Supplementary Material

Supplementary Table 1: Organisations contacted to participate or distribute survey 1

| Organisation contacted for distribution of survey 1 |   |
|-----------------------------------------------------|--|
| DART                                                |   |
| First Steps Nutrition                               |   |
| Food Foundation                                     |   |
| Good Food Oxford                                    |   |
| Guys and St Thomas’                                 |   |
| Local Government Association                       |   |
| NHS England                                         |   |
| Obesity Empowerment Network                         |   |
| Public Health England                               |   |
| SUSTAIN                                             |   |
| Obesity UK                                          |   |
| Weight Watchers                                     |   |
| ASO                                                 |   |
| British Heart Foundation                            |   |
| Centre for Food Policy                              |   |
| Diabetes UK                                         |   |
| Eating Better Alliance                              |   |
| RSPP                                                |   |
| Weight concern                                      |   |
| British Obesity Society                             |   |
| Obesity Policy Research Unit                        |   |
| UK SBM                                              |   |
| GP Nutrition Group                                  |   |
| BDA                                                 |   |
| LighterLife UK Ltd                                  |   |
| BritMums                                            |   |
| HOOP UK                                             |   |
| HomeStart                                           |   |
| Oxford City Council                                 |   |
| National Obesity Forum                              |   |
| Obesity Action Campaign                             |   |
| HealthWatch Oxford                                  |   |
| Oxford Food Bank                                    |   |
| The All-Party Parliamentary Group on Obesity        |   |
| Research For the Future                             |   |
| Activate Learning                                   |   |
| Manor Surgery in Oxford                             |   |
| Consultant in public health                         |   |
| Oxford Brookes                                      |   |
| Kings College London, THIS institute Research fellow |   |
| Links with Obesity APPG                            |   |
| Department of Health & Social Care                  |   |
| Public Health Registrars                            |   |
| Commissioner of Healthcare Services                 |   |
| Oxford BRC PPI                                      |   |
| Newsletters                                         |   |
| Department of PCHS                                  |   |
| Oxford Martin School                                |   |
| Blue Print                                           |   |
| MedSci Division                                     |   |
| Involvement Matters                                 |   |
| Weight Management Panel                             |   |

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Supplementary Table 2: Full list of 941 original questions submitted in survey 1. 743 unanswered, 49 answered, 149 out of scope.

| No. of questions | The 743 unanswered questions                                                                 |
|------------------|------------------------------------------------------------------------------------------|
| 1                | What are the underlying genetic and physiological causes of obesity?                      |
| 2                | Further research on deepening understanding of factors which influence obesity on an individual basis (psychological, biological, genetic, etc.). |
| 3                | Connection between underlying health issues/genes/metabolic rates that may cause Obesity. |
| 4                | How much is obesity controlled by genetics, physiology etc. as opposed to a person's free will? |
| 5                | What are the underlying mechanisms for the journey to Obesity?                            |
| 6                | What factors are involved in weight related concerns - i.e. psychological/ psychosocial/ physical/ environmental? And which of these play a bigger part in obesity? |
| 7                | What are the social factors that contribute to obesity- and how can they be supported?    |
| 8                | What are the social* and environmental determinants of obesity/body-weight? *This includes how social policies influence incidence |
| 9                | How do we tackle the upstream determinants of diet and physical activity related to obesity? |
| 10               | Fully understanding the reasons for obesity and factors with achieving weight loss.       |
| 11               | What causes you to be obese or what do you think causes obesity?                          |
| 12               | What factors have influenced my weight gain?                                             |
| 13               | Why do we gain weight?                                                                  |
| 14               | What is the root cause of obesity and T2 diabetes?                                       |
| 15               | What other than food affects your weight gain/loss?                                      |
| 16               | What causes Obesity                                                                     |
| 17               | How do genetics affect obesity?                                                          |
| 18               | My family has hereditary obesity issues. Will that affect me certainly?                  |
| 19               | Why do people become obese? Is it genetic? Is it just over eating?                       |
| 20               | What is the effect of genetics on body weight and on what BMI percentile somebody will fall in? |
| 21               | Research into is obesity passed from one from parents?                                   |
| 22               | How can we combat the genetic component contributing to obesity- desire to eat/apetite, less ability to feel satisfied with food, preference for high calorie food? |
| 23               | Is obesity hereditary?                                                                  |
| 24               | Is weight gain hereditary?                                                              |
| 25               | Is obesity genetic                                                                    |
| 26               | How big a role does genetics play in familial obesity?                                   |
| 27               | Is obesity genetic can anything be done to prevent it?                                  |
| 28               | How true is the public belief that they are predisposed to be overweight - the broad sweep statement that genetic factors are to blame for a huge proportion of the weight issues observed |
| 29               | Do genetics play a big part in obesity?                                                 |
| 30               | Are there inherited factors to obesity?                                                 |
| 31               | Is obesity genetic                                                                    |
| 32               | How big a role does genetics play in familial obesity?                                  |
| 33               | Why can some people eat what they want yet others put on weight when they do the same?   |
| 34               | What are the direct effects / mechanisms of poverty in relation to obesity               |
| 35               | What are the impacts of poverty and socioeconomic status on health, on body weight, and on health related stigma? What policy decisions could effectively address and reduce the health disparity and life expectancy disparity between richer and poorer communities in Britain? |
| 36               | What are the key drivers in SES disparities regarding overweight/obesity?               |
| 37               | What is the relationship between poverty and obesity?                                   |
| 38               | Why are people from a lower socio-economic background more likely to have overweight or to be obese? |
| 39               | Is there a link with peoples income and them being overweight?                          |
| 40               | Why is it that some people can eat what they like n not put on weight yet I only have to look at food and the scales go up. |
| 41               | How true is the public belief that they are predisposed to be overweight - the broad sweep statement that genetic factors are to blame for a huge proportion of the weight issues observed |
| 42               | Do genetics play a big part in obesity?                                                 |
| 43               | Are there inherited factors to obesity?                                                 |
| 44               | Is obesity genetic                                                                    |
| 45               | How big a role does genetics play in familial obesity?                                  |
| 46               | Why can some people eat what they want yet others put on weight when they do the same?   |
| 47               | What are the direct effects / mechanisms of poverty in relation to obesity               |
| 48               | What are the impacts of poverty and socioeconomic status on health, on body weight, and on health related stigma? What policy decisions could effectively address and reduce the health disparity and life expectancy disparity between richer and poorer communities in Britain? |
| Question                                                                 | Answer                                                                 |
|------------------------------------------------------------------------|------------------------------------------------------------------------|
| 36  What are the key drivers in SES disparities regarding overweight/obesity? | - Possible factors include genetics, environmental conditions, cultural practices, and socioeconomic status. |
| 37  What is the relationship between poverty and obesity?              | - Poverty can exacerbate obesity due to limited access to healthy foods and resources. |
| 38  Why are people from a lower socio-economic background more likely to have overweight or to be obese? | - Factors include limited access to healthy foods, less recreational space, and less time for exercise. |
| 39  Is there a link with peoples income and them being overweight      | - Yes, income affects access to healthy foods and healthcare, which can contribute to obesity. |
| 40  Why is it that some people can eat what they like n not put on weight yet I only have to look at food and the scales go up. | - This could be due to differences in metabolic rates or other genetic factors. |
| 41  Why we falter/fail when we know weight loss is beneficial          | - Awareness can sometimes lead to distress and anxiety around weight loss. |
| 42  Why do some people gain weight when others do not when consuming similar calories? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 43  Why do some people get fat and others don’t?                      | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 44  Why do some people gain weight and others don’t on the same diet? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 45  Causes of obesity                                                | - Genetic, environmental, and lifestyle factors can contribute. |
| 46  Why do some patients manage to keep significant weight loss off and yet others don’t? Is it because of where their set point is? Is it genetic/epigenetic, or environmental or is it behavioural/psychological differences. | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 47  Who is most likely to recover from obesity, how and why?          | - Age, sex, and severity of obesity can influence recovery. |
| 48  Why some people don’t put on weight even eating unhealthy and excessive food? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 49  Why people in one family on much the same diet vary so much in weight? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 50  Why can’t some people lose weight?                                 | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 51  are some people more prone to obesity, if so why                  | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 52  Which people with obesity will have a good response to behavioural weight management and which will need drugs or surgery to lose weight? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 53  What subgroups of people with obesity respond differently to different behavioural interventions? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 54  Why is weight loss maintenance so hard? [I am a serial offender. Have lost 3stones+ at least 3 times in my life (one of those was 5st) and 2stones+ at least twice.] | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 55  Why is it so hard to keep weight off after you lose it? [I’ve dieted many times and lost a lot of weight.] | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 56  Why do those empty fat cells shout ‘feed me!’ for at least 3 years after weight loss? Can anything be done to shut them up quicker?? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 57  Is the rise in obesity in the general public genetic or a learned pattern of behaviour | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 58  How much of an individual’s weight is due to lifestyle factors, and how much is due to genetics? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 59  How much of an effect is genetics and how much is environmental | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 60  How much of an impact does the environment have on an individual’s weight (e.g. family circumstances, education, SES, availability and access to food), and is there anything that can be done to change this (government policies, retailer interventions, school food policies) | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 61  Why are certain ethnicities at a disproportionate risk? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 62  Can we develop predictors of outcomes that can aid personalising treatment approaches? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 63  What are predictors of weight loss success for a specific dietary or physical activity intervention? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 64  What leads of healthy and unhealthy weight gain in children? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 65  How can we make interventions closer rather than wider gaps in deprived populations | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 66  How do I find information and solutions that apply specifically to me? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 67  Can we assess the cause of people’s weight gain by simple questionnaire in order to target the most appropriate intervention? For example, those who are overweight would need different action, depending on whether the main contributor is a health condition (physical or mental), lack of exercise, financial constraints, making it difficult to buy healthy and filling food at low cost, busy lifestyle/lack of interest in cooking so that a lot of fast food is consumed, etc | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 68  How to study dietary preference in obesity management | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 69  What are the most effective ways to help people who are already obese manage their weight back to health, on an individual basis? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 70  Why can’t I get support for weight issues tailored to my lifestyle? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 71  Can we subtype obesity by cause and use this information to offer more targeted interventions to prevent or reduce obesity? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 72  Why do some people gain weight and others don’t on the same diet? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 73  For those who are found to have a genetic predisposition to obesity what can medicine do to prevent this undesirable outcome | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 74  Why do some gain weight in certain places on the body and not others? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 75  Why does the fat go from where it goes from and which areas will lose first, etc? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 76  Why some people don’t put on weight even eating unhealthy and excessive food? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 77  Why is it so hard to keep weight off after you lose it? [I’ve dieted many times and lost a lot of weight.] | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 78  Why is weight loss maintenance so hard? [I am a serial offender. Have lost 3stones+ at least 3 times in my life (one of those was 5st) and 2stones+ at least twice.] | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 79  Why do some patients manage to keep significant weight loss off and yet others don’t? Is it because of where their set point is? Is it genetic/epigenetic, or environmental or is it behavioural/psychological differences. | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 80  How can we personalised weight management? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 81  Is the rise in obesity in the general public genetic or a learned pattern of behaviour | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 82  How much of an effect is genetics and how much is environmental | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 83  What are the key drivers in SES disparities regarding overweight/obesity? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 84  Are there times in people’s lives that are associated with more weight gain and how can they prevent this? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 85  As we age, do we need to consider consuming less food? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 86  Why is it a struggle to lose the weight after middle age? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 87  When did the individual become obese | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 88  Why is your appetite | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 89  At what age does excess weight begin to adversely affect health? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 90  Does the age at which people become overweight influence person’s ability to lose weight later in life? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 91  What is the lowest level of intervention needed for a response? | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| 92  How can we better understand the effective components of behaviour change interventions | - This could be due to genetic differences, environmental factors, or lifestyle choices. |
| Question                                                                 | Answer                                                                                                                                 |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Is it not what you do but how many different things you do? i.e. the impact of whole systems... |                                                                                                                                 |
| What has worked for you in the past and why you could not maintain your progression? |                                                                                                                                 |
| Are your long term goals? Where would you like to be in 5 years’ time?    |                                                                                                                                 |
| Have you ever tried to lose weight before? How many times? And what was the outcome? - past experiences will help to find better solutions/option for a particular person |                                                                                                                                 |
| How can we maintain healthy behaviour patterns in relation to eating and exercising? |                                                                                                                                 |
| How can I maintain a healthy weight and lifestyle?                      |                                                                                                                                 |
| What characteristics of weight loss interventions are likely to lead to long-term maintenance of weight loss? |                                                                                                                                 |
| What are the evidence-based interventions to maintain weight loss?       |                                                                                                                                 |
| What is the best strategy to keep the weight off, once lost?            |                                                                                                                                 |
| What is the most successful strategy to prevent weight regain?           |                                                                                                                                 |
| Is there any method of weight loss that is reliable in the long term?    |                                                                                                                                 |
| Once I lost some weight how can I avoid putting on again?                |                                                                                                                                 |
| How to maintain the weight loss?                                         |                                                                                                                                 |
| How can we ensure weight loss is sustained in the long term?             |                                                                                                                                 |
| What is the best way to maintain weight loss?                            |                                                                                                                                 |
| What is the best/most effective way of losing weight and keeping it off long-term? |                                                                                                                                 |
| How to achieve sustained weight loss                                     |                                                                                                                                 |
| How to prevent weight gain                                               |                                                                                                                                 |
| Having lost weight do you find it creeps back on and maybe even goes up? |                                                                                                                                 |
| Why do so many people who lose weight regain the weight they lost?       |                                                                                                                                 |
| Research into keeping the weight off, once it has been lost as lots of people manage to lose weight and then put it on again. |                                                                                                                                 |
| Why do we slip back into destructive eating patterns so quickly?         |                                                                                                                                 |
| What is the optimal dose of treatments contact required to prevent weight regain? |                                                                                                                                 |
| How can we maintain the modest weight loss achieved by lifestyle intervention or moderate weight loss achieved by VLED on the long run? |                                                                                                                                 |
| How can we apply a whole systems approach to weight loss maintenance?    |                                                                                                                                 |
| Is there enough focus on transitioning from weight reduction to the maintenance of healthy weight? |                                                                                                                                 |
| Is weight maintenance feasible for any or many pts in weight loss programmes, and is it vital for health improvements? |                                                                                                                                 |
| What is the best way to keep weight off in middle age?                  |                                                                                                                                 |
| What impact does it have on long term weight loss if the whole family is considered and not just the obese person in isolation |                                                                                                                                 |
| Identifying how much support is needed for weight maintenance            |                                                                                                                                 |
| What creates success in weight loss? The dietary change/choice or the long term support? |                                                                                                                                 |
| Research on services and messaging that focuses on behaviour change rather than weight loss |                                                                                                                                 |
| Which dietary strategies produce the most sustainable weight loss?       |                                                                                                                                 |
| Why are weight loss programmes (weight watchers and slimming world) not effective in the long term? |                                                                                                                                 |
| Do we know which approaches to weight loss actually work?               |                                                                                                                                 |
| Effective weight loss                                                   |                                                                                                                                 |
| What effective interventions could we deliver in primary care to help people with overweight and obesity |                                                                                                                                 |
| What Public Health programmes or interventions actually influence people to eat a healthy diet? |                                                                                                                                 |
| How do people lose weight easily?                                       |                                                                                                                                 |
| How can I shift weight easily?                                          |                                                                                                                                 |
| What works to reduce weight?                                            |                                                                                                                                 |
| How to lose weight                                                      |                                                                                                                                 |
| Aside from restriction of calories and using more energy what else can I do to reduce my weight? | For those who are already living with overweight/obesity, what are the most efficacious, cost-effective strategies and how can these be implemented? |                                                                                                                                 |
| How can I make changes in my diet so I can lose some weight?            |                                                                                                                                 |
| Which weight loss methods are the most effective and long lasting? e.g. calorie counting, exercise, group support, portion control, food group’s exclusion etc. |                                                                                                                                 |
| Has the person dieted, was this successful                              |                                                                                                                                 |
| Effective weight loss intervention development                          |                                                                                                                                 |
| How effective current treatments for obesity/obs are there any clinical treatments |                                                                                                                                 |
| How can people lose weight?                                             |                                                                                                                                 |
| What is the most successful diet                                        |                                                                                                                                 |
| What is an easy way to lose weight                                      |                                                                                                                                 |
| How do I lose weight?                                                   |                                                                                                                                 |
| What is the best and correct advice to give to patients                 |                                                                                                                                 |
| Evidence based guidelines for weight loss                               |                                                                                                                                 |
| What actually is the best eating plan to follow? It’s a minefield out there so much advice on tvbooks etc. Is there research that could prove the best eating plan to reduce weight then maintain it healthily |                                                                                                                                 |
| A holistic approach to weight loss                                      |                                                                                                                                 |
| How can we help people change their lifestyles to maintain weight lost with very low energy diets? |                                                                                                                                 |
| Question                                                                 | Answer                                                                                                                                 |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| How effective is schema-focused therapy in weight management?          |                                                                                                                                           |
| How can we better engage people with weight loss services?             |                                                                                                                                           |
| What could sentencers do to encourage you to help yourself??            |                                                                                                                                           |
| What can be done to help people stick to new healthy eating behaviours? |                                                                                                                                           |
| Why is weight loss maintenance so hard?                                |                                                                                                                                           |
| Why is it so hard to keep weight off after you lose it?                |                                                                                                                                           |
| What are the best tools/technologies to help people adhere to long-term dietary and physical activity goals? |                                                                                                                                           |
| How do we get people to eat healthily and reduce obesity?             |                                                                                                                                           |
| How to make lifestyle changes                                          |                                                                                                                                           |
| What is a healthy lifestyle?                                           |                                                                                                                                           |
| How to engage people (children and adults) who are overweight in weight management programs |                                                                                                                                           |
| What are the barriers that prevent people from losing weight?          |                                                                                                                                           |
| What stops you from losing weight?                                     |                                                                                                                                           |
| What do people with obesity think is their biggest barrier to losing weight and keeping it off? |                                                                                                                                           |
| What are the real barriers in engaging the population in healthy eating for their children? |                                                                                                                                           |
| What are the cultural barriers to different BAME communities exercising in green spaces and what interventions can overcome these barriers. |                                                                                                                                           |
| How can we best help and support you?                                 |                                                                                                                                           |
| What support do you need?                                              |                                                                                                                                           |
| Repeated failure                                                       |                                                                                                                                           |
| Would you like to be a healthier weight?                               |                                                                                                                                           |
| What would you like to weigh/achieve                                  |                                                                                                                                           |
| Do you want to lose weight?                                            |                                                                                                                                           |
| ‘Willpower’: Why can some people control what they eat whilst others cannot? |                                                                                                                                           |
| What is the motivation for your desire to lose weight?                |                                                                                                                                           |
| Feel hopeless that can’t get going                                    |                                                                                                                                           |
| How to manage calories. Mind set to lose weight. Healthy eating. Why do we fail? |                                                                                                                                           |
| Why we fail/fail when we know weight loss is beneficial               |                                                                                                                                           |
| What lifestyle management/lifestyle interventions can be effectively delivered in a primary care setting? |                                                                                                                                           |
| Is there a place for group consultations in weight management?        |                                                                                                                                           |
| Are slimming clubs effective                                           |                                                                                                                                           |
| Would the client feel more supported if they had a weight loss buddy, who may also need to lose weight? |                                                                                                                                           |
| To make sure they have a social network so that they can mix with others doing arts and crafts etc. |                                                                                                                                           |
| Do you have good friends you can rely on, who would encourage you to lose weight, and motivate you? - it’s good to have someone who supports you. |                                                                                                                                           |
| Is there a place for group consultations in weight management?        |                                                                                                                                           |
| Is there a space for peer-support groups within weight management?     |                                                                                                                                           |
| How effective are mobile applications in promoting weight loss among obese patients? |                                                                                                                                           |
| Can digital interventions improve both weight loss and weight management, and if so which ones? |                                                                                                                                           |
| Can apps help you lose weight?                                        |                                                                                                                                           |
| Do group activities help weight loss more?                            |                                                                                                                                           |
| How best to manage weight loss in housebound patients?               |                                                                                                                                           |
| Does access to low-cost exercise equipment at home help with weight loss (i.e. mini pedals, which won’t take up much room)? |                                                                                                                                           |
| Exercise [how to exercise without having to go to a gym]              |                                                                                                                                           |
| What is the benefit of a weight-neutral approach to health             |                                                                                                                                           |
| Consider shift towards behaviour rather than weight; review and include evidence that weight isn’t directly related to poor outcomes - genetics & sociodemographic variables have a much stronger influence; effect of weight stigma on health; adopt health at every size approach. |                                                                                                                                           |
| How can weight-inclusive approaches to health be used to reduce stigma and better support improved overall health? |                                                                                                                                           |
| This could make the client feel more confident and it could prevent them from being lonely, which could affect their eating habits. |                                                                                                                                           |
| To constantly be alone at home is not healthy and can lead to bad eating habits and mental health issues. |                                                                                                                                           |
| Group consultations are becoming more popular and we would benefit from understanding where they have the most impact |                                                                                                                                           |
| Peer support has proven effective in other health conditions (e.g. stroke, diabetes, chronic pain etc.) in helping individual’s access necessary support from those with similar lived experience. Ideas can be shared of how to cope with challenges that present with being overweight, and can reduce feelings of isolation (i.e. I’m not alone in struggling with my weight) |                                                                                                                                           |
| What role does social prescribing play in obesity?                    |                                                                                                                                           |
| Is there any evidence that social prescribing can benefit healthy eating? |                                                                                                                                           |
| Do BMI bands help to motivate the public to lose weight?              |                                                                                                                                           |
| Who do people think should be responsible for their health? [Because it’s important that health behaviour change messages come from credible/acceptable sources] |                                                                                                                                           |
| Do you have to be thin (healthy weight) to discuss and treat excessive weight? |                                                                                                                                           |
| What can the food industry do to help the nation’s palate develop healthier preferences? |                                                                                                                                           |
| Would subsidising fresh food lead to increased consumption and improved health? Would cost be offset by savings to NHS? |                                                                                                                                           |
| Research into Public health subsidised exercise and activity classes and their effects on rates of obesity in the respective communities? |                                                                                                                                           |
| If physical authority swimming pools and gym are subsidised or free would the cost be offset by improved health and lowered cost of the NHS? |                                                                                                                                           |
| Which health policies that target the obesogenic environment (e.g. town planning, advertising restrictions, taxation) are most effective at reaching low socio-economic groups? |                                                                                                                                           |
213 What can behavioural insights tell us about working to change the obesogenic environment? How can this complement the whole systems approach to obesity work?
214 How to change the environment so to make it less obesogenic, e.g., fast food shops
215 How can we effectively change the obesogenic environment to promote adoption and maintenance of healthier diet and physical activity habits?
216 What specific strategies help to avoid temptation in an environment filled with food cues?
217 How does the obesogenic environment directly affect obesity rates?
218 Why, despite public awareness, are there so many fast food outlets?
219 How can we change the behaviour of policy makers/town planners to restructure the obesogenic environment?
220 What is the impact of policies looking to change the built environment?
221 Implementation of healthy planning/obesogenic environment
222 How can we change the environment to help prevent obesity? Should we implement more taxes, reduce advertising or do more?
223 How can we make environments less obesogenic?
224 Governance of food environment - thinking in systems
225 How can we adapt our environment to encourage less sedentary behaviour (through town planning/workplace policies/nudges etc.)?
226 Whether it is possible to navigate the obesogenic environment without gaining weight or whether the obesogenic environment is has to change?
227 What do we need to change in the environment to support people to have a healthy weight?
228 Which health policies that target the obesogenic environment (e.g., town planning, advertising restrictions, taxation) are most effective at reaching low socio-economic groups?
229 The obesogenic environment is a fairly new development, so why can’t it be designed away again?
230 The impact on neighbourhoods built to promote active lifestyles on obesity and prevention of obesity.
231 How can better urban planning actually be implemented?
232 Modification of food environment
233 What makes people remain a healthy weight in an obesogenic environment?
234 How do we best prevent obesity in the first place, and how do we best lose weight over time if we have a few extra pounds?
235 How obesity can be "prevented", rather than cured.
236 How to take sufficient, & sustainable preventative measures soon enough in a life to combat obesity
237 How to treat obesity and prevent it
238 What is best way to prevent, is it to never be obese or to fight it later?
239 Have any governments taken effective steps to tackle obesity, and could we learn from this?
240 What kind of public health promotion programmes and campaigns should governments be promoting/investing in?
241 More research into how other countries are managing to avoid having the same proportions of their population as overweight or obese.
242 What policy interventions can influence obesity or other health outcomes related to obesity?
243 What kind of public policy changes are effective at helping people lose weight (e.g., traffic light labelling, calorie counts)?
244 What societal changes could be implemented easily/cheaply/at a local level that would help reduce obesity
245 What community intervention strategies are successful for promoting weight loss in obese populations?
246 Do we have good evidence for community-based weight loss and management interventions?
247 What are the effects of population level or systems level interventions?
248 Is a wider public health rather than a targeted approach better of used at the same time?
249 How can we apply obesity prevention strategies at the population level?
250 What has research shown about if it is easier/cheaper to prevent obesity related diseases?
251 Early screening and intervention. Let’s get creative, appropriate, and effective – what works?
252 Why doesn’t medical intervention (via paid subscription to a club or group) work at 15% overweight, when it’s still possible to see results and do exercise instead of waiting until 100% overweight, when exercise is impossible and loss so low you ever see any end to dieting
253 What is the impact of the development and implementation of national food policies to support healthy weight in public settings such as schools and hospitals?
254 What impact does fast food advertising have on children obesity?
255 Should the government put heavy taxes on unhealthy processed food/drinks and heavily subsidise healthy organic whole food/drinks?
256 What is the impact of increasing sugar tax or other legislation to encourage healthier eating
257 How important are things like sugar tax and food labelling in the prevention of obesity?
258 What is the widely held (including public) opinion on "fat taxing" or strict industry/commercial sanctions?
259 Should food and drinks manufacturers be given a “cap” for products (i.e. limited to so many calories, fat, sugar, etc.)
260 Any research connected to people living with obesity who are serving long term imprisonments?
261 How come side effects differ so much from person to person
262 We know that bariatric surgery is currently the most effective treatment for people with severe obesity (e.g., BMI > 40), yet most people with severe obesity don’t choose this option even when it is available. Why? What options do people prefer?
263 What is the long term consequences of Bariatric Surgery exacerbate in those with an untreated Binge Eating Disorder?
264 How does Bariatric Surgery impact on intimate relationships with patients post-surgery? Exploring gender differences?
265 Do community health care practitioners know how to manage long term post bariatric patients once discharged from acute care?
266 Are patients who have had bariatric surgery receiving the recommended follow up in primary care?
267 For individuals eligible for bariatric surgery, what aftercare support is provided and how long does this support last for?
268 Should dietetic and psychological resources be invested in preoperative settings or in post-operative settings?
269 Statistics to weight gain after so many years
270 What are the energy requirements with and without CVD and/or weight resistance exercise post bariatric surgery?
271 Although I don’t eat much feel my metabolism lowered with band and gain weight very easy
272 What is the short and long term psychological impact of Bariatric Surgery?
273 How best to integrate exercise with commuting
| 328 | How to engage health service staff in recognising and supporting weight problems |
| 329 | What interventions are routinely delivered within the current NHS models of care, e.g. nursing chronic disease reviews? How simple interventions or clinician training might impact. More of a focus on 1:1 interventions as well as Public health interventions. |
| 330 | What strategies can be used by GPs to promote physical activity in obese people? |
| 331 | Do doctors have the information they need to help all weight related issues? |
| 332 | What is the baseline knowledge regarding what a healthy diet consists of in the population? Then look at sub groups, e.g., age groups, depressed, diabetes etc. Also research what doctors knowledge is of healthy eating AND how important it is to health, how much they feel confident to discuss this with patients or have time to. |
| 333 | How confident are health professionals when raising the issue of weight, and what is their current skill level to have these conversations? |
| 334 | How can health professionals be more effectively utilised to support behaviour change conversations during routine interactions? |
| 335 | Consultation skills: confidence and capabilities of health care professionals in raising the issue in any points of contact. |
| 336 | Training and education requirements of different healthcare professionals to advice on nutrition and diet. The role of pharmacists in weight and obesity management. (Split - rest of question used in two other sections) |
| 337 | How can we support implementation of obesity guidelines such that every person with obesity is offered a significant support to reduce their weight with an acceptable change of it working? |
| 338 | Is weight loss through diet or surgery of benefit for patients with type 1 diabetes? |
| 339 | Is weight loss surgery a good option for the severely obese, or would lifestyle changes/diet effect a similar long-term result? |
| 340 | Should the threshold for consideration bariatric surgery be lowered? |
| 341 | Is there any medicine than can control appetite and suppress urges that is safe? |
| 342 | Is there an effective safety inducing drug or other intervention? |
| 343 | About the design of drugs for obesity, should it focus on drugs for weight loss or should it focus on drugs not to recover lost weight? |
| 344 | Where do medications fit in the treatment pathway? |
| 345 | Design of a new obesity measure apart from BMI. |
| 346 | A new ‘BMI’ i.e. we know that BMI is often not relevant. Would be great to come up with a new ‘scoring’ system related to risk with weight. |
| 347 | Why is BMI still used as an indication of healthy weight? |
| 348 | Is the BMI a good guide to healthy weight? |
| 349 | Why is BMI still used to define obesity? |
| 350 | With BMI being the crux of determining whether a person is overweight or not - is this notion now somewhat outdated? |
| 351 | Is BMI a reliable indicator of obesity, or not? |
| 352 | Why obesity seems somehow to be related to height but not frame size. |
| 353 | To produce a better version of a weight measure than BMI. |
| 354 | What better ways are there to assess weight other than BMI? |
| 355 | Accurate diagnostic criteria for obesity. |
| 356 | Is our definition of obesity accurate. |
| 357 | How accurate is a BMI as a guide to health if you are not an average body type? |
| 358 | What is the best way to estimate someone’s healthy weight? |
| 359 | When will a more appropriate classification of obesity be made, focusing on the origin of the disease, which is necessary for a better treatment? |
| 360 | Is the BMI an appropriate way to decide if you’re overweight for everybody, e.g., for BARIe people? |
| 361 | How do I tell if I am a TOFI - Thin on Outside, Fat on Inside (i.e., around vital organs). I might be thin looking but have hidden fat issues. |
| 362 | The role of visceral fat [We are becoming increasingly aware that you can be ‘skinny’ but still unhealthy with regards to general health with high amounts of visceral fat.]. |
| 363 | Clothing size could be used as a measure of weight. |
| 364 | What are the body composition changes post-bariatric surgery with and without weight resistance exercise? |
| 365 | What is the best, simple measure of adiposity in children? |
| 366 | Why is poor quality (highly processed) food so much cheaper than fresh/healthy food and how to get consumers to appreciate the health implications of each? |
| 367 | How can we make whole nutritious food more accessible and affordable than heavily processed foods? |
| 368 | What parts of the global food system are tending to increase the availability of unhealthy foods and what can be done to reverse these tendencies? |
| 369 | The effect on obesity if healthy food were cheaper and not healthy were very expensive. |
| 370 | Decrease price of fresh food to enable people on low budget to stop eating processed foods. |
| 371 | Changing the environment in supermarkets and high streets - how can these organisations be motivated to improve quality of food choices. |
| 372 | How can we make healthier food more accessible, attractive and convenient? |
| 373 | The effect of the availability of various foods on eating choices and how the current system encourages or discourages the production of “healthy foods”. |
| 374 | How can we get nutritional advice/information to those most in need - e.g., low SES, obese. |
| 375 | For people living with financial hardship, do they have access to information on how to eat more healthily for the same amount of money? This is often difficult to achieve. It would be interesting to see what difference education in this area made to outcomes for people and their families. Do people with unhealthy eating habits because of a lack of interest/time to cook, and a tendency to eat fast food, do better if they are educated in ways to make healthy changes that do not take much time and effort? |
| 376 | Health choices can sometimes be expensive can we do more to support cheaper locally sustainable options so that people can make healthy choices more partnerships with supermarket chains. |
| 377 | Why is healthy food so expensive? |
| 378 | Pensioners and the widowed find it difficult to access cheap or food for one meals. How can this be addressed? |
| 379 | What can we do to make healthier food more affordable and appealing to young people? |
380 The sale of baby foods high in sugars continues to be a factor in the obesity of children. How can producers be impacted to produce more healthy foods for children?

381 What research questions need to be addressed to support policy change which leads to stricter industry regulations on the size and composition of unhealthy foods available?

382 Research into whether government funded voluntary schemes for large retailers could help put better choices in front of consumers and change buying habits.

383 What impact does packaging have - for example the packaging of sugary yogurts vs plain yogurts in people’s choices.

384 Should products have a link to what exercise would be needed if you eat/drink a particular product (e.g. walking, running for 30 minutes)

385 What efforts are being made to identify sugar/corn syrup/harmful additives content in food? Why are harmful vegetable oils still being used, especially for take-outs? Can law be passed to embolden the content printing of harmful additives on containers? How about advertisements/doing further checks on school meals. Jamie Oliver did some great ground work. We need follow up. Second part of question used in another section.

386 How is the degree of processing in the creation of pre-packaged foods best identified?

387 Should calories, fat and sugar in items be much more visible on labels and menus (traffic light)

388 How can we change social norms around the consumption of junk food / sugar?

389 The impact of reducing availability of energy dense foods on excess caloric intake

390 How can we encourage restaurants to serve smaller portions (or people to make smaller portions at home)?

391 How can restaurants help with portion control and calorie content of their meals / what impact does this have on obesity levels?

392 Have you heard of a sparetime?

393 How does artificial sweetener affect weight gain or loss?

394 Do we understand the biology of how zero or low caloric sweeteners, particularly diet drinks, effect obesity

395 What role does artificial sweetener intake have on appetite regulation?

396 Do the huge amount of chemicals that are now used in food and drink production methods affect how the body’s metabolism/hormones work, are these unpronounceable chemicals contributing to obesity?

397 Do you eat organic foods? [Do you know the benefits of organic & the harm of pesticides?]

398 Are the nutrient and energy levels compromised in GMO crops resulting in malnutrition?

399 Do GMO’s contribute to obesity?

400 Do vitamin and mineral deficiencies cause or contribute to weight gain?

401 Natural ways to lose weight without dieting - how to lose the stubborn weight e.g. I only have 1 stone to lose not 10 but it’s tough trying to lose it

402 Which is more important on the long run, calorie deficit or macro nutrients composition?

403 Do you see any link with diet and weight loss or weight gain

404 Does the keto diet cause greater weight loss than a non keto diet if the same amount of calories are consumed?

405 What is the right way to eat? High carbohydrate and low fat or High Fat and low carbohydrate? There is much conflicting information. Why is the medical profession so conflicted?

406 What is more effective and healthy, low carbohydrate diets or low fat diets?

407 Does a low carb diet have long term side effects

408 Is a high fat, low carb diet a good way to stop putting weight on the stomach?

409 Is a well formulated LCHF diet healthy in the long term?

410 Is fat or sugar causing the obesity?

411 Is there a direct link between how much processed food is in a person diet to how many ailments may affect them later in life?

412 What is the impact on weight of eating processed foods? E.g. is there a correlation between eating processed food and increased caloric intake or weight gain.

413 Plant based eating for weight loss

414 Are plant based diets associated with obesity prevention, weight loss, and weight loss management?

415 Is vegan a good way to reduce obesity?

416 How much meat should we eat?

417 Can being a vegetarian INCREASE weight?

418 Is it better to be vegetarian or eat meat fish etc.?

419 How to make all of us be more aware of the negative impact of high meat intake

420 Is protein from animal sources bad for our health

421 How much harm does a high protein diet do to your body?

422 Effectiveness of VLCD use in specific cohorts e.g. children/adolescents or pregnancy?

423 I’ve seen press on very low calorie diets. I’d like to know if they really work and if they do, how to do them? Does it have to be under the supervision of a GP or can I simply buy meal replacement products at a pharmacy and get the same results?

424 How alcohol consumption influences weight gain.

425 Low calories versus low carbs?

426 Should we teach mindfulness and especially mindful eating to all? Could this make a difference to how we view food and eating?

427 We need more research into how meditation & self-care practices can reduce emotional (non) eating.

428 Should products have a link to what exercise would be needed if you eat/drink a particular product (i.e. walking, running for 30 minutes)

429 Why is there no huge campaign about conscious eating? Slow eating? Learning to understand the feeling of hunger vs thirst

430 Do you often eat to the point of your stomach being uncomfortable?

431 Is there a way to turn on the “I’m full” switch earlier to avoid overeating

432 After my first diet I went on I got into a bad cycle of dieting or following a plan that doesn’t work and end up binging or coming off the diet. I wasn’t that big in the first place but family members were telling me I was Bonny!

433 What is the rate of eating disordered behaviour in people with obesity, particularly those who repeatedly try to lose weight?

434 What percentage of people are overweight because of disordered eating (i.e. mental health)?

435 The caloric values of food, how can we accurately assess the amount we eat
436 Long term efficiency: Restrictive diets or permissive?
437 If positive messaging about dietary change (e.g., eat more fruit and veg, eat more fibre) more effective at maintaining a healthy weight than ‘negative’ messaging (e.g., eat less, fat, sugar, high calorie foods)?
438 How much weight and how fast is it lost using time-restricted eating?
439 Will intermittent fasting stop obesity
440 Fasting and if that helps lose weight and maintain it.
441 Does intermittent fasting work better than calorie restriction on its own?
442 Is intermittent fasting a good idea?
443 Is the intermittent fasting a truly healthy lifestyle to adopt?
444 Is intermittent dieting/intermittent good for health beyond weight loss
445 Is fasting bad for your body? Either by restricting calories 2 days a week or eating in a 8 hour window
446 What thoughts on keto intermittent fasting
447 Do you know if you want to lose weight you should do intermittent fasting and you shouldn’t eat carbohydrates?
448 How important is the timing of when you eat and what you eat?
449 The best hours (or routines) to eat.
450 How important is the practice of restricted time eating to weight control, metabolic health and well being
451 What is the impact of meal timing on weight, appetite and metabolic outcomes?
452 Late night eating (NE)
453 What foods should I avoid to help lose weight? [Should I be eating more protein after doing exercise and less carbs. It is quite confusing.]
454 Does the time between last meal at night and breakfast, the first meal in the morning have an effect on weight?
455 Is okay to skip breakfast?
456 What impact does work hours (shifts/etc.) have on weight?
457 Which is better for weight loss, the traditional 3 meals a day or snacking throughout the day?
458 Is there really a difference between the different diets you read about in terms of diabetes remission? Can you get the same benefits with weight loss by any means?
459 See 336 Insulin resistance and its role in weight gain and obesity... (rest of question used in two other sections)
459 Are you aware of the role insulin plays in the storage of fat?
460 What other health conditions are directly impacted by obesity, as opposed to correlated with obesity?
461 Are fat cells created after puberty?
462 In the UK the shape of women’s bodies has undergone a drastic change over the past couple of decades. What are the underlying causes, can we identify the people group, and how can we help reverse this?
463 Underlying issues when it comes to why people eat too much and or choose the wrong foods?
464 Look at why we eat from an environmental and behaviour perspective
465 Does my emotional state influences my overeating?
466 Are overeating behaviours linked to emotional states? Do we eat more when happy or sad?
467 How can I disassociate eating from how I am feeling?
468 Research into eating habits and mood swings, i.e. when do they binge. Trigger points.
469 Mental mind set how is this managed?
470 What is lacking (physically, emotionally or psychologically) when someone overeats and can we be taught to obtain this from another source?
471 Why are some people unable to not or stop eating foods they know are bad for their health?
472 Best methods to suppress appetites
473 How is the “I’m full now - you can stop eating” response triggered?
474 Should we start our weight management by sleeping more?
475 What happens in the brain during weight regain?
476 What parts of the brain can we turn off to control the addiction?
477 Is there an answer in neuroscience that actually physically disable the part of the brain responsible for the addiction? We do not become addicted to alcohol/drugs etc. so young because we are not exposed to them, but we are exposed to food, and the pattern is set.
478 Impact of Autism on eating patterns
479 Does stomach muscles have a direct link to satiety? If you have loose stomach muscles due to pregnancy, will you not feel full how much you eat?
480 Energy Requirements for pre and post bariatric patients at various stages after surgery (e.g. 6mo, 12 mo, 18mo, 24mo)?
481 How do changes in body weight and composition influence the energy balance behaviours that may undermine weight management interventions
482 Diagnostic algorithm for cardiovascular risk stratification in patients with obesity
483 How much does the microbiome affect absorption and which foods (if any) can keep it at its optimal level
484 The mechanisms behind the effect of the gut microbiome in obesity development.
485 To look at the microbiome of level 3 weight management services and see if they carry particular obesity genes and to see what the diversity of their gut microbes look like.
486 How does the microbiome influence body habitus - using metagenomics could contribute to this question
487 Can faecal transplant impact weight
488 Does healthy bacteria in the intestines affect / reduce weight gain?
489 Can improving gut bacterial alongside dietary/exercise interventions help increase weight loss and maintain weight loss?
490 How can we change our gut microbiome to help maintain a healthy weight
491 The best forms of pre- and pro-biotics to improve health and facilitate weight loss.
| 492 | What effect does GOS supplementation have on the adverse outcomes of obesity? |
| 493 | Can obesity cause or contribute to cancer and dementia? |
| 494 | To explore the relationship between the over-consumption of antibiotics and the increase in obesity. |
| 495 | Can some antidepressant medications cause weight gain? |
| 496 | Which, and by how much, do prescribed medications adversely affect the patients weight? |
| 497 | Impact of medications on obesity |
| 498 | What is the best way to lose weight while checking serum? |
| 499 | The effect of obesity on other health issues including dementia, arthritis, etc. |
| 500 | Does losing weight reduce the risk of cancer and how much weight do you need to lose? |
| 501 | Does weight loss reduce the risk of heart failure in people with known heart failure? |
| 502 | Do patients with mild/moderate heart failure benefit from weight loss interventions? |
| 503 | Do obese people have more digestive problems than normal weight people? |
| 504 | Weight loss plans for those with IBS and Diverticulitis and gluten intolerance |
| 505 | Does one specific type of diet work for a single disease (e.g. a vegan diet for CVD)? |
| 506 | Relationship between obesity and osteoarthritis (if any) |
| 507 | How obesity affects bone health |
| 508 | Impact on joints |
| 509 | What impact does maintaining a healthy weight have on mobility (knee joints etc)? |
| 510 | Knee wear |
| 511 | Hip wear |
| 512 | In older adults exercise can be difficult due to rheumatic issues. How should diet accommodate this? |
| 513 | Is it better to aim to be slightly underweight to reduce stress on the joints in old age? |
| 514 | The relationship between long term illness and weight gain. |
| 515 | Pain and obesity, eating as an avoidance strategy for pain? |
| 516 | Why do women with polycystic ovaries often put on a lot of weight? |
| 517 | What effects do hormonal changes have on weight and how can one differentiate between gain due to hormones vs diet? |
| 518 | What level of BMI reduction is required to significantly increase the chance of ovulation for obese women with a menorrhoea as part of PCOS? |
| 519 | How effective is weight loss as a treatment for PCOS? |
| 520 | What is the effect on weight gain of the removal of half of a thyroid gland and 16 months later a hysterectomy with the removal of ovaries? |
| 521 | Under treatment of undiuretic thyroid: is there a need to review current guidelines and treat 'subclinical' hypothyroidism? |
| 522 | Do you have any medical condition, e.g. thyroid problems, which might cause obesity? |
| 523 | Do you feel you have become obese as a result of medical/physical condition or some other factor? |
| 524 | Why have I had a lifelong struggle with my weight, despite not over eating? (I have only recently found out I have lipedema. If I had known this earlier, things might have been different.) |
| 525 | What motivates and facilitates people with chronic illnesses who are overweight or obese to lose weight? Which biomedical and socioeconomic barriers do people face, that prevent them from being able to lose weight and what can be put in place to overcome these obstacles? |
| 526 | What effects do I have on the heart? |
| 527 | If my type 2 diabetes is in remission (blood-sugar levels 5.4 or lower), am I still diabetic? |
| 528 | Does the amount of sugar eaten worsen liver disease? |
| 529 | Is red meat bad for liver disease? |
| 530 | What is the impact of diagnosing non-alcohol related fatty liver disease as a motivator for people to lose weight? |
| 531 | What evidence is there that children and teenagers post liver transplant will find it challenging to maintain a healthy weight? |
| 532 | Are obese people more likely to get colds? |
| 533 | Why do some men have man breasts? (People suffer mental health issues due to this) |
| 534 | How much does obesity limit and impact our life? |
| 535 | What impacts does obesity have on health? |
| 536 | The role in obesity in relation to prevention of ill health? (Because prevention at an early stage will help improve the quality of life for a vast number of people) |
| 537 | By how much does being obese affect your predicted lifespan? |
| 538 | What is the life expectancy of obese people as compared to similar individuals who are not overweight? |
| 539 | What is the impact of obesity on people’s lives including their life opportunities? |
| 540 | The physiological impact of early menopause and weight gain. |
| 541 | Understanding of why women put on weight before menopause when never previously struggled with weight |
| 542 | What is the effect of hormones during and after menopause on weight gain? |
| 543 | Why is weight loss so hard post menopause? |
| 544 | I’ve now come through the menopause and it is even more difficult to maintain a steady weight. |
| 545 | Heavy/abnormal periods and whether they are weight related or not |
| 546 | Hormones/hormonal process. How they affect? Are these changes real? How could we counteract effects? Hormone injection for weight loss? |
Supplemental material

547 The relationship between testosterone levels and visceral fat?
548 We know there is a relationship between high levels of visceral fat and low testosterone levels, and this is also associated with higher CVD risk. Is the converse true? Are higher levels of testosterone associated with lower levels of visceral fat and/or overall CVD risk?
549 What impact do male/female hormones have on appetite/weight/metabolism?
550 Does a baby in utero have a higher risk of becoming obese if Mum is obese during pregnancy?
551 How targeting prenatal development can reduce obesity risk
552 How can we prevent young women gaining excessive weight, including during and between pregnancies.
553 What is the effectiveness of weight management programs in the postnatal period and does this lead to a reduced BMI in subsequent pregnancies?
554 Weight increase in pregnancy
555 What is the most effective method to reduce gestational weight gain in obese women?
556 We’re you breastfed as a baby? [As a mother who has struggled with breastfeeding but has persevered due to the many health benefits, I would like to know more and to have better research on the impact of breastfeeding and weaning on obesity later in life.]
557 Does educating school children about how to make healthy eating choices, prepare nutritious food quickly, and shop for healthy food at a low cost make a difference to their overall health and weight in the long term?
558 Does educating children within schools on healthy eating help prevent obesity?
559 Do you think if prevention was started in primary school your outcomes would have been improved?
560 How to prevent obesity in young people and informal schools?
561 What more can be done at a primary school level to tackle obesity?
562 Are children educated about this topic
563 How to avoid childhood obesity and help child stay a healthy weight
564 What are the most effective health promotion interventions to halt weight increases in children between the ages of 5 and 11?
565 Which specific factors within health promotion interventions to promote healthy weight on school aged children are effective?
566 Why/how/what has had an impact on the areas where we are seeing a reduction in childhood obesity?
567 How can we reduce childhood obesity and make sure children grow up with healthy diets?
568 What are the most effective interventions for the prevention of childhood obesity globally and are they implementable in the UK?
569 Weight in children
570 Policy to promote healthy lifestyle and physical exercise from early age
571 What age does healthy eating need to be established in order to prevent adult obesity?
572 What works in preventing childhood obesity? What works to help people maintain a healthy weight? What works long term to help people lose weight? The influence of mind over body in obesity?
573 Childhood obesity prevention
574 How can childhood obesity be prevented?
575 How to prevent obesity in young people and informal schools?
576 Should counseling be provided to school children who are overweight?
577 Maintenance of a healthy diet, with group counseling all the way through school.
578 Should schools place a higher priority on nutrition education and cooking skills?
579 Would increasing the provision of home economics e.g. cooking skills, budgeting skills, reduce the incidence of adult/childhood obesity?
580 Would better nutrition/cookery courses throughout a child’s whole school life make a difference to their understanding of healthy eating?
581 What are the essential elements of school food education programs that help children learn positive food behaviours?
582 How can we educate/promote sensible choices from childhood when sugar is everywhere? Would this make more sensible adults?
583 How can effective school food education programs be leveraged to influence the home environment?
584 How do we encourage parents to establish healthy eating habits in their kids?
585 Are parents educated to the consequences of bad eating habits in their children?
586 There is a need for greater funding for personnel and locations for education of parents regarding healthy nutrition. How can this situation be reversed and made more of a priority?
587 How to help families with children under the age of 11 avoid their children putting on too much weight.
588 How can we best support children and families to change long term behaviour for weight loss?
589 How do we engage parents in meaningful conversations to raise the topic of overweight/healthy growth in an effective manner?
590 What is the best way to encourage children to eat healthily?
591 How can we most effectively engage with an adolescent population regarding diet & exercise?
592 Diet and weight in adolescents.
593 How best to engage teenagers in exercise programmes?
594 What can we do to keep children active into adolescence and adulthood?
595 Would a 1 hour of physical activity / sport per day in state schools lead to improved health and obesity levels in children and adolescents and improved habits and health into adulthood? (97% of school population in the state sector. Independent schools already spend more time doing sport than state schools.)
596 Strategies to prevent weight gain - young adult
597 What support is best for obese teenagers?
598 How to prevent childhood obesity - particularly in UK ethnic minorities and deprived populations.
599 How do we iron out the social gradient in obesity prevalence, particularly in children?
600 Children between 1 year and 4 years are found to be overweight by health visitors. They do not qualify for a healthy weight and exercise programme until they are 4. What are the best ways of managing these children?
601 Practical education and will help confront the problem and bring resolution. Group therapy is effective amongst a group of people who experience great social difficulty.
602 How to encourage Healthy meals uptake in school settings
603 Is adult obesity related to parental attitudes to food and eating?
Can we improve coded weight/height/BMI data for children in the GP record? I have an interest in Childhood obesity and would be interested in considering opportunities that would help to code weight related data in the primary care record. There are currently over 27,000 children aged 0-16yrs with registered GP practices in Oxford alone, of these only 19 children had recorded BMI >25, yet we know through NCMP data the prevalence of higher weight status far exceeds this, plus we know very few contacts with families through current programmes for tackling this (e.g. 2019 NCMP only generated 4 referrals in Oxfordshire).

What are the current effects of the National Childhood Measurement Programme in terms of weight trajectories, health care usage, and mental health?

Is NCMP fit for purpose if, as in many places, it is to become a screening programme/pathway into child weight management?

What are the repercussions of obesity in childhood, in later life?

Does obesity impact on children's long term educational outcomes?

Does obesity impact on children's long term life chances?

How does obesity impact on children's happiness, confidence and mental health?

To explore the relationship between adverse childhood events (ACES) and obesity at a population level.

The relationship between ACE and obesity (either childhood development or adult).

Did you have an easy/stress free childhood?

Do childhood or adolescent negative events have an impact on unhealthy eating?

Is there a connection with mental trauma in childhood to obesity?

We need more research into the role of childhood trauma in causing obesity and/or weight related issues in adulthood.

Childhood trauma and being morbidly obese.

What treatments for obesity should be available to children/adolescents?

What effective management options are there for paediatric obesity - who should people be referred to/supported by? And how widely available/accessible are these currently?

...Is there any improvement in the figures for schools which provide lunches/boarding schools? (First part of question answered see 748)

[What efforts are being made to identify sugar/corn syrup/harmful additives content in food? Why are harmful vegetable oils still being used, especially for take-outs? Can law be passed to embolden the content printing of harmful additives on containers? How about advertisements/denying further checks on school meals. Jamie Oliver did some great ground work. We need follow up. (First part of question used in another section)

How to get the rest of your family on board with supporting you in your efforts to transition to a more healthy routine.

How do participatory approaches with families within the community setting influence implementation and influence on healthy weight behaviours?

Parents often do not engage with healthy weight programmes because they deny their children are overweight. How can parents be more active in recognition of overweight children?

How much is related to socially and family dysfunctional lives.

How do we assess and monitor diet quality in infants, older children and adolescents in a valid, robust, consistent and pragmatic way?

How much is related to socially and family dysfunctional lives.

How do I make quick and easy meals with minimal effort so that I lose weight?

What terms could be used instead of obesity to describe the policy area?

What can be done to change society's attitude towards obese people?

What are the consequences of weight stigma on physical health?

How can obesity impact on children's happiness, confidence and mental health?

How does obesity impact on children's long term life chances?

Does obesity impact on children's long term educational outcomes?

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What are the current effects of the National Childhood Measurement Programme in terms of weight trajectories, health care usage, and mental health?

Can we improve coded weight/height/BMI data for children in the GP record? I have an interest in Childhood obesity and would be interested in considering opportunities that would help to code weight related data in the primary care record. There are currently over 27,000 children aged 0-16yrs with registered GP practices in Oxford alone, of these only 19 children had recorded BMI >25, yet we know through NCMP data the prevalence of higher weight status far exceeds this, plus we know very few contacts with families through current programmes for tackling this (e.g. 2019 NCMP only generated 4 referrals in Oxfordshire).

What are the current effects of the National Childhood Measurement Programme in terms of weight trajectories, health care usage, and mental health?

Is NCMP fit for purpose if, as in many places, it is to become a screening programme/pathway into child weight management?

What are the repercussions of obesity in childhood, in later life?

Does obesity impact on children's long term educational outcomes?

Does obesity impact on children's long term life chances?

How does obesity impact on children's happiness, confidence and mental health?

To explore the relationship between adverse childhood events (ACES) and obesity at a population level.

The relationship between ACE and obesity (either childhood development or adult).

Did you have an easy/stress free childhood?

Do childhood or adolescent negative events have an impact on unhealthy eating?

Is there a connection with mental trauma in childhood to obesity?

We need more research into the role of childhood trauma in causing obesity and/or weight related issues in adulthood.

Childhood trauma and being morbidly obese.

What treatments for obesity should be available to children/adolescents?

What effective management options are there for paediatric obesity - who should people be referred to/supported by? And how widely available/accessible are these currently?

...Is there any improvement in the figures for schools which provide lunches/boarding schools? (First part of question answered see 748)

[What efforts are being made to identify sugar/corn syrup/harmful additives content in food? Why are harmful vegetable oils still being used, especially for take-outs? Can law be passed to embolden the content printing of harmful additives on containers? How about advertisements/denying further checks on school meals. Jamie Oliver did some great ground work. We need follow up. (First part of question used in another section)

How to get the rest of your family on board with supporting you in your efforts to transition to a more healthy routine.

How do participatory approaches with families within the community setting influence implementation and influence on healthy weight behaviours?

Parents often do not engage with healthy weight programmes because they deny their children are overweight. How can parents be more active in recognition of overweight children?

How much is related to socially and family dysfunctional lives.

How do we assess and monitor diet quality in infants, older children and adolescents in a valid, robust, consistent and pragmatic way?

How much is related to socially and family dysfunctional lives.

How do I make quick and easy meals with minimal effort so that I lose weight?

What terms could be used instead of obesity to describe the policy area?

What can be done to change society's attitude towards obese people?

What are the consequences of weight stigma on physical health?

How can obesity impact on children's happiness, confidence and mental health?

How does obesity impact on children's long term life chances?

Does obesity impact on children's long term educational outcomes?
654 Why aren’t people living with obesity given the same consideration as others with chronic diseases?
655 Are overweight people less likely to receive appropriate health investigation as obesity is seen as causative first, rather than following the same diagnostic route that you would immediately follow with a person whose weight is considered normal/acceptable?
656 Why are people who are obese not given the same access to healthcare? People who are obese are blocked from receiving NHS surgery by virtue of their weight. Why is the NHS discriminatory against obese people in the supply of surgical procedures?
657 Does obesity stigma influence healthcare professional referral practices?
658 Is access to primary care compromised for people classified as overweight or obese because GPs tend to focus on that rather than the concern/symptom the patient actually presented with?
659 Explore whether how all healthcare professionals are trained around obesity perpetuates weight stigma attitudes which are then reflected in their delivery of care
660 What words used in a GP consultation influence a person’s desire to change their eating habits? (Evidence based)
661 How can GPs tackle consultations regarding weight loss in the most sensitive manner? Should the emphasis be on diet as opposed to weight at all?
662 Are you happy with your weight?
663 I, as an individual, have been received as better thin than fat.
664 Do current BMI bands and definitions make sense to the public?
665 What forms our image of a healthy body and how can this be used to promote a healthy weight and how society be educated in what is a healthy body weight?
666 Why is obesity accepted as a norm and not treated as a serious problem?
667 Is society’s acceptance of obesity creating a feeling in the obese that it is okay to neglect yourself in the way?
668 Is the body positivity movement ok? Is it ok to celebrate morbidly obese body shapes?
669 What role does constant media talk of the obesity crisis or ‘drain on NHS’ have on weight bias and perpetuating obesity?
670 How does the internet, and specifically social media, affect the drive to eat?
671 Does social media influence eating behaviours?
672 What role has the media played in causing obese people to have low self-esteem?
673 How much is obesity related to education and personal responsibility?
674 Why don’t people who are obese make an effort to lose weight? Is it a lack of dietary understanding; poor motivation; or acceptance of their body image?
675 Why do people continue to be obese, when we have plenty of evidence to tell people how not to be?
676 Is it a mind-set problem that causes people to be obese and not deal with it?
677 What role should personal responsibility play in obesity discussions?
678 Why is there not more emphasis on personal responsibility when it comes to weight control?
679 Why don’t people take ownership of their own health practices
680 What is the link between depression and being overweight?
681 How does being overweight make you feel?
682 Mental health and obesity
683 The psychological reasons that trigger obesity
684 What is the psychology behind obesity?
685 How would you relate your weight to your mental health?
686 Mental Health issues, probably also relates to question above
687 Correlation of mental health issues with obesity.
688 Tidally life changing after being depressed about weight gain
689 How does obesity affect mental health?
690 What causal mechanisms link the social experience of obesity to poor mental health outcomes?
691 Have you considered obesity as a mental health issue, as well as a physical one?
692 Is there a non-physiological trigger for obesity (such as a psychological trigger like bullying which lead to comfort eating)?
693 Is there any correlation between mental health illness and obesity?
694 The physiological impact of stress and weight gain.
695 What are the effects of diet culture and a focus on weight loss on individuals’ mental health?
696 What are the physical and mental health effects of repeated dieting
697 How have past diets impacted on my health?
698 What is the impact of repeated dieting on health?
699 Understanding the impact of repeated attempts to change lifestyle habits e.g. is there a parallel with quitting attempts
700 How does often perspectives on a person’s weight impact their mental health?
701 Why are there so many physical, mental and emotional implications from being overweight?
702 Why is obesity detrimental for people?
703 What is the effect of obesity on self confidence
704 Over-giving to others as a defence against low self-esteem and driver of obesity
705 How do you feel as a fat person? How do people view you as a fat person? Do fat people smell? Are thin people better than fat people?
706 How does obesity affect social behaviour and self-esteem?
707 How does being obese impact social interactions, and how obese people feel they are perceived?
708 We need more research into how, if we help individuals identify and understand how they are feeling, that aids a reduction in emotional (non) eating.
709 Can interventions that address emotional or social overeating be effective?
710 Does therapy help to eliminate emotional eating?
711 How to break the habit of using food for comfort.
712 What mental health/emotional support best helps a person living with obesity?
713 Overcoming psychological barriers to weight management - can this lead to weight loss when the focus is not on weight?
| Question                                                                                     | Answer                                                                 |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| How can the psychological component of obesity be addressed?                               | Are self-image, self-care and self-confidence sufficiently taken into account in current weight reduction and healthy weight programmes? |
| Mental health...why is this so important when losing weight? Would a diet based in mental support only be as effective? | Research further: Eating is used as a psychological avoidance strategy to avoid contact with past trauma which causes beliefs /feelings of “I’m not ok or I’m empty” and as a way of avoiding experiencing present feelings and negative thoughts? |
| To look at the impact of trauma focused therapy upon weight loss                            | How to maintain good mental health when struggling with your physical health - in this case, obesity. |
| To ask when the client first started eating more food.                                       | How do I get surgery on NHS my dr says I’m depressed and my health suffering |
| How should weight management services and pathways be optimised for populations with serious mental illness? | The link between obesity and depression is well known. Yet why is it, in the absence of thorough investigatory medical care, antidepressants are prescribed to obese people without explanation that these drugs will contribute to weight gain? |
| Part of q 336                                                                                 | Weight gain and obesity in severe mental illness - how do we manage this? (Question used in two other sections) |
| Do you eat when you are stressed?                                                           | Are you stressed? Do you think you are on top of things in your life? What is work like? |
| Tackling stress to affect obesity                                                             |                                                                 |
| How can we reduce or prevent the impulse to eat in people with obesity?                      |                                                                 |
| Is sugar addictive?                                                                          |                                                                 |
| Helping obese people psychologically to overcome food addiction                              |                                                                 |
| How does the addiction to food becomes an issue so young?                                    |                                                                 |
| How do you stop food addiction                                                               |                                                                 |
| How can you turn off the sugar cravings?                                                     |                                                                 |
| Treatments to modulate hedonistic behaviours - salt intake, confectionery intake, etc        |                                                                 |
| What does sugar do to your body and why do I crave it?                                       |                                                                 |
| Does sugar make you fat?                                                                     | Understanding of body treating all carbs as sugar. Seems hard to believe that bread and a chocolate bar can both be treated by the body as sugar |
| How to minimise late night comfort eating                                                   |                                                                 |
| Why do some people crave carbohydrates and do some people react differently to certain carbohydrates. |                                                                 |
| Do you eat when you aren’t hungry?                                                          |                                                                 |
| Why do people eat when they’re not hungry?                                                  |                                                                 |
| What is the link between emotion and consumption? Is there a biological driver?              |                                                                 |
| How unhealthy eating, mental health and alcohol misuse interplay. What is the most effective way into tackling this? |                                                                 |
| Can overeating be seen as a type of self-harm?                                               |                                                                 |
| Obesity vs waist circumference and waist to hip ration for a marker of CVD in adolescent men |                                                                 |
| Has the decline in teaching Food and Nutrition in senior schools had an impact on the diet of society? |                                                                 |
| Why aren't we teaching children about proper nutrition in school? Nutrition that is based on the latest research, not 30-40 year old findings. |                                                                 |
| Is there a link between social deprivation and childhood obesity?                            |                                                                 |
| Which groups of kids are most likely to be obese in school (socio economic background, ethnicity, gender, etc.), how does this correlate with their mental health and performance? (second part of this question (not written here) is unanswered and has been taken forward) |                                                                 |
| Do weight loss initiatives and diets actually work? What are the associated risks?          |                                                                 |
| Calories, carbohydrates, low fat, high starch, sodium, points, there must be one method that actually works, without vast expense, thinking of how many have to rely on cheap food, and leaves you not hungry all the time. |                                                                 |
| Will eating more fruit and veg make the energy last longer                                  |                                                                 |
| Does drinking water help you lose weight?                                                    |                                                                 |
| What is being done to work with industry to reformulate recipes to be less calorific?        |                                                                 |
| How obesity affects fertility                                                                |                                                                 |
| impact on fertility?                                                                        |                                                                 |
| Why do men lose weight much quicker than females?                                         |                                                                 |
| Is this something that research may discover something that could help females?              |                                                                 |
| What are the best (short - medium) outcomes to show the effectiveness of weight management in pregnant women? |                                                                 |
| How has pregnancy and have a child affected your weight?                                    |                                                                 |
| The effect of rapid weight loss on your health                                               |                                                                 |
| Is being underweight better than being overweight?                                          |                                                                 |
| The rise in bowel cancer and obesity- is there a causal effect or just a correlation?       |                                                                 |
| Is being over weight linked to cancers - which ones?                                        |                                                                 |
| Need to emphasis the importance of rapid weight loss in ending diabetes.                     |                                                                 |
| Relationship between obesity and diabetes?                                                   |                                                                 |
| Diabetes                                                                                    |                                                                 |
| Diabetes and nutrition, and how to prevent or reverse type 2                               |                                                                 |
| How much weight loss is needed to prevent those at high risk developing T2DM?                |                                                                 |
| Type 2 diabetes now gone                                                                     |                                                                 |
| Does obesity cause, rather than is it associated with, adverse outcomes?                    |                                                                 |
| How does obesity affect your health?                                                        |                                                                 |
| Question                                                                 | Answer |
|-------------------------------------------------------------------------|--------|
| What evidence is there for the ways in which weight affects various disease processes? |        |
| What is the best way to avoid obesity-related disease?                  |        |
| How much weight gain is permissible before I am at a risk of diseases?  |        |
| What are the five most common health complications that arise from obesity? |        |
| How does weight impact on chronic illness and function?                |        |
| What is the link between obesity and ill health/disability?            |        |
| What is the related medical condition?                                 |        |
| What is the relationship between obesity and longevity and is there a genetic tendency to obesity? |        |
| Genetically are we becoming inbred?                                    |        |
| What are the risks relating to gastric band?                           |        |
| What is the link between obesity and illness/disability?               |        |
| What is the best second line treatment for late gastric dumping post surgery? |        |
| Failure of procedure                                                   |        |
| Complications of procedure                                            |        |
| Psychological interventions being offered routinely within weight management services in the UK? |        |
| How does stigma around weight and obesity contribute to difficulties initiating weight loss? |        |
| What impact does weight stigma have on those trying to lose weight?    |        |
| How do mental attitudes impact on people's ability to lose weight?     |        |
| Weight stigma and the experience of the overweight/obese              |        |
| What is the correlation of certain amount of physical activity (run, walk, etc.) with the calories we burn? |        |
| Would psychological counselling regarding eating behaviours make people more likely to lose weight and maintain it? |        |

149 out of scope submissions (15.8% of all submitted questions): out of scope / not a research question / too broad / not obesity related / opinion based / unclear/ unclear but similar question included research question above.

| Question                                                                 | Answer |
|-------------------------------------------------------------------------|--------|
| What is your correct weight bearing in mind BMI?                       |        |
| How do I find out what is normal and healthy for my age and gender?     |        |
| How is obesity measured?                                               |        |
| Why do you think you are overweight?                                    |        |
| Should obesity be considered a disease?                                 |        |
| Staging of obesity                                                     |        |
| What is obesity? Specific definition and subtypes.                      |        |
| How to encourage Healthy meals uptake in school settings.               |        |
| How much damage to our bodies and how they work do fad diets actually achieve? Are we not just chasing an expectation that doesn't exist? |        |
| How to navigate and choose the best diet type?                         |        |
| Do you know the three macronutrients?                                  |        |
| How can I get past health information on food products to understand what is bad in them, not just what is good? |        |
| Healthy diet promotion and education                                   |        |
| Why is sugar so freely available?                                       |        |
| Why, as consumers, are we sold unhealthy food to eat? If trans-fatty acids are as bad for our health as is now being said why is the medical profession, the government and the authorities not informing people? Why are they not preventing the sale and banning the production of processed foods containing these fats? |        |
| What are the corporate determinants of obesity/body-weight?             |        |
| How do we get government to implement more effective policies regarding selling and producing unhealthy food etc. |        |
| How does obesity policy fit into wider public health policy?           |        |
| When was the latest guidance on nutrition in obesity published and who recommended/reviewed it. |        |
| What is the current and best guidelines to use                         |        |
| How much natural, non-processed food do you eat?                       |        |
| The only downfall is the excess saggy skin is it possible to be 'overweight' but still in good health? |        |
| Does a 'healthy' BMI always reflect healthy physiology? Can you be overweight and healthy? |        |
| Can one be healthy at any weight?                                       |        |
| My parents are both type 2 diabetic, lifestyle-induced. Does this mean I am certain to be as well? |        |
| Do you have any medical/physical conditions                           |        |
| Should obesity be recognised as a disease?                             |        |
| Is it calories in and then exercise means calories out?                |        |
| How can we bring more 'eating behaviours' interventions into standard practice? |        |
| Do we need to focus on body weight or risk factors/health?             |        |
| Lap band had 12 years ago worked but broke last Feb had removed had bypass in june in latvia at much expense dudt work |        |
| Will there be a miracle cure in the future?                            |        |
| Is there a 'cure' for obesity?                                         |        |
| What are the psychological contradictions for Bariatric Surgery?        |        |
### Supplemental Material

| 827 | Should there be more psychological assessment available for those with obesity other than those with diagnosed eating disorders? |
| 828 | Post-operative psychological advice is lacking. This is only open to specific individuals. Other than funding, why has this not been identified as an integral part of the bariatric process? |
| 829 | Would psychological counselling regarding eating behaviours make people more likely to lose weight and maintain it? I am about to start a program of counselling as a prerequisite for bariatric surgery. I have also had experience with Overeaters Anonymous. I feel that half the battle when it comes to obesity is mental & emotional. |
| 830 | Can obesity now be labeled as an eating disorder as it is without a doubt a disordered eating and results from many of the same complex psychological, emotional and behavioural issues as anorexia, bulimia, etc. and can have equally devastating results mentally and physically. |
| 831 | Psychologically informed services, training etc. |
| 832 | Do fat people need to feel bad about themselves? |
| 833 | Do you enjoy food? |
| 834 | To ask the client how they think they would feel if they were able to lose weight and what they miss doing the most. |
| 835 | Do you require and emotional or psychological help or guidance? |
| 836 | Are you happy with your size? |
| 837 | Can increased metabolism rate mean you can eat more food? |
| 838 | On a scale of 1 to 10 (with 10 being the happiest), how happy are you with your weight? |
| 839 | What would make it a 10? |
| 840 | What could we do to help you make it a 10? |
| 841 | What could you do to help you make it a 10? |
| 842 | What do you already understand about obesity and weight management? |
| 843 | How do you speed up your metabolism? |
| 844 | Are there safe drugs available to treat the condition? |
| 845 | Are there safe drugs available to treat the condition? |
| 846 | Is there a magic pill that you can take to lose weight? |
| 847 | Successful interventions for disorders which lead to weight loss? |
| 848 | What is the impact on the offspring of mum having hyperglycaemia in pregnancy? |
| 849 | How and best to support our most difficult patients |
| 850 | Does malnutrition (diet of poor nutritional value) increase the risk of obesity? |
| 851 | Does the person do regular exercise to manage weight? |
| 852 | Successful interventions for disorders which lead to weight loss? |
| 853 | How and best to support our most difficult patients |
| 854 | What kind of help do you feel that the NHS could provide? |
| 855 | The type weight-loss programme that is suitable dependent upon size, age and physical health presentation. To reduce potential risk of injury, stroke or heart attack? |
| 856 | What food combinations best help you to lose weight? |
| 857 | Have you drunk any fruit juices? |
| 858 | Are you happy with your size? |
| 859 | Do you think you would be happier if you were not obese? |
| 860 | Are you happy with your size? |
| 861 | Are fat people need to feel bad about themselves? |
| 862 | Do fat people need to feel bad about themselves? |
| 863 | Do you require and emotional or psychological help or guidance? |
| 864 | To ask the client how they think they would feel if they were able to lose weight and what they miss doing the most. |
| 865 | Are there safe drugs available to treat the condition? |
| 866 | What is the impact on the offspring of mum having hyperglycaemia in pregnancy? |
| 867 | Do fat people need to feel bad about themselves? |
| 868 | What do you already understand about obesity and weight management? |
| 869 | What is you weekly routine in terms of "movement": how often do you exercise, do you walk to work - if yes how far, do you walk up the stairs or use the escalator and so on, if you have a dog, do you take it for a walk and how long are those, how busy is your after work life; do you have to manage the kids or do you come home and sit in front of the TV. |
| 870 | The cost to the NHS for adapting specialist equipment? |
| 871 | Who should help patients lose weight? What is the evidence that things such as MCSC actually work? Or should we leave it to professionals with obesity treatment experience? |
| 872 | Are there safe drugs available to treat the condition? |
| 873 | What is the impact on the offspring of mum having hyperglycaemia in pregnancy? |
881. Is the DASH diet effective in reducing the risk of pre eclampsia in those with gestational hypertension?

882. Impact of changes in ingredients and preparation methods on the nutritional quality of food consumed.

883. Is our food poisonous to us?

884. We need more research into how counselling can help identify new strategies to reduce emotional (non) eating.

885. Eating Disorders eg anorexia can be devastating for those affected, and those who surround them - more research to alleviate needed.

886. Is it more likely to suffer from an eating disorder if you’ve had a life saving procedure?

887. Is veganism a form of eating disorder?

888. Understanding the underlying psychological and physiological mechanisms of eating disorders.

889. How do you feel about your body?

890. How can eating disorders affect the absorption of anti-rejection medication?

891. What foods should you regularly eat?

892. What is the healthiest diet

893. How can we ensure more people (incl. children) consume a high-quality diet (vegetables, fruits, beans, etc)? why? National and international survey data suggest that people have suboptimal diets.

894. Diet

895. Any new guidance and tips

896. What are the most common misconceptions about dieting and weight loss?

897. What can/is being done to tackle the sheer amount of fake news, fads and terrible advice when it comes to nutrition and diets.

898. How can we educate people and get support from the food industry to get more info about the right food.

899. How do dietary patterns and food choices based on environmental and sustainability concerns influence weight status in young people?

900. How to prevent the escalation in childhood obesity in low and middle income countries

901. What lessons that we have learnt in the UK can be communicated and employed in ‘developing’ countries where the next epidemics of obesity are happening?

902. What can we learn from the obesity problem in developed countries that can help prevent the same problems in the developing world?

903. What foods actually contribute to increased weight and obesity?

904. What foods do you blame for your obesity?

905. What food can help breakdown fat?

906. Health

907. Understanding the obesity paradox in health of certain patient groups and older patients. Is intentional weight loss always beneficial for health

908. Type 2 Diabetes is common in older adults. How can this be avoided?

909. what food to eat

910. Using systems dynamics modelling techniques, what are the optimal intervention points on the Foresight Obesity Map?

911. What research is there into the link between post transplantation patients and anorexia?

912. How to eat sustainably?

913. Exercise

914. More active and healthy

915. Health

916. Increasing Age and weight [impact on NHS]

917. Is weight the best proxy for the health impact of weight management programmes?

918. What is your average daily/ weekly calorie intake (intake recorded)

919. Why calory restriction diets do not work?

920. What do you eat?

921. What do you normally eat and drink on a daily basis?

922. Am I on a healthy diet?

923. Do you know what balance diet is and do you think you have one?

924. What has/ has not worked for you previously?

925. How much research is being done on the subject of nutrition?

926. Why isn’t there a fast food chain that just do healthy food?

927. Is government nutritional advice wrong

928. How sure can I be that things like ‘five a day’ and alcohol units are based on solid findings and not just arbitrary figures in the general direction of better health.

929. Why are the most effective treatment for obesity (bariatric surgery) is underutilised in the UK?

930. When will a true multidisciplinary treatment be available, especially with psychological / psychiatric treatment, for patients with obesity?

931. Adjusting mental attitude needed to achieve weight loss.

932. Is there a way we can be tested to find out what foods are best suited to our metabolism

933. Do you personally think obesity is a health issue?

934. Am I taking enough exercise

935. I have a sweet tooth and throughout the day, I usually consume three to four chunks of sweetmeat or chocolates. Will that increase my chances of obesity definitely or just a probability?

936. How can natural experiments be best used to evaluate the potential of obesity interventions? (methodological)

937. I imagine that other studies have been conducted on this topic. Will data from these studies be taken into consideration, along with your own [comment]
| 938 | How can governments be influenced to adopt preventive health measures around obesity rather than focus on treatment? (policy/implementation) |
| 939 | Obesity prevention at the population level: where does political appetite align with evidence? (policy/implementation) |
| 940 | How can we speed up translation of promising findings from early trials on how to prevent or treat obesity to the real world? What sources of funding or NHS 'pipelines' would help? Could money from the sugar tax or similar be used for this? (about dissemination) |
| 941 | What factors/characteristics are shared by people who love being active and how does these characters differ from those who hate activity? |
### Supplementary Table 3: 149 Unanswered re-phrased questions in rank order from survey 2

| Rank | Re-phrased questions                                                                                                                                                                                                 | Mean score (SD) |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1    | What are the most effective methods for weight maintenance following weight loss? What are the effective components of treatments/programmes incorporating a behavioural element? How many and in what combination are most effective? What is the optimal duration of these programmes? | 8.36 (1.87)     |
| 2    | What is the cost and affordability of a healthy balanced diet? What policy measures could make healthier foods more affordable? What policy measures could improve access to healthy diets for different social and cultural groups, such as people in poverty, people in inner cities, or young and older people? | 7.85 (2.06)     |
| 3    | Does an intervention that focuses on improving overall health rather than a specific focus on weight loss improve health and well-being?                                                                             | 7.81 (2.25)     |
| 4    | Does having a psychological disorder such as depression and anxiety affect weight, and, if so, what is the mechanism? How do external perceptions of weight affect mental health? What is the effect of weight loss methods and repeated dieting on mental health outcomes? | 7.75 (2.03)     |
| 4    | What are the most effective methods for weight loss? What are the effective components of treatments/programmes incorporating a behavioural element? How many and in what combination are most effective? What is the optimal duration of these programmes? | 7.75 (2.36)     |
| 6    | What is the most effective and cost effective mix of population/public health and individual interventions to tackle obesity?                                                                                       | 7.72 (2.26)     |
| 7    | Do interventions (e.g. nutrition education and physical activity) in pre-school, primary school and secondary school reduce children's risk of unhealthy weight gain and, if so, how do they act? Does the effect of such interventions differ by social and cultural groups? | 7.67 (2.22)     |
| 7    | What are the drivers of food choice, appetite, and intake and do variations in these drivers explain who develops obesity and who does not?                                                                          | 7.67 (2.24)     |
| 9    | What are the most effective ways to prompt people to make a weight loss attempt or engage with a weight loss support programme? What are the most effective methods to increase uptake and adherence to programmes?                           | 7.65 (2.30)     |
| 10   | How do demographic, social and cultural factors, e.g. age, socioeconomic status (SES), lifestyle, environment, psychosocial functioning affect weight status, weight gain and regional fat distribution? What are the mechanisms involved? Does the effectiveness of weight loss methods depend on social and cultural background and, if so, can the effects be made more equitable? Are weight loss methods tailored to people's background more effective for weight loss and weight maintenance than general methods? | 7.59 (2.41)     |
| 11   | Are people living with obesity at higher risk of infectious diseases? Are they at higher risk of severe consequences from these diseases? What are the proposed mechanisms?                                               | 7.54 (2.31)     |
| =12  | Is weight loss an effective treatment for certain medical conditions and chronic illnesses, e.g. polycystic ovary syndrome (PCOS), hypothyroidism, lipoedema, gastrointestinal conditions, heart failure, osteoarthritis, chronic pain etc? Should specific weight loss methods be recommended for people with overweight and obesity with certain medical conditions and chronic illnesses? | 7.53 (2.40)     |
| =12  | Do parents' attitudes to food influence their children's food intake and risk of obesity?                                                                                                                          | 7.53 (2.35)     |
| =12  | Does the quality or amount of sleep influence bodyweight? Do interventions that increase/decrease sleep affect weight loss and weight maintenance?                                                                    | 7.50 (2.15)     |
| =12  | In people living with overweight and type 2 diabetes, does losing weight lead to diabetes remission and how long does remission last? What health checks are needed for people who have achieved diabetes remission?                          | 7.47 (2.41)     |
| =16  | Does losing weight and regaining it repeatedly adversely affect long-term health or psychological well being compared with staying at a higher weight the whole time?                                              | 7.45 (2.60)     |
| Question                                                                 | Score |
|-------------------------------------------------------------------------|-------|
| 16. How do genetic factors, physiological and metabolic processes affect weight status, weight gain and regional fat distribution? What are the mechanisms involved? Do these factors affect the ability to lose and maintain body weight? Do weight loss programmes tailored to a person’s genetic makeup or physiology produce greater weight loss than untailed programmes? | 7.45  |
| 18. Do interventions that target the 'obesogenic environment', such as community interventions, urban planning, placement of fast food outlets or workplace policies, affect population mean weight and do these effects differ by baseline weight status (underweight, healthy weight, overweight, obesity)? Which of this type of interventions are most effective at reaching low socio-economic groups? | 7.44  |
| 19. Why do some people struggle to maintain motivation during a weight loss attempt? | 7.41  |
| 20. What are the effects of obesity in childhood on outcomes other than physical health e.g. psychological wellbeing, educational achievement, employment, relationship status etc? | 7.39  |
| 21. Does incorporating physical activity into weight loss interventions enhance weight loss? Does this depend upon the frequency and type of physical activity (e.g. high vs low intensity, resistance vs cardiorespiratory activity)? | 7.36  |
| 22. What effect do working hours (e.g. shift work) and/or a late eating pattern have on body weight and adiposity? | 7.35  |
| 23. Does being physically active mitigate the health consequences of obesity/obesity? | 7.31  |
| 24. Does prolonged psychological stress affect bodyweight? Do interventions that aim to reduce stress increase weight loss in people living with overweight and obesity compared with interventions not addressing stress? | 7.31  |
| 25. Do interventions that address emotional or social overeating lead to weight loss or weight loss maintenance? | 7.29  |
| 26. What is the relationship between emotions and appetite or energy intake? | 7.19  |
| 27. What changes in supermarkets or the wider food industry are effective in promoting healthier diets? Does changing labelling and/or packaging on foods affect purchasing, consumption and body weight? | 7.18  |
| 28. Do interventions in primary care prevent obesity? What are the effects of offering weight management referrals on the prevalence of obesity? | 7.17  |
| 29. How accurate are existing models of the health consequences of excess weight and the impact of weight loss? Which assumptions are critical in determining the long-term effectiveness and cost-effectiveness of weight loss interventions? What is the impact of weight regain on the incidence of disease and cost-effectiveness of weight loss interventions in these models? | 7.17  |
| 30. How does the brain control food intake and can we use knowledge of these mechanisms to aid weight loss? What are the brain responses to food during weight loss and following weight regain? | 7.17  |
| 31. Does social influence affect the amount of energy dense-nutrient poor foods or consumption of healthier foods, and can these norms be changed? | 7.17  |
| 32. What is the effect of parental support for their children’s weight management on weight in a child living with obesity? Are family based interventions aiming at childhood weight control effective? | 7.16  |
| 33. What are the effects of interventions to influence health professionals to support patients with overweight and obesity? | 7.15  |
| 34. What is the effect of adult obesity on social behaviour, self-confidence, self-esteem and self-worth? | 7.14  |
| 35. Does the gut microbiome have an effect on weight gain or the risk of obesity? Does the gut microbiome influence body composition or fat distribution? Do human genetics influence the gut microbiome? Can a change in gut microbiome aid weight loss and by what mechanisms? Which strains of bacteria are associated with greatest weight loss during a weight loss attempt? What is the effect of prebiotics or probiotics on weight loss/weight maintenance? | 7.12  |
| 36. What impact does obesity have on life opportunities? E.g. employment, marital status, happiness, education. | 7.11  |
| 37. How effective and cost-effective are subsidies for healthy food or access to leisure facilities to prevent or treat obesity? | 7.10  |
| 38. Does obesity cause dementia? | 7.10  |

Supplemental material

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| Question                                                                 | Score | Standard Deviation |
|------------------------------------------------------------------------|-------|--------------------|
| Is there a difference in the way that health professionals respond to patients living with obesity compared with people of a healthy weight in terms of investigation, diagnosis and follow up? | 7.10  | (2.49)             |
| Are interventions to treat children or adolescents living with severe obesity effective? | 7.08  | (2.54)             |
| Is it better to advise incorporating physical activity into daily life or taking formal exercise to increase overall levels of physical activity in the population? | 7.07  | (2.41)             |
| Are there benefits of some types of diets on diabetes that are independent of the amount of weight lost? | 7.06  | (2.27)             |
| What is the impact of reducing the availability of energy dense-nutrient poor foods on overall energy intake? | 7.05  | (2.77)             |
| What are the mechanisms that lead to satiation during meals? | 7.04  | (2.28)             |
| Does having a choice of how to lose weight improve the success of the weight loss attempt? | 7.04  | (2.48)             |
| In people living with obesity, does losing weight affect how the heart works? | 7.00  | (2.32)             |
| How do we assess cardiovascular risk in people living with overweight and obesity? Should we stratify interventions for weight loss based on cardiovascular risk in those living with overweight and obesity? | 7.00  | (2.24)             |
| Can the provision of healthy school food reduce obesity in children? | 6.99  | (2.73)             |
| What are the most effective treatments for obesity in people with severe mental illness? Is integrating weight management into mental healthcare effective in supporting weight loss or weight loss maintenance? | 6.98  | (2.36)             |
| Does living with obesity affect quality of life? Does losing weight or gaining weight affect quality of life in people living with overweight and obesity? | 6.98  | (2.61)             |
| Do family dynamics cause unhealthy weight gain? | 6.97  | (2.59)             |
| Why do some people living with overweight and obesity do insufficient physical activity and what advice or interventions might increase this? | 6.97  | (2.52)             |
| Do interventions to encourage healthier food purchasing affect population mean weight or the prevalence of overweight and obesity? | 6.96  | (2.46)             |
| Does eating a diet high in processed foods make losing weight, maintaining lost weight, or gaining weight more likely? Do diets high in processed foods lead to a higher incidence of weight-related illness, such as diabetes or heart disease, independent of body weight status? | 6.96  | (2.69)             |
| Does eating a diet high in processed foods make losing weight, maintaining lost weight, or gaining weight more likely? Do diets high in processed foods lead to a higher incidence of weight-related illness, such as diabetes or heart disease, independent of body weight status? | 6.96  | (2.69)             |
| What are the health risks for individuals who have previously been overweight but have now lost weight compared with those who have never been overweight? | 6.93  | (2.43)             |
| How do energy requirements change following weight loss and what are the mechanisms involved? | 6.92  | (2.36)             |
| Can interventions modify individuals’ food preferences and does this affect weight outcomes? | 6.91  | (2.29)             |
| Does the imagery used in weight loss interventions and public health messaging affect motivation for behaviour change? | 6.88  | (2.48)             |
| Does the amount of sugar in baby food affect children’s weight gain? | 6.83  | (2.62)             |
| Is overeating a form of self-harm for some people living with obesity? | 6.80  | (2.86)             |
| Does the mode of delivery e.g. in-person face-to-face, group, digital, telephone influence the weight loss achieved by a weight loss programme? | 6.80  | (2.45)             |
| Does age of onset of obesity or years lived with obesity influence the effectiveness of specific weight loss methods? | 6.80  | (2.27)             |
| No. | Research Question                                                                 | Score | | | |
|-----|-----------------------------------------------------------------------------------|-------|--|--|--|
| 63  | Does childhood trauma or mental health disorder in childhood cause obesity?        | 6.79  | 2.63 |
| 63  | Is attempting to avoid snacking more or less effective than 'little and often' for weight loss and weight maintenance? | 6.79  | 2.56 |
| 65  | Does fast food advertising affect the prevalence of overweight and obesity in childhood? | 6.78  | 2.80 |
| 66  | Do markers of blood glucose control and cardiovascular disease (e.g., insulin, glucagon, HbA1c, blood pressure, cholesterol etc) predict weight gain and obesity? What effect do these markers have on weight loss and weight maintenance? | 6.77  | 2.39 |
| 67  | What are the most accurate and practical ways to measure dietary intake?            | 6.76  | 2.67 |
| 68  | Do weight loss interventions improve blood glucose control or influence cardiovascular risk in people living with type 1 diabetes and obesity and what are the adverse effects? | 6.75  | 2.51 |
| 69  | Is there institutional bias towards people living with overweight and obesity in different employment sectors and can this be changed? | 6.73  | 2.72 |
| 70  | Do diets high in fat or high in sugar increase the likelihood of gaining weight?   | 6.71  | 2.80 |
| 71  | What are the effects of tier 3 services on weight loss and are these services cost-effective? | 6.68  | 2.20 |
| 71  | Do restrictive or permissive diets lead to greater weight loss or weight loss maintenance? Is permissive messaging about dietary change more effective at maintaining a healthy weight than restrictive messaging? | 6.67  | 2.75 |
| 72  | How do the words used to define and describe overweight and obesity affect perceived discrimination as well as emotional and psychological wellbeing in people living with overweight and obesity? Would changing the language reduce the blame culture associated with obesity? What language used in public health messaging about overweight/obesity encourages weight control without increasing stigma towards people living with obesity? | 6.66  | 2.36 |
| 74  | What is the role of the adipocyte life cycle in body weight and obesity?          | 6.66  | 2.30 |
| 74  | Do food additives and non-nutritive sweeteners affect appetite regulation, post-prandial metabolic and endocrine responses and energy intake? Is replacing sugar with non-nutritive sweeteners an effective method of weight loss and weight maintenance? | 6.66  | 2.70 |
| 76  | What medical conditions can lead to weight gain and obesity?                     | 6.65  | 2.55 |
| 77  | Do social prescribing schemes such as community gardening, cookery classes, choir, lunch club, or book clubs lead to greater weight loss when trying to lose weight than attempting weight loss without such prescription? | 6.64  | 2.47 |
| 78  | What effect does social media have on eating behaviours and weight control?      | 6.63  | 2.61 |
| 79  | Are there methods to combine pharmacological and behavioural weight loss treatments that mean the combination is greater than the sum of the parts? | 6.62  | 2.69 |
| 80  | What is the prevalence of disordered eating in people living with obesity? Do weight loss interventions increase the risk of disordered eating? | 6.61  | 2.22 |
| 80  | Is it possible to suppress appetite and so reduce energy intake? Is this an effective way to lose weight? | 6.61  | 2.68 |
| 82  | Can screening programmes identify those at risk of developing obesity? Does identifying people at risk and implementing early interventions prevent weight gain? | 6.59  | 2.67 |
| Question                                                                 | Score   |
|-------------------------------------------------------------------------|---------|
| What is the role of social networks in weight control? Does having a    | 6.58    |
| weight loss buddy lead to better outcomes?                              | 2.41    |
| What is the effect of behavioural, dietary, pharmaco logical, and       | 6.57    |
| surgical interventions on body composition and fat distribution? Can    | 2.31    |
| exercise attenuate loss of lean tissue associated with weight loss?     |         |
| What interventions can help parents to identify if their child is       | 6.57    |
| overweight and does this increase their engagement in weight management | 2.67    |
| services?                                                               |         |
| What are the advantages and disadvantages of the various methods of    | 6.55    |
| quantifying body fat in routine healthcare? What is the association    | 2.34    |
| between these measures and risk of obesity-related health outcomes?     |         |
| What are the most appropriate classifications for overweight and obesity|         |
| in different demographic groups, e.g. ethnicity, age, gender? Can we   |         |
| develop an easy measurement for 'Thin on Outside, Fat on Inside' for    |         |
| use in routine healthcare? What is the association between being 'Thin|         |
| on Outside, Fat on Inside' and other obesity related outcomes?          |         |
| Do interventions in the general population to improve cookery skills    | 6.53    |
| improve weight control?                                                 | 2.53    |
| Is limiting daily energy intake a more successful method than limiting  | 6.53    |
| daily carbohydrate intake for weight loss and weight maintenance?      | 2.52    |
| Is attempting to follow intermittent fasting (including 5:2, every other | 6.52    |
| day diet, etc.) or time restricted eating (e.g. 16:8 or eating between | 2.60    |
| specific hours of the day) effective for weight loss and weight         |         |
| maintenance? Is intermittent fasting or time restricted eating more    |         |
| effective than calorie restriction alone? Are the benefits from        |         |
| intermittent fasting or time restricted eating (e.g. metabolic health, |         |
| general wellbeing) independent from weight loss? Are there any side    |         |
| effects or health risks from intermittent fasting or time restricted    |         |
| eating?                                                                 |         |
| Do people crave or become addicted to certain foods and, if so does    | 6.52    |
| this cause obesity? Can treatments reduce pica, food cravings or        | 2.53    |
| addiction?                                                             |         |
| Is taxing unhealthy foods and drink effective in reducing the          | 6.52    |
| prevalence of overweight and obesity?                                   | 2.81    |
| Is obesity a cause or a consequence of reduced physical activity?      | 6.51    |
| 2.54                                                                 |         |
| Would rules that limit the energy or macronutrient content of certain  | 6.49    |
| categories of food products affect the prevalence of overweight and    | 2.54    |
| obesity?                                                               |         |
| Does the menopause cause weight gain/loss?                              | 6.46    |
| Does the age at menopause affect weight gain and weight loss?           | 2.46    |
| What effect does social media have on self-confidence, self-esteem and | 6.46    |
| self-worth of people living with overweight and obesity?               | 2.78    |
| What are the most accurate and practical ways to measure total energy   | 6.44    |
| expenditure and physical activity?                                      | 2.66    |
| In women entering pregnancy with overweight or obesity, do intentional  | 6.44    |
| efforts to reduce the amount of weight gained reduce the risk of obesity | 2.59    |
| in the offspring?                                                      |         |
| Does informing a person living with overweight or obesity that she or   | 6.40    |
| he has non-alcoholic fatty liver disease (NAFLD) motivate weight loss? | 2.60    |
| Are there long-term health benefits from short-term weight loss? If    | 6.39    |
| so, is there a minimum amount of weight loss/duration that has clear    | 2.39    |
| benefits?                                                             |         |
| Question                                                                                                                                                                                                 | Rating |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Are interventions aimed at weight control effective in helping women entering pregnancy with overweight or obesity limit weight gain during pregnancy or lose weight after birth? | 6.38   |
| Are total diet replacement programmes with behavioural support as effective as using diet replacement products without behavioural support?                                                                 | 6.38   |
| What are the effects of the body positivity movement on body weight?                                                                                                                                   | 6.36   |
| Does breastfeeding increase post-partum weight loss or reduce risk of later obesity for the mother?                                                                                            | 6.34   |
| What are the effects on health of having a body mass index (BMI) within the overweight/obese range yet with high proportion of lean tissue/high muscle mass?                                           | 6.33   |
| Has the National Childhood Measurement Programme had an effect upon weight trajectories, healthcare usage, and mental health of children or their parents?                                             | 6.32   |
| Does attempting to limit alcohol intake reduce the risk of weight gain or increase weight loss?                                                                                                      | 6.32   |
| Does the low carbohydrate ketogenic diet cause greater weight loss than a reduced carbohydrate non-ketogenic diet?                                                                                     | 6.31   |
| Does the perception that the causes of obesity relate to matters of personal responsibility motivate people to control their own weight?                                                              | 6.19   |
| Do some people living with overweight and obesity not recognise that they are overweight and what effect would interventions to improve recognition have?                                             | 6.19   |
| Do interventions, including clinical follow-up, after bariatric surgery prevent weight regain?                                                                                                          | 6.19   |
| Do marketing campaigns or policy changes affect population mean weight and do these effects differ by baseline weight status (underweight, healthy weight, overweight, obesity)? | 6.18   |
| How effective are interventions to reduce portions in restaurants, café/food outlets on energy intake and the prevalence of overweight and obesity?                                                        | 6.16   |
| Do the prevailing messages about the costs of obesity on healthcare affect prevalence of obesity or bias against people living with overweight?                                                       | 6.15   |
| Does the level of naturally occurring sex hormones (testosterone, oestrogen, progesterone) influence bodyweight? Does administering sex hormones lead to weight loss or weight loss maintenance, e.g. Hormone replacement therapy (HRT), testosterone etc? | 6.14   |
| No. | Question                                                                                       | Score 1 | Score 2 |
|-----|-----------------------------------------------------------------------------------------------|---------|---------|
| 119 | Are high protein diets safe and effective for weight loss and weight loss maintenance?         | 6.10    | 2.65    |
| 120 | Does the macronutrient composition of the diet influence the progression of non-alcoholic fatty liver disease (NAFLD) in people living with obesity? | 6.06    | 2.53    |
| 120 | What methods are available to measure diet in infants, children, and adolescents and how do they compare in reliability and practicality? | 6.02    | 2.68    |
| 120 | Is the use of commonly prescribed medications (e.g. antibiotics and pain medication) related to weight gain and obesity? What are the effective methods to prevent weight gain and achieve weight loss in people taking medications known to cause weight gain? | 6.02    | 2.43    |
| 123 | How effective are emerging pharmacological treatments for weight loss and how can we develop new drug treatments to help people lose weight (e.g. appetite suppressants, nutrient absorption etc)? | 5.99    | 2.71    |
| 124 | Why do some people with overweight try to lose weight and some people with overweight do not? | 5.98    | 2.64    |
| 125 | Do interventions in the general population to grow food improve weight control?                | 5.91    | 2.64    |
| 126 | Does having heavy or irregular periods affect bodyweight?                                       | 5.89    | 2.56    |
| 127 | Are total diet replacement programmes (based on energy restricted formula food products) effective, safe, and tolerable for weight management in special populations e.g. attenuation of weight gain in pregnant women or for other groups where rapid weight loss may change outcomes, such as prior to a planned surgery? | 5.86    | 2.55    |
| 127 | Why do people living with severe obesity eligible for surgery decide not to proceed with the surgery and do they take up other interventions? | 5.86    | 2.55    |
| 127 | Does endorsement or delivery of interventions by different sources enhance the effectiveness of weight loss interventions? E.g. GP referral, celebrity endorsements, social media, family and friends. Does measurement and acknowledgement of body mass index (BMI) by a credible source influence motivation to attempt weight loss or adherence to weight loss programmes? | 5.86    | 2.51    |
| 130 | Is a vegan, vegetarian diet, pescatarian diet or a diet inclusive of meat better for weight loss, weight maintenance and metabolic health? | 5.83    | 2.67    |
| 131 | Has the fat distribution in females changed over time?                                            | 5.82    | 2.80    |
| 131 | Does effectiveness of weight loss interventions vary depending on weight status of the individual delivering the intervention? | 5.82    | 2.66    |
| 133 | How do diets with varying macronutrient composition affect adherence to energy restriction?     | 5.80    | 2.72    |
| 134 | Do vitamin and mineral deficiencies cause or contribute to weight gain? Do vitamins, minerals and other dietary supplements aid weight loss? | 5.70    | 2.52    |
| 135 | Does variation in gastric capacity explain who does and does not develop obesity?               | 5.63    | 2.46    |
| Question                                                                 | Mean (SD) |
|--------------------------------------------------------------------------|-----------|
| Does advice to omit breakfast lead to greater weight loss and better weight maintenance than dietary advice that includes breakfast? | 5.60 (2.75) |
| What is the effectiveness and cost-effectiveness of bariatric surgery for people with type 1 and type 2 diabetes with any degree of overweight but with a body mass index (BMI) < 35? | 5.57 (2.54) |
| Do concerns about the environment and sustainability affect weight? | 5.55 (2.78) |
| What is the impact of cookery related television programmes on diet and weight? | 5.48 (2.84) |
| Are people with addictions to drugs and alcohol at greater risk of unhealthy weight gain? | 5.39 (2.73) |
| What are the psychosocial consequences of bariatric surgery for example, on intimate relationships and eating disorders, and do these vary by social and cultural group? | 5.32 (2.45) |
| What are the methods available to measure adiposity in children? How valid and reliable are these methods? | 5.31 (2.48) |
| Does pseudogynaecomastia in men living with obesity influence psychological wellbeing? | 5.23 (2.52) |
| Does autism increase the risk of obesity? | 5.16 (2.55) |
| How does people's perception of air quality affect their engagement in outdoor physical activity and does this influence their weight? | 4.80 (2.74) |
| Does having a liver transplant in childhood or adolescence lead to unhealthy weight gain? | 4.67 (2.42) |
| What is the association between clothing size and body mass index (BMI)? | 4.66 (2.92) |
| Do ‘speciality foods’ including genetically modified and organic foods influence total energy intake and hence bodyweight? | 4.56 (2.76) |
| How does imprisonment effect body weight? What factors influence weight change and obesity during imprisonment? | 4.46 (2.49) |

Mean number of people who ranked each question (SD): 115 (9.7) Mean priority score (SD): 6.61 (2.5)
**Supplementary Table 4: Research questions for workshop**

| Survey 2 top 30 debated at the workshop |
|-----------------------------------------|
| 1. What are the most effective methods for weight maintenance following weight loss? What are the effective components of treatments/programmes incorporating a behavioural element? How many and in what combination are most effective? What is the optimal duration of these programmes? |
| 2. What is the cost and affordability of a healthy balanced diet? What policy measures could make healthier foods more affordable? What policy measures could improve access to healthy diets for different social and cultural groups, such as people in poverty, people in inner cities, or young and older people? |
| 3. Does an intervention that focuses on improving overall health rather than a specific focus on weight loss improve health and wellbeing? |
| 4. Does having a psychological disorder such as depression and anxiety affect weight, and, if so, what is the mechanism? How do external perceptions of weight affect mental health? What is the effect of weight loss methods and repeated dieting on mental health outcomes? |
| 5. What are the most effective methods for weight loss? What are the effective components of treatments/programmes incorporating a behavioural element? How many and in what combination are most effective? What is the optimal duration of these programmes? |
| 6. What is the most effective and cost effective mix of population/public health and individual interventions to tackle obesity? |
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Supplemental material

| Question                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------|
| 7. **Do interventions (e.g. nutrition education and physical activity) in pre-school, primary school and secondary school reduce children's risk of unhealthy weight gain and, if so, how do they act? Does the effect of such interventions differ by social and cultural groups?** |
| 8. **What are the drivers of food choice, appetite, and intake and do variations in these drivers explain who develops obesity and who does not?** |
| 9. **What are the most effective ways to prompt people to make a weight loss attempt or engage with a weight loss support programme? What are the most effective methods to increase uptake and adherence to programmes?** |
| 10. **How do demographic, social and cultural factors, e.g. age, socioeconomic status (SES), lifestyle, environment, psychosocial functioning affect weight status, weight gain and regional fat distribution? What are the mechanisms involved? Does the effectiveness of weight loss methods depend on social and cultural background and, if so, can the effects be made more equitable? Are weight loss methods tailored to people's background more effective for weight loss and weight maintenance than general methods?** |
| 11. **Are people living with obesity at higher risk of infectious diseases? Are they at higher risk of severe consequences from these diseases? What are the proposed mechanisms?** |
| 12. **Is weight loss an effective treatment for certain medical conditions and chronic illnesses, e.g. polycystic ovary syndrome (PCOS), hypothyroidism, lipaemia, gastrointestinal conditions, heart failure, osteoarthritis, chronic pain etc? Should specific weight loss methods be recommended for people with overweight and obesity with certain medical conditions and chronic illnesses?** |
| 13. **Do parents' attitudes to food influence their children's food intake and risk of obesity?** |
| 14. **Does the quality or amount of sleep influence bodyweight? Do interventions that increase/decrease sleep affect weight loss and weight maintenance?** |
| 15. **In people living with overweight and type 2 diabetes, does losing weight lead to diabetes remission and how long does remission last? What health checks are needed for people who have achieved diabetes remission?** |
| 16. **Does losing weight and regaining it repeatedly adversely affect long-term health or psychological wellbeing compared with staying at a higher weight the whole time?** |
| 17. **How do genetic factors, physiological and metabolic processes affect weight status, weight gain and regional fat distribution? What are the mechanisms involved? Do these factors affect the ability to lose and maintain body weight? Do weight loss programmes tailored to a person's genetic makeup or physiology produce greater weight loss than untailored programmes?** |
| 18. **Do interventions that target the 'obesogenic environment', such as community interventions, urban planning, placement of fast food outlets or workplace policies, affect population mean weight and do these effects differ by baseline weight status (underweight, healthy weight, overweight, obesity)? Which of this type of interventions are most effective at reaching low socio-economic groups?** |
| 19. **Why do some people struggle to maintain motivation during a weight loss attempt?** |
| 20. **What are the effects of obesity in childhood on outcomes other than physical health e.g. psychological wellbeing, educational achievement, employment, relationship status etc?** |
| 21. **Does incorporating physical activity into weight loss interventions enhance weight loss? Does this depend upon the frequency and type of physical activity (e.g. high vs low intensity, resistance vs cardiorespiratory activity)?** |
| 22. **What effect do working hours (e.g. shift work) and/or a late eating pattern have on body weight and adiposity?** |
| 23. **Does being physically active mitigate the health consequences of overweight/obesity?** |
24. Does prolonged psychological stress affect bodyweight? Do interventions that aim to reduce stress increase weight loss in people living with overweight and obesity compared with interventions not addressing stress?

25. Do interventions that address emotional or social overeating lead to weight loss or weight loss maintenance?

26. What is the relationship between emotions and appetite or energy intake?

27. What changes in supermarkets or the wider food industry are effective in promoting healthier diets? Does changing labelling and/or packaging on foods affect purchasing, consumption and body weight?

28. Do interventions in primary care prevent obesity? What are the effects of offering weight management referrals on the prevalence of obesity?

29. How accurate are existing models of the health consequences of excess weight and the impact of weight loss? Which assumptions are critical in determining the long-term effectiveness and cost-effectiveness of weight loss interventions? What is the impact of weight regain on the incidence of disease and cost-effectiveness of weight loss interventions in these models?

30. How does the brain control food intake and can we use knowledge of these mechanisms to aid weight loss? What are the brain responses to food during weight loss and following weight regain?

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**Research questions asked by more than 10 people in the first survey – emailed to workshop participants**

1. What are the effects of interventions to influence health professionals to support patients with overweight and obesity?

2. Does the gut microbiome have an effect on weight gain or the risk of obesity? Does the gut microbiome influence body composition or fat distribution? Do human genetics influence the gut microbiome? Can a change in gut microbiome aid weight loss and by what mechanisms? Which strains of bacteria are associated with greatest weight loss during a weight loss attempt? What is the effect of prebiotics or probiotics on weight loss/weight maintenance?

3. Is there a difference in the way that health professionals respond to patients living with obesity compared with people of a healthy weight in terms of investigation, diagnosis and follow up?

4. What are the most effective treatments for obesity in people with severe mental illness? Is integrating weight management into mental healthcare effective in supporting weight loss or weight loss maintenance?

5. Does the mode of delivery e.g. in-person face-to-face, group, digital, telephone influence the weight loss achieved by a weight loss programme?

6. How do the words used to define and describe overweight and obesity affect perceived discrimination as well as emotional and psychological wellbeing in people living with overweight and obesity? Would changing the language reduce the blame culture associated with obesity? What language used in public health messaging about overweight/obesity encourages weight control without increasing stigma towards people living with obesity?

7. What are the advantages and disadvantages of the various methods of quantifying body fat in routine healthcare? What is the association between these measures and risk of obesity-related health outcomes? What are the most appropriate classifications for overweight and obesity in different demographic groups, e.g. ethnicity, age, gender? Can we develop an easy measurement for 'Thin on Outside, Fat on Inside' for use in routine healthcare? What is the association between being 'Thin on Outside, Fat on Inside' and other obesity-related outcomes?
8. Is attempting to follow intermittent fasting (including 5:2, every other day diet, etc.) or time restricted eating (e.g. 16:8 or eating between specific hours of the day) effective for weight loss and weight maintenance? Is intermittent fasting or time restricted eating more effective than calorie restriction alone? Are the benefits from intermittent fasting or time restricted eating (e.g. metabolic health, general wellbeing) independent from weight loss? Are there any side effects or health risks from intermittent fasting or time restricted eating?

9. Do people crave or become addicted to certain foods and, if so, does this cause obesity? Can treatments reduce pica, food cravings or addiction?

10. Do interventions, including clinical follow-up, after bariatric surgery prevent weight regain? What are the adverse consequences of bariatric surgery and can these be predicted? Why do people living with severe obesity eligible for surgery decide not to proceed with the surgery and do they take up other interventions? What are the psychosocial consequences of bariatric surgery for example, on intimate relationships and eating disorders, and do these vary by social and cultural group?