



<b>Name of Meeting</b>	Health and Adult Social Care Scrutiny Panel	<b>Meeting Date</b>	03/10/17
<b>Title of Report</b>	Health Optimisation – Proposal to introduce additional Thresholds for Non-Urgent Elective Surgery	<b>Agenda Item No.</b>	
<b>Report Author</b>	Alan Turner	<b>Public / Private Item</b>	Public
<b>GB / Clinical Lead</b>	Steven Ollerton, David Hughes, David Kelly	<b>Responsible Officer</b>	Vicky Dutchburn (GHCCG), Vicki Robinson (NKCCG)

## Health Optimisation Proposal to introduce additional Thresholds for Non-Urgent Elective Surgery

### 1. Executive Summary

Obesity and tobacco smoking constitute major causes of global morbidity and mortality; in the context of England, the 2015 Health Survey for England found that twenty-seven percent of adult males and adult females are obese<sup>1</sup>. Nineteen percent of adults smoke<sup>2</sup>. In 2014, the Chief Executive of the National Health Service in England stated, in his report *The Five Year Forward View*<sup>3</sup>, "if the nation fails to get serious about prevention then recent progress in healthy life expectancies will stall, health inequalities will widen, and our ability to fund beneficial new treatments will be crowded out by the need to spend billions of pounds on wholly avoidable illness." By 2017, however, the King's Fund<sup>4</sup> found that, "what is often missing is detail on the specific programmes that will be put in place to deliver these benefits and the evidence that lies behind them."

One specific area which has attracted attention is the move by some commissioners across the country to insist that patients change, or spend a specific period attempting to change, adverse lifestyle behaviours prior to surgery<sup>5</sup>. An increasing number of Clinical Commissioning Groups have decided to place restrictions on those receiving elective operations, requiring such patients to lose weight to below a specified body mass index threshold and/ or stop smoking prior to their surgery.

On the one hand, there is evidence that making these lifestyle modifications improves patients' primary outcomes from these operations and reduces their chances of site-specific or anaesthetic complications. After the operation, if these healthy behaviours are maintained, there would be reduced risk of mortality and morbidity. On the other hand, patients will have delayed access to treatments from which they might benefit. This paper describes some of the published evidence which pertains to the main arguments in this difficult issue for healthcare decision makers, but also to present to the Health and Adult Social Care Scrutiny committee an update on local intentions of Greater Huddersfield and North Kirklees CCGs to implement such a programme referred to as the 'Health Optimisation'.

Further to the decision at the Joint Quality Performance and Finance Committee in December 2016 to support further development of a Health Optimisation Programmes for patients that require routine elective surgery the Health Optimisation programme has been explored and scoped with both CCG governing bodies on the 14<sup>th</sup> June 2017 agreeing for the programme to move into implementation stage.

## 2. Introduction & Background

### Effects of Smoking

In 2014, almost 80,000 deaths in England were attributable to smoking<sup>6</sup>. The Consortium on Health and Ageing undertook a metaanalysis of 25 cohorts across Europe and North America and found that former smokers had a lower relative risk of cardiovascular deaths than current smokers; it also calculated the risk advancement period, which is the average time by which the occurrence of an event (such as disease incidence or death) due to a risk factor is advanced in exposed people compared with unexposed people. For current smokers, this risk advancement period was 5.5 years, compared with only 2.2 years for former smokers. With non-smokers as the reference value, the hazard ratio for an acute coronary event is 2.0 in current smokers and 1.3 in former smokers<sup>7</sup>.

For smoking, a systematic review recently found that smoking cessation programmes prior to hospitalised surgery overall had a success rate of 55%<sup>8</sup>. A recent systematic review found that a mixture of interventional studies and observational studies. In their meta-analysis, they considered the primary study outcome as total complications, consisting of secondary outcomes including any wound healing complications, pulmonary or respiratory complications, all-cause mortality, and all-cause length of hospital stay. Across the thirteen studies, there was a statistically significant reduction in the risk of total complications in former smokers compared with current smokers, with an average 22% of former smokers experiencing an event compared with 32% for current smokers<sup>9</sup>.

### Effects of Obesity

For any given individual, obesity will increase his or her risk of numerous diseases, in particular cardiovascular diseases such as diabetes, hypertension, heart disease, stroke, and several digestive diseases, including gastroesophageal reflux disease and its complications (e.g. erosive esophagitis, Barrett's oesophagus and oesophageal adenocarcinoma), colorectal polyps and cancer, and liver disease (e.g. non-alcoholic fatty liver disease, cirrhosis and hepatocellular carcinoma)<sup>10</sup>.

Obesity in adulthood is a powerful predictor of death at older ages. For a forty-year-old female non-smoker, a body mass index of over 30 is associated with 7.1 years of life lost, and for a forty-year-old male non-smoker, 5.8 years of life lost<sup>11</sup>. The Framingham Heart Study also showed that a significant contributor to this lost life expectancy is mortality prior to the age of 70 (Figure 1).

Figure 1: Percentage Mortality between the Ages of 40 and 70 by smoking status, BMI<sup>11</sup>

	Female non-smoker	Female smoker	Male non-smoker	Male Smoker
BMI of 18.5 to 24.9 kg/m <sup>2</sup>	9.36 (7.56–11.59)	18.72 (16.10–21.74)	12.62 (8.73–17.75)	26.72 (23.58–29.73)
BMI of 25 to 29.9 kg/m <sup>2</sup>	13.85 (11.18–16.73)	13.85 (11.18–16.73)	17.43 (12.74–23.07)	29.74 (26.53–33.03)
BMI ≥ 30 kg/m <sup>2</sup>	20.09 (15.34–24.85)	34.35 (24.90–43.84)	22.86 (14.31–32.91)	45.03 (39.11–51.57)

The Organisation for Economic Cooperation and Development noted that in 2014, England had the second highest prevalence of obesity in Europe, after Hungary. Of particular note to clinicians, it estimated the potential impact of various interventions to reduce years disability

adjusted life years lost to obesity; of these, counselling by a combination of dietitians and physicians were the two interventions which could have the greatest impact at population level, ahead of food advertising regulation, fiscal measures, food labelling, worksite interventions, self-regulation, mass media campaigns and school -based interventions. Doctors therefore have the potential to play the most significant role in the control of the epidemic<sup>12</sup>.

Medical triggers, for example a doctor telling a patient to lose weight, have been shown to promote long term behaviour change. The National Weight Control Registry of US is a registry of a self-selected population of more than 4000 individuals who are age 18 or older and have lost at least 13.6kg (30lb) and kept it off at least 1 year. They identified that most registry participants reported a trigger for their weight loss (83%). Medical triggers were the most common (23%), followed by reaching an all-time high in weight (21.3%), and seeing a picture or reflection of themselves in the mirror (12.7%). People who had medical reasons for weight loss also had better initial weight losses and maintenance. Medical triggers were also associated with less regain over 2 years of follow-up. These findings suggest that the period following a medical trigger may be an opportune time to initiate weight loss to optimize both initial and long-term weight loss outcomes<sup>13</sup>.

Obesity at the time of surgery is associated with a very wide range of problems, which were categorised in a recent review into perioperative, intraoperative and postoperative. Problems in the perioperative management of obese patients are mainly related to their respiratory system, such as reduced lung volume with increased atelectasis; derangements in respiratory system, lung and chest wall compliance and increased resistance; and moderate to severe hypoxaemia. Intraoperatively, in addition to additional equipment and continued issues with airway management, obesity is associated with higher block failure and complication rates for regional anaesthesia, open approaches to general surgery where laparoscopic techniques may be safer, and longer operating times. Obese patients have a significantly higher risk of postoperative myocardial infarction, wound infection, nerve injury, urinary infection and pulmonary embolism<sup>14</sup>.

Data collated from survey data from CLiK local adult population survey 2016 demonstrating the levels of the population with a BMI 30+ and smokers :

	Greater Huddersfield	North Kirklees	Kirklees
Either regularly smoke or BMI 30+	57509	51042	108524
Adult population	196912	145596	342508
% of adult population	29.2%	35.1%	31.7%

<b>BMI of 30+</b>					
Greater Huddersfield			North Kirklees		
% of survey sample			% of survey sample		
Age	Male	Female	Age	Male	Female
18-34	15.2%	12.3%	18-34	14.4%	15.9%
35-44	13.5%	9.1%	35-44	24.8%	10.3%
45-54	16.4%	12.0%	45-54	16.4%	11.8%
55-64	11.3%	10.9%	55-64	20.0%	13.4%
65-74	7.3%	9.0%	65-74	11.2%	10.6%
75+	4.2%	4.3%	75+	5.3%	5.5%
Total adults			Total adults		
<b>Current smokers (including occasional and regular smokers)</b>					
Greater Huddersfield			North Kirklees		
% of survey sample			% of survey sample		
Age	Male	Female	Age	Male	Female
18-34	20.7%	21.1%	18-34	20.1%	20.4%
35-44	14.9%	11.8%	35-44	28.7%	12.8%
45-54	20.0%	14.1%	45-54	21.8%	13.7%
55-64	14.3%	13.0%	55-64	21.9%	15.1%
65-74	8.9%	10.1%	65-74	14.2%	12.1%
75+	4.6%	4.3%	75+	6.3%	6.3%
Total adults			Total adults		

Locally smoking rates vary across Kirklees with significant variations across social and ethnic groups. High level data provided by Public Health indicates that approximately 29% of the adult population in Greater Huddersfield are active smokers and / or have a BMI>30+ and rising to 35% of the adult population in North Kirklees; approximately 1/3 of the population fall within this populous across Kirklees.

### 3. What Might be a Reasonable Period for Attempting Lifestyle Modification?

Patients, clinicians and commissioners would need a sufficient length of time for lifestyle modification to have a reasonable chance of success. The messages would also need to be consistent with the current NHS patient information portal, NHS Choices, which notes that a number of smoking cessation interventions, such as nicotine replacement therapy and varenicline, last up to 12 weeks. The Office for National Statistics considers a smoker to have successfully quit smoking at the 4 week follow-up if he or she says they have not smoked at all since two weeks after the quit date<sup>15</sup>. As the above literature<sup>8</sup> described, pre-operative smoking cessation has a 55% chance of success. A six-month period would allow patients to undergo a full attempt of 16 weeks<sup>16</sup> with additional time for consideration of alternative methods and access to interventions available.

In the case of obesity, any policy would need also to be consistent with NHS Choices<sup>16</sup>, and there is the additional dimension of ensuring that the period is not so short that a patient attempts to lose weight at an excessive rate.

A male of average 1.75m height who is morbidly obese, with a BMI of 40kg/m<sup>2</sup>, would weigh 122.5kg, but would weigh 30.6kg less if he reduced to a BMI of 30. Similarly, a female of average 1.61m height who is morbidly obese, with a BMI of 40kg/m<sup>2</sup>, would weigh 103.7kg, but would weigh 25.9kg less if she reduced to a BMI of 30. NHS Choices recommend that

patients lose weight at a rate of 0.5 to 1.0kg per week, so for this risk factor, a twelve-month period would also be considered as reasonable in this instance.

Most of the NHS material is however centred around a 12-week programme; a patient who lost 12kg in 12 weeks, amounting to 10% of BMI in a morbidly obese male, might be considered a relative success. Therefore, a policy consistent with the national literature would be that 10% reduction in BMI would be considered a successful weight loss attempt even if this did not bring the patient below 30<sup>17</sup>.

#### **4. The proposed model across Kirklees**

Greater Huddersfield and North Kirklees CCGs have decided to look at how to implement such a scheme and following a significant scoping exercise decided on the following programme.

For patients 18 and above that have a BMI of 30 and above. They will have a period of up to 12 months' maximum prior to referral or an elective procedure, to reduce their BMI to less than 30 or achieve a weight loss of 10% of overall weight. At the end of the 12-month period or when the weight reduction target has been achieved, whichever is the soonest, the patient will come off the Health Optimisation element of the pathway and will re-join the original pathway for the relevant procedure. Patients will be expected to maintain their weight lose up to their procedure.

BMI is an established measure of weight though it is recognised that muscular people will have a higher BMI that is not thought to be a risk to health (muscle is denser than fat) and adults of Asian origin may have a higher risk of health problems at BMI levels below 25.

##### Waist circumference

Obesity can be measured by waist measurements but it is not yet established in UK clinical practice. NHS Choices website states individuals have a higher risk of health problems if waist size is:

- more than 94cm (37 inches) if you're a man
- more than 80cm (31.5 inches) if you're a woman

Risk of health problems is even higher if your waist size is:

- more than 102cm (40 inches) if you're a man
- more than 88cm (34.5 inches) if you're a woman

For patients 18 and above that actively smoke. They will have a period of up to 6 months' maximum prior to referral or an elective procedure, to stop smoking, and/ or they must be smoke free for a minimum of 4 weeks. At the end of the 6-month period or after 4 weeks' smoke free, whichever is the soonest, the patient will come off the Health Optimisation element of the pathway and will re-join the original pathway for the relevant procedure. Patients will be expected to remain smoke free up to their procedure.

Clinical discretion should be used at any time by the GP or Secondary Care Clinician during the Health Optimisation pathway as to what is meant by urgent or non-routine.

If there is an anticipated safety concern should the patient not be referred or delayed, and this outweighs any benefits from a period of improving health and reducing risk factors prior to any routine operation, then referral should be made using the relevant referral template.

However, if there is more certainty in the diagnosis and routine surgery would be the outcome, and there is some other reason that the patient would not benefit from a Health Optimisation period, then the Individual Funding Request (IFR) process should be followed.

## **5. Engagement and Design**

### **Health Optimisation Patient Pathway and Referral Exclusions**

A Task and Finish Group (TFG) was formed, met with representatives from both CCGs (Clinical and Non-clinical), Public Health and Patient representatives to design and develop the initial Health Optimisation Pathways describing the journey from point of Patient contact through to either discharge and/or listed for surgical procedure. The Pathway was to be reinforced by an agreed Pathway Referral Exclusion.

The membership of this group included five lay representatives from the following organisations; S2R, Kirklees Local TV, Saathi, Honeyzz and Denby Dale Centre

In addition to this the TGF were asked to design and develop appropriate Patient Information Leaflet regarding Health Optimisation.

A draft pathway (Appendix 1) and a list of exclusions (Appendix 2) were subsequently developed based upon the input from all members of the TGF. These exclusions were further adapted to redress issues identified within the Quality and Equality Impact Assessments which continues to be refreshed as the programme develops further.

The pathway applies when making any referral to a surgical specialty. If the patient has a BMI of 30 or above AND/OR they are an active smoker, they should be offered a Health Optimisation period of 12 and 6 months and referral to weight management and/or smoking cessation service before the referral is made unless exclusions apply. If exclusions do apply, it is recommended as good practice to still offer lifestyle advice/support.

## **6. Primary and Secondary Care Engagement**

Due to the sensitive nature of this particular programme we have engaged our primary care providers and GPs through our internal mechanisms through the use of such forums as Clinical Strategy Groups, Council of Members in turn ensuring full ownership from the Clinical Leads of the programme who in turn are GP.

This programme of work has raised a significant variety of opinions, inclusive of both opposition and support to its implementation. Some of the objections have included;

- The ethical element of the programme and its potential to be sighted as discriminatory
- The point at which the patient is informed (either within Primary or Secondary care)
- Lack of clinical evidence supporting the programme
- The appropriateness of the inclusion of children
- The reasoning behind the proposal for the programme being sighted as for financial gain
- The potential impact upon primary care

Some of the supporting opinions have included:

- This being good practice to optimise patient's health
- Potential impact for demand management within secondary care
- A step in an attempt to create a population lifestyle change, within a population with significant levels obesity

- Recognition of timing of patient information being provided to generate greater impact of sustainable lifestyle changes

We have attempted to address a majority of the concerns raised and used the feedback to inform the developed pathways, exclusions and policy behind this programme.

One significant concern, that has been raised in a variety of forums, is that smoking and obesity have higher prevalence in socioeconomically deprived groups which already have poorer outcomes; it is, however acknowledged that it is these behaviours themselves which are significant cause, and reducing their prevalence has in fact been recommended by Department of Health as a means of reducing inequality<sup>18</sup>.

Furthermore, work is underway with Public Health Kirklees to map currently provision of community interventions (smoking and weight management) so as to be able to identify gaps and proactively increase provision available within the areas of need.

We are continuing to work with both Trusts leadership teams to understand how best we can work together on this programme. Previous iterations of the Pathway have been shared with both Trusts for their comments with significant changes made accordingly (Appendix 3). The policing of the pathway raised concerns for the Trusts mainly due to the issues of the CCGs they also serve (NHS Wakefield and NHS Calderdale CCGs) are not currently at the same stage in implementation of Health Optimisation and therefore feel policing such a policy in its previous guise would require significant resource.

The Pathway has been designed to reduce the impact upon both Primary and Secondary Care, with an intention that an adapted referral and dedicated referral support will be able to reduce this initial concern.

## **7. Public and Patient Engagement**

As part of the scoping exercise we needed to understand the needs of people that may be impacted by the introduction of health optimisation. Some initial work had been undertaken during September 2016 – February 2017 by Health Watch Kirklees and both CCGs, which had provided some insight, but as these views were mainly from White British people they were not representative of our communities. And as such this work needed to focus on gaining the views from those people who are seldom heard and those within protected groups.

To support this work, we recruited 13 Community Voices to have conversations within their communities. To gain views on what support and information people would require to help them lose weight or stop smoking. The engagement commenced on 6th March 2017 and ran for 5 weeks. 584 surveys were collected via the Community Voices (Appendix 4)

Community Voices deliver conversations with targeted service users from a variety of local areas, protected groups and communities. Community Voices are individuals working in the voluntary and community sector who are trained to engage with the local population on our behalf. By working with volunteers in this way the response to our conversations has strengthened and increased, particularly amongst seldom heard groups.

## **8. Referral Management and Support**

The Pathways Task and Finish Group (TGF) identified the need for a form of oversight and management of referral processes in and out of the Health Optimisation programme, highlighting the complexities of this element of the pathway which will include multiple community providers, primary care and secondary care with referrals potentially entering and leaving pathways at varying points.

A number of options were explored to deliver the required referral management and oversight which include;

- A. Current providers of the Smoking and Weight Management services managing their referrals individually through an agreed mechanism
- B. Public health, to undertake the management and oversight through the additional funding previously proposed to commission and develop the additional capacity required within the community
- C. NHS Greater Huddersfield work in partnership with NHS North Kirklees in the development of an electronic referral support system (RSS) and service

Options A and B were discussed with Public Health as the commissioners of the current services to further understand the implications, requirements and feasibility. However, these options are deemed not to be viable due to the resource that would be required to deliver them. Therefore, the preferred approach being the implementation of Option C. It has been agreed, if possible to align the Health Optimisation programme with the implementation of RSS, and partnership work in now underway to align the programmes.

It is vitally important to ensure that the appropriate levels of monitoring and referral management process are robust and in place to enable a robust and efficient understanding of the programme, in particular its impact upon patients.

It has been agreed that if this programme was to be implemented that ongoing monitoring throughout the proposed 12 months period for this programme, will enable us to make further decisions if this has the desired effectiveness and viability to continue to be implemented, however it is further recognised that the desired outcomes and patient impact may not be immediately apparent, especially with regards to post procedural impact.

## 9. Smoking and Weight Management Services Capacity

For the successful implementation of this programme there is a potential need for substantial increase in current capacity within the Smoking and Weight Management services.

The service currently commissioned by Kirklees Public Health which could be offered to support those affected by Health Optimisation are;

- **Community Smoking Cessation (CSC)**; Currently provided by primary care and community organisations
- **Tier 2 Weight Management (T2WM)**; Currently provided by Weight Watchers

The CCG governing bodies have agreed to the investment in additional capacity within the existing provisions available to account for health Optimisation related increase in uptake.

Capacity of the current interventions, provided by Public Health, are potentially able to cater for an additional 2500, recognising that, in addition, some patients may already be accessing the services, however there is this programme can potentially impact on approximately 18,000 patients.

Discussions have been held with Public Health and the CCGs Procurement Teams to identify methods of mitigation and ensure that capacity within the associated support services are available. The Public Health proposal to increase current capacity within the communities still did not meet the potential capacity, if all identified patients were to require Health Optimisation at this point. Following further investigation and analysis of the predicted patient capacity required has indicated (based upon data received from HaRD CCG) that there is a significant range to be catered for. This ranges from an approximate 17% increase up to the full potential patient uptake.

It is, therefore, proposed that the programme is implemented utilising the current capacity within Public Health services, concurrently undertaking a tender exercise for an 'Zero Value - Activity based' contract with additional providers via Any Qualified Providers (AQPs).

This approach allows for implementation to be undertaken without significant delay, at the same time as ensuring that intervention capacity could be met if there were to be significant increase in uptake. It is anticipated that the proposed approach would therefore have a period of up to a maximum of 6 weeks between commencement of the referrals and new providers being procured through the AQP framework.

The CCGs will continue to work alongside Public Health, through the use of programme monitoring, to ensure there is strategic alignment with future developments of programmes such as the Wellness Model. The recent draft commissioning intentions presented by Public health are being explored in partnership with the CCGs to identify the potential impact upon both current provision but also the gap that may be created via any new modelling of provision.

## **10. Next Steps**

1. Finalise and dissemination of supporting literature
2. Agree referral mechanisms and process
3. Clinical Education – Primary and Secondary Care
4. Infrastructure and community interventions to meet patient needs – working with Public Health, in line with Equality Impact Assessment
5. Undertake AQP procurement
6. Continue to monitor impact through relevant governance structures
7. Continue to support neighbouring CCGs and feed into Health Futures agenda

## **Appendices**

1. **Appendix 1 – Initial Draft Pathway**
2. **Appendix 2 – Initial Draft Exclusions**
3. **Appendix 3 – Latest draft Pathway**
4. **Appendix 4 - Health Optimisation - engagement report - May 2017 FINAL.**

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