# Support Information to Accompany the Weight Management Treatment Algorithms for Adults & Children in Ireland

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#### 1. Counselling Strategies & Readiness to Change

Before embarking on an assessment of a patient for the purposes of weight reduction, it is important to understand how sensitive a subject this is for many patients. Communication, partnership, health promotion and sensitivity to anti-fat bias are four of the most important elements in the GP's consultation style when addressing obesity with patients.

Empathic communication includes active and reflective listening, verbal and nonverbal indications that you are interested in understanding your patient's position (e.g. "I understand your frustration at gaining weight when you changed jobs.") Some patients believe that they have no control over their weight gain, or that they really eat very little. There is nothing to be gained by openly challenging these beliefs, but motivational interviewing can be useful here (see below).

Establishing a patient-doctor partnership involves moving from the traditional directive or prescriptive approach to tailoring a weight loss program that includes consideration of the patient's readiness to change, weight loss goals, preferences, barriers to change and abilities.

Health promotion with patients includes taking their cultural norms and personal beliefs about weight and health into account to increase the effectiveness of your message about managing current health problems and reducing risk of future illnesses. Unless you agree the starting point your efforts may be wasted. It is important to ask the patient to repeat back the information you want them to understand, to ensure that they really have understood.

Anti-fat bias is prevalent in every aspect of society, arousing feelings of discomfort and dislike among people, including doctors. Acknowledging the reality of negative stereotyping of and discrimination against patients who are obese is a first step in treating these patients with the same respect as normal weight patients. This includes treating medical conditions adequately before attributing them, however correctly, to the patients' excess weight.

**Motivational interviewing** is a client-centred, directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence. Motivation to lose weight is built of three basic elements:

- 1. There must be a need, vision or desire to achieve the seemingly impossible.
- 2. The second is based on learning what works and what does not work for each individual.
- 3. The third element is developing the ability to overcome barriers and to bounce back from discouragement or failure.

Achievers learn to tolerate failure and frustration. Bouncing back requires creative thinking as it is a learning process. If any one of these three elements of motivation is missing, nothing changes.

When it comes to motivating patients to loose weight, primary care practitioners can feel disheartened as more and more patients present themselves for treatment of various conditions and symptoms, many of which can be directly or indirectly attributable to their excess weight. - What can a Primary Care Practitioner do when a patient knows they need to lose weight, they say they want to lose weight, but are clearly not doing so? The following illustration is one many clinicians are all too familiar with:

Dr.: Have you thought about trying to lose weight so your blood pressure comes down?

Pt.: Well yes, but it's not so easy, and I must say, I really like my food.

Dr.: But it's not a matter of depriving yourself of food. You just need to eat different, healthier foods, if you see what I mean.

Pt.: Yes, I know, I did try to eat less meat and more fruit and that sort of thing, but I never keep going for too long. I always have these binges when I break all my rules, and I just get fat.

Dr.: What about....?

Pt.: Yes, but....

Becoming more acutely aware of the discrepancy between where the patient is now (current weight, fitness, health status) and where they want to be is a fist step in increasing motivation. Helping patients to articulate ambivalence is the next step. For example, the above doctor/patient interaction might go like this:

Dr.: Have you thought about trying to lose weight so your blood pressure comes down?

Pt.: Well yes, but it's not so easy, and I must say, I really like my food.

Dr.: So losing weight seems nearly impossible because you enjoy the high calorie foods a lot more than the healthier foods.

Pt: Well, it's not impossible, I've done it before, but I always end up regaining the weight. But I am worried as my father had high blood pressure and died from a stroke.

Dr: I understand your concern. It must be frustrating. You know how important it is for you to lose weight yet you have regained it all each time you lost any. I wonder what you make of that?

The goal in motivational interviewing is to prompt awareness of their ambivalence and then move the person forward by eliciting self-motivational statements. These are statements that indicate the patient may be considering the possibility of change.

(From Rollnick, Heather, & Bell, 1992, Negotiating behaviour change in medical settings: The development of brief motivational interviewing. *Journal of Mental Health*, 1, p. 25-26

#### Other sources of information

A comprehensive clinical roadmap for the assessment and treatment of adult obesity, including booklets on assessing readiness to change and counselling strategies can be found on the website of the American Medical Association: <a href="https://www.ama-assn.org">www.ama-assn.org</a>

http://www.ama-assn.org/ama/pub/physician-resources/public-health/general-resources-health-care-professionals/roadmaps-clinical-practice-series/assessment-management-adult-obesity.shtml will bring you directly to the relevant pages.

Useful information on how to approach the subject of obesity in general practice and primary care can also be found on www.nationalobesityforum.org.uk

#### 2. Collaborative Goal Setting & Action Planning

#### Behavioural approaches to weight management

A variety of research reviews have identified commonly used and successful behavior change interventions designed to improve health outcomes [1]; [2]. These include information giving, goal setting, motivational interviewing, problem solving and coping skills training, environmental change, self-monitoring, use of incentives/rewards, and social support [1]. While the remainder of this document deals with goal setting it is important to emphasise that goal setting is one approach and should be used in the context of a patient-centered, empathetic consultation.

#### What is collaborative goal setting?

Patients who need to lose weight are often asked to make a lot of changes to their diet and activity levels. There is evidence that if patients are given the opportunity to choose one behavior change goal to focus on, success is more likely. When patients achieve a goal, their self-efficacy and confidence goes up and then more ambitious goals are set -for example, patients who set a goal to walk half a mile each day and succeed are likely to set a higher goal, for example to walk one mile each day [3].

Collaborative goal setting is a process where both the health care professional and patient negotiate a health-related goal. Research has shown that when patients participate in decisions, they are more likely to adopt the behaviors decided upon. Collaborative goal setting does not involve the health care professional telling the patient what to do! Telling a patient that their goal "should be to lose 10kg" is not collaboration. Instead it is better to explore how much weight loss the patient can realistically achieve and to work on that goal. It is the patient who must make the changes to achieve weight loss; the patient already has goals concerning weight loss and how to achieve it. These goals may be different from those the provider would select. The provider can be a source of general information, perspective, support, and some measure of guidance but cannot cause the patient to meet goals that he or she does not endorse [4]

#### What does goal setting involve and what is action planning?

Goal setting involves identifying a concrete health-related goal that the patient wants to achieve. An action plan details how the patient will move towards achieving that goal. Action plans are very specific and describe what, when, where and how often - for example, walk 1 mile to work every Monday, Wednesday and Friday, starting next Monday. [3]

#### Top tips for success

- Two key factors facilitating goal achievement are **importance** and **confidence**. The increasingly popular school of motivational interviewing has placed importance and confidence at the center of its assessment of patients' capacity to adopt healthy behaviors [3]. Patients who do not think it is important to change their diet in order to lose weight are unlikely to make dietary changes. Patients who agree on the importance of improving their diet, but lack confidence in their ability to do so, are also less likely to succeed. **Discussing both importance and confidence with patients when setting a goal is a key to success**.
- Focused goal setting in relation to behaviours (eg. eating and activity) rather than weight-related or more general goals have been found to be more effective [5].
- 'Approach' goals which focus on trying to attain a positive state (e.g., increasing the amount of fruits and vegetables consumed) should be encouraged rather than 'avoidance'

- goals (which focus on trying to avoid a negative state (e.g., decreasing the amount of fats and sweets consumed) [6]
- The four steps for successful goal-setting among adults include recognizing a need for change, establishing a goal for change, monitoring progress towards achieving that goal and rewarding oneself for goal attainment [7]
- Focus on previous success. If a patient has had success in the past dealing with a problematic behavior, then it is possible to build upon this success, increasing the frequency with which it occurs. This helps to increase self-efficacy [1].
- The skill of flexible rather than rigid control of eating behaviour has been associated with higher probability of successful weight-loss maintenance. 'Flexible restraint' can be practically described as following eating and activity plans or personal goals the majority of the time, and occasionally including favourite foods or meals or missing planned activities, and doing so without feelings of guilt [8]

#### Step-by-step guide to goal setting and action planning:

- 1. Start by identifying a health-related goal the patient would like to achieve.
  - Ensure that this goal is important to the patient and that they are reasonably confident that they can achieve the goal.
  - The skill of the health care professional is in acting as a facilitator of the patients self-examination of the problem but without interrogating the patient!

For example if the patient says "my diet is crazy", gently probe (eg."ok, crazy, in what way do you think it's crazy?") and hopefully some specific details will emerge (eg. "well I don't eat breakfast any morning because I'm just rushing out the door and then I'm really hungry by 11am and just have to have chocolate"). At this point you might explore how this makes the patient feel and ask if trying to have breakfast more often might be an initial step or goal (or perhaps the patient would like to start with an entirely different goal? Always ask in a non-judgmental manner, explore and negotiate!)

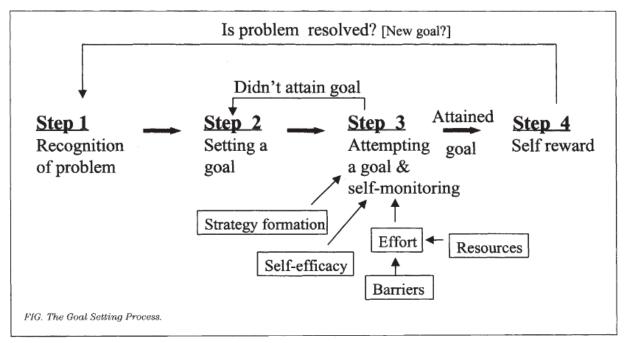
- 2. Once you have identified a goal, a plan to achieve the goal should be agreed. The acronym SMART is often used to describe a goal / plan that is Specific, Measurable, Achievable, Relevant and Time-specific [8].
  - **Specific:** Be as specific as possible and focus on concrete actions rather than values (eg. "swapping mid-afternoon biscuits for a piece of fruit" rather than "eating more healthily". Specific goals facilitate a clear assessment of goal attainment and targeted problem solving [9]
  - <u>Measurable</u>: How much and how often! Put a number, day, date or frequency on the goal if possible.
  - Achievable: Ensure that the goal is realistic and can be achieved within the time-frame agreed. Some goals are more challenging than others but the patient must be confident that they can achieve the goal. Consider possible barriers and explore strategies to deal with significant barriers before you begin. Achieving weight loss may involve setting a series of small, achievable goals that are steps to a bigger goal.
  - Relevant. Make sure the plan relates to the problem. For example if someone is trying to lose weight and they're already eating 2 pieces of fruit each day in addition to 2 chocolate bars, aiming to increase their fruit intake to 3 pieces per day may not help them to achieve their goal of weight loss.
  - <u>Time-specific</u>: Set a specific time-frame for achieving the goal. Be realistic think in terms of weeks or months rather than days or years.

- 3. It's important to track outcomes and review both goal attainment and barriers encountered at agreed time points.
  - Patients should be encouraged to keep a written record of the goal itself, their successes and lapses, as well as reasons why each occurred (to identify success and barriers to success). Encourage patients to review their monitoring records periodically and to discuss progress at each meeting [4].
  - It is important to identify not only the barriers but also how/why they represent obstacles to success. This will enhance the ability to develop strategies for addressing the barriers [1]
- 4. Reward success. Rewards for achieving various levels of success can serve as an incentive. These rewards should be something pleasant but not to the opposition of the success (i.e., overeating should not be the reward for not overeating) [1].
- 5. Everyone lapses helping patients to identify coping resources for relapse prevention is essential. Emphasize that weight control is a journey, not a destination, and that some missteps are inevitable opportunities to learn how to be more successful. [4].
- 6. When goals are not achieved communicate clearly that the goal, not the patient, is at issue. Focus on the positive changes, and adopt a problem-solving approach toward the shortfalls. Emphasize that examining the circumstances of unmet goals can lead to new and more effective strategies. ("What do you think interfered with your walking plans on the days you didn't walk?"). In cases in which behavior is not implemented, attention is devoted to finding new strategies or to removing roadblocks. This skill-building philosophy conceptualizes weight management as a set of skills to be learned rather than as willpower [9].

#### Goal setting in childhood obesity

There is experimental evidence that self-monitoring and goal setting result in greater short-term weight losses in children. Goal setting principles are the same as with adults (ie. in establishing both short and longer term goals it is important to ensure they are specific, measurable and challenging yet achievable). Contracts can be used to help maintain focus on specific behavioural goals and provide a structure for rewarding desired changes [10]. Goal setting with children and adolescents must involve family support and 'buy-in' from parents in facilitating goal achievement. For example the goal may be to "eat bananas on my cereal on [day/date], but implementing the action plan may require parental assistance (for example when I see Mum after school today, I will ask her to add bananas to the grocery shopping list and when I get home from school today, I will check to make sure we have bananas for my cereal; if we do not have any, I will call Mum and ask her to get some on her way home from work)[11].

From Cullen, 2001. Using goal setting as a strategy for dietary behavior change [7]



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#### 3. Screening for mood/anxiety disorders or binge eating

#### **Mood Disorder Screen**

While there are several different kinds of mood disorder, described in detail in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM IV) or the International Statistical Classification of Diseases and Related Health Problems 10th Revision Version for 2007 (ICD-10), the main features are:

- low mood
- reduced energy and activity
- concentration difficulties
- reduced capacity for enjoyment
- marked tiredness after minimum effort
- sleep disturbance often early morning wakening
- marked changes in appetite
- self-esteem and self-confidence lowered
- ideas of guilt or worthlessness & cognitive distortions

Depending upon the number and severity of the symptoms, a depressive episode may be specified as mild, moderate or severe.

#### **Anxiety Disorders Screen**

Disorders in which the manifestation of anxiety is the major symptom covers a range of disorders including panic attacks, specific phobias (e.g. agoraphobia), obsessive-compulsive disorder, post-traumatic stress disorder, substance-induced anxiety disorder and anxiety disorder due to a general medical condition. A full list with diagnostic criteria can be found in DSM IV and ICD-10

There are also a number of useful screening tools which take only a few minutes and can be immediately scored, such as:

- Hospital Anxiety and Depression Scale (HADS)
- Beck Depression Inventory FastScreen
- Beck Anxiety Inventory
- Generalized Anxiety Disorder 7 items (GAD-7)

#### Research criteria for binge-eating disorder

- A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following;
- (1) eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat in a similar period of time under similar circumstances
- (2) a sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)
- B. The binge-eating episodes are associated with three (or more) of the following:

- (1) eating much more rapidly than normal
- (2) eating until feeling uncomfortably full
- (3) eating large amounts of food when not feeling physically hungry
- (4) eating alone because of being embarrassed by how much one is eating
- (5) feeling disgusted with oneself, depressed, or very guilty after overeating
- C. Marked distress regarding binge eating is present.
- D. The binge eating occurs, on average, at least 2 days a week for 6 months.
- E. The binge eating is not associated with the regular use of inappropriate compensatory behaviours (e.g., purging, fasting, excessive exercise) and does not occur exclusively during the course of Anorexia Nervosa or Bulimia Nervosa.

Source: Diagnostic and Statistical Manual of Mental Disorders, fourth edition, American Psychiatric Association, 1994

# 4. How to measure a waist circumference for BMI 25 - 35 by a health professional trained in this area.

As most practices do not routinely measure waist circumference, it may be helpful for you or your Practice Nurse to explain why it is being done. A simple explanation, such as the following, usually suffices:

"A waist measurement is an important clue to your current and future health. I'd like you to breath normally while I take your measurement."

- 1. Locate half way between the top of the iliac crest and the lower rib.
- 2. Place a measuring tape in a horizontal plane around the abdomen at the midpoint.
- 3. Ensure that the tape is snug, but does not compress the skin, and is parallel to the floor.
- 4. Read the measurement at the end of a normal expiration of breath.

**Source:** Adapted from Kushner RF. *Roadmaps for Clinical practice: Case Studies in Disease Prevention and Health Promotion – Assessment and Management of Adult Obesity: A Primer for Physicians*. Chicago, Ill: American Medical Association; 2003.

#### Assessing risks from overweight and obesity

BMI Classification	Waist Circumference Low	Waist Circumference High	Waist Circumference Very High
Male	< 94 cm	94 – 102 cm	> 102 cm
Female	< 80 cm	80 – 88 cm	> 88 cm
Overweight	No increased risk	Increased risk	High risk
Obesity I	Increased risk	High risk	Very high risk

**Source:** Adapted from NICE clinical guideline 43 Obesity: Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. Dec. 2006 pg 18.

#### 5. Dietary advice for patients of BMI <18.5

◆ This BMI is considered underweight. Further assessment to outrule malnutrition is recommended.

#### Dietary advice for patients of BMI 18.5-25

- Maintain current weight by following healthy eating guidelines as per the Food Pyramid.
- ♦ Additional advice may be necessary if co-morbidities exist.

#### Dietary advice for any patient with a BMI over 25

- ◆ Stabilisation of eating: If an erratic eating pattern has been identified the first step is to develop a structured eating pattern. (2) Establish regular meals (including breakfast) (1)
- ♦ Improving the quality of the diet as per the Food Pyramid can be a useful starting point from which other dietary changes can eventually be incorporated. (2)
- ♦ Reduce dietary fat; avoid fried food; encourage grilled, boiled or baked; avoid crisps, biscuits, cakes; use low fat milk and low-fat spreads, avoid high sugar containing food. (1)
- Reduce alcohol intake. (1)
- Recommend fibre-rich foods, plenty of fruit and vegetables, lean meats, chicken and fish. (1)
- Encourage healthy snacks e.g. fruit instead of biscuits. (1)
- Provide advice to patients about food labelling. (1)
- Encourage self-monitoring i.e. food diaries to enable patient to see areas for change. (1)
- Standard diet sheets rarely effective. (1)
- ◆ Diets that are recommended for sustainable weight loss in combination with expert support and intensive follow up are<sup>(3)</sup>
  - Those with a 600Kcal/day deficit: This is an effective strategy for some individuals but requires the support of a dietitan to help calculate the patients estimated energy requirements and then help them devise a way to reduce their daily intake by 600Kcals. (3)
  - Those which reduce calories by lowering the fat content. (3)
  - Meal replacements (1200 1600kcal/day) These generally replace 1-2 meals per day allowing one normal meal with 1-2 meal replacements (snacks or drinks). This can be useful for people with difficulty in self selection or portion control. (2)
  - VLED (Very Low Energy Diets) (<800kcal and >450kcal) should not be used as first line dietary treatment and are only suitable for a select number of patients.
     Close medical and dietary supervision is essential.
- ♦ Access to local dietetic services for advice is essential but needs to be improved. (1) Contact your local Community and Dietetic service for referral protocol in your area or you can access private dietitians via the INDI (Irish Nutrition and Dietetic Institute) website <a href="https://www.indi.ie">www.indi.ie</a>
- ♦ Commercial weight loss programmes do have a role to play in the treatment of obesity. Referral of obese patients to a commercial weight loss program by the primary care team has been shown to be an effective weight management intervention in terms of cost and weight loss levels achieved. (4)

# 6. Drugs that may cause weight gain

Category	Generic
Antidepressants	Tricyclic anti-depressants
	Selective Serotonin re-uptake inhibitors (SSRIs)
	Monoaminase oxidase inhibitors
	Lithium
Anti-psychotics	Phenothiazines
	Clozapine
	Olanzapine*
	Risperidone
Diabetic drugs	Insulin
	Sulphonylureas
	Thiazolidinedione (TZDs)
Beta Blockers	
Corticosteroids	
Anti-convulsants	Sodium Valproate
	Phenytoin
	GABA transaminase inhibitor
Hormonal contraceptive	Progestogenic compounds (particularly Depoprovera)*

<sup>\*</sup> Higher risk of weight gain

Source: Adapted from: Report of the National Taskforce on Obesity. 2007: Recommendations for the clinical management of overweight and obesity in adults and children, Department of Health and Children;

#### 7. Pharmacotherapy in the management of overweight and obesity

Taken from INDI WMIG Position Statement on Weight Management.

Pharmacotherapy should be considered for patients with a BMI greater than or equal to 30 kg/m2 or a BMI of 27-30 kg/m2 with one or more obesity related disorders (Padwal *et al* 2004) as part of a program that also includes lifestyle modification such as intensive diet and/or exercise counselling and behavioural interventions (USPSTF, 2003). Drug therapy should be considered on an individual basis with stronger consideration given to those individuals with greater degrees of obesity and co-morbid illness (Padwal *et al* 2003). The criteria for prescribing and monitoring orlistat is outlined see http://cks.nhs.uk

Orlistat is a pancreatic lipase inhibitor that inhibits the absorption of up to 30% of dietary fat and is prescribed 120mg orally three times daily before, during or up to one hour after meals. In January 2009, a reduced 60mg dosage of orlistat, taken three times daily with meals was licensed for sale over the counter by the European Commission for individuals with a BMI ≥ 28kg/m2 (GSK 2009). Anti-diabetic medications may have to be closely monitored on both doses of orlistat. When treatment with orlistat is offered arrangement should be made for appropriate health professionals to offer specific concomitant advice, support and counselling on diet, physical activity and behavioural strategies (National Institute of Clinical Excellence, 2001a; National Institute of Clinical Excellence, 2001b).

Orlistat (120mg) has been shown to produce modest weight loss (2.6 kg to 4.8kg) that can be sustained for at least 2 years if the medication is continued (USPSTF, 2003). In placebo controlled weight loss trials of 1-year duration, treatment with orlistat reduced weight by 2.7kg or 2.9%. Orlistat-treated patients displayed improvements in total cholesterol, LDL cholesterol, blood pressure and glycaemic control but had increased rates of gastrointestinal side effects and slightly lower HDL levels. A recent study reported that orlistat plus lifestyle changes resulted in a greater reduction in the incidence of type 2 diabetes over 4 years among those with impaired glucose tolerance at baseline, and produced greater weight loss compared to a clinically representative obese population who received placebo (Torgerson *et al* 2004). A 2 year randomized, double-blind, placebo controlled trial with 60mg and 120mg orlistat showed that orlistat treated patients lost significantly more weight than placebo in year 1 (6.6%, 8.6% and 9.7% for placebo, orlistat 60mg and orlistat 120mg, respectively) (Rossner S *et al*, 2000). During the second year, orlistat therapy produced less weight regain than placebo (4.5%, 6.8% and 7.6% for placebo, orlistat 60mg and orlistat 120mg, respectively). Additionally orlistat therapy improved lipid profile, blood pressure and quality of life.

Furthermore, a review of drug treatments in obesity-associated hypertensive clients found the use of orlistat is associated with a small decrease in blood pressure (Doggrell 2005).

However, with the exception of the XENDOS study (Torgerson *et al* 2004) the majority of randomised controlled trials evaluating anti-obesity medications have been of short duration and have not assessed the impact on cardiovascular, cancer-related or total mortality (Padwal *et al* 2003).

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#### 8. Pregnancy

Maternal obesity has become one of the most commonly occurring risk factors in obstetric practice. Researchers from the Coombe Women and Infants University Hospital studied 5,824 women who had their BMI calculated in the first trimester. Twenty eight per cent were overweight (BMI >25 AND <30) 13% were obese (BmI >30 AND < 40) and 2% were morbidly obese (BMI > 40).

Women who are obese when they become pregnant face an increased risk of complications during pregnancy and childbirth. For the mother, it includes a higher chance of having preeclampsia, gestational diabetes, thromboembolism, miscarriage and delivery by caesarean section. (Centre for maternal and child enquires and the Royal College of Obstetricians and Gynaecologists 2010). Reduced mobility during labour can result in the need for more pain relief with its associated risks to both mother and baby. After birth, wound healing can be slower with the increased risk of infection and breastfeeding may be difficult to establish. (NICE public health guidance 27, July 2010)

Morbidly obese mothers can have an induction rate of 42.1% compared with 23.5% in the normal BMI group. Almost 35.8% of them have pregnancy-induced hypertension compared with 9.8% in the normal BMI group. The Coombe study also found higher caesarean rates (45.3% in the morbidly obese compared to 14.4% in the normal BMI group. These women also faced an increased risk of diabetes, as 20% of morbidly obese mothers developed gestational diabetes.

For the newborn, it increases the likelihood of having a higher birth weight and subsequent obesity (HAPO 2010)

The NICE's formal guidance on dietary interventions and physical activity interventions for weight management before, during and after pregnancy is based on set criteria, strategies and weight loss programmes that are proven to be effective for the whole population. Programmes that do not meet these criteria are unlikely to help women to maintain a healthy weight in the long term. It is recommended that all pregnant women should have a BMI recorded and measured during pregnancy

Dieting during pregnancy is not recommended as it may harm the health of the unborn child. The amount of weight a woman may gain in pregnancy can vary.

#### References:

Farah N, maher N, Barry S et al; UCD School of Medicine and Medical Science, Coombe Women and Infants University Hospital, Dublin, Ireland. Maternal Morbid Obesity and Obstetric Outcomes, Obes Facts 2009;2:352-354

Centre for Maternal and Child Enquires and the Royal College of Obstetricians and Gynaecologists (2010) Joint guideline – Management of women with obesity in pregnancy. London: CMACE/ Centre for Maternal and Child Enquires and the Royal College of Obstetricians and Gynaecologists

NICE (2010) Dietary interventions and physical activity interventions for weight management before ,during and after pregnancy. Nice public health guidance 27

HAPO Study Cooperative Research Group. Hyperglycaemia and Adverse Pregnancy Outcome (HAPO) Study: associations with maternal body mass index. BJOG 2010

#### Achieving and maintaining a healthy weight

Extract from the NICE guidance document 27 Dietary interventions and physical activity interventions for weight management before, during and after pregnancy. (see www.nice.org.uk/guidance/PH27)

Women will be more likely to achieve and maintain a healthy weight before, during and after pregnancy if they:

- base meals on starchy foods such as potatoes, bread, rice and pasta, choosing wholegrain where possible
- eat fibre-rich foods such as oats, beans, peas, lentils, grains, seeds, fruit and vegetables, as well as wholegrain bread and brown rice and pasta
- eat at least five portions of a variety of fruit and vegetables each day, in place of foods higher in fat and calories
- eat a low-fat diet and avoid increasing their fat and/or calorie intake
- eat as little as possible of fried food; drinks and confectionery high in added sugars (such as cakes, pastries and fizzy drinks); and other food high in fat and sugar (such as some takeaway and fast foods)
- eat breakfast
- watch the portion size of meals and snacks, and how often they are eating
- make activities such as walking, cycling, swimming, aerobics and gardening part of
  everyday life and build activity into daily life for example, by taking the stairs instead of
  the lift or taking a walk at lunchtime
- minimise sedentary activities, such as sitting for long periods watching television, at a computer or playing video games
- walk, cycle or use another mode of transport involving physical activity.

### Effective weight loss programmes:

- address the reasons why someone might find it difficult to lose weight
- are tailored to individual needs and choices
- are sensitive to the person's weight concerns<sup>1</sup>
- are based on a balanced, healthy diet<sup>2</sup>
- encourage regular physical activity<sup>2</sup>

<sup>1</sup> This is an edited extract from a recommendation that appears in 'Obesity'. NICE clinical guideline 43.

<sup>&</sup>lt;sup>2</sup> This is an edited extract from a recommendation that appears in "Obesity". NICE clinical guideline 43.

#### 9. Recommended weight gain for pregnancy by pre-pregnancy BMI

Revised 2009

BMI category	Recommended total weight gain		
	Kilograms	Stone	
Underweight	12.7 – 18.2	2 – 2 st 12 lb	
$(< 18.5 \text{ kg/m}^2)$			
Normal weight	11.4 - 15.9	1 st 11 lb – 2 st 7 lb	
$(18.5-24.9 \text{ kg/m}^2)$			
Overweight	6.8 - 11.4	1 st – 1 st 11 lb	
$(25.0-29.9 \text{ kg/m}^2)$			
Obese	5 – 9	11 lb – 1 st 6 lb	
$(\geq 30.0 \text{ kg/m}^2)$			
Twins			
Underweight	No weight gain		
$(< 18.5 \text{ kg/m}^2)$	guidelines are		
	available because		
	of insufficient data.		
Normal weight	16.8 - 24.5	2 st 9 lb – 3 st 12 lb	
$(18.5-24.9 \text{ kg/m}^2)$			
Overweight	14 - 22.7	2  st  4  lb - 3  st  7  lb	
$(25.0-29.9 \text{ kg/m}^2)$			
Obese	11.4 - 19	1 st 11 lb – 3 st	
$(\ge 30.0 \text{ kg/m}^2)$			
Triplets	23	3 st 8 lb	
(any BMI)			

Women at greater risk for delivering low birthweight babies, including adolescents, African-American women and others should be monitored for optimal weight gain and dietary quality throughout pregnancy.

#### Sources:

BMI categories from WHO 1995, 2000 and 2004.

Food and Nutritioan Board, Institute of Medicine. *Nutrition During Pregnancy*. Washington DC: National Academy Press, 1990.

Brown JE, Carlson M. Nutrition and multifetal pregnancy. J Am Diet Assoc, 2000: 100: 343-348.

Food and Nutritioan Board, Institute of Medicine. Rasmussen KM and Yaktine AL, editors. *Weight Gain During Pregnancy: Reexamining the Guidelines*. Washington DC: National Academy Press, 2009.

#### 10. Food and Physical Activity Diary

#### Why is this diary useful?

 Writing down what you eat, drink and any exercise that you do, can help you to manage your weight.

#### What do I have to do?

- First, keep a record of what you eat and any activity you do without changing anything this can help you to look closely at how your current diet (types and amounts of foods) and activity levels might be affecting your weight.
- Record where you are and who you're with when you eat this can help you to recognise triggers that effect your food choices.
- As you make lifestyle changes, continue to keep the food and activity diary as it can help to keep you on track.
- You'll get the most out of keeping the diary if you take some time out each day to reflect on what you've written down. Look at what you've eaten and add up your minutes of activity for the day do the results match your plans for that day? If not, what could you change tomorrow?

#### Who will see my diary?

- The diary is for you, to help you to pick out eating or activity patterns that are affecting your weight loss plans.
- The diary should not be 'marked' as good or bad by a health care professional. However, sometimes it can be helpful to sit down with a health care professional (such as your GP, practice nurse or dietitian) and talk to them about the diary working together can help you to find solutions.

#### **Top tips**

- ✓ Write down everything that you eat and drink no matter how big or small!
- ✓ Try to keep the diary with you and fill it in as you go. Filling it in at the end of the day is less accurate as it can be difficult to remember what you ate (especially snacks) or any activity you did!
- ✓ Make sure to include weekend days the foods you eat and your activity levels may be very different at the weekend to weekdays.
- ✓ The more you put into the diary, the more you'll get out of it. Recording the portion size (in household measures for example slices of bread, tablespoons of pasta, mugs of milk etc) as well as the type of food and cooking method (grilled, fried, boiled etc) gives you a fuller picture of how your diet might be affecting your weight

**Instruction:** Please record your food intake and physical activity for 5 days, at least one of which should include a weekend day.

### **FOOD**

Day:_			T		
Time	Food / drink	Amount	Where was I and who was I with?	Was I hungry?	Thoughts / comments/feelings?

# \* Have you included snacks and drinks?

#### PHYSICAL ACTIVITY Diary

**Aerobic:** Walking, Swimming, Aqua-aerobics, Cycling, Cross Trainer, Stepper, Dancing Sports, Sit to stand, Exercises sheet

Muscle Strength Training: Arm or Leg weights: Stretchy band, free weights, Abdominal/Pilates

exercises sit ups, push ups.

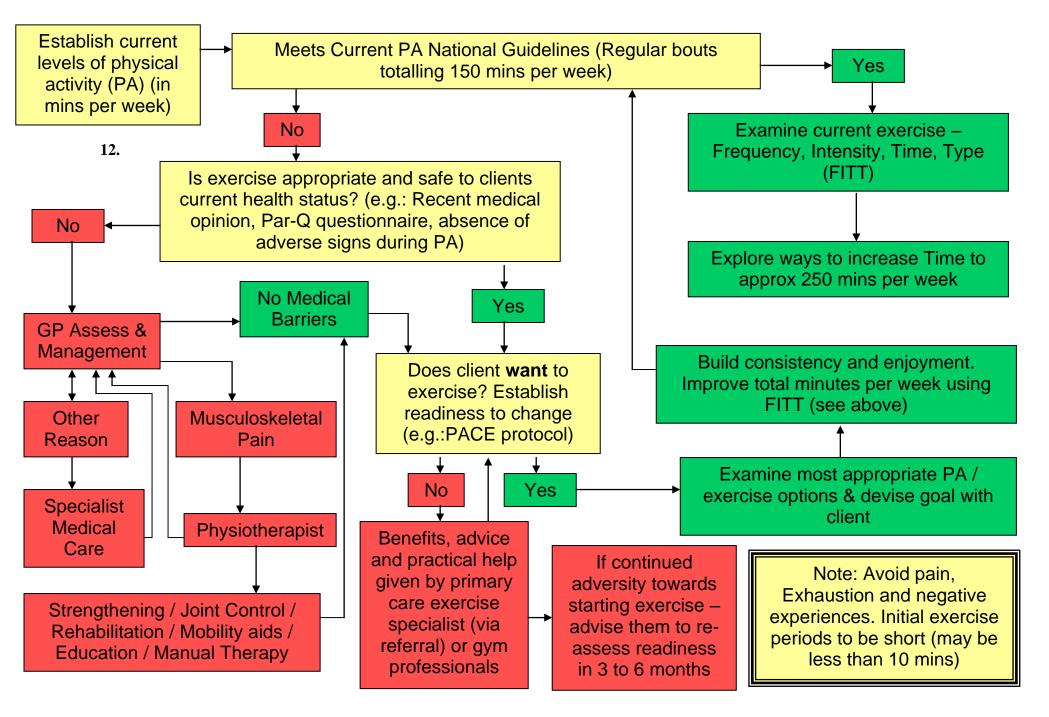
Household chores: Cooking, Gardening, Cleaning, Hoovering, etc.

	Physical Activity Type Intensity (Light, Moderate, Vigorous) Minutes Taken	Total Minutes (minutes)
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		

#### 11. Commercial, self-help and community organisations

- Discuss the range of weight management options & help people decide what is best for them in the long term.
- If recommending commercial, community and/or self-help weight management programmes, continue to monitor patients & provide support & care.
- Check that anything you recommend to patients meet best-practice standards by:
  - helping people decide on a realistic healthy target weight (usually to lose 5-10% of their weight)
  - aiming for a maximum weekly weight loss of 0.5-1kg
  - focusing on long-term lifestyle changes
  - addressing both diet & activity, & offering a variety of approaches
  - using a balanced, healthy-eating approach
  - offering practical, safe advice about being more active
  - including some behaviour-change techniques, such as keeping a diary & advice on how to cope with "lapses" and "high-risk" situations
  - recommending and/or providing ongoing support.

**Source:** NICE clinical guideline 43 Obesity: Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. Dec. 2006 pg 2



#### 13. The G.P. Exercise Referral Programme

#### What is the aim of the programme?

The aim is to help physically inactive adults become more active through the provision of a patient led pathway of specialist support

#### What are the criteria for referral to the programme?

Inclusion criteria: those currently not meeting the Irish PA guidelines, over 18 years of age and interested in becoming more physically active. Currently the programme caters for a wide variety of pre-existing medical conditions as long as they are controlled. Patients with pre-existing cardiac conditions cannot be referred. The programme and the training the instructors currently receive focuses on the primary prevention of CHD. Cardiac rehabilitation training could be developed in the future to open the programme up to secondary prevention referrals.

#### How is a referral is made by the GP / Practice Nurse etc?

Once an instructor becomes qualified they are then referred to as the Local Coordinator. The local health promotion unit, in partnership with Primary Care Units, recruit GPs to refer to the Local Coordinator. Once recruited and officially signed up to the programme the GP is issued with referral resources and can begin referring patients using the standard form (pg. 27). The referral protocol, procedures and resources are the same across the whole of Ireland to ensure clarity and sustainability. If a practice nurse wishes to refer, they must ensure the form is countersigned by the GP to ensure medical suitability.

#### Cost for both public and private patients

The cost for each patient is determined by the facility that the qualified Local Coordinator is working from. The facility is advised to offer a membership and/or pay as you go option that is less than or equal to their lowest price product. Due to the huge variety in the type of facility that delivers the programme there cannot be a standardized cost.

# What qualifications must coaches already have before being considered for delivery of the programme?

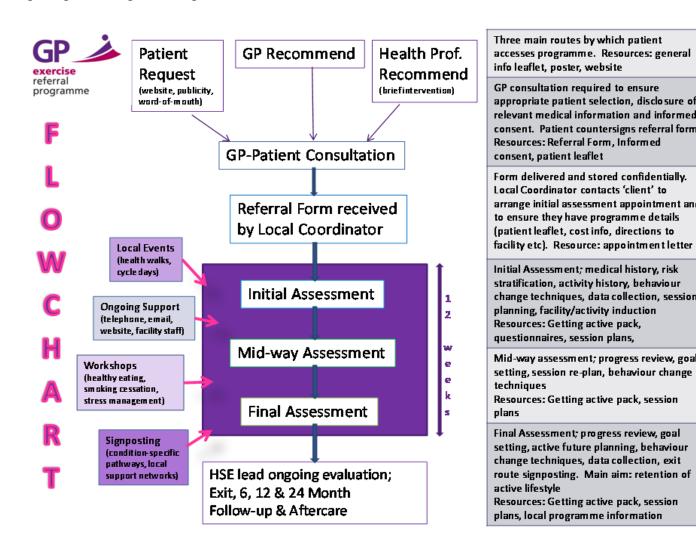
The course is open to instructors that have a recognised gym instructor qualification. The course covers the clinical, psychological and managerial aspects of delivering the exercise referral programme from a leisure facility.

#### What training do coaches receive before they start delivering the programme?

A specialist national training course has been developed to ensure that instructors are suitably qualified to receive referrals. This course must be completed successfully before they can start receiving referrals. For an up-to-date record of the facilities that are currently delivering please visit <a href="https://www.gpexercisereferral.ie">www.gpexercisereferral.ie</a>

#### How does the programme work?

Please see the attached flow chart that defines the pathway. HSE Health Promotion and ILAM work in partnership to set up Local Working Groups to support the Local Coordinator. This is made up of health promotion staff, primary care staff, local sports partnership, a GP rep etc.



#### Where is the programme being delivered now?

An up to date map of the facilities delivering is available on <a href="www.gpexercisereferral.ie">www.gpexercisereferral.ie</a>. As of January 2010, 25 instructors are qualified Local Coordinators. Operating facilities include;

Facility Name	Address	HSE Region
Mardyke Arena UCC	Cork	HSE South
Personal Health & Fitness Centre	Cork	<b>HSE South</b>
Fitwell Ireland	Dublin	<b>HSE NorthWest</b>
<b>Evolution Gym</b>	Limerick	HSE West
Newbridge Sports & Leisure Centre	Kildare	HSE DML

DLR Leisure Services Monkstown	Dublin	HSE North East
1Escape Health Club	Dublin	HSE DNE
Bundoran Seaweed Baths & Wellness Centre	Donegal	HSE West
Irish Wheelchair Association	Dublin	HSE DNE
Stewarts Sports Centre	Dublin	HSE DML
Portarlington Leisure Centre	Laois	HSE DML
One2one Active @ Letterkenny Community Centre	Donegal	HSE West
An Riocht Health & leisure Club	Kerry	HSE South
Athlone Regional Sports Centre	Athlone	HSE DML
Westpark Fitness	Dublin	HSE DML
Portlaoise Leisure Centre	Laois	HSE DML
Bodytrim Navan	Meath	HSE DNE
Skibbereen Sports Centre	Cork	HSE South
Sarah Smith	Galway	HSW West
University Arena	Limerick	HSE West
<b>Grove Island Leisure Centre</b>	Limerick	HSE West
Ennis Leisure Centre	Ennis	HSE West
Newpark School	South Dublin	HSE DML
Oughterard	Galway	HSE West
Sportlann Naomh Anna	Galway	HSE West
Galway City	Galway	<b>HSE West</b>
Tralee Regional Sports Centre	Tralee	HSE South
Coral Leisure Monaghan	Monaghan	HSE DNE
Fit for Life Roscrea	Tipperary	HSE West
Splashworld Tramore	Waterford	HSE South

### What other named sites will join the programme in 2011?

The next national training course (Local Coordinator certificate) is currently receiving applications and will begin in February. We currently have over 100 expressions of interest. Due to demand a second course is likely to be scheduled for September 2010. Candidates on the current 09/10 course include;

Organisation	County	HSE region
Coral Killarney	Kerry	SOUTH
Thurles Leisure Centre	Tipperary	WEST
NRG	Galway	WEST
Sanovitae Quality Hotel Youghall	Cork	SOUTH
Grove Island Leisure	Limerick	WEST
Freelance	Dublin	DNE
Manor West Hotel	Kerry	SOUTH
Ennis Leisure Centre	Clare	WEST
Lakeside	North Tipperary	WEST
Trinity College Sports Centre	Dublin	DML
Coral Killarney	Kerry	SOUTH

Freelance	Galway	WEST
Cappoquin Community Development	Waterford	SOUTH
Exercise & Weight Management Academy	Donegal	WEST
NRG Health & Fitness	Galway	WEST
Shoreline leisure	Wicklow	SOUTH
Freelance	Galway	WEST

Who is currently in training, due to graduate in early 2012?

Facility Name	County	HSE Region
Breaffy House Resort	Mayo	West
Sporty's Gym Killarney	Kerry	South
DLR Leisure Services Meadowbrook	Dublin	DML
Knocknarea Arena	Sligo	West
K. Leisure	Kildare	DML
Sligo Regional Sports Centre	Sligo	West
Leitrim Sports Partnership	Leitrim	West
K Leisure Naas	Kildare	DML
Sligo Park Health & Leisure	Sligo	West
Freelance	Galway	West
Thurles Leisure Centre	Tipperary	West
Best Western Sligo Hotel	Sligo	West
Shoreline Leisure	Wiclow	DML
Freelance	Clare	West
Kingfisher	Clare	West
Dublin City Council	Dublin	DNE
ALSAA	Dublin	DNE
GP Based	Dublin	DNE
Ashdown Park Hotel	Wexford	South
K2NY	Cork	South
Freelance	Clare	West
DCU	Dublin	DNE
Freelance	Limerick	West

Tel. (other): Gender: M / F	Details
	Details
Gender: M / F	Details
	Details
	Details
a list of the patient's curr	ent medication is attached
he patient is currently no	t taking any medication
during exercise and will	nator. I understand that I am inform my coordinator of any
	treatment. I have read and
Date:	
rcise as outlined in the	Please insert practice stamp;
	he patient is currently no ed on to the Local Coordi during exercise and will coordinator of any chan levant investigations or Date:

Date:

 $\hfill\Box$  and has read and understood the informed consent statement

GP's Signature:

#### 14. The Green Prescription

**Note:** This programme is new to Ireland and is currently being piloted in the North West. Very positive results have emerged from the U.K and Northern Ireland where it has been running for some time. Following the pilot evaluation it is hoped to make it available in Ireland towards the end of 2011/ early 2012 to accompany and/or as an alternative to the GP Exercise Referral Programme.

The Green Prescription is an innovative health improvement programme which involves a General Practioner or an allied health professional prescribing exercise in the out door environment which both prevents and tackles obesity among all age groups and groups across the social gradient. It is different from the GP Exercise Referral Scheme in that the exercise prescribed takes place in the natural environment. This is a more accessible programme for all groups across the social gradient, it has little or no cost implications and can be used in both a rural and urban setting.

The concept of the Green Prescription has been running in the UK NHS and is called the Green Gym which involves any exercise outdoors such as gardening, conservation, health walks etc. The GP or allied health professional identifies the client and works with the Green Gym organisation and health sector to develop the appropriate programme for the client. It involves both self-referrals as well as GP referral, both of whom are monitored throughout the intervention.

In Ireland, a structured new model is being piloted which will serve as an alternative for those who may find the GP Exercise Referral scheme prohibitive due to cost or inaccessible for them.

This programme is being developed to involve a structured partnership involving the health sector, GPs, the community and voluntary sector (primary care groups) as well as other state sectors such as Coillte, National Parks and wildlife, VEC and outdoor pursuit centres etc.

- This will involve the GP or allied health professional prescribing the exercise (using a green prescripition pad) and directing the client to exisiting activities/green spaces in their local community
- The GP will be made aware of these programaes and green spaces through a structured education programme linked to primary care teams/networks.

#### **Evidence Base**

The outdoor environment has a powerful effect on us, encouraging us to become more active and to be less stressed. This has the dual impact of directly tackling obesity and also increasing self esteem which plays a key role in creating the conditions for behavioural and structural change. Structured exercise in the outdoors has been proven to reduce return GP visits as well as help in the reduction of diabetes and other obesity related conditions. This reduces costs to the individual as well as the health service.

- The World Health Organisation (WHO) has identified that the top 7 major risks to health include high cholesterol, overweight and obesity, low fruit and vegetable intake and physical activity.
- The EU led Building HealthyCommunities Project is designed to improve the
  environment and change policies to make it easier for residents to be healthy
  and to reduce the factors causing the obesengenic environment. Access to
  green space has been identified as a key factor in increasing physical
  activity levels and in reducing obesity.
- Ground Work UK seventeen epidemiological studies investigated the role
  of green space, exercise and reduction of obesity using a range of
  socioeconomic and environmental variables on morbidity and the links
  between quality of life and neighborhood health indicators.(positive
  relationship and reduced morbidity in obesity related disorders across the
  social gradient)
- Natural England 2010– exercising outdoors is five times more effective than exercising indoors.
- Conservation Volunteers Northern Ireland have provided evidence that the Green Gym initiative has impacted positively on population groups with 90% of participants continuing to exercise six months after completion of the programe as well increases in levels and types of exercise.
- Studies of green exercise programes are beginning to be monitored more closely.(Groundwork UK, Natural England, Holland, Japan, Canada)
- National Physical Activity Guidelines 2009 state that in order to maintain good health, adults are advised to undertake 30 minutes of physical exercise five days a week and children and young people are advised to undertake 60 mins every day.
- National Health and Lifestyle Survey 2007 state that only 51% of Irish adult population engaging in physical activity 4 or more times a week.
- The Report of the National Task Force on Obesity 2005 states that a sensitive educational and training program for health professionals in the management of obesity should be developed and implemented and that primary care teams should be the focus of the training drive.
- The Report of the National Task Force on Obesity 2005 recommended that community skills based programes need to incorporate physical activity

#### 15. General information about referrals to hospital based services

#### **Appropriate referrals:**

The Hospital based Weight Management Service can only see a small fraction of obese patients, even those who might benefit from specialist assessment and treatment. Obesity now affects 18 % of men and 16% of women in Ireland with figures rising all the time

#### Factors suggesting that a patient is suitable for referral include:

- Need for specialist or multidisciplinary approach
- Presence of co-morbid condition such as Type 2 diabetes, sleep apnoea, cardiovascular disease.
- High level of patient motivation
- Patient understands that the medical goal of weight loss is gradual modest weight loss (initially about 10%).

#### Patients unsuitable for referral include:

- Bulimia nervosa, active psychiatric disease.
- Patients who do not wish to enter treatment for their obesity
- Those who have not engaged in previous conventional interventions (e.g. commercial slimming groups, healthy eating and increased physical activity).
- Patient has never received even basic healthy eating advice.
- BMI <40 kg/m² with no obesity related co-morbidities.
- Unrealistic weight loss goals (e.g. 10kg in 1 month)
- Short term objectives (e.g. weight loss for a specific event such as a wedding)
- Unable to devote time to attending clinics and working on the problem at home.

Filling in the template below will allow efficient processing of the referral and appropriate prioritising of patients.

As of December 2010 the following two Hospital Weight Management Treatment Services are available:

# 1. St Columcille's Hospital (SCH) Weight Management Service, Loughlinstown, Co Dublin

Prof Donal O'Shea leads a multidisciplinary team of physicians, nurses, dietitians, physiotherapists, and psychologists, as well as a bariatric surgeon, Mr Justin Geoghegan.

In line with National Obesity Taskforce recommendations, SCH accept referrals for patients with a BMI greater than  $40 \text{kg/m}^2$ , or those with a BMI of  $35-40 \text{kg/m}^2$  who have obesity related co-morbidities. Referrals are triaged based on a patient's BMI and the presence and number of co-morbidities. Referral letters should always include this information.

Prior to receiving an appointment to the service, all patients are sent an information pack, which includes physical activity and general medical questionnaires, and a food diary. These completed documents must be returned to the clinic before an appointment is sent to the patient. We consider this is an important indication of a

patient's motivation and readiness to make lifestyle changes, factors essential in achieving and sustaining significant weight loss. If patient literacy is anticipated to be a problem, please contact the team directly to discuss the referral. All patients will undergo a period of conservative management; involving monthly visits for dietetic and exercise advice, as well as psychological assessment and support. Anti-obesity drugs will be prescribed if indicated. This period of lifestyle intervention continues for 6 to 12 months before surgical intervention is considered.

**Please send referrals or queries to:** Prof Donal O'Shea, Weight Management Service, St Columcille's Hospital, Loughlinstown, Co Dublin. Phone number: 01-2115042, Fax number: 01-2115164.

#### 2. Galway University Hospitals

Dr. Francis Finucane leads the multidisciplinary team at GUH, working closely with Prof. Oliver McAnena, the bariatric surgeon. We accept and assess referrals in a similar way to other centres, as outlined above. Referrals should be sent to Dr. Francis Finucane, Bariatric Medicine, Department of Endocrinology and Diabetes Mellitus, Galway University Hospitals. Our phone number is 091-542108.

Two additional centres are planned in Dublin's Beaumont – Connolly Hospitals and Cork University-Mercy Hospitals. These will complete the full compliment of a Hospital Treatment Service in each of the four HSE areas.

# 16. Hospital Weight Management Service Referral Form Template

Phone:	
Fax:	XXXXX
Hospital	
Email:	
Referring GP & GP address	
G.P. Telephone number	
Patient name & address	
Patient phone no.	
Date of birth	
Anthropometric measurements e.g. waist circumference	
Current Weight	
Height	
BMI (kg/m²)	
Current Medications	
Past medical Hx	
Social Hx of note	
Weight loss meds tried	
Signed	
Today's date	