CHANGES Weight Management Service Evaluation: *Final Report*

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Executive Summary

Introduction

CHANGES is considered a level three specialist weight management service. To enter the service patients must be over the age of 16 years and have a BMI greater than 30 kg/m^2 or 27 kg/m^2 with co-morbidities. Referrals to the 5 Boroughs Partnership CHANGES weight management service are made by health professionals such as the patient's GP, practice nurse or hospital consultant. Patients either receive one to one sessions with a dietician / dietetic assistant or they join group sessions. Patients can stay on the service for up to two years (depending on their complexity) and can also access cognitive behavioural therapy (CBT) sessions if deemed necessary. Linked in with CHANGES are several community run services including Measure Up, Activity for Life and Community Cooks which patient's can also access.

5 Boroughs Partnership commissioned an independent study of CHANGES by Liverpool John Moores University, to evaluate the effectiveness of the project.

Methods

A qualitative approach to data collection and analysis was taken. Methods used included:

- Interviews with stakeholders
- Interviews with patients who had been on CHANGES in the last five years
- Interviews with patients currently on CHANGES plus blogs
- Interviews with significant others

Data were analysed using a framework analysis approach to identify emergent patterns and themes (Ritchie and Spencer 1994). This five stage process involved familiarisation with the data; the generation of a thematic framework; indexing of all transcripts; charting data and mapping data extracts to the framework; followed by a process of interpretation.

Key findings

Patient profiles

Patients were able to clearly explain both how they had become obese and also why they had decided that this was the right time for them to address their weight issues. When delivering information, the 5 Borough Partnership need to ensure that different patient profiles are taken into account, particularly when seeing patients in a group setting and possibly offer complex patients one-to-one sessions. Further research could be carried out to assess and identify predictors of weight loss success for these distinct patient profiles.

Group sessions / One to one

The majority of patients during the evaluation attended the group sessions and on the whole enjoyed them, finding them informative and feeling that the additional support of other group members helped to keep them motivated. However, there were also some issues surrounding differing levels of knowledge within the groups. Many of the patients had attended commercial weight loss groups or community led services already and felt that

they weren't getting any new information from CHANGES. There were some levels of frustration from these patients as they had to wait for other members of the group to catch up. Further research could look at the impact prior knowledge has on weight loss success, i.e. are those patients who have already attended weight loss groups more or less likely to lose weight in group settings than others?

Psychological support

The importance of placing psychological support at the centre of CHANGES was evident throughout all the phases of the evaluation.

Weight loss

Patients were often very positive about how much weight they had lost. Furthermore, patients felt encouraged by health improvements and there was an evident change in their outlook. Patients had undergone psychological changes and improvements in physical health and had a much more positive outlook on life and a new attitude towards eating.

Bariatric surgery

Of those patients who had undergone bariatric surgery, all reported a high level of success with weight loss and reported feeling much happier with themselves. However, of those patients who had bariatric surgery, all felt that they had not received adequate support post surgery. Clarification of the bariatric surgery provider's role post surgery is essential.

Value for money

In terms of value for money, it was felt that reducing patients' weight would have a positive financial impact on the NHS in the long term through the lessening of co-morbidities.

Links with other services

On the whole, there was generally considered to be good communication between CHANGES and other linked services.

Conclusion

Those whose work involves them in the CHANGES weight management team are a strongly committed and enthusiastic team who celebrate the successes of their patients and where there is disappointment endeavour to find innovative ways to address those issues. Many of the patients reported that CHANGES had helped them to make positive changes to their life. Furthermore, patients enjoyed their time on CHANGES and it was apparent that patients had lost weight and improved in psychological wellbeing throughout the evaluation.

Contents

1. Introduction

1.1 Obesity as a dominant public health issue

Obesity is one of the greatest public health challenges in the 21st Century (World Health Organisation, 2006). It is defined as abnormal or excessive fat accumulation that may impair health, and studies suggest that, without intervention, reversal of obesity is uncommon (Colquitt et al, 2009). The most commonly used measure for classifying obesity is the body mass index (BMI), calculated as body weight in kilograms divided by height in metres squared (kg/m2). In adults a desirable BMI is between 18.5 to 25 and a BMI of between 25 and 30 is classed as overweight. Obesity is defined as a BMI over 30, while severe or morbid obesity is defined as a BMI of over 40 (NICE, 2006).

According to Picot et al (2009) amongst a standard primary-care trust (PCT) population of 250,000, there would be 5,250 cases of morbid obesity (BMI ≥40). Between 1993 and 2010 there has been a marked increase in the percentage of adults in England who are obese (BMI ≥ 30kg/m^2) or severely/morbidly obese (BMI ≥ 40kg/m^2), from 15.7% (14.9% obese and 0.8% morbidly obese) in 1993 to 28.8% (26.1% obese and 2.7% morbidly obese) in 2010 (The Health and Social Care Information Centre, 2011). There is currently a similar prevalence of obesity in males and females (26.2% and 26.1% respectively), however, more than twice as many females are morbidly obese compared to males (3.8% and 1.6% respectively) (The Health and Social Care Information Centre, 2011).

The Foresight report predicts that by 2050, if no action is taken, 60% of men, 50% of women and 25% of children will be obese (McPherson, Marsh and Brown, 2007). This will also lead to a steep rise in co-morbidities associated with excess weight, in particular chronic health diseases such as diabetes and cardiovascular disease. There are a number of risk factors (both health and wellbeing) that are associated with being overweight and these risk factors increase in individuals who are obese or morbidly obese. These include physical risk factors such as: cancer, approximately 10% of all cancer deaths among non-smokers are related to obesity; Coronary Heart Disease (CHD)– the risk of coronary artery disease increases 3.6 times for each unit increase in BMI; Diabetes (Type 2) – risk of developing is estimated to be 20 times greater with people who have a BMI over 35, compared to those with a BMI between 18 and 25; High blood pressure (hypertension) – 85% is associated with a BMI greater than 25; Non-alcoholic fatty liver disease – approximately 90% of obese individuals have a fatty liver; as well as psychological and sexual/reproductive (Jones et al,2008). In 2009, obese adults (aged 16 and over) in England were more likely to have high blood pressure than those in the normal weight group. High blood pressure was recorded in 51% of men and 46% of women in the obese group and in 20% of men and 15% of women in the normal weight group (The Health and Social Care Information Centre, 2012).

Factors which strongly influence obesity include: diet, physical activity and family history. People in today's society consume too many calories due to the increased availability of food stuffs as well as consuming foods that are energy dense with high levels of calories and rich in sugar, salt and fat (World Health Organization, 2006). Coupled with this is the decreasing consumption of fruit and vegetables and increasing alcohol consumption (Morleo et al, 2010). There is also reduced access to/time for recreational activities; less physical

education taking place in schools; and more sedentary behaviour taking place, such as watching television and playing computer games (Jones et al, 2008). Genetics have also been identified as an influencing factor, with body weight being identified as an inheritable body feature (Wardle et al, 2008).

Obesity and its associated chronic diseases are more pronounced in disadvantaged groups (Royal College of Physicians, 2004). Fair Society, Healthy Lives (Marmot, 2010) identifies obesity as one of the four main health inequalities (along with smoking, alcohol and drug use) that is directly associated with low income and deprivation. Research by Withall, Jago and Cross (2009) looked at low-income families with pre-existing levels of overweight or obese. It identified that access, availability and cost were barriers to a healthy lifestyle; but concluded that improvements in these areas only showed increased activity in some groups, with unhealthy behaviours influenced by perceived roles of genetics/metabolism and 'high optimistic bias', thus highlighting a number of complex interactions.

1.2 Policy and guidance

Detailed below in Box 1 are a number of key policy and guidance documents. A further list of documents, which may be of interest, can be found in Appendix 1.

Box 1: Key policy and guidance documents

2011

Healthy lives, healthy people: a call to action on obesity in England (DH, 2011) sets out how the new approach to public health will enable effective action on obesity and encourages a wide range of partners to play their part. It highlights the Government's aims to achieve two new goals:

1. a sustained downward trend in the level of excess weight in children by 2020.
2. a downward trend in the level of excess weight averaged across all adults by 2020.

Through:

- *Empowering individuals*
- *Giving partners the opportunity to play their full*
- *Giving local government the lead role in driving health improvement and harnessing partners at local level* as set out in *Healthy Lives, Healthy People;* and
- *Building the evidence base*

2010

The Healthy Lives, Healthy People: Our Strategy for Public Health in England (DH 2010) White Paper set out the Government's long-term vision for the future of public health in England. The aim is to create a 'wellness' service (Public Health England) and to strengthen both national and local leadership. This White Paper highlighted the following:

- The biggest threats to health, such as obesity, sit within/are related to public health
- Two out of three adults being overweight or obese and we are the heaviest nation in the European Union
- The obesity epidemic is affected by social norms, along similar lines, for example, as that seen with smoking uptake – people are more likely to take up smoking if it is a common behaviour within their social network
- The White Paper suggests that Public Health England has a responsibility to fund and ensure the provision of services such as obesity; also that its job is to reduce the pressures of avoidable illness so the NHS can focus its efforts elsewhere, for example, reductions in obesity would also see a lowering in the prevalence of diabetes and liver disease.

2008

Healthy Weight, Healthy Lives: a Cross-Government Strategy for England was published in 2008 (Department of Health and Department of Children, Schools and Families, 2008). Its initial focus was to tackle childhood obesity, then moving on to encompass all ages and weight issues. This strategy was to work by bringing together key sectors including local strategic partnerships, voluntary sectors and non-government organisations (NGOs), health services, food producers and retailers and the leisure industry. It also built upon previous public health policy to tackle obesity, as outlined in the *Foresight report* (McPherson et al, 2007) *The Health of the Nation* (Department of Health, 1992), *Saving Lives: Our Healthier Nation* (Department of Health, 1999) *and Choosing Health: Making Healthy Choices Easier* (Department of Health, 2004); and aimed to help England become the first nation to reverse the rising prevalence of obese and overweight in the population.

2007

Foresight: Tackling Obesity: Future choices (McPherson et al, 2007) highlighted that the majority of evidence relating to obesity focuses upon the causes rather than prevention or treatment strategies. It looks at modelled obesity levels that are likely to be seen in 2050; as well as looking at future predictions of obesity related diseases, health service costs and life expectancy.

2006

Obesity: Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children (National Institute for Health and Clinical Excellence - NICE), 2006). This guidance is the first national guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children in England and Wales. It replaced and updated the Guidance on the use of surgery to aid weight reduction for people with morbid obesity; *NICE technology appraisal guidance* no. 46 (2002); and Guidance on the use of orlistat for the treatment of obesity in adults; *NICE technology appraisal guidance* no. 22 (2001).

The guidance recommends that the components of a planned weight-management programme should be tailored to the individual's preferences, initial fitness, health status and lifestyle and offers a care pathway which includes diet, physical activity, behavioural interventions, drug therapy and surgery. The guidance aims to:

- stem the rising prevalence of obesity and diseases associated with it
- increase the effectiveness of interventions to prevent overweight and obesity
- improve the care provided to adults and children with obesity, particularly in primary care.

The recommendations are based on the best available evidence of effectiveness, including cost effectiveness. They include recommendations on the clinical management of overweight and obesity in the NHS, and advice on the prevention of overweight and obesity that applies in both NHS and non-NHS settings.

NICE is also currently developing guidance on lifestyle weight management services for overweight and obese adults/children and young people, which is due for publication in October 2013.

The Care Pathway for the Management of Overweight and Obesity (DH, 2006) suggested that weight management assessment should take account of a patient's history including: medical; family; drug; and the patient's readiness to change such as how important losing weight is to a patient. Also, that it should focus upon reducing risk factors, such as co-morbidities.

The care pathway recommended a guideline weight loss of 5-10% weight loss over three-six months, with patients being advised on and attempt interventions on healthy eating, physical activity and behaviour change first. It stated that drug therapy should only be considered as an addition to lifestyle intervention, not an alternative and that bariatric surgery should also only be considered once all other interventions have been exhausted and patients must still make lifestyle changes particularly post surgery. Patients are also to be provided with support in order to maintain weight loss, e.g. through support groups and local services.

1.3 Interventions for Weight Management

There are a number of different methods used in weight management of those who are obese, most of which used in combination with other interventions. These include

psychological and behavioural interventions – counselling, diet and exercise; medication; and bariatric surgery.

The Department of Health recommend that patients should be advised on and attempt interventions on healthy eating, physical activity and behaviour change first. Drug therapy, such as orlistat should only be considered as an addition to lifestyle intervention not as an alternative. NICE guidelines recommend that multicomponent interventions as the choice treatment for patients. Weight management programmes should include behaviour change strategies to increase people's physical activity levels or decrease inactivity, improve eating behaviour and the quality of the person's diet and reduce energy intake.

1.3.1 Psychological/behavioural interventions

The Cochrane review on Psychological interventions for overweight or obesity provides evidence to indicate that people who are obese benefit from psychological interventions to enhance weight reduction, particularly behavioural and cognitive-behavioural strategies and that these are predominantly useful when combined with dietary and exercise strategies (Shaw et al, 2009).

Brief interventions, are defined as such as they are limited by time and focus upon short-term changes in behaviour and body weight. They are successful if they: focus upon both diet and physical activity; are delivered by practitioners trained in motivational interviewing; incorporate behavioural techniques, especially self-monitoring but also including specific and realistic goal setting; are tailored to individual circumstances; encourage the individuals to seek support from other people (Cavill, Hillsdon and Anstiss, 2011). Issues with this are obviously that weight change may only be short lived, with more sustained changes in behaviour and body weight requiring more intensive interventions (usually involving referral to specialist services) conducted over an extended period.

1.3.2 Diet and exercise

Poor and restricted diet is a contributing factor to obesity. Western societies consume too few fruit, vegetables and omega-3 fatty acids and too much saturated fatty acids, salt and sugar (Traill et al, 2010). Furthermore convenience food has now become the norm, due to longer working hours and busier lifestyles, less time is spent in preparing food resulting in increases in the consumption of fast food and pre-packaged meals (Jabs and Devine 2006). Also an increase in alcohol consumption is associated with the relationship with food as highlighted in report by Morleo et al (2010).

NICE (2006) recommends structured weight loss programs delivered by health care professionals which aim to reduce calories, usually at around 600 kcal/day deficit. Whilst popular commercial weight loss programs, (e.g. Weight Watchers) have been found to reduce user's weight at a moderate level, success rates are often significantly impacted by adherence and commitment to the diet (Dansinger, 2005). Structured weight management strategies which work with patients not only by providing dietary advice but also helping in understanding the reasons behind overeating and emotional eating can have much more long term positive benefits to the patients (McDonald, 2009). Furthermore by addressing patient's common misconceptions about meals, e.g. the nutritional value of food can further

assist in producing a lifestyle change rather than a quick fix diet which is not achievable in the long term (Cook, 2009). Patients are all different and a one size fits all approach should not be used, often underlying issues need patience and understanding from health care professionals and patients often have different needs regarding how much support they require (McDonald, 2009).

NICE recommends that everyone should take part in some form of physical activity, for those who are obese this is particularly true (NICE, 2009). An increase in body weight cannot be solely attributed to diet; exercise is also a key component in reducing obesity. Furthermore physical activity is associated with improved motivation and therefore a more compliant diet, improved metabolism and improved body shape (Stear, 2004). Only 35% of men and 24% of women report achieving the recommended physical activity levels (30 minutes of moderate activity five times a week). Evidence has shown that physical activity coupled with healthy eating has a bigger effect on weight loss than interventions that focus only on healthy eating (Goodpaster, 2010), supporting the need for a multicomponent approach to weight loss interventions. For patients whom healthy eating, physical activity and drug therapy are not sufficient, bariatric surgery is recommended (NICE, 2006).

1.3.3 Medication

Statistics on obesity showed that in 2009 the two most commonly prescribed drugs by GPs in England for the treatment of obesity were orlistat (Xenical) and sibutramine (Reductil) – the latter of which has now been suspended. Orlistat works by preventing the absorption of a proportion of fat in the intestine (The Health and Social Care Information Centre, 2010b).

The number of prescriptions dispensed to treat obesity in 2010 was seen to decrease to 1.1 million prescriptions (from 1.4 million in 2009). It has been suggested, however, that these figures should be viewed with caution as it may reflect the fact that two key drugs for treating obesity (sibutramine in 2010 and rimonabant in 2009) have been withdrawn (The Health and Social Care Information Centre, 2012).

1.3.4 Bariatric surgery

In 2010/11 there were 8,087 Finished Consultant Episodes (FCEs) for bariatric surgery, of which 18% (1,444) were for maintenance of an existing band (The Health and Social Care Information Centre, 2012). This may, however, be an underestimate as there is no routine data collected on non-NHS bariatric surgery carried out in the private sector (Dent et al, 2010). There are three commonly used methods of bariatric (weight loss) surgery as highlighted by Dent et al (2010):

- Adjustable gastric banding
- Gastric bypass
- Sleeve gastrectomy

NICE guidelines published in 2006 (NICE, 2006) suggest that bariatric surgery should be recommended in people where the criteria below are fulfilled:

- In people who are morbidly obese with a BMI of ≥40kg/m^2 or those who have a lower BMI and other significant disease, such as type 2 diabetes or high blood pressure, that may be improved with weight loss
- Where all non-surgical measures have been tried but have failed to achieve or maintain adequate and clinically beneficial weight loss for at least six months
- The person has been/will be receiving intensive management in a specialist obesity service
- The person is generally fit for anaesthesia and surgery
- The person commits to the need for long term follow up

Bariatric surgery is also recommended as the first line of action in those with a BMI of more than 50kg/m^2. Surgery should, however, be offered as part of a package of services provided by a multidisciplinary team. Two systematic reviews conducted by Colquitt et al (2009) and Picot et al (2009) looked to assess the effects of bariatric surgery for obesity. Both reviews included 26 studies, of which: three Randomised Controlled Trials (RCTs) and three prospective cohort studies compared surgery with non-surgical managements; and 20 RCTs compared different bariatric procedures. Overall, surgery was seen to be more effective than traditional/conventional methods of managing obesity, with limited evidence to suggest that some procedures provide greater weight loss than others. Evidence on the safety of gastric procedures was, however, limited. Box 2 provides more information about the reviews' findings.

Box 2: Surgery for Obesity – Systematic Review Findings

- The reviews concluded that surgery resulted in greater weight loss in those with a BMI greater than 30kg/m2 as well as severe/morbid obesity when compared to traditional methods of treatment. Weight loss is also more likely to be maintained
- Bariatric surgery appeared to be associated with a reduction in co-morbidities associated with obesity such as diabetes and hypertension as well as improvements in health-related quality of life (the latter occurred after two years, but was unclear as to the effects at ten years)
- When looking at specific bariatric procedures that were used in the studies, there was limited evidence to suggest that one procedure was more effective than another. It was suggested that weight loss is greater following gastric bypass when compared to vertical banded gastroplasty[1] and adjustable gastric banding, but similar to isolated sleeve gastrectomy and banded gastric bypass
- High levels of patient follow-up appeared to be lacking
- The studies also highlighted complications associated with bariatric surgery such as pulmonary embolism and a number of post-operative deaths. It was not possible, however, to compare the safety of the different methods of surgery with each other due to lack of clear evidence.

Source: Colquitt et al, 2009; Picot et al, 20091.4 The Obesity Burden

1.4.1 Obesity burden to the NHS and wider society; cost-effectiveness of different weight loss management interventions

A briefing by Morgan and Dent (2010) highlighted that it is difficult to interpret trends and compare cost estimates between weight management studies as there is no agreed definition of costs, with different studies scoping and defining costs differently. It suggests

[1] Vertical banded gastroplasty (VBG) is now performed infrequently, being replaced by laparoscopic adjustable gastric banding, which is said to have better long term performance (Dent et al, 2010).

that the most up-to-date figures looking at the economic burden of obesity are derived from Foresight (McPherson et al, 2007); the National Audit Office (2001) and the House of Commons Health Committee (2004).

Obesity places a significant burden on the NHS with direct costs estimated at approximately £4.2 billion and the *Foresight* report forecasts this will more than double by 2050 (McPherson et al, 2007). Obesity also has an impact on society and the wider economy through sickness absence and reduced productivity, and these indirect costs are estimated to be around £16 billion. The wider costs of overweight and obesity to society and business are expected to reach approximately £50 billion per year by 2050 if the current trend continues (McPherson et al, 2007).

A review by Picot et al (2009) also included a model to estimate the cost-effectiveness of bariatric surgery comparing methods of bariatric surgery (gastric bypass and adjustable gastric band) against each other as well as against non-surgical comparators. This used a UK cohort of adults who met the NICE criteria for bariatric surgery and fell into one of the following groups:

- BMI 40kg/m2 or more
- BMI 30kg/m2 or more, or less than 40kg/m2 with type 2 diabetes at baseline
- BMI 30kg/m2 or more, or less than 35kg/m2 with type 2 diabetes at baseline

Overall, it was shown that in each of the groups, surgery was more costly than non-surgical management comparators, despite providing improved outcomes. It has also been suggested that gastric bypass is less cost-effective than adjustable gastric band due to the higher risk nature of the surgery (Salem et al, 2008). Picot et al (2009) also concluded that further data needed to be collected in a number of key areas, namely: quality of life outcomes; the impact of surgeon experience on outcome, late complications leading to re-operation and duration of co-morbidity remission (Picot et al, 2009).

It has been noted that it is important to ensure that bariatric patients have long-term follow up, however, the absence of guidelines for long term management leads to patients being discharged to GP care (Haslam, Waine and Leeds, 2010). While the impact of bariatric surgery, in terms of weight loss, can be apparent in a short amount of time, these changes will not be maintained unless long term support is given around maintaining this weight loss and other lifestyle related behaviour changes that are needed to provide long term success (Haslam et al 2010). It is important to acknowledge the potential cost implications of such follow-up as well as the likelihood that this would be possible in the current economic climate.

1.4.2 Changing architecture of the NHS - Public Health England and budgets available to support health and social care agenda

The architecture of the NHS is changing and is currently in a transitional period to the full implementation of Public Health England (PHE) in 2013, which will promote information-led, knowledge-driven public health interventions – supporting both national and local efforts. This new system will aim to bring together the functions of a range of current bodies and

bring to the forefront a focus upon the promotion and protection of health and the prevention of ill health (making people more responsible for their own health) – made ever more pertinent due to constraints upon public finances and the demands made upon NHS services due to a demographically changing and overall ageing population. This will be underpinned by sound public health evidence and intelligence and a key priority of partnership working between the NHS and local authorities (DH, 2010).

Under PHE, budgets for public health will be ring-fenced by DH which includes health improvement budgets (DH, 2010). These budgets are, however, allocated on the basis of relative population health need and include a 'health premium' designed to reduce inequalities. This 'weight calculation formula' – takes account of age and need profiles of local populations and of regional variations to input costs, however, due to potential funding freezes/restrictions, PCT allocations are less likely to move towards their formula-based target budgets. While there is a definite socio-economic split in the prevalence of weight issues, with those in the most socially deprived groups having higher levels of obesity (National Obesity Observatory, 2011), weight is increasing relatively across all socio-economic groups (Health Survey for England, 2010), therefore it is something that needs to be tackled at whole population level.

Unprecedented increases seen in NHS funding came to an end after 2011 following the impact of economic recession. Analysis by The King's Fund and researchers from the Institute for Fiscal Studies (IFS) suggest that in order to increase NHS funding in real terms, would need to make significant cuts in other areas/increase taxation (The Kings Fund, 2012). Funding of services is crucial in order for the maintenance and progression/development of services. There is no doubt that Government budgetary changes will affect investment potential, with monies being focussed towards interventions where evidence for cost-effectiveness is the strongest. Such evaluation measures are also most likely to be taken over a short duration of time. In the case of many interventions, particularly lifestyle related behaviour change and the impact that this has upon the health and wellbeing of the population that it is serving, change is not always instant and noticeable and may not be apparent for some time after, by which time funding has been withdrawn. The evaluation of health treatment interventions is important so that there is an evidence-based approach from which to inform policy and practice.

1.5 5 Boroughs Partnership

Referrals to the 5 Boroughs Partnership CHANGES weight management service are made by health professionals such as the patient's GP, practice nurse or hospital consultant. CHANGES is considered a level three specialist weight management service. To enter the service patients must be over the age of 16 years and have a BMI greater than 30 kg/m^2 or 27 kg/m^2 with co-morbidities. Patients either receive one to one sessions with a dietician / dietetic assistant or they join group sessions. Patients can stay on the service for up to two years (depending on their complexity) and can also access cognitive behavioural therapy (CBT) sessions if deemed necessary. Linked in with CHANGES are several community run services including Measure Up, Activity for Life and Community Cooks which patient's can also access.

5 Boroughs Partnership commissioned an independent study of CHANGES by Liverpool John Moores University, to evaluate the effectiveness of the project.

1.6 Aims

The main aim of this report, is to combine and discuss the findings of the individual stages of the CHANGES evaluation; Stakeholder, Retrospective and Significant Other, and Prospective. The overall aims of the evaluation were to explore the effectiveness and impact of the CHANGES, which take account of the service user and service provider experience. Specifically this report aims to

1. Retrospectively explore self-reported outcomes and experiences of CHANGES
2. Prospectively explore the experiences of patients currently on CHANGES
3. Assess experiences and views of service Providers and family/carers

2. Method

2.1. Data collection

A qualitative approach to data collection and analysis was taken.

2.1.2 Stakeholder phase

Data collection took place between September and November 2011. Sixteen interviews with stakeholders* were completed in total and were conducted either face to face (11) or by telephone (4). One participant was emailed the questions and completed them electronically. Interviews were semi-structured and focused on the perceived strengths and limitations of CHANGES. Suggestions for improvement were also invited (for interview schedule see Table 1).

* For the purpose of this report the term 'stakeholder' refers to CHANGES service providers, commissioners, referrers and those who providing supporting programmes. Interviewees included nurses, lifestyle advisors, Community Cooks, Activity for Life, health officers, commissioners, dieticians and CBT therapists.

Table 1. Stakeholder interview schedule

1. Can you tell me about your role as part of the CHANGES weight management service?
2. In what ways does CHANGES impact on the patient experience for those who have CBT/ 1:1/ Group?
3. In your opinion what are the main strengths of CHANGES?
    a. For the service
    b. For the patients
4. Can you tell me whether you think CHANGES represents good value for money?
5. Can you tell me what measures could be taken to improve the CHANGES?
6. Can you recommend any measures that could be taken to enhance the economic value of CHANGES?

2.1.3 Retrospective phase

Data collection took place between September 2011 and February 2012. Nineteen interviews were completed in total and were conducted either face to face or by telephone. A semi-structured interview schedule was designed (Table 2). The purpose was to elicit the perceived strengths and limitations of CHANGES. Suggestions for improvement were

also invited. In addition patients who had dropped out of CHANGES were also interviewed (n=2) and asked to discuss the reasons behind leaving the CHANGES programme.

Table 2. Retrospective interview schedule

1.	Can you tell me about your experience of CHANGES?
2.	Can you tell me about the weight you lost at each stage of CHANGES?
3.	Can you tell me about how long you were on CHANGES and what sped up or slowed down your progress at each stage of the pathway?
4.	In what ways did CHANGES affect your health and health care?
5.	Can you tell me about how you were involved in decisions about the treatment options you received whilst on CHANGES?
6.	Can you tell me what do you think was good about CHANGES?
7.	Can you tell me what do you think was NOT so good about CHANGES?
8.	What do you think could be done to make CHANGES better for patients?
9.	Can you tell me whether you think CHANGES represents good value for money

2.1.4 Prospective phase

Ten participants took part. There were seven female patients and three male patients. Participants were asked to blog their weekly progress on a specially created website. (Figure 1). The website, BELUS[2], an acronym for **Bariatric Evaluation Log** by **Users** of the **Service** was created by staff at Liverpool John Moores University. After agreeing to take part in the research, participants were emailed a username and password for the website and instructions on how to blog (see appendix 2). Participants were reminded to blog through email, text and telephone calls. A forum was set up and participants were encouraged to post questions and use this function to socialise with each other (Figure 3). In addition, interviews were carried out every month to tease out and obtain further details on information provided in the blogs. The number of interviews varied between participants[3]. Interviews were also carried out with participants who did not have access to a computer and mostly occurred in participants homes. Interviews were semi structured in nature and focused on participant's perceived strengths and weaknesses of the CHANGES weight management programme (see Table 3 for interview schedule).

[2] Belus is a Celtic Sun god whose May festival is a time for transformations, cultivation and a celebration of life.
[3] Those participants who were prolific in their blogging needed less follow up interviews.

Figure 1. BELUS home page

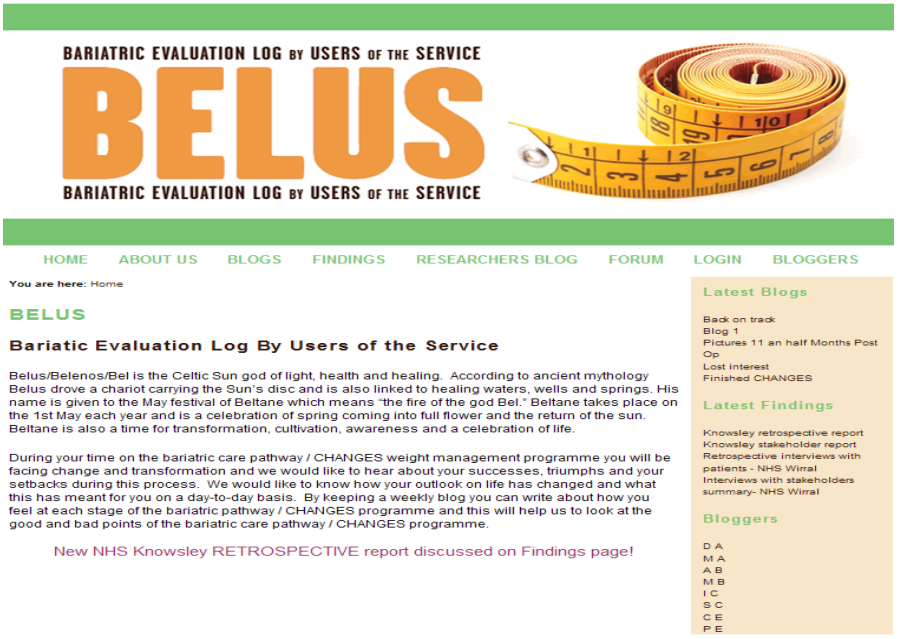


Figure 2. BELUS forum

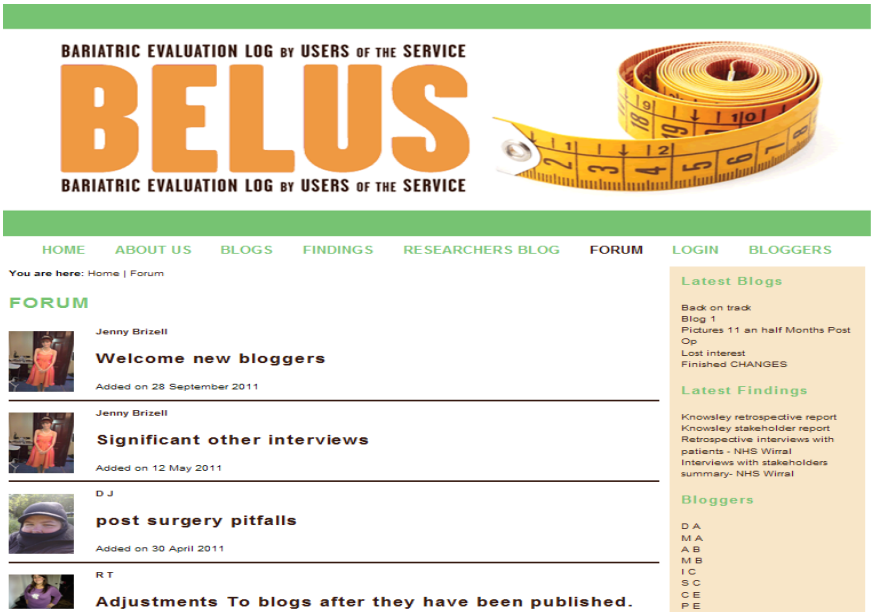


Table 3. Prospective interview schedule
1. Can you tell me about how long you have been on the CHANGES weight management programme (CWM)? (1st interview only)
2. What has sped up or slowed down your progress at each stage of the CWM so far?
3. Please can you tell me about your experience of the CWM over the last 2 months?
4. Please can you tell me about the weight you have lost over the last 2 months?
5. What has been the most effective step on the CWM so far and why? (1st interview only)
6. What has been the least effective step on the CWM so far and why? (1st interview only)
7. In what ways has the CWM affected your health and health care over the last 2 months?
8. Can you tell me about how you have been involved in decisions about the treatment options you have received on the CWM over the last 2 months?
9. Can you tell me about any alternative measures you have taken to lose weight in the last 2 months?
10. Can you tell me what do you think has been good about the CWM over the last 2 months?
11. Can you tell me what do you think has been NOT so good about the CWM over the last 2 months?
12. Over the last 2 months has there been anything that could have been done to make the CWM better for patients?

2.2. Data analysis

Data were analysed using a framework analysis approach to identify emergent patterns and themes (Ritchie and Spencer, 1994). This five stage process involved familiarisation with the data; the generation of a thematic framework; indexing of all transcripts; charting data and mapping data extracts to the framework; followed by a process of interpretation.

2.3. Ethical approval

The protocol was presented to Northwest 12 Lancaster Ethics Committee (NHS REC) who deemed the work a service review and advised that NHS REC approval was not required in this case. Subsequently, ethical approval for this research was granted by Liverpool John Moores University Research Ethics Committee.

2.3.1 Confidentiality

To preserve confidentiality, a code was allocated to each participant and was used on all recordings and ensuing documentation. The list of master codes is known only to the research team. The master codes and corresponding names are kept in a locked filing cabinet and on a password protected university PC, accessible only by the research team. Interview recordings were available and listened to only by the researchers and when not in use stored on a password protected PC and destroyed after transcription. All interview transcripts are securely stored in locked filing cabinets and on University password protected computers. According to Liverpool John Moores University guidelines, research data will be stored for ten years and personal data will be destroyed on completion of the study.

3. Results

3.1 Stakeholder phase

Analyses of the data elicited five main themes. These themes were characterised by a number of categories.

3.1.1 Theme 1. Aspects of CHANGES

It was evident that CHANGES was viewed as a well structured programme that incorporated the appropriate features of a weight management service including advice on healthy eating, psychological support and links with other services e.g. Activity for Life, Community Cooks and Measure Up.

It is the place where patients need to get help and advice and need to unravel the issues and emotional baggage that causes poor lifestyle choices. (PS2)

Several stakeholders described how much they valued the service and believed that Knowsley residents were fortunate in having access to CHANGES.

It's a very positive experience and I wouldn't have any hesitations in referring any of my clients into the service because it's an excellent service to have, we're very fortunate in Knowsley to have it.

However, some stakeholders stated that not all feedback from patients had been positive. Some patients reported that CHANGES did not provide them with more in-depth information than they had already received from sessions in the community[4].

If I'm honest I haven't had a very good feedback of CHANGES…most times the people have said they're not telling me anything you haven't told me.

There was a suggestion that whilst a strength of CHANGES was being able to provide sessions within a patient's local area, most sessions took place in clinical buildings, which could be off-putting to patients[5].

People are able to access [the service] in their locality, its' really good… Sometimes it can feel clinical for people in that it's in clinical buildings in the health centre…it can imply there's a bit of judgement around entering a health centre even though it's a non judgmental service for the service user going into a clinical building to see clinical staff can be a scary thought.

Stakeholders believed that one of the strengths of CHANGES was its commitment to constantly improving the service.

It's not one that rests on its laurels, it's constantly reviewing, evaluating, trying to improve, looking for feedback, evaluation from service users, audits, surveys. It's ongoing the whole time it's not like you ever sit comfortably, it's always about change and change for the better.

3.1.1a Category: Accessibility of CHANGES

Referral into CHANGES is based on BMI criteria and the presence of co-morbidities. Generally patients can be referred into CHANGES if they have a BMI over 30 although this can be reduced to 27 if there are co-morbidities present.

The referral pathway is over 30 [BMI] it can be under 30 if you've got co-morbidities so some medical condition, we go up to 27 if you've got something wrong with you.

It was suggested that some referrers into CHANGES would like to see the BMI criteria lowered but it was also acknowledged that this would increase patient numbers which would have an impact on waiting times and potentially hinder patients who are clinically obese[6].

It would be great if they dropped from [BMI] 30 to 26, that would be ideal for us because we could say to the general public we can get you in to see a dietician…you'd get people who could love that…we'd have no problem getting people in but you can understand if we've got 20, 30, 50 people

[4] However CHANGES does differ from lifestyle and community services. As a level 3 service, CHANGES can offer access to CBT, a 2 year support programme, recommendations for drug therapy (orlistat), support with specific calorie restriction and referral to bariatric surgery, all of which are not available within other services.
[5] However previously CHANGES have offered services in non clinical building and the attendance was very poor. Furthermore patients are regularly asked which venues they would prefer and overwhelmingly choose NHS premises.
[6] In addition there are other commissioned lifestyle services available for patients with a lower BMI. CHANGES are responsible for training the staff in these services and offer ongoing supervision and support so all advice given is best practice and evidence based.

who are all like 27 [BMI] who just have like a couple of pounds to lose and you've got all these obese people.

Previously, referrals into CHANGES were made by different health care providers including GPs, practice nurses or community services e.g. by lifestyle advisors. Stakeholders stressed that this system posed difficulties in referring patients into CHANGES but has now been improved by the newly-introduced 'one point of access' GP referral form. This form is completed by a GP or nurse and means patients can be referred into a number of different lifestyle services depending on which are the most suitable for them.

It's quite easy to refer into, as long as they've got a BMI of over 30 or they've got below that [with co-morbidities], the old system was a nightmare to get them into, it was all we need these bloods or we need that and other, the BMI is great for us as outside referrers because beforehand we'd have to say go back to your doctor and get all this information but the new one for us out in the community very user friendly.

Generally, stakeholders were complimentary about the referral time frame (four weeks or less) stating that because it was a rolling recruitment, patients could be seen quickly and attend appointments whilst their motivation was still high. Stakeholders argued that with a long waiting time for appointments patients could lose motivation. However, some stakeholders discussed instances where patients had been referred into the service and had not received appointment letters[7].

The fact it's a rolling programme is a really big strength because if people have made that decision they want to change and they're in the right place to start losing weight and they really feel motivated they need to start straight away.

But on occasions we have referred people into services while I've been out there in Asda, I might go [back] three months later and someone will go "Do you remember you referred me? I've heard nothing," and that infuriates me 'cause I think that's not good enough.

Stakeholders explained that once patients had left CHANGES they could still access community run services (e.g. Measure Up) to gain additional support and that CHANGES could encourage this by referring patients into Measure Up post CHANGES. Some stakeholders said that whilst this was a possibility, they had never received any referrals from CHANGES, or that CHANGES had not informed them that they were referring patients to their services. However whilst this may be some stakeholder's perception, there is an exit strategy for patients who are part of the weight management pathway and often this wouldn't include patients being referred down into other services.

I've never had any referrals off CHANGES.

[7] Whilst CHANGES would never lose referrals that they have received there are a number of reasons why this could occur, in the past referrals were often sent by fax which were not always reliable. However CHANGES are now promoting email referrals which are easier to track and are more dependable. Furthermore patients may not have responded to or disregarded the initial appointment letter, CHANGES now call up all patients who do not respond to the initial appointment letter to improve this.

3.1.1b Category: Communication with other services

Stakeholders who refer into CHANGES felt that the team were easy to speak to and contact. Furthermore, if a patient had any issues, stakeholders felt confident that they could call or email the CHANGES team to discuss this with them.

Anything that they need to do they're happy and they're good at communicating so we have a good relationship with CHANGES.

Occasionally there were comments regarding improvement of communication between services particularly with regard to the criteria for patient referrals. However CHANGES do try to ensure that the referral criteria is clear and simple and would be flexible regarding individuals who want/need support. Patients who did not qualify for CHANGES can be referred back to community and lifestyle services.

Its communication sometimes when you've referred a person, sometimes they'll [CHANGES] phone you up and be like "Why've you referred this person?" I had one instance where the daughter qualified for CHANGES and the mothers BMI was over 25 but below 35, I can't remember the exact number, but she had a back problem which meant she couldn't do the exercise. So I sent both of them over, said on both forms "need to be seen with each other", 'cause they wanted to support each other and then I get a phone call saying we can have the daughter but not the mother. I said well whys that and they said well that doesn't count as a co-morbidity so there's a bit of confusion about what counts as a co-morbidity sometimes.

3.1.1c Category: Resources

Stakeholders were aware that resources could be improved but were realistic in their expectations particularly with regards to funding. There was an acknowledgement that with more staff the service would improve but it was also felt that with the resources they had available to them the service ran as well as it could.

Dare I say more staff? But yeah obviously it runs the way it does under the resources and I think if the resources were greater in terms of staff then there will be a difference and an improvement but obviously there are cost implications with that. So I think with the resources we've got we all like to think we do as best we can.

There were some instances when stakeholders felt they did not have adequate resources to perform all their duties; in particular CHANGES service providers mentioned that their office space was small and often staff had to hot desk[8] which sometimes led to staff waiting to use computers[9].

We don't have enough computers, we don't have enough phones, it's like a hot bed of too much noise and activity for anybody to actually do anything constructive and have meetings or whatever… You just shrug your shoulder and think I'm waiting half an hour for somebody to log off so that I can

[8] A desk and computer is not assigned to a particular member of staff

[9] However as a rule Knowsley do not provide designated desks for clinicians as most of their time is spent in clinics and staff should be aware that if CHANGES offices are busy they can use the computers in their clinic rooms or use laptops.

get on a computer, that's not good. So that's my only gripe really with a view to better premises to do the job.

There was also acknowledgement that some of the admin areas were not as organised as well as they could be and that the admin staff did not have much space which could impact on some of their duties.

We've got a rubbish database so that fails us a lot of the time, people say they don't receive letters, or [they] received [them] too late again. If admin had a bit more organisation and a bit more space they might function a bit better, more efficiently. Similarly the other staff, if they had a proper work base, the administrative side of things may run more smoothly.

Some stakeholders felt that in order to see the required numbers of patients set by commissioners, patients usually had to be seen in a group sessions. However other stakeholders argued that many patients preferred the group options and enjoyed them and furthermore evidence supports the effectiveness of group sessions in relation to weight management. Additionally patients with complex needs (e.g. social phobia, work commitments) can be seen on a one-to-one basis.

To see the number [of patients] that commissioners want us to see, we have to put them into groups, otherwise we wouldn't see them.

3.1.1d Category: Awareness of CHANGES

It was felt by stakeholders that CHANGES was not well known by Knowsley residents. Whilst most stakeholders felt it was important for CHANGES to have a community presence it was also recognised that advertising was expensive. Furthermore part of the role of lifestyle advisors is to promote different lifestyle services within the community. Some stakeholders felt that at referral on occasion GPs did not spend enough time with patient discussing what CHANGES would involve and often patients came into the service not knowing what to expect.

A lot of people know who Activity For Life are, if you said who are CHANGES a lot of people wouldn't have clue, for us we do the promoting, have you heard of this weight loss course, they go no I haven't heard of that lad, well here's the leaflet let me tell you about it.

They might go into the GP and say I'm struggling I need to lose weight but they wouldn't know what CHANGES was. And unless the GP or practice nurse actually spent that time with them and said Ill refer you to a dietician, they wouldn't know that that was actually called CHANGES.

3.1.1e Category: Psychological support

If deemed necessary, patients may receive psychological support as part of the CHANGES programme. Usually this is determined by dieticians who complete an assessment with patients at the end of the initial treatment phase; if patients are considered to have underlying issues such as emotional eating or night binging then they are put forward for cognitive behavioural therapy (CBT).

The dieticians use a variety of things to assess that, whether they're making progress, whether there's very clear issues in disordered eating like night eating, secret eating, binge eating.

Patients attend sessions for up to 12 weeks and these can be either group sessions or individual sessions. The numbers of referrals for CBT are considered by some to be too high leading to a reassessment of the referral criteria. Due to the high volume of patients coming through for CBT sessions, stakeholders felt that at times group sessions were a necessity rather than a preference even for those patients with more complex issues.

But as far as I'm concerned it's still a very blurred area. I have cases of people going into groups with what I would consider more complex needs and to a degree the groups just scratching the surface of it. So frustrating in one sense.

On the whole stakeholders were complimentary about the CBT service and believed the sessions were beneficial to patient wellbeing. In some instances stakeholders argued that CBT sessions were one of the most important parts of the CHANGES weight management programme for some complex patients.

People do say it has huge benefits really because it's getting them to think about things in a different way. I think that's where people get stuck about trying to lose weight, it's all or nothing from a dieting point of view and it's how they perceive things and think about it and it does get people thinking about things differently.

A view expressed by some stakeholders was that whilst the CBT sessions were valuable to their patients, they should be more widespread and offered to a greater number of patients. This was because stakeholders believed that patients may need to address underlying issues before they could make changes to their lifestyle.

There is a whole underlying issues. I believe myself that people don't become obese because they just want to eat and do nothing, there's masses of other stuff that's gone on before it, what kind of triggers that…They should offer it [CBT] wider, to get people to understand why they do what they do. I don't know if the problem is that they don't open up to the dieticians 'cause they see them as authoritative.

Cognitive behavioural therapists also have the option to signpost patients to other services if it is felt they need more support post CHANGES CBT, for example if a patient has high levels of depression they may be referred to a primary care mental health service to receive extra counselling.

I would always say play on the side of caution, just get them to us to assess and if that was the case I would be sign posting them.

3.1.2 Theme 2. Lifestyle sessions

Stakeholders were confident that the information and support provided to patients during CHANGES sessions was both useful and valuable.

They get access to the most up to date evidence base in terms of weight management and they're an approachable team that delivers out in the community.

Furthermore, stakeholders felt that the different services complemented each other; Activity for Life involves exercise, Community Cooks consists of cooking classes and CHANGES is involved with nutritional advice.

If CHANGES have got people who they might be getting the information about healthy diet but if their cooking skills, if they don't have very good cooking skills it's difficult to put into practice.

Stakeholders felt that the CHANGES programme was motivating for patients and offered support and advice in helping them to make appropriate lifestyle changes.

From the people that we've spoken to that have been through CHANGES they've found it a really positive experience, they seem to find it a very supportive programme.

CHANGES also offer post programme support with patients able to come back to the group sessions to get weighed and receive additional support.

There's kind of a choice of programme length, people can be in the programme for up to two years but can leave as well. The support that's there so once people have been seen in the groups they can come back for regular weigh-ins and support.

It was also mentioned that patients had faith in dieticians and that the word 'dietician' carried a lot of credibility with patients.

We may say to a person if you're overweight and you've been identified you know BMI over a certain level you will need to see a dietician, that word dietician seems to have a lot of kind of oh, dietician has the advantage

Some stakeholders felt that patients did not find the dieticians approachable or friendly[10].

I think if you'd ask the people as well they'd say the assistants are the best ones to interact and they feel that the dieticians are not friendly, they just look at you. That's what people say "They just look at me with this stone face.

3.1.2a Category: Group sessions

When referred into CHANGES around 70-80% of patients are allocated a place in a group session. Patients go to the group session every week for 10 weeks (although they can still go to be weighed after the 10 weeks). The groups generally consist of up to 12-15 patients although numbers have dropped as low as 7 when patients have not attended.

[10] However CHANGES informed the research team that regular service evaluations with service users had not reflected this view. The clinicians all undertake regular peer review as part of ongoing supervision. The counselling skills and other training dieticians have means that good rapport is a key skill in treating patients and there has been overwhelmingly positive feedback regarding this.

We tend to kind of stop at about twelve so anything up to twelve and most of the time we are trying to have twelve in the group but some weeks it can be as low as seven if people have not attended for whatever reason.

Stakeholders generally reported that they felt the group sessions ran well and were beneficial to the patients. There was awareness that the group session did have a one size fits all model which might not be suitable for everybody but they felt that generally patients reported having a positive experience.

You can understand [with] the group session, the format you've got to try and cater to everybody but by and large [for] the patients it can be a positive experience.

Furthermore some stakeholders felt that being in a group environment had added benefits to patients as they had additional support from their fellow group members. However other stakeholders felt that some patients were "lost" in groups possibly because they were too shy or not assertive enough to speak out in a group environment. Stakeholders suggested that one way to ensure patients did not get lost in a group was for CHANGES to discuss progress with patients on a one to one basis every few weeks which is already a feature of the CHANGES service.

But sometimes I think what happens in groups is that you'll generally have people that are leaders, you'll generally have followers…I think sometimes people might get lost in a group, they're not assertive enough to say and then they think "I should have gone for the one to one"…But I think what could be good is…every three or four weeks speak to them people one to one. Take them out of the group situation; give them a phone call, what's going on, how are you finding it?

Some stakeholders had the impression that the group sessions could be too structured and were run in a teacher-class format, with patients often being reluctant to speak up with questions or comments. However, no suggestions were made as to how the group session format could be improved and it was felt by these stakeholders that this was typical of the way most service's group sessions were run. Other stakeholders argued that the group sessions were relaxed and patients enjoyed them, learnt from them and gave positive feedback on the sessions[11].

The groups are really good, everyone gets in together, it's really good banter…Most of the patients I've seen in clinic love the groups, they all enjoy them and think they're really good.

The idea of 'male only' groups was mentioned by some of the stakeholders. The reasoning behind this was that males may not always feel comfortable being in a mostly female environment and that males were not always interested in in-depth nutritional information but rather what they could fit into their current lifestyle. This notion was met with mixed views from stakeholders however the overall consensus was that if male only groups were to be an option, they firstly needed to be trialled to see if the demand was there.

[11] All CHANGES staff have received extensive training on group facilitation skills including meeting specific competencies which are signed off via peer review support on an ongoing basis.

I think they've got different needs like women want to lose weight for different reasons to men, although most of them are just health and stuff. Also so different lifestyles like men work maybe more manual labour jobs and I do think having the separate groups or just the option to, if they don't mind, it's just having the option maybe.

3.1.2b Category: One-to-one sessions

Patients have the option of having one to one sessions with a dietician instead of attending a group session. The decision to place a patient into one to one sessions was usually made by the dietician and based on the complexity (e.g. social phobia, work commitments) of the patient and whether it was felt they would not benefit from group sessions.

It seems to be if you present a need for the privacy or maybe emotional [need], I think if the dietician thinks this person is not going to attend the group but they need support then it would be that [one to one sessions].

Stakeholders considered the one to one sessions to be more intensive than the group sessions, however, they also felt that those in the group sessions received more support so there were benefits to both. When asked whether they thought one to one or group sessions were the best option, stakeholders all stated that it depended on the patient and their needs.

I think it's nice to have both 'cause I think there's so many people with different complex needs you can't treat everyone the same so I think if you find someone is a little shy and they've got barriers they need that one to one so I think it's good to have that choice.

3.1.3 Theme 3. Bariatric Surgery

Referrals for bariatric surgery in Knowsley are made via CHANGES; bariatric surgery providers do not accept referrals directly from GPs or other health care providers.

We use CHANGES as a gatekeeper so we don't allow referrals to go directly from GPs to bariatric provider, we require all those referrals and requests to go to CHANGES and we have CHANGES looking at those, seeing if they meet those criteria and if they do they would onward refer that to the bariatric provider.

3.1.3a Category: Post surgery

Post surgery, patients are not able to access CHANGES but do receive support and information from their bariatric surgery provider for up to two years. However some stakeholders believed the care received post surgery from the bariatric surgery provider was not adequate.

[Bariatric provider] have a contract to complete the bariatric procedure with the client and follow that client up for 2 years. So in theory if that contract is working perfectly then they are with [bariatric provider] for 2 years, there is an issue around that follow up but it's actually not within CHANGES contract to do that post 2 year contract.

There was a general consensus by stakeholders that patients had a lack of support post surgery and did not know where to go for advice and support. Furthermore there is no commissioned post surgery psychological or dietary support required by CHANGES and stakeholders felt that patients suffered because of this[12].

After surgery they've said there's no support, they come out and there's nothing there for them, you know there's nothing out there… we had one incident where this lady had the band and she was making herself ill because her feeling of social side was gone so we were running around trying to get this lady help and we couldn't get her any.

In some instances stakeholders had heard that patients had set up their own patient support groups, however the support groups generally did not have any input from health care professionals.

In terms of bariatric surgery there are bariatric surgery groups and again the patients can be encouraged to look into that so they've got that as a support network but there's nothing that the service has specifically set up.

3.1.3b Category: Magic Bullet

There was a feeling by some stakeholders that occasionally patients were not prepared to give CHANGES a chance to work and considered surgery a magic bullet and an easy option for losing weight. However, there was also recognition that some patients were desperate and considered surgery a last resort.

So I tend to hear only from the patients who haven't done it, won't commit it, can't understand it, have no patience with it, have high expectations of it, it's a cosmetic world we're living in and I want an easy fix or are struggling so much they can't get help.

3.1.4 Theme 4. Outcomes of CHANGES

When asked whether they thought CHANGES represented good value for money many stakeholders replied that they did not know how much CHANGES cost and what their outcomes were like so couldn't comment on how cost effective the services was.

I don't know the cost involved but yes I would imagine good value for money.

Of those respondents who did give an answer, most considered CHANGES to be good value for money. Stakeholders discussed how good the service was and also the impact it was having on reducing obesity related co-morbidities. However, other stakeholders were aware that CHANGES were not meeting their outcomes in terms of weight loss.

[12] However it is not in CHANGES remit to offer patients support post surgery as this should be provided by the bariatric surgery provider. If a patient does complain to CHANGES about the lack of post surgery support CHANGES would always inform the bariatric provider commissioner and refer patients to PALS. Furthermore 2 years post surgery patients can go back in to the CHANGES service.

In terms of NHS costs, yes I do because of the huge health risks and cost implications to somebody's overweight and all the co-morbidities that go with that so I think if we're, yes obviously services to cost to run but I think the health implications and cost to the NHS and for want of a better word the burden that they would on the NHS is far greater than that.

Some stakeholders felt that CHANGES should spend more time with patients at the lower end BMI spectrum (those who are overweight or only just in the obese category) adding that these patients would be likely to put on more weight and add an extra burden to the NHS in the long run[13].

They're the people of the future that are gonna break the NHS because if you don't tackle it now as its approaching it's got to be preventative… I think it's that thing of they're not there yet they're just over, well I think you need to grab it before they are there. Because when it gets there, they're gonna be on a slippery road to nowhere

3.1.4a Category: Drop outs

CHANGES experience a relatively high number of drop outs during the length of the programme, although 79% of engaged patients do complete the first three months of CHANGES (Figures provided by the 5 Boroughs Partnership). Some stakeholders were confident that these figures would improve as they believed CHANGES would adapt and re-evaluate its service constantly. Others suggested that CHANGES should make more effort in keeping contact with their patients, possibly through interactive platforms.

We're not doing as bad as the figures make out but sometimes the figures but obviously they're looking at figures from last year and as with any service were constantly kind of evaluating it and changing things so hopefully the figures that come out with show kind of improvement a year on.

There were various explanations offered for why the dropout levels were high. Some suggested that sometimes other commitments just got in the way.

For some people life gets in the way, other things happen. I say that really openly and honestly to people you know you might have the best intention in the world to go and do something then something major might happen in your life and things come to a stop.

However, it was also suggested that patients often made excuses to not attend classes and that it was difficult to keep patient motivation high.

I do believe the overweight do find a lot of excuses and I don't mean that in a horrible way… everybody would always say oh I've got something coming up, oh I've got a wedding on Saturday…and then they'll always say oh I'll start the week after and it's you know CHANGES have got their work cut out with them cause it's really hard to keep people on track and keep them motivated.

[13] However it should be recognised that CHANGES is a level 3 specialist weight management service and patients at the lower end of the BMI spectrum should be seen by community and lifestyle services.

Furthermore, there was a suggestion that CHANGES should not take patients in to the service who they do not believe are motivated and engaged. However, it was also recognised that if these patients could not access the service at all their problems may just get worse.

Sometimes in my opinion the person isn't ready and isn't motivated to make changes so its whether we look at that, cause you're going to get a high dropout rate and high DNA [Did not attend] which reflects badly on us when actually we, I think, some of the stuff I was reading from another evaluation for another service was actually not accept people unless they're ready to get engaged. I think also we could argue that these people could be doing a whole lot worse gaining lots more weight if they weren't in our service.

There was also a suggestion that dropout rates might be affected by which route patients come into CHANGES. If a patient has been referred via community services or has self referred rather being referred by the GP it was thought they were often more motivated possibly because they have been given more information by lifestyle advisors.

If they're self-referring to the measure up programme and they don't meet their criteria and actually meet ours and they refer them on, you see those ones are a lot more motivated. Some of the ones from GPs or health care professionals can be motivated but, especially if they've gone to the GP to ask for help, I think it's the ones that have been told by their GP that they have to lose weight or everyone's telling them that but the maybe don't want to do it themselves, they struggle a little bit more.

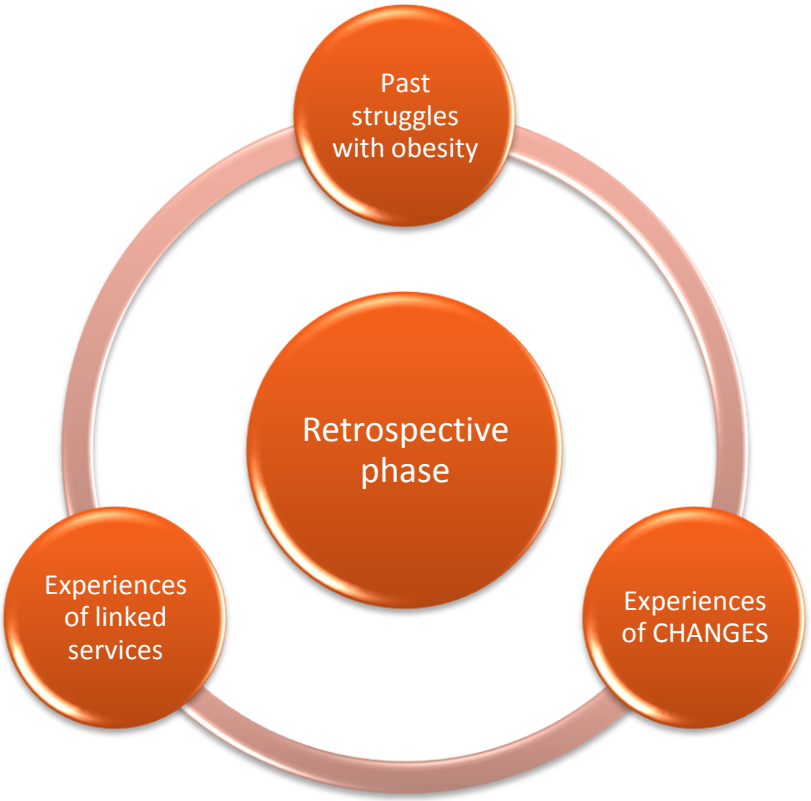
Finally a few stakeholders suggested that the initial contact made by CHANGES could be improved. Once a patient is referred into CHANGES they are sent out an appointment letter and some stakeholder felt that a phone call to the patient to introduce the service would help encourage patients to attend the assessments[14].

They just send a letter out with a date, if they have that initial phone call and speak to them. Because what I tend to do, anybody through as a referral to CHANGES I will bring them into clinic, I will speak to them 'cause doctors haven't got the time to do that, explain to them what the programme is about, is it what you want to do. Is that your choice to do that and I mean this is what CHANGES needs to do if they want to get the people to come in to the service.

[14] However CHANGES advised that 65% of appointment letters are returned by patients and those who do not reply are followed up with a phone call to achieve an 85% engagement opt in rate.

3.2 Retrospective phase

Analyses of the data elicited three main themes. These themes were characterised by a number of categories.



3.2.1 Theme 1: Past struggles with obesity

Many of those interviewed had experienced problems with their weight for most of their lives and often were aware of reasons behind why their weight had increased. Patients discussed the ways in which they were brought up, bearing children, illness and restrictions in movement, e.g. back problems which had all contributed to their increases in weight.

Yeah I've always been a bit overweight yeah I would say that. Not all my life, sort of like after having my children.

Since I've had the heart attack I've put four stone on. I was always fit so it's just piled on and piled on.

3.2.1a Category: Alternative methods to losing weight

Prior to starting CHANGES almost all patients had tried alternative ways to lose weight. This included commercial weight loss groups such as Weight Watchers and Slimming World and weight loss drugs such as Orlistat. In many instances participants had lost weight whilst on these programmes but most had been unable to maintain the weight loss.

I did Silhouette about 1976. I've done Weight Watchers, I've done Slimming World, gone back to Weight Watchers, gone back to Slimming World, tried them all really… The first one I did Silhouette, I went down to eight and a half stone, that was thirty years ago. The second time I did Weight Watchers again I went down to eight and a half stone and then about the third time I did Weight Watchers or Slimming world, I can't remember which one it was, after twelve months I was exactly the same weight as when I started. So I know it is down to me.

3.2.1b Category: Lack of understanding

Many patients felt that due to a lack of understanding, people prejudged them and criticised them about being overweight. CHANGES offered them support that they had previously been unable to access with staff who were understanding, encouraging and helpful.

Yeah, you look at the telly, the people who are overweight now and its costing the NHS, and if you smoke you get patches, if you take drugs they give you morphine but if you're over weight it's [CHANGES] just something to help. People say it's what you take in, well some people they don't understand it….people criticise, go oh he's fat, they don't understand the person, they don't know why he's like that or why she's like that. (R3).

3.2.2 Theme 2: Experiences of CHANGES

Patients were on the whole complimentary regarding the information they received from dieticians during group / one to one sessions. During interviews patients discussed how they had learnt about different food groups, portion sizes and nutritional values. Many patients had not received advice on nutrition prior to completing CHANGES however for patients who had some knowledge on nutrition or were quick to learn they found the group sessions frustrating as they were often waiting for other group members to catch up.

I'm not saying it's perfect but you'd go a long way to improve it you know?

I used to find it a bit frustrating because you could be in a room of between 8 and 10 people sometimes and sometimes people just didn't get it so it would be quite frustrating.

Patients praised the staff running the CHANGES sessions, saying they would always answer questions and if they didn't know the answer or needed to discuss the issue with a more senior member of staff they would find out for the next session. Patients also felt comfortable contacting CHANGES between sessions and found the staff friendly and helpful. Furthermore, patients agreed that CHANGES had changed the way they thought about food and techniques such as keeping a food diary helped them to plan their meals around often busy schedules. One patient reported that they were not a very good speller yet they still felt comfortable keeping a food diary and showing it to CHANGES staff which indicated a good staff patient relationship.

You could ask questions and if she couldn't answer them there and then she would find out for you and bring the answer the next week. I found it really, really helpful.

No it was the food diary that was, when you done it, you read it that week you know, if you don't put something down you're only cheating yourself aren't you? But when you were there, I'm not a very good speller and I'd write all this, it didn't matter.

3.2.2a Category: Specific Information

Many patients who are referred to CHANGES have a number of co-morbidities associated with obesity such as type II diabetes, hypertension and raised lipids which need to be taken into consideration when tailoring a diet to their needs. Patients discussed how CHANGES took this into consideration and tailored their diet plans accordingly. However, some patients felt that the group format did not meet their needs as the information provided was generic rather than specific[15].

Helped more about the diabetic side of it than anything because I was thinking what I was eating was alright and some of it weren't good for me because of the sugars and the other things they put in when they take the sugar out. It was like I couldn't eat sugar free but I could eat low fat.

3.2.2b Category: Respect for patients

CHANGES advertises itself as a non judgemental service that does not criticise their patients. The interviews with patients supported this as patients did not feel they were being judged by the dieticians. Furthermore, patients praised the way CHANGES staff handled the 'weigh in' commenting that it was done privately and away from other group members. According to patients, CHANGES does not have target weights for their patients unlike commercial weight loss services. Patients felt this took pressure off them and meant they didn't experience feelings of guilt if they did not reach their target each week. However, some patients did feel that CHANGES was not strict enough with patients, who were eating the wrong foods and subsequently putting weight on.

I find if I go there I get treated with respect…I think they're marvellous.

They never judged you, they don't give you targets which, that bugged me you know like Weight Watchers, they give you targets and they never did that to you, you didn't feel guilty when you went on the scales, you had good weeks bad weeks.

Patients also felt that CHANGES was flexible, for example if a patient could not attend sessions due to other commitments or ill health CHANGES would allow them to attend different groups or extend the sessions so they could catch up. This flexibility allowed patients to complete the course rather than just leaving with incomplete knowledge. Furthermore, one patient commented that she was registered blind and CHANGES went out of their way to assist her in any way they could.

I'm also registered blind you see as well so one of the things on the course was at least although they had the normal formula for documentation, they went out of their way to produce documents that I could use.

[15] Over 20% clients go onto the one to one pathway, in addition all clients in groups have a chance to also see dieticians one to one in clinic during the group programme. Patients with diabetes will also see a community dietician for up to six appointments to deal with diabetes specifically.

3.2.2c Category: Group format

All patients interviewed had attended group sessions rather than one-to-one and viewed the sessions as a very positive experience.

You've got peers with you, people like yourself. And it's not a competition, you feel good 'cause you're in with the same people as yourself, who've got the same problems. (R8).

3.2.2d Category: Group dynamics

On the whole patients were complimentary about the group format and found it useful being with other people in similar situations. Patients also described how group members started at different times so those in the groups longer would help and support newer members of the group. Patients felt that being in groups added an element of competition to weight loss and helped to keep them motivated.

It was good because you got feedback off somebody else who struggling with their weight as well, different sizes of people wanting to change. And in a way it was good because everybody would say yeah I'll try that you know. (R2).

However patients often expressed irritation towards group members who were not motivated to lose weight and did not seem to want to be in the sessions. Patients explained that non motivated members often brought negativity to the group and could be disruptive. Furthermore, they felt that CHANGES should take a more active role in speaking to those patients who were disruptive, although it was recognised that they were often only negative comments when the dietician was not present. One interviewee suggested the idea of a feedback box to allow patients to post comments on how the sessions had gone and potentially highlight to CHANGES any negativity within the group.

That [making staff aware through feedback box] would be very helpful 'cause then when they gave the talk maybe the following week they could then bring in something, or a week or so later then that they could bring this up.

There was one man, I don't know his name, he contradicted everything the dietician said.

Patients who attend CHANGES are mostly female (70-75%). The idea of 'male only' groups was mentioned in a previous report which captured the views of CHANGES' stakeholders (Brizell, Stuart, McVeigh and Irvine, 2011). The premise being that males may not always feel comfortable being in a mostly female environment and that males were not always interested in in-depth nutritional information but rather what they could fit into their current lifestyle. This notion was suggested to patients and the feedback was mixed. Some patients felt that males could be intimidated being in predominately female groups but most felt it was not an issue. Of the males asked, the majority did not consider mixed sex groups an issue.

I think it's fine having the mixed groups because you're not talking about anything personal, you're only talking about food so I don't think there's any need for separate groups.

3.2.2e Category: Staff continuity

In group sessions patients reported seeing different dieticians or dietetic assistants from week to week. The majority of patients thought this was a good way of running the sessions as different dieticians brought with them different advice, techniques and ways of looking at things. However a few patients did comment that they would prefer to see the same dietician each week.

It was someone different and that was good that 'cause you got different people opinions. To me that was really good, 'cause not everybody has the same opinion about things or the same delivery. So it always kept it fresh.

Would have preferred the same one (dietician throughout the course).

3.2.2f Category: Resources

Most patients felt that the group sessions were well planned and the venue was ideal. However, some patients had issues with the rooms provided for the sessions. On occasions patients said they felt there was too many in their group for the space allocated. Furthermore, patients commented that they had their sessions moved from one location to another which was an inconvenience for them[16].

It was the planning of the room really, it was a big group... it was over crowded. It wasn't their fault, someone had over booked the room…that was the only trouble we had.

3.2.2g Category: Weight loss

All patients interviewed had lost some weight whilst on the CHANGES programme and many were very happy with the weight lost, in some cases citing three or four stone. However other patients were disappointed with how much weight they lost suggesting that some patients did not have realistic expectation set out for them prior to starting the CHANGES programme.

I lost quite a bit of weight, about three or four stone I think.

Not as much as I'd wanted to but enough, a little, it was better than before… it was less than a stone

3.2.2h Category: Health and wellbeing improvements

Obesity is linked to a number of co-morbidities such as type II diabetes, hypertension and raised lipids. Many patients had noticed that since being on the CHANGES programme they felt healthier and were able to do more exercise without getting out of breath. Furthermore, some patients experienced marked differences in their health, for example lower blood pressure and reduced medication for diabetes. However this was not found in all patients.

My blood pressure was high at one point and then with losing weight and everything, my blood pressure came down to normal so where I was on tablets I come off them. (R6)

[16] However overall most group sessions remain at the same venue, and the average number attending at any one time is approximately seven clients, even though there is capacity for up to 15 per session in the vast majority of venues.

I've not reduced any in tablet form [for diabetes]. (R3).

3.2.2i Category: Value for money

Patients on the whole felt that CHANGES represented good value for money. Patients acknowledged that by losing weight they would save the NHS money in the long run by reduction of co-morbidities. Furthermore, patients often felt more able to work and were aware that if they had not lost the weight they potentially would have had to leave their employment. Some patients did feel it would be beneficial for the CHANGES programme to be longer in length thus allowing patients more time with the dietician and potentially losing more weight. However, it should be recognised that this would be an added cost to CHANGES and patients can still receive support from dieticians and dietetic assistants for up to two years. Patients also felt that CHANGES represented good value for money in that it is a free service to access and joining a commercial weight loss programme would cost them money.

So therefore in theory less people are going to have health problems whether it's the heart attacks or the high blood pressure, diabetes so they're going to take up less NHS time.

3.2.2j Category: Post CHANGES

Once the weekly group/one to one sessions have finished, patients can still receive support from CHANGES and attend the weekly sessions for the weigh in. Several patients interviewed reported doing this and found it an excellent way to keep their motivation going. However, some patients did not realise this option was available to them[17]. In these instances patients found it difficult to keep up the motivation to lose weight. Some patients also mentioned that they would have preferred having two shorter sessions each week rather than one 1 hour class as they found they needed more frequent support. Other patients felt abandoned once the CHANGES programme had ended and often felt like their motivation was slipping. However, if CHANGES were to extend the programme this would be at an extra cost (see value for money) but patients should be made aware that they can still receive support from CHANGES and could possibly also be referred into community services. Furthermore many patients were aware that they had to take responsibility for their own weight loss and understood that CHANGES could only offer so much and the rest was up to them.

It was good, but when I stopped going I sort of like fell off, you know.

I mean I do think at the end of the day it's down to yourself no matter where you go orwhat support you get, at the end of the day it is down to yourself.

[17] However this option is available to everyone so this could be due to patients not being able to attend the sessions

3.2.2k Category: Bariatric Surgery

Referrals for bariatric surgery in Knowsley are made via CHANGES; bariatric surgery providers do not accept referrals directly from GPs or other health care providers (Brizell, Stuart, McVeigh and Irvine, 2011). Therefore all patients who are referred for bariatric surgery in Knowsley will have to go through the CHANGES programme. Some patients interviewed felt that members of their group were only attending CHANGES so they could get surgery and they weren't really interested in learning anything from the dieticians or dietetic assistants.

When they found out they could get [bariatric surgery] they thought "Oh right I'll keep coming then I'll get it then," but why keep going? If you can lose the weight yourself before the end of the course, surely to God that's a bigger incentive then going getting an operation. I mean she did turn round and say to me we can give you a gastric band and I said no thanks[18].

Only a small proportion of patients interviewed had undergone bariatric surgery. In these instances patients reported a high level of success with weight loss and reported feeling much happier with themselves. There were some issues however surrounding the support received post surgery and how well prepared patients were for the side effects of bariatric surgery, which is an issue for the surgery provider

I wasn't prepared for the excess skin[19] no, they didn't even hit on that you know. As I say the care in there was fantastic, the aftercare is a lot to be desired. Compared to another friend of mine had it done in [Hospital], she got booklets telling her everything, I got nothing. This doctor goes through each and everything with her, the dietician's with her every time. I went a couple of months ago and I said look my hair is thin, it's falling out and I'm stressing and he [doctor] said well you won't be Kojak.

3.2.2l Category: Cognitive Behavioural Therapy

Around half of those interviewed had been referred for cognitive behavioural therapy and found it extremely useful in helping them uncover reasons behind their overeating and weight gain. Patients were also very aware of whether they felt that they needed cognitive behavioural therapy or not, for example whilst some patients felt that there were underlying reasons behind their weight gain others felt it was just them eating the wrong foods at the wrong times.

I felt the benefit of it [CBT] the first time 'cause I felt a bit of a lift, 'cause I suffer with depression and a lot of that is to do with my weight. So I tried diets, I tried this, but she sort of listened to me about certain things…I feel the only bit of comfort I've got is food now. I don't drink, I don't smoke, I don't do nothing else, I don't go here, I don't do that, I feel like I get up in the morning thinking what I'm going to have for my breakfast, thinking what I'm gonna [going to] have for my dinner, thinking what time my tea will be done. Everything's focused about food.

[18] Potentially a misunderstanding by the patient. CHANGES explain at the start the need to engage and maintain changes prior to referral for bariatric surgery.
[19] Excess skin should be discussed prior to referral for bariatric surgery.

3.2.3 Theme 3. Linked Services

3.2.3a Category: Activity for Life

Activity for Life is a twelve week activity programme which patients can access free of charge. Patients can join group based activities, use fitness suites, go swimming and join aqua-aerobics. Whilst Activity for Life is not run by the CHANGES team, the two programmes are linked with patients referred into both programmes at the same time. Therefore it is important that patients report good experiences of linked programmes as well as CHANGES. On the whole patients who attended Activity for Life reported positive experiences and found learning about exercise complemented the advice they received on nutrition.

Activity for Life, now that's very good. I started this Monday, it's at leisure centre, I'm very pleased with that.

Some patients felt Activity for Life was not suited to them due to health issues, levels of mobility and age. Therefore often patients felt disheartened to find that they couldn't take part in many of the activities available. However other patients felt that Activity for Life was very accommodating with patients for whom mobility was an issue, e.g. by encouraging low impact exercise.

There's some people that, they're on walking sticks and they're trying to get their legs moving, they can't do too much and there's someone there to look after you. I think that's marvellous.

Furthermore some patients found that they could not fit Activity for Life sessions around their own schedules, in some instances having to miss out on attending at all.

The aqua aerobics, the time they put that on 'cause that another thing I enjoyed doing… I was working that day and couldn't get a changeover. But I mean I would have enjoyed doing that as well you know.

3.2.3b Category: Community Cooks

Community Cooks run a four week course which shows patients how to prepare easy and healthy recipes. The majority of patients interviewed had not heard about Community Cooks and this was not something that they felt they needed[20].

I'm, not a brilliant cook but I can do basic things…I'm cooking healthy for myself.

The patients who had been on the Community Cooks course or knew someone who had found the course useful and practical.

[20] In addition, CHANGES have dietetic assistants who can provide support to people with portions, menu planning and shopping on a one to one basis in the patients home.

She found it helpful not that she sticks to it 'cause she loves crisps as well but at least she's got some basic knowledge now of how to cook healthy chicken and things. They did a lovely soup one day 'cause she used to bring things in, I used to taste them, some of the things were lovely.

3.2.4 Drop outs

CHANGES experience a relatively high number of drop outs during the length of the programme, although 79% of engaged patients do complete the first three months of CHANGES (Figures provided by 5 Boroughs Partnership). Patients who had completed the programme were asked their views on why others may drop out of CHANGES. Many did not know why CHANGES experienced drop outs but some suggestions were made. These included work commitments, not meeting expectations and patients not wanting to be told what to do.

Because some people don't like to be told or advised what to eat or how to eat if you know what I mean and I think they expect too much too soon. I think that might be it.

I think it's the individual people. I was disappointed a couple of times, you only lost half a pound and you thought you'd been so good, things like that. You get a bit down but you've just got to carry on and I think people got too depressed about it.

In addition two patients who had dropped out of CHANGES were interviewed. One patient had missed sessions due to ill health and had then dropped out. However this patient, once they are over their sickness, does want to be referred back into CHANGES if possible. The second patient had enjoyed the parts of the programme they attended and still made use of the information but the location was not easily accessible for them.

Well I think when I told them that I was sick and everything but they didn't think I was dropping out 'cause I never really said I'm not coming back or whatever so I don't know whether if I phone up again they will allow me to [come back].

3.3 Prospective phase (blogs)

Analyses of the data elicited three main themes. These themes were characterised by a number of categories.

3.3.1 Blog word frequency

Prior to carrying out framework analysis, participant blogs were entered into NVivo version 9 and a word frequency query (Figure 3) was undertaken (70 most frequent words, 5+ letters, filler words removed e.g. 'because'). The purpose of this was to see which words appeared most often in participant blogs, establish areas of importance for participants and to guide the framework analysis. The most common words included 'weight', 'eating' and 'pounds' which is unsurprising given the subject of the evaluation. Frequent words of interest, included 'positive', 'better', 'lovely', 'delighted' and 'hoping' which demonstrated a positive attitude towards the CHANGES programme and possibly a high level of satisfaction with the service . In addition, other words included 'feeling', 'mindful', 'think' and 'myself' showed

that patients were thinking about themselves and their behaviour and had potentially increased in self awareness. It is of note that many of the words with more negative connotations that may be associated with weight management are in the main absent from the blogs, for example 'fat' etc. This illustrates the positive approach patients have to the process. In addition, terminology used by practitioners and academics was also absent, for instance, 'obesity', 'bariatric' and 'morbidity'. This has implications for communication with patients and the preventions, alienation or barriers to engagement.

Figure 3. Blog tag cloud

about activity after alright anyway appointment arthritis attend awful being better breath cakes changes chest chocolate choices clothes comes completely couple course delighted diabetes dietician difference difficult easter eating emotional every exercise feeling first general going group habit health healthier heart hoping hospital hungry interest kicked learn lighter looking lovely meals mindful myself other positive pounds pretty programme sessions smaller still stone think times walking weeks weigh weight which while

3.3.2 Blog analysis

Framework analysis of the data elicited four main themes.

3.3.3 Theme 1: Service characteristics

This theme centred on different aspects of the CHANGES weight management programme and how well the service worked for each individual. On the whole, patients were positive about the programme and found it useful.

I left the programme a little while ago; it was alright I lost about 10lbs I think. Nothing I'd improve.

3.3.3a Category: Flexibility

On occasion, patients mentioned that the service was not flexible enough and did not fit in with other commitments they had. The individual below describes how they were removed from the course[21] because they missed a cognitive behavioural therapy (CBT) appointment due to being in hospital.

I missed an appointment because I was in hospital and they kicked me off the course. I finally got an appointment for the CBT and the first week I got there it had been cancelled and no one had told me... the following week I was sick and they kicked me straight off the course. To tell you the truth I have lost interest in it now.

3.3.3b Category: Specific Information

There were occasions when participants did not feel that the information they had received was specific or specialised enough. Some patients had dieted many times before and felt that they already knew much of the information received. In some instances, participants discussed starting transient media popular diets post CHANGES. Patients need to be made aware that CHANGES promotes lifestyle change and does not recommend faddy dieting.

I am re-invigorated after Easter and started the Dukan[22] Diet yesterday. If it's good enough for the Princess of Cambridge I thought I'd give it a whirl. It's only my second day but feel it will give me a break from eating carbs which I know are my downfall.

3.3.3c Category: Group v one to one

One issue that was mentioned through the blogs was participant's preference for group or one to one sessions with the psychologist. This was not discussed in great deal, however one participant felt that the group sessions would not be suitable as they had specific issues which they felt could only be tackled on a one to one basis.

Disappointed that the CBT practitioner is referring me for group sessions as I'm an emotional eater and wish I was getting one to one sessions to help deal with it.

3.3.4 Theme 2: Making changes

The second theme discusses the changes that patients hope to make and are making by being on the CHANGES programme. This includes psychological change and improvements to their health.

3.3.4a Category: Health Improvements

Patients felt that by losing weight this would help with such ailments as heart disease, diabetes and arthritis. During the evaluation, as patients began to lose weight, many patients began to experience improved health such as enhanced mobility.

Feel fitter…More energetic.

3.3.4b Category: Psychological change

Throughout the course of the evaluation patients became more self aware and were able to recognise different psychological changes they were undergoing. Patients felt that they had

[21] CHANGES would encourage these patients to re-enter the service at a later date.
[22] Dukan Diet – Developed by nutritionist Pierre Dukan, the Dukan diet is a high protein, low carbohydrate diet.

a more positive outlook on life and had developed a new attitude towards eating. Moreover patients had begun to realise that they did not have to turn to food in times of emotional crisis. There were some instances when patients felt that they had 'fallen off the wagon', but they were confident that they could remedy this and had not permanently lapsed back into old habits.

Happier in myself…better outlook on life… A new outlook on life.

New attitude towards eating.

3.3.5 Theme 3: Weight loss

The third theme centred around how much weight patients had lost and how satisfied they were by this. When patients discussed their weight loss it was usually very positive. However, there were some instances when participants were not satisfied with the weight they had lost or had even gained weight. Patients should be made aware of the expectations regarding weight loss prior to CHANGES. Patients who do not lose sufficient (in their opinion) amounts of weight may become demotivated by the programme.

I'm 4 weeks into the programme and have lost 8 and a half pounds so far which I'm really pleased with.

Not sure how but I have put 1/2 stone on for last 2 weeks. I am eating smaller meals, more fruit and veg and less cakes etc but seem to be putting weight on.

3.3.6 Theme 4: Personal life vs. CHANGES

The final theme generated from the blogs was concerned with how issues in an individual's life may impact on their level of success during CHANGES. This included health factors, family and their social life.

3.3.6a Category: Exercise

Often patients in the early stages of the pathway reported that due to their weight or health conditions, they physically could not carry out any exercise. When appropriate, patients should be made aware of low impact exercises that they could perform.

I have a strange type of arthritis so it's difficult for me to exercise and walk sometime so diet is the only way to try and lose weight.

3.3.6b Category: Other commitments

Whilst writing their blogs, patients occasionally discussed their personal life and talked about things of importance that were present at that time. It became apparent that patient's home and working lives could easily have a direct influence on their levels of motivation. Many patients on CHANGES are in their 40's and 50's and are likely to have children. In addition, this can often be an age when parents may start to suffer from ill health. Whilst it should be accepted that unexpected events in life could hinder a patient's motivation, it would be useful for CHANGES to prepare patients for this and discuss how to keep motivation going, even through difficult periods of their life.

Work is manic and got lots to do at home with looking after my [elderly] mum who is…not in good health, my 2 girls…and my husband.

3.3.6c Category: Social life

Patients occasionally discussed how difficult it was to keep motivated particularly in social situations.

Went out to eat a few times last week and made some good choices and some awful ones. When I was out with friends (I used to work in Liverpool City) I had melon for starters (Tick- V.G) chicken and bacon salad (tick –V.G.) chips (X not good) wine (X not good). So need to sort out my head as I can resist anything other than temptation!

3.4 Prospective phase (interviews)

Framework analysis of the interview data elicited four main themes.

3.4.1 Theme 1. Relationship with food

3.4.1a Category: Past issues

There was a high level of awareness as to how individuals had become obese and these reasons differed greatly between participants, e.g. bereavement, medication. Furthermore, many participants had previously attempted to lose weight either through commercial weight loss services or on their own initiative. Sometimes patients felt that they were overloaded with information around what they should and shouldn't eat and did not know anymore what was right and wrong and hoped CHANGES could help to remedy this.

I knew that was happening 'cause the putting on weight stemmed from the death of my Dad and the I just started comfort eating 'cause I've got this emotional relationship with food and that's kind of, I just ate chocolate instead. Could have been alcohol or wine or chocolate but I chose chocolate.

3.4.1b Category: Motivation trigger

Different motivators had driven patients to decide to lose weight, this included health reasons and self image. In particular, one participant discussed how they were juggling a busy work life and home life, which they recognised most people had, yet they felt they did not have the energy to cope, mainly due to their weight.

I went to get some results on the endoscopy I had and she was on about changing the tablets I was on, I was like oh no just leave me, I'd rather get help with losing weight.

I am genuinely trying to lose weight because of diabetes 'cause that scared me diabetes, just the word itself.

3.4.1c Category: Making changes

Patients recognised the need to lose weight and often felt that without the support of a weight loss programme such as CHANGES, their weight and associated health problems would only escalate and worsen.

I know if I wouldn't have started this programme by Christmas I would have been another half a stone heavier, by next summer I would have been a stone heavier and that's when you start getting the health issues kicking in so it almost catching it now when I'm just, I've just slid into the obese, I'm bringing it back down.

3.4.2 Theme 2: Experience of CHANGES

3.4.2a Category: Information received

Patients, on the whole reported being pleased with the information they had received during the CHANGES and demonstrated increased knowledge in nutrition. In addition, patients truly valued the CHANGES programme and felt that they were lucky in being able to access it. Patients did however admit that sometimes they found it difficult to follow advice particularly when it seemed counterintuitive to them, e.g. eating more carbohydrates. Patients should have all aspects of the CHANGES programme explained to them, rather than being told to follow a set programme, they should understand the reasons behind the ways of eating. Finally patients felt comfortable with the CHANGES team, feeling that they could ask them questions if need be and didn't feel embarrassed asking them for further clarification of the information provided.

> I feel lucky to have got on the programme 'cause I've spoken to friends who live in other authorities and they said they don't do anything like that where I live, so I do feel very lucky to be part of the whole CHANGES programme.

So I've definitely learnt a lot even the plating and things like that I've learnt about that. Everyone says miss things like carbohydrates you know and don't eat bread, don't eat pasta that will put weight on you but they tell you the opposite, eat more and it was hard at first to actually understand.

She was very good at answering any questions I had etc including about the CBT and things.

3.4.2b Category: Specific Information

There were some comments regarding the information received during CHANGES not being specific enough to patients needs. Further, some patients felt that they weren't being taught anything new. There were some instances when patients felt that the information contradicted previous 'diets' they had been on. It may be of value to allow patients to ask about different weight loss programmes during group sessions to dispel myths and highlight the importance of following the information provided during CHANGES.

When I signed up I did think I was going to speak to someone where they specialised in diet and medication because I think I was put into the class along with everyone else but I wasn't the same as everyone else, 'cause everyone there they were like the first time they'd done a diet so they didn't realised you could grill your bacon rather than frying it, I'd been through all that.

3.4.2c Category: Encouragement

Although in the minority, some patients felt that they received little encouragement or motivation from the staff leading the CHANGES sessions, particularly during the weigh in. One suggestion to remedy this was having people who used to be on the CHANGES programme to come back and talk to their group and share success stories. Patients felt that this would act as a strong motivator for themselves.

I don't think they give you much motivation, they are very informative, they are good and its surprising the little things that you pick up, every week you do learn something and things do fall into place but I don't think they're very motivational. They don't encourage you much…especially if you worked hard, sometimes it did change, you didn't have the same person all the time, there was another woman there who was more enthusiastic. I don't know I think when they, it's like they really enjoy what they do and they know what they're talking about and its really clear, you think they're interested and then one of them it's like no its just a job, she didn't really seem that into it and she was the main one so I think that was a bit discouraging.

3.4.2d Category: Impact on significant others

One participant during interview mentioned that they were passing on the advice from CHANGES to their partner and they were both following CHANGES together. The success of the significant other would obviously not be picked up in CHANGES performance statistics, but it is of note to acknowledge that CHANGES does have an impact on patient's significant others.

We've had a talk about it and I've said her [patient's partner] you can go to the doctors and all that and go on it through that which she said she will but it's getting there because she's a nursing assistant so its, their jobs up the wall as well. So it's just getting there. She was going to try and get on the gym thing with me as well…We encourage each other. She's doing quite well herself. I think I've lost a little bit more than N [partner] has but you know it's just one of them, I started before her anyway. But we're getting there.

3.4.2e Category: Psychological support

There were mixed views with regards to the psychological support received. Many patients felt that it helped them to change the way they thought about food and addressed underlying issues relating to why they overate. Some patients felt that the group format in which they received CBT was not suitable for them. In these instances, patients felt that the information they were given was too general and that they required one-to-one sessions to address their psychological issues in more depth.

She was very helpful. She gave me sheets to read and after I read it you'd stop and you'd think about different things. She helped me an awful lot there.

I had high expectations for the CBT but I have to say it didn't really work for me and I didn't really connect with the other people in my group either which was a shame because I felt as though I got nothing out.

3.4.2f Category: Group sessions

On the whole, patients enjoyed the CHANGES group sessions. They liked the group format and found the information given useful and interesting. There were some suggestions for improvement which mostly centred on the length of the sessions with patients wanting more sessions which ran for longer. One of the quotes below is from a patient who felt that the group sessions were not suited to them as they were too shy and felt uncomfortable in group situations. Potentially this should have been addressed prior to the patient starting the sessions; however, this was later picked up as this patient did move to one-to-one sessions.

It was friendly, it was nice and small, not too many. I didn't have any problems with it.

If I had the choice straight from the beginning I think I'd have done it one on one because I do find it daunting going to meetings especially when you feel like you're put on the spot and they ask you questions 'cause I get all panicky then. I'd rather somebody sat like we are now and if I don't know the answer I don't feel embarrassed, but other than that I think they've been great.

3.4.2g Category: Group dynamics

On the whole, patients enjoyed being part of a group, friendships grew within the group and other members acted as an additional support system. Patients commented that everyone there was non-judgemental and they felt comfortable talking to them and in front of them. Additionally, patients shared tips and advice with each. In particular those in the group who attended Community Cooks often brought recipes from the sessions to share with others who had been unable to attend. There were some negative comments regarding patients who had been disruptive within the group setting particular when it was felt that the group leaders did not do anything to tackle this behaviour. In one instance a participant walked out of the group sessions because of another members comment and ended up in one-to-one sessions. This participant preferred the group sessions and whilst it is be commended that this problem was resolved, a more suitable solution may have been to remove the disruptive member from the group sessions.

I've found the groups fine and I fitted in as though we all kind of got on and I think what's really good is that everyone's non judgemental. There's nobody making any kind of judgements about anybody else's life which I think is really important cause if you felt as though people were judging you it would probably stop people sharing and opening up.

There's a fella at the group who's just disruptive and he proper gets on my nerves so she's put me down for a one to one. Because I'm quite a shy person anyway but, and I do find it a bit daunting meetings like that, I'd rather have one on one but he's just, he's proper, he shouldn't be there, he really shouldn't be there, he's telling people that's got diabetes to eat cream cakes, he's just pathetic I'm sorry but he is and N [group leader] doesn't seem to have had control over it. I ended up walking out on Monday because of it, she did apologise which was appreciated but he should just get taken out the class I think, he's doing it with everybody it's not just with me that he's upsetting he's upsetting the class.

3.4.2h Category: Respect for patients

Patients felt that they were treated with respect by the CHANGES staff, particularly at the weigh in which was done away from the rest of the group and not shared with the class.

When we go in we get weighed, confidentially, she just writes it down on a piece of paper, she writes it down on your card and gives it to you, so it's not shared with the class or anything at all that's done confidentially.

3.4.2i Category: Referrals

Participants commented that the referral process to access the CHANGES programme was very quick and smooth.

It wasn't too long from when I went to the hospital to actually getting my appointment I'd say it was only about a month, six weeks something like that I'm sure it was.

It was quite quick yeah.

3.4.2j Category: Decision making

The majority of patients agreed that they had been involved in the decisions about the treatment they received. Participants felt that they understood what the programme would involve and were adequately prepared.

I asked the hospital to refer me 'cause I put weight on through my steroids they referred me to CHANGES and that was when I started going on that.

3.4.2k Category: Flexibility

Some patients felt that CHANGES were very accommodating and flexible. If, for example a patient needed to miss an appointment (as long as they informed CHANGES prior to the session) then they found that CHANGES were very understanding. There were some instances however, when patients had left messages saying they could not attend and this information had not been passed on to the person running the group sessions. Patients also found that the sessions were conveniently located to where and they lived and were at suitable times.

I've had a positive experience I think the staff are being flexible and approachable, there's nothing that I wouldn't ask them.

If I phoned and I spoke to them she was ok, they were understanding. Like I've left a message once or twice and when I've gone in, like Oh you weren't here last week and I said I left a message, they went oh mustn't have got it. I left a message obviously their number, their answering machine and even like the week after she hadn't got it.

3.4.2l Category: Drug therapy

Drug therapy was not discussed by many participants. However, by those who were considering it, there was a sense of apprehension and fear about how successful it would be and whether they would put weight back on once coming off the medication. Patients need to be made aware of the risks and advantages to drugs such as Orlistat prior to it becoming a consideration.

I don't know what I think of them, bit scared. I'm a bit scared of trying them and I think with that type of stuff as well you might lose it but then if I go back to eating normal I'll put it on straight away. So I personally have tried to cut down on my carbohydrates… But I just get scared then sort of when I do stop, if I do start going back to it, just going to put the weight on, defeat the object.

3.4.3 Theme 3: Outcomes of CHANGES

At the beginning of the pathway, patients viewed their potential weight loss positively in particular with regards to the impact it would have on their health. Patients felt that by losing weight this would help with such ailments as asthma. During the evaluation, as patients began to lose weight, many patients began to experience improved health such as reductions in medication and enhanced mobility.

Considering I've got asthma anyway and I do suffer with my chest I'm not doing too bad, I found I'm not using my inhaler half as much so it's doing some good…the main one I use twice a day religiously but the other one I don't normally use the Salbutamol which before I started this I was using it 4 maybe 5 times a day so it has made a big difference, a big difference and I have got more energy.

3.4.3a Category: Weight loss

When patients discussed their weight loss it was either very positive or very negative, i.e. how little or how much weight they had lost. Patients should be made aware of the expectations regarding weight loss prior to starting the CHANGES. Patients who do not lose sufficient (in their opinion) amounts of weight may become demotivated by the pathway.

I'm going to be good and I've lost 8 1/2 pounds in 2 weeks already.

Sometimes I get frustrated 'cause the last 2 weeks I've only lost half a pound each week and I'm thinking what am I doing, I'm counting my 1,600 calories a day, I'm making sure I have all the portions, what can I do differently? But then like it wasn't N [group leader] last week, I can't remember the dieticians name but she said bring in a food diary and we'll see if there's anything that can be changed so that I think they're prepared to do that, if you get a bit stuck and you think you're doomed what you're doing right, I thought I want to lose more than half a pound a week.

3.4.3b Category: Post CHANGES

Patients were concerned about how they would keep levels of motivations high once they had left the CHANGES programme and not longer had a support network. One suggestion to assist in remedying this was the idea of patient support groups. Participants liked this idea, firstly to be with people who were in a similar position as themselves as secondly to assist in keeping motivation strong post CHANGES[23]. For those people who finished the

[23] CHANGES do offer patients the opportunity to still attend the group sessions to be weighed.

CHANGES programme during the evaluation, there was evidence that they were still using the information given during sessions.

There may be opportunities to provide a support network so that you're able to keep people in contact with one another but then of course it depends, other people might not want that so it's always within that kind of, 'cause after the 10 weeks I think the likes of this lady who's left, probably never see her again and I just think what will happen to her and wouldn't it have been nice for her to have a network, a support group so there could be something of that nature.

3.4.3 Theme 4: Linked Services

3.4.3a Category: Activity for Life

Patients who attended Activity for Life reported positive experiences and enjoyed getting back into exercise. It was evident that some people had not done any exercise for a long time and Activity for Life were helping them to start living a more active lifestyle. Some patients who initially decided against joining Activity for Life were reconsidering as they could see the benefit of organised activities to help with their levels of motivation. Further, there was an understanding from patients that exercise was, as well as diet, considered a must for a healthy lifestyle and that the two programmes (CHANGES and Activity for Life) complemented each other well.

You have personal trainers there that help you, my brothers a personal trainer and going the gym was great, I started going swimming.

I think they can get too bogged down with diet and actually you need the two. I think exercise generally makes you feel better.

Whilst in the minority, there were issues regarding how long it took to be referred into Activity for Life with patients not hearing back from them and administrative errors delaying the referral process.

I was supposed to be referred for the Activities but apparently the wrong form was filled in and I've got to go back to my doctor and see my doctor which I haven't had time to do yet, but I will do.

Activity for Life is a twelve week activity programme which patients can access free of charge. After the twelve weeks, if patients wish to continue accessing the gym or exercise classes, they have to pay which some could not afford to do. It may be of benefit during the programme to advise patients of exercises they can do at home which do not require expensive equipment or the need for a gym membership.

I used to go to the Activity for Life and that stopped and I couldn't really afford the gym membership after it finished.

3.4.3b Category: Community Cooks

Unlike the Retrospective report (see Brizell, Stuart, McVeigh and Irvine, 2012), patients in this cohort had, in the most heard of the Community Cooks programme and many were accessing the service. They found the sessions useful and were making use of the recipes

they had been given. There were some comments around not individually making a recipe from start to finish but rather working as a group. Participants felt that the Community Cooks service could be improved by including taster sessions of recipes. This could help in recruiting patients to the service.

It's just you go in and it's simple recipes, healthy, it's all got to be healthy hasn't it? It's just simple, there's not many ingredients, it doesn't take long to prepare. I've even just made one now, made a little soup myself for the second time, my boyfriend loves it.

Maybe taster evenings or taster sessions 'cause I think the people are very much in a rut in terms of what they eat so if they did maybe instead of giving recipes out do some taster sessions and then you have the whole food hygiene aspect to it and all that.

A few patients commented that they would like to attend the Community Cooks sessions but they were at times they could not attend, e.g. during working hours.

It's not even so much that it's a case of finding time because a lot of these meetings have been not on days that I'm off work so it hard in that way.

As previously mentioned (see section 3.3.2, theme 2), patients attending the CHANGES group sessions often shared recipes with those who did not or could not attend the Community Cooks session. It may be of use to CHANGES to incorporate this into their sessions and to encourage patients to bring recipes to share and discuss.

There's two people in my group who go to the Community Cooks and one of the ladies, she brings recipes for the rest of us as well, because of work commitments I couldn't get out to do the Community Cooks.

4. Discussion

4.1 Patient profiles

Patients were able to clearly articulate both how they had become obese and also why they had decided that this was the right time for them to address their weight issues. There were very different explanations for weight gain such as injury or having children and also motivators behind wanting to lose weight, e.g. for their children, to look like everyone else or for their health. Additionally, although in the minority, there were some patients who did not feel the group sessions were suitable for them as the information they received was not specific enough to their associated health issues. When delivering information, the 5 Borough Partnership need to ensure that these different patient profiles are taken into account, particularly when seeing patients in a group setting and possibly offer complex patients one-to-one sessions. Further research could be carried out to assess and identify predictors of weight loss success for these distinct patient profiles, i.e. are patients with different motivators for weight loss or different pathways to obesity more likely to lose weight than others?

4.2 Group sessions / One to one

Patients can either attend weight management group sessions or one to one sessions. Patients who go into one to one sessions usually do so because they are considered to have more complex needs. The majority of patients during the evaluation attended the group sessions and on the whole enjoyed them, finding them informative and feeling that the additional support of other group members helped to keep them motivated. There were some instances when patients had experienced disruptive group members, which in one instance led to the participant leaving the group sessions and joining one-to-one sessions which they did not feel were as suitable for them. On this occasion, it was felt that those running the group sessions could have done more to address this issue. Although group sessions will inevitably include different personalities and opinions, those who are disruptive should not impact on those patients who are motivated to the CHANGES programme. Whilst this occurrence is rare, ground rules need to be set in groups and implemented. Further research could be carried out to compare the success rates of those patients who go into group sessions compared to those who go into one-to-one sessions. There were also some issues surrounding differing levels of knowledge within the groups. Many of the patients had attended commercial weight loss groups or community led services already and felt that they weren't getting any new information. There were some levels of frustration from these patients as they had to wait for other members of the group to catch up. Further research could look at the impact prior knowledge has on weight loss success, i.e. are those patients who have already attended weight loss groups more or less likely to lose weight in group settings than others?

4.3 Psychological support

The importance of psychological support at the centre of CHANGES was evident throughout all the phases of the evaluation. Patients discussed how the psychological support had altered the way they thought about food, changing their perspective and helping them towards having a more positive outlook. Most importantly, those patients who had bariatric surgery often struggled post surgery without any emotional or psychological support.

4.4 Weight loss

When discussing weight loss, patients were often very positive about how much weight they had lost so far. Patients generally felt that they were given achievable targets and having a goal to work towards and weekly sessions to attend kept them motivated. Furthermore, patients felt encouraged by health improvements and there was an evident change in their outlook. Patients had undergone psychological changes and improvements in physical health and had a much more positive outlook on life and a new attitude towards eating. However, there were some negative comments from patients concerning how much weight they had lost. It is difficult to ascertain whether the discrepancies between what patients reported is due to some patients not having realistic expectations at the beginning or whether some patients were, either due to commitment issues or other circumstances, not meeting their targets.

4.5 Bariatric surgery

Of those patients who had undergone bariatric surgery, all reported a high level of success with weight loss and reported feeling much happier with themselves. However, of those patients who had bariatric surgery, all felt that they had not received adequate support post surgery. Patients should receive support from their bariatric surgery provider for two years post surgery, yet this did not appear to be the case. Whilst it is not in CHANGES remit to take referrals from bariatric surgery patients, the lack of support both emotional and practical, means that patients are thought to be suffering and this should be considered by commissioners of the weight management service as a whole, i.e. the bariatric surgery provider's role post surgery should be clarified.

4.6 Value for money

In terms of value for money, it was felt that reducing patients' weight would have a positive financial impact on the NHS in the long term through the lessening of co-morbidities. However, it was understood that CHANGES experience a high rate of drop outs to their service and sometimes because of this group numbers are low. Suggestions were made for lowering the dropout rate such as engaging with patients more through interactive platforms, speeding up referral times and ensuring that patients understand what CHANGES involves before referral in order to make certain that only those who are motivated are referred.

4.7 Links with other services

On the whole, there was generally considered to be good communication between CHANGES and other linked services, with these services feeling that they could contact CHANGES at any time to discuss any issues they had. There was some confusion regarding the use of community led services as part of a exit referral strategy for patients and clarification concerning this may be needed. Patients felt that Activity for Life and Community Cooks offered other element to their weight loss management, incorporating exercise and practical use of the nutritional skills they had learned. There were instances when patients could not attend Community Cooks and Activity for Life sessions due to personal / work commitments. In these instances patients would have welcomed more flexible session times.

5. Conclusions

Those whose work involves them in the CHANGES weight management team are a strongly committed and enthusiastic team who celebrate the successes of their patients and where there is disappointment, endeavour to find innovative ways to address those issues. Many of the patients reported that CHANGES had helped them to make positive changes to their life. Furthermore, patients enjoyed their time on CHANGES and it was apparent that patients had lost weight and improved in psychological wellbeing throughout the evaluation.

6. Recommendations

Recommendation[24]	Stakeholder phase	Retrospective / Significant other phase	Prospective phase
1) Psychological support is a key component of CHANGES	People do say it has huge benefits really because it's getting them to think about things in a different way. See also 3.1.1e	I felt the benefit of it [CBT] the first time 'cause I felt a bit of a lift, 'cause I suffer with depression and a lot of that is to do with my weight See also 3.2.2l	Happier in myself…better outlook on life… A new outlook on life. See also 3.3.4b
2) Links between the community run services and CHANGES to be improved. This is particularly in regard to the referring down of patients /clarification of exit strategy and which team provides which level of information	I've never had any referrals off CHANGES. See also 3.1.1a and 3.1.1b	It was good, but when I stopped going I sort of like fell off, you know See also 3.2.2j	I think it makes a difference having that support there because in order to like go through a 10 week course in my eyes and then just stop, you're just going to stop - you need that encouragement See also prospective report
3) Clarification of surgery providers role post surgery	After surgery they've said there's no support, they come out and there's nothing there for them See also 3.1.3a	As I say the care in there was fantastic, the aftercare is a lot to be desired See also 3.2.2k	None
4) Improve general public awareness of CHANGES	They might go into the GP and say I'm struggling I need to lose weight but they wouldn't know what CHANGES was. See also 3.1.1d	None	She just referred me on it. I'd never heard of it before See also prospective report
5) Improvement of administrative procedures and resources	If admin had a bit more organisation and a bit more space they might function a bit better, more efficiently. See also 3.1.1c	It was the planning of the room really, it was a big group... it was over crowded. It wasn't their fault, someone had over booked the room…that was the only trouble we had See also 3.2.2f	I left a message obviously their number, their answering machine and even like the week after she hadn't got it See also 3.4.2k

[24] Please note, some of these recommendations come from early phases of the evaluation. CHANGES may have already addressed some of these issues. Please see section 7 for a list of CHANGES developments since the start of the evaluation.

Recommendation[24]	Stakeholder phase	Retrospective / Significant other phase	Prospective phase
6) Ensuring patients are fully motivated prior to beginning the CHANGES programme. This is particular in ensuring that patients are not just attending CHANGES to access bariatric surgery.	Sometimes in my opinion the person isn't ready and isn't motivated to make changes so its whether we look at that, cause you're going to get a high dropout rate and high DNA [Did not attend] which reflects badly on us See also 3.1.4a	When they found out they could get [bariatric surgery] that then they thought "Oh right I'll keep coming then I'll get it then," but why keep going? See also 3.2.2k	None
7) All patients should receive speedy referrals into CHANGES	I might go [back] three months later and someone will go "Do you remember you referred me? I've heard nothing," See also 3.1.1a	None	I did have to wait a bit. See also prospective report
8) Identification of different patient profiles particularly in group sessions.	The persons getting up and trying to do a bit of interaction and getting not a lot back See 3.1.2a and stakeholder report	Since I've had the heart attack I've put four stone on. See also 3.2.1	I am genuinely trying to lose weight because of diabetes 'cause that scared me diabetes, just the word itself. See also 3.4.1b
9) Identification of disruptive members in groups through follow up calls with patients/ feedback boxes	None	There was one man, I don't know his name, he contradicted everything the dietician said. See also 3.2.2d	There's a fella at the group who's just disruptive and he proper gets on my nerves so she's put me down for a one to one See also 3.4.2g
10) Clear weight loss goals and targets set out at the beginning of CHANGES	None	I think I lost, not much but in them weeks it was about less than a stone I lost. See also 3.2.2g and retrospective report	Not sure how but I have put 1/2 stone on for last 2 weeks. See also 3.4.5
11) Ensuring that patients are adequately prepared for the side effects of bariatric surgery	It's a cosmetic world we're living in and I want an easy fix See also 3.1.3b	I wasn't prepared for the excess skin no, they didn't even hit on that you know See also retrospective report	None

7. CHANGES developments

Since the start of the evaluation CHANGES has developed its programme, which in part has been based on the findings of the evaluation. Some of these changes may not have been reflected in the evaluation as interviews were prior to these new developments. Below is a list of developments CHANGES has made/are in the process of making and the recommendation (where relevant) that they link to:

Administrative issues-

CHANGES is introducing a new electronic booking system which will be paper free and they are also currently carrying out admin reviews which should help to resolve some of the issues around 'lost' referrals and non passing on of telephone messages. (Recommendation number 5)

Improving awareness of the service

CHANGES is working with the patient engagement team to ensure they are using patient champions to promote the service via word of mouth in the community and in addition CHANGES has a robust PR/ Marketing strategy in place. (Recommendation number 4)

Call for more CBT

CHANGES is now introducing an advanced practitioners role for a dietician who will be sharing and training up all staff on CBT so all dieticians will have some CBT skills. Furthermore all dieticians have some counselling training and motivational interview training. Additionally there is a new pathway underway whereby all complex (60%) of patients, rather than just the 35% seen by CBT, will have access to psych education groups run by a dietician. This is in addition to the advanced practitioner dietician who will be specialising in CBT approaches. (Recommendation number 1)

Information on portion control and dispelling myths of 'faddy' dieting

CHANGES has started to provide patients with information on portion sizes at their first assessment so all patients will have a level of knowledge prior to beginning the group sessions. Additionally CHANGES are looking to bring back a session tackling preconceived ideas of diets. Finally extra support is available for those patients who struggle to understand advice.

Weight loss targets

Patients are now given targets at first assessment – usually set at between 5% and 10% and appointments set up if these targets are not met. (Recommendation number 10)

Availability of Activity for life sessions

Increased availability at evening and weekends

Disruptive group members/ issues within group sessions

CHANGES now provide feedback boxes so patients can highlight these incidents confidentially. (Recommendation number 9)

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Useful Resources

- The National Obesity Observatory www.noo.org.uk
- National Institute for Health and Clinical Excellence www.nice.org.uk including:
    - the Shared Learning Database www.nice.org.uk/sharedlearning
    - Costing tool www.nice.org.uk/usingguidance/commissioningguides/bariatric/commissioningtool.jsp?domedia=1&mid=B382515B-19B9-E0B5-D476949E70BDA568
    - Commissioning guidance for bariatric surgery www.nice.org.uk/usingguidance/commissioningguides/bariatric/BariatricSurgicalService.jsp?domedia=1&mid=87F5267C-19B9-E0B5-D47104E7147082E9
- The National Obesity Forum www.nationalobesityforum.org.uk/
- Department of Health – Obesity www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/Obesity/fs/en
- International Association for the Study of Obesity www.iaso.org
- The International Obesity Taskforce www.iaso.org/iotf/
- UK Foresight Project www.foresight.gov.uk/Obesity/Obesity.html

9. Appendix

9.1 Appendix 1

Full Reference	Main findings
Weight and type 2 diabetes after Bariatric surgery: systematic review and meta-analysis (2009) http://www.sciencedirect.com/science/article/pii/S0002934308010644	The prevalence of obesity-induced type 2 diabetes mellitus is increasing worldwide. The dataset includes 621 studies with 888 treatments arms and 135,246 patients. The clinical and laboratory manifestations of type 2 diabetes are resolved or improved in the greater majority of patient after bariatric surgery
The Effects of Low-Carbohydrate versus Conventional Weight Loss Diets in Severely Obese Adults: One-Year Follow-up of a Randomized Trial (2004) http://www.annals.org/content/140/10/778.short	132 obese adults with a body mass index of 35 kg/m^2 or greater; 83% had diabetes or the metabolic syndrome. Participants received counselling to either restrict carbohydrate intake to <30 g per day (low-carbohydrate diet) or to restrict caloric intake by 500 calories per day with <30% of calories from fat (conventional diet). Participants on a low-carbohydrate diet had more favourable overall outcomes at 1 year than did those on a conventional diet. Weight loss was similar between groups, but effects on atherogenic dyslipidemia and glycemic control were still more favourable with a low-carbohydrate diet after adjustment for differences in weight loss.
Effects of Diet and Physical Activity Interventions on Weight Loss and Cardio metabolic Risk Factors in Severely Obese Adults (2010) http://jama.ama-assn.org/content/304/16/1795.short	The prevalence of severe obesity is increasing markedly, as is prevalence of comorbid conditions such as hypertension and type 2 diabetes mellitus; however, apart from bariatric surgery and pharmacotherapy, few clinical trials have evaluated the treatment of severe obesity. Among patients with severe obesity, a lifestyle intervention involving diet combined with initial or delayed initiation of physical activity resulted in clinically significant weight loss and favorable changes in cardiometabolic risk factors.
Interventions to achieve long-term weight loss in obese older people (2010) http://ageing.oxfordjournals.org/content/39/2/176.short	The prevalence of obesity is rapidly increasing in older adults. Nine eligible trials were included. Study interventions targeted diet, physical activity and mixed approaches. Populations included patients with coronary artery disease, diabetes mellitus and osteoarthritis. Six-minute walk test did not significantly change in one study. Health-related quality of life significantly improved in one study but did not improve in a second study. Although modest weight reductions were observed, there is a lack of high-quality evidence to support the efficacy of weight loss programmers in older people.

Full Reference	Main findings
Appropriate Physical Activity Intervention Strategies for Weight Loss and Prevention of Weight Regain for Adults (2009) http://journals.lww.com/acsm-msse/Abstract/2009/02000/Appropriate_Physical_Activity_Intervention.26.aspx	Overweight and obesity affects more than 66% of the adult population and is associated with a variety of chronic diseases. Weight reduction reduces health risks associated with chronic diseases and is therefore encouraged by major health agencies. Guidelines of the National Heart, Lung, and Blood Institute (NHLBI) encourage a 10% reduction in weight, although considerable literature indicates reduction in health risk with 3% to 5% reduction in weight.
Comparison of Strategies for Sustaining Weight Loss http://jama.ama-assn.org/content/299/10/1139.short	The majority of individuals who successfully completed an initial behavioral weight loss program maintained a weight below their initial level. Monthly brief personal contact provided modest benefit in sustaining weight loss, whereas an interactive techonology–based intervention provided early but transient benefit.
An exercise outpost in weight regain territory (2010) http://jap.physiology.org/content/109/1/1.short	Markers of cardiovascular and metabolic health are consistently improved with modest weight loss; yet, from a physiological perspective, weight loss is a very tough task to achieve. Changes during weight loss affect neural, endocrine, autocrine, and paracrine responses that orchestrate complex metabolic and physiological interactions predominantly favoring weight preservation. Most of the health parameters that were addressed in this investigation are commonly measured in the clinical setting. Thus the findings are both cutting-edge and relevant to the general practitioner.

Full Reference	Main findings
Self-efficacy in weight management (1991) http://psycnet.apa.org/journals/ccp/59/5/739/	Self-efficacy is an important mediating mechanism in advancing understanding of the treatment of obesity. This study developed and validated the Weight Efficacy Life-Style Questionnaire improving on previous studies by the use of clinical populations, cross-validation of the initial factor analysis, exploration of the best fitting theoretical model of self-efficacy, and examination of change in treatment. The resulting 20-item WEL consists of 5 situational factors: Negative Emotions, Availability, Social Pressure, Physical Discomfort, and Positive Activities.
Exercise in weight management and obesity (2005) http://www.sciencedirect.com/science/article/pii/S0733865105702290	Obesity is associated with reduced life expectancy, and it is now well recognized that increased body fat is associated with heart disease, stroke, hypertension, dyslipidemia, type 2 diabetes mellitus, gallbladder disease, osteoarthritis, sleep apnea and respiratory problems and numerous cancers (endometrial, breast, prostate and colon). The American Heart Association has stated that obesity is a major modifiable risk factor for heart disease.
Lessons from obesity management programmes: greater initial weight loss improves long-term maintenance (2001) http://onlinelibrary.wiley.com/doi/10.1046/j.1467-789x.2000.00004.x/full	It is well established that treatment with anorectic and other weight loss producing agents enhances both the initial and maximal weight loss achieved by a hypocaloric diet. These agents may also increase the number of completing patients, probably by reducing the number of patients dropping out due to unsatisfactory weight loss. Anorectic compounds seem to produce the best long-term results when introduced following a major weight loss induced by a VLED.

Full Reference	Main findings
What Can Intervention Studies Tell Us about the Relationship between Fruit and Vegetable Consumption and Weight Management? (2008) http://onlinelibrary.wiley.com/doi/10.1111/j.1753-4887.2004.tb00001.x/abstract	Given the recent surge in obesity, effective dietary strategies for weight management are required. Because fruits and vegetables are high in water and fibre, incorporating them in the diet can reduce energy density, promote satiety, and decrease energy intake. Although few interventions have specifically addressed fruit and vegetable consumption, evidence suggests that coupling advice to increase intake of these foods with advice to decrease energy intake is a particularly effective strategy for weight management. This approach may facilitate weight loss because it emphasizes positive messages rather than negative, restrictive messages.

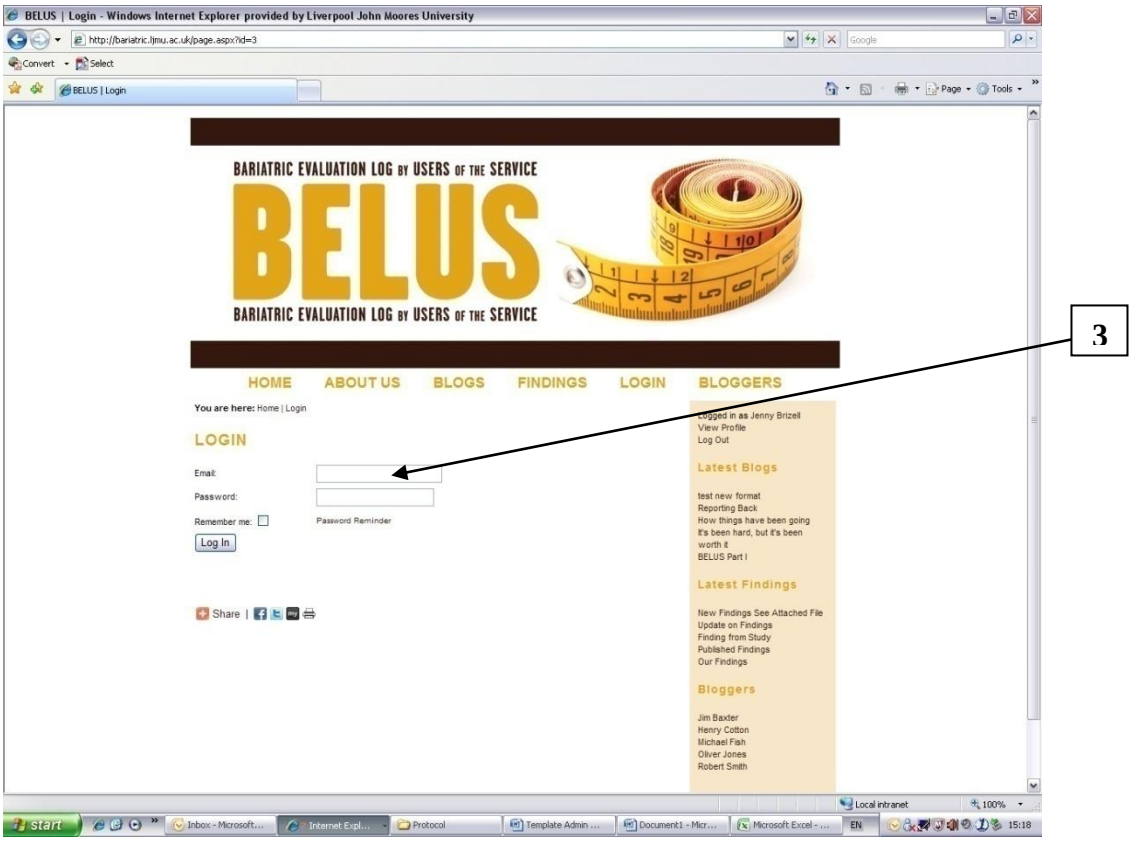
9.2 Appendix 2

BLOGGERS USER GUIDE

1. HOME PAGE: Go to the website http://bariatric.ljmu.ac.uk. The home page will tell you a little bit about BELUS and also about keeping your weekly blog.

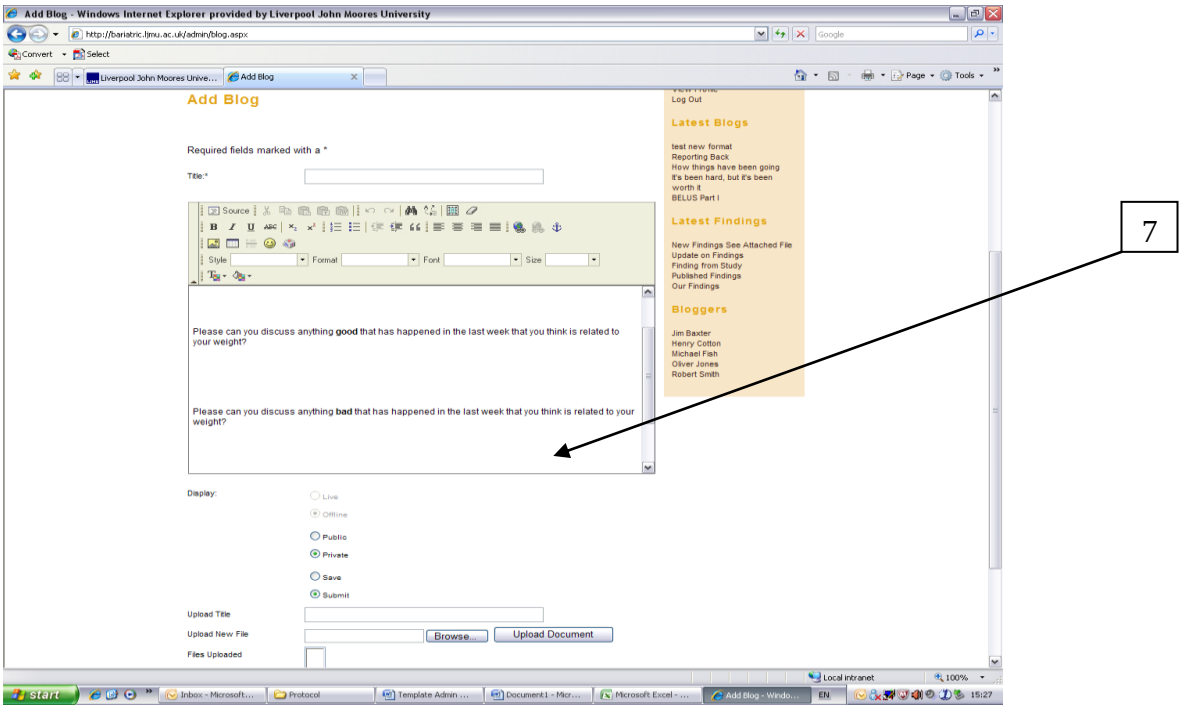
2. Along the middle of the BELUS HOME PAGE there is a list of different pages you can click on
    - The first page is HOME which will take you back to the BELUS HOME PAGE
    - The second page is ABOUT US which will tell you about the researchers who are carrying out the CHANGES evaluation.
    - The third page is BLOGS. This is where you can see your blogs and also other people's blogs unless they have marked them as private
    - The fourth page is FINDINGS. This is where the researchers will put up-to-date findings from the research
    - The fifth page is LOGIN. This is where you can login to your blog account and write new blogs, upload pictures etc
    - The sixth page is BLOGGERS. This is where can view the profiles of other Bloggers who are using the website.

3. LOGIN. After clicking on the login icon you will be asked to provide your EMAIL ADDRESS and PASSWORD. Your email address is the address you provided to researchers and the password will be bariatricljmu. You can change this password after the first time you log in. If you don't want to have to remember your password every time you login you can tick the REMEMBER ME box.

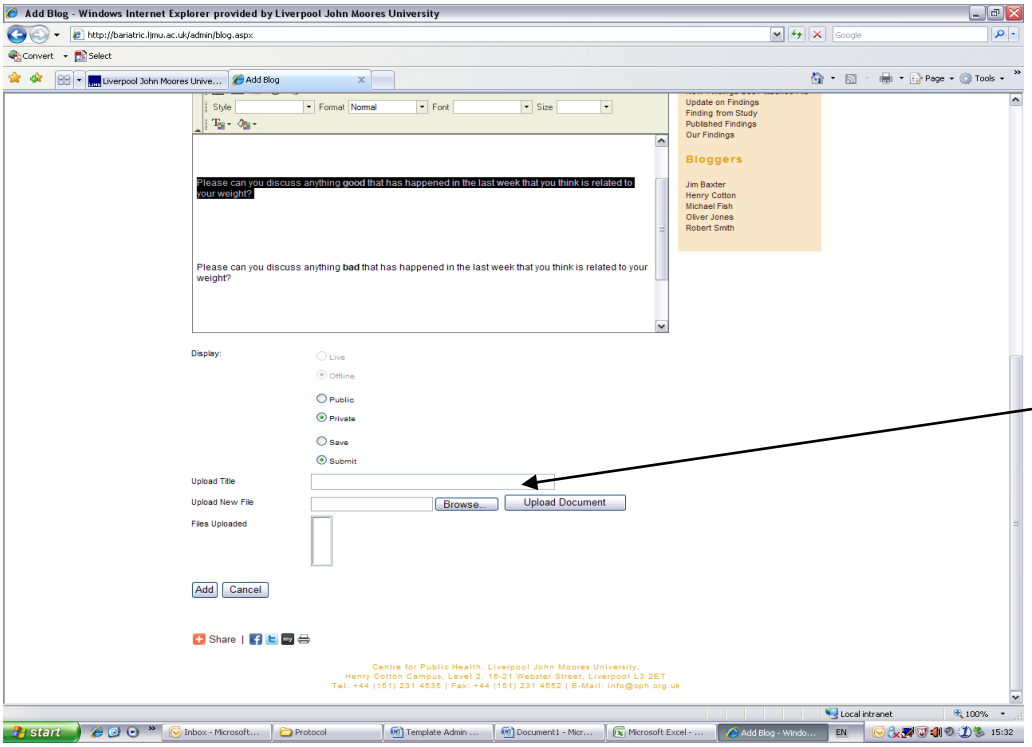


4. Once you are logged in you can ADD NEW BLOGS, EDIT YOUR PROFILE and VIEW OLD BLOGS etc. To **ADD A BLOG** click on **VIEW PROFILE** from the right hand list on the website.
5. From the **VIEW PROFILE** page you can **EDIT YOUR PROFILE**, **ADD BLOGS** and look at **SAVED BLOGS** that you are currently writing.
6. **EDIT YOUR PROFILE**. Once you have clicked on edit your profile you can upload a picture of yourself, update your email address and change your password. Click **UPDATE** to make any changes.

7. ADD BLOGS. Once you have clicked on the add blogs you are able to write your weekly blog on the website. You can give it a title and then fill in the answers to the questions listed, e.g. *Please can you discuss anything **good** that has happened in the last week that you think is related to your weight?* Here you will also be asked for your current weight. You can mark your blog as PUBLIC or PRIVATE depending on whether you want other people to see your blog or not and you can SAVE or SUBMIT your blog. If you are not finished writing you blog you can save it and comeback to it later. If it is finished you can submit it. Once you have finished then click ADD.



8. You can also **UPLOAD** any **pictures, photographs, poems** or anything you like relating to your feelings and experiences during CHANGES. Just click **BROWSE**, find where you have saved your picture etc and then click **UPLOAD DOCUMENT.** Once the document is uploaded then click **ADD**



9. You can also look at **SAVED BLOGS,** These are blogs that you haven't finished writing but you can go back, finish writing and then **SUBMIT** them.