbie always had a big appetite and never had that feeling of fullness in her stomach.***

***It was partly my fault because I was the one who was feeding her"***