

Training in nutrition, physical activity and obesity in primary care settings

Course workbook

Devised by:
Dr Rachel Pryke MBBS MRCGP FRCP

Additional input and review provided by:

Dr João Breda Jo Jewell Ximena Ramos Salas Address requests about publications of the WHO Regional Office for Europe to:

Publications

WHO Regional Office for Europe

UN City, Marmorvej 51

DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office website (http://www.euro.who.int/pubrequest).

© World Health Organization 2019

All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

Contents

Getting good conversations started	4
Exercise A1. Introducing the topic of weight	4
Exercise A2. Where next with your discussion?	5
Conveying nutritional information	7
Exercise B. Explaining nutritional information	7
Motivational interviewing: unlocking the patient's own motivation	7
Exercise C1 – Using the OARS acronym, importance and confidence rulers	s7
Exercise C2 – Reflecting back "sustain talk'	9
Promoting physical activity	11
Exercise D1 – Compare physical activity guidelines for different circumstan	ces 11
Exercise D2 – Use motivational interviewing tools to encourage physical ac	ctivity.11
Child obesity: eating behaviours	12
Exercise E 1. Responding to parent reactions	12
Exercise E 2: Case example. Jay	13
Using growth charts	17
Exercise F1: Using percentile and z-score charts	17
Exercise F2: Interpreting a growth trend over time	19
Exercise F3: Comparing different growth trends	21
Goal-setting	23
Exercise G1. Setting SMART goals	23
Exercise G2 Changing harriers into goals	25

Getting good conversations started

Exercise A1 Introducing the topic of weight

Aim: to generate a positive discussion about weight

Try out these scenarios in role play situations. The main presenting complaint has already been dealt with and now you wish to discuss the patient's weight. How might you introduce obesity into the conversation? What sentences work well? What phrases cause upset or risk a defensive response?

Role play (patients) How does it feel to be challenged about a topic that is sensitive or difficult?

Role player - patient

Mrs S requests stronger painkillers as her arthritis has been really troubling her recently.

Miss T attends for her contraception review and you notice she has gained visible weight since her last appointment.

Mr U comes in because he has failed his driving medical as a result of high blood pressure.

Mrs V brings her 9-year-old son Luke to see you because his asthma is not well controlled at the moment. Both parent and child have overweight.

Remember "safe starter" questions:

- "Is it OK if I ask you about your weight?"
- "How do you feel about your weight?"
- "Do you keep an eye on your weight?"

Some phrases can cause offense and resistance. This means that patients will experience shame and blame for their disease, which is detrimental for their health and for the long-term therapeutic relationship between you and your patient. Some patients may feel obesity is their fault and that there is nothing health care professionals can do to help them. This leads to patients avoiding interactions with health care professionals and delaying screening and treatment for other diseases. Internalized weight bias ultimately increases morbidity and mortality among patients.

As with any other chronic disease, individuals with obesity face many challenges to self-manage their disease. Consider patients' realities and complex situations before making any judgements. Developing a good therapeutic relationship with your patient is important when managing chronic diseases and supporting sustainable behaviour change.

Think about how you might feel or respond if a doctor said things like these to you:

- "I think you ought to lose some weight."
- "Your arthritis is worse because you are overweight."
- "Your asthma would be better controlled if you lost some weight."
- "I can't refer you for your operation unless you lose some weight."

Nobody likes being told what to do – it will often provoke a "resistance" response.

Exercise A2 Where next with your discussion?

Aim: to find out what type of help the patient requires

Pick up the cues in your patient's story to test out what sort of help they might find useful.

Role player - patient Mrs W

Mrs W, a 51-year-old working mother of three teenage children, states that she is struggling with her weight, as she has recently been diagnosed with diabetes. Her BMI is now 39. Because of past failures, she lacks confidence about what to try next. All her time is taken up with work and managing her children's busy school and extracurricular activities. She often has to drive her children to various after-school activities and doesn't have time to prepare dinners. Take-aways and snack foods are part of her family's routine since there isn't time to cook and eat at home. She also works shifts, making regular meals difficult.

"I find it so hard to lose any weight at all, and it goes straight back on if I have the tiniest treat. I don't know what I'm doing wrong."

- Try out questions to explore Mrs W's stress and time-management strategies.
- Try out questions to help you find out more about Mrs W's sleep habits.
- What questions might help you discover how feasible lifestyle changes are for Mrs W and her family?

Suggested questions

Stress and time management

"On a scale of 0 to 10, with 0 being low and 10 being high, how much stress do you believe you have in your life right now?"

"What strategies do you use to manage stress?"

"Do you know that stress can be a driver of weight gain and a barrier to weight management?"

Consider the evidence that healthy eating, exercise and weight management take time and effort. For example, each meal should take about one hour – 30 minutes to prepare and 30 minutes to consume; the recommended sleep to help manage weight is about eight hours; and it is recommended to take between 30 minutes and one hour of exercise a day. This means that you need at least 12 hours to eat, sleep and exercise. And if you add eight hours of work, 20 hours of your day are already taken up. Then consider the time you spend driving to work and on extracurricular activities and family responsibilities such as grocery shopping, cleaning, volunteering, etc. On top of that, consider the other responsibilities your patient may have, such as taking care of an elderly parent or family member.

"Do you think it is feasible for you to make adjustments to your current work and family situations in order to incorporate healthy lifestyle strategies?"

"How feasible would it be to increase your activity levels?"

"Do you have any family support to help you balance work and family responsibilities?"

"Do you think you get enough time to relax and do things you enjoy?"

Sleep

"Do you know that lack of sleep can be a driver of weight gain?"

"How many hours of sleep do you get every day?"

"How feasible is it for you to increase the number of hours you sleep every night?"

Family behaviours

"How do your children feel about trying to balance school, extracurricular activities and healthy lifestyles?"

"Do you think your children would be prepared to change some of their current activities to help fit in with a healthy family plan?"

"What do you think would work well for your family? Making some healthy dietary swaps? Doing activities together, such as walks?"

Conveying nutritional information

Exercise B1 Explaining nutritional information

Consider the following four scenarios with your partner.

Miss VP, a 41-year-old single mother of two, says she is confused about which nutrition messages to believe.

"I want my children to be healthy, but I am confused. Take fats, for example. One minute I'm told to eat low fat, then they say eat olive oil, as the Mediterranean diet is good for you."

Mr PB, a 51-year-old lorry driver, was told to improve his lifestyle at his work medical because of his blood pressure.

"I don't understand why my weight keeps going up. I've always had a sandwich and some crisps for lunch. Don't try telling me to eat 'rabbit food'!"

Mrs RA is 29 years old, newly married and hoping to start a family.

"My weight has always been a struggle – I want to get healthy for when I get pregnant. I am very active, so I must be doing something wrong with my diet."

Mrs ST, 63 years old, is worried about what to feed her 66-year-old husband, who has recently had a stroke.

"He was told to lose some weight, but he can't exercise now as he is in a wheelchair. He likes his roast dinners. What should I do?"

- What factual information would you like to convey for each scenario?
- What resources would help to make your conversation effective and efficient?
- Are you best placed to give the information needed? Where else or from whom could the patient obtain this information?

Motivational interviewing: unlocking the patient's own motivation

Exercise C1 The OARS acronym; the importance and confidence rulers

0	Open questions – questions that encourage patients to think before answering and allow a choice in how to respond.
Α	Affirmation – acknowledge patient's efforts, strengths and volitional choice.
R	Reflective listening – guess and capture patient's meaning.

Case scenario

Consider Mrs A, who is 41 years old with three young children and has a new diagnosis of high blood pressure. Her BMI is 36 and she is at EOSS stage 2. She has tried lots of diets and now feels defeated by her weight. She says: "I know my weight is terrible, but I've given up – I love eating cakes, I don't like doing exercise. There is no point dieting as it never lasts and I hate being hungry."

Sustain talk

"I love eating cakes and pastries."

"I don't enjoy doing exercise."

"Whenever I've dieted before, the weight's always come back on."

"I need to eat what I want, otherwise I'll feel miserable."

Try out phrases that use the **importance ruler** and the **confidence ruler**.

The importance ruler

- "On a scale of 0 to 10, 0 being not important and 10 being very important, how important is it for you to manage your weight and improve your health?"
- "Why are you at 8, not 4?"

Avoid the righting reflex – i.e. "Why are you at 6, not 8?" – which may prompt defensiveness and despondency.

- Find out the motivations for weight loss and the expectations that your patient may have. Are they looking to lose weight so that they can look better or so that they can be healthier?
- Remind them that 5–10% weight loss is sufficient for health improvement.
- Remind them that healthy behaviours are important regardless of weight.
- Remind them that the first step is to stop the weight gain that in itself will require behaviour change and a lot of effort.

The confidence ruler

- "On a scale of 0 to 10, how confident are you that you can manage your weight and improve your health?"
- "Why are you at 7, not 4?"
- "What would it take to get you from 7 to 10?"

Exercise C2 Reflecting back "sustain talk"

Aim: to reflect (i.e. state) back the "excuse" given by the patient, rather than give solutions, so it becomes the patient's "turn" to present a solution

A typical – but often unsuccessful – conversation shape:

Patient: "Problem – I can't do X because of Y."

Doctor: "Solution – try A."

Patient: "Yes, but ..."

Doctor: "Well, how about Solution B or Solution C?" Patient "Yes ... but I can't see those working either."

Motivational interviewing conversation shape:

Patient: "Problem – I can't do X because of Y."

Doctor: "So, to summarize, Y is stopping you achieving X?"

Patient: "Well, I suppose there may be other factors like Z."

Doctor: "Tell me more about Z – you think Z might be an alternative solution?"

Patient: "Yes, I think exploring Z might work for me."

Importantly, the solution came from the patient, not the doctor.

Use the following case scenarios to explore how you might generate a "useful" discussion about lifestyle. What elements might you focus on?

- How can you address these examples of sustain talk?
- How might you respond?
- How could you encourage each patient to move towards "change talk"?

Miss E, 45, has chronic depressive illness and is diabetic on oral hypoglycaemic agents. She lost weight on a commercial diet but has put it all back on. Her BMI is 42 and her EOSS stage is 2. Her HbA1c is 65, she does not exercise, and she smokes 20 cigarettes a day.

"My weight is such a nightmare! I'm too tired to do any exercise."

Mr F, 48, is an ex-rugby player, with osteoarthritis in both knees. He has a BMI of 49 and is at EOSS stage 2; he was recently diagnosed with diabetes.

"My wife keeps telling me I should lose some weight, but I've always been big."

Miss H, 28, had a baby 8 months ago and has recently stopped breast-feeding. Her BMI is 29 and her EOSS stage 0. She attends for contraception, which you have already dealt with.

"I'm not bothered about my weight. We're planning another baby next year, so it doesn't matter."

Mr J, 23, has been diagnosed with schizoaffective disorder and has started on antipsychotic medication. He has gained 6 kg in 4 months; his current BMI is 33 and his EOSS stage is 1. He has attended for a medication review.

"There's nothing I can do about my weight – it's due to my tablets, see? They told me I'd put on weight."

Promoting physical activity

Exercise D1 Compare physical activity guidelines for different circumstances

Compare the following scenarios by considering these questions for each person:

- (1) How would increasing physical activity help in each of these cases?
- (2) How could you help to overcome the perceived barriers to being more active?
- (3) What types of support or service might help in each of these situations?

KM, a 15-year-old school student, walks with a frame because of cerebral palsy. She has gained weight and tends to comfort eat when bored. "I wish I could run around like my friends."

ID, a 51-year-old accountant, who recently completed chemotherapy after a mastectomy for breast cancer, attends with her husband. She lacks energy and requests a "tonic". Her protective husband almost cancelled, saying "She shouldn't leave the house." They have a Labrador dog, Molly.

VS, a 79-year-old retired nurse, attends for a medication review for hypertension. Frail and anxious about her health, she is widowed and doesn't often leave the house. "I don't want to become a burden on my family."

PD, a 45-year-old bus driver, has had three raised HbA1c readings and attended a diabetes discussion with a dietitian. There has been no improvement in HbA1c, so he has now started metformin. "I used to play football 'when I was a lad'."

Exercise D2 Use motivational interviewing tools to encourage physical activity

Using the same examples, try out the importance and confidence rulers. What happens when you reflect "sustain talk"? How can you convey factual information about the benefits of physical activity without generating the "Yes, but ..." response?

Child obesity: eating behaviours

Advice should always depend on what is driving obesity and weight gain. It is important not to jump to conclusions or to make assumptions about a person's weight gain: the root causes are often eating and activity behaviours, but they could also be related to sleep, mental health and medical issues. A full assessment needs to be made before recommending action, especially with children.

Exercise E1 Responding to parent reactions

Remind yourself about tactics that help children to develop a taste for a wide range of healthy foods and about appropriate portion sizes by reading the leaflet <u>Mealtime</u> <u>magic</u>.

Lifestyle improvements for children include:

- increasing physical activity
- reducing sedentary time
- encouraging regular family meals at a table
- reducing "chaotic eating", unhealthy snacking and sugary drinks
- broadening the range of foods a child is happy to eat to improve the nutritional balance of the diet

- choosing appropriate portion sizes
- · stopping eating when full
- getting enough sleep
- looking after teeth
- taking time to share worries to support resilience and emotional health
- taking time to develop body resilience and confidence.

The following examples are responses from parents when told their child is overweight. In role play pairs, how might you respond to each barrier?

Mrs O	"I've been quite worried about his weight. What do you think we should do?"
Mr P	"I don't agree that my child has obesity – she looks fine to me. I think your chart is wrong."
Mr and Mrs Q	"We know our son eats a lot, but he says he's always hungry."
Mrs R	"I know you said she has obesity, but she is really active. Of course, she eats plenty – she has to, to have enough energy for all the things she does."
Mrs S	"He can't do sports at school because his asthma might cause trouble."

Given the difficulties that some health care professionals have in initiating a conversation about obesity and weight management, it is important to attend to the

family's priorities. Consider using <u>conversation cards</u>, which are created to enhance communication between parents and health care professionals. The ones provided are just examples – others may exist. They are conversation starters designed to help parents identify the biggest challenges they face when addressing issues related to their children's weight and health. Once parents identify their challenges, health care professionals can align their counselling and interventions with the issues that are most important to families.

After completing the exercise, check on possible responses and other considerations here.

Exercise E2 Case example: Jay

Jay, aged 12, and his mother attend. She explains that she was told last year that Jay measured in the "overweight" range. The family have tried to be healthier, swapping to fruit as a snack after school and going swimming a few times, but work pressures and money worries make it hard to "do the right thing all the time". She wonders if you have any ideas, as she doesn't think Jay really looks any different – he seems fine in himself, so she wonders if it is worth all the effort. A year ago, when he was 11, his BMI was 21.8 – near the top of the overweight range at that age.

How would you start the conversation?

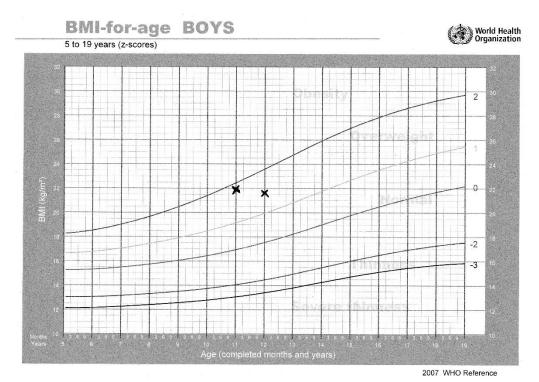
How might you include Jay in the discussion?

At what point would you weigh and measure Jay?

Jay's mother seems ambivalent – "Is it worth all the effort?" How might you help her answer this question?

How would the growth chart be useful in supporting this discussion?

How might Jay's stage of puberty influence your discussion?



Jay's growth chart, showing his BMI at ages 11 and 12. The two cross mark Jay's BMI for age at 11 and 12.

After you praise Jay for making changes and then coming back to follow up on this important issue, Jay is happy to have his height and weight rechecked. His BMI is now 21.5, still in the "overweight" range – weight halfway between the 75th and 91st centiles and height on the 50th centile.

What positive points about Jay's weight trend could you explain to them, even though he remains overweight?

What goals might you explore with Jay?

What goals might you explore with Jay's mother?

Would you encourage a fitness goal, a dietary change goal or both?

After completing the exercise, check <u>here</u> for possible ideas and approaches in tackling Jay's case.

Exercise E1 Responses (check after completion of exercise)

Mrs O	"I've been quite worried about his weight. What do you think we should do?"
	Ideas include: find out why Mrs O is worried about her son's weight. Has his weight been increasing? Is there a health concern? Is there a psychosocial concern? Is the child experiencing weight bias at school? Has anything changed in the child's life? What could be driving the weight change? Determine the psychosocial and health concerns first, then

move on to lifestyle factors. *Nutrition concerns:* look at portion sizes; reduce sugary drinks; save treats for special times; check if fruit and vegetable intake meets recommended amounts. *Physical activity:* set physical activity goals and limit screen time. *Family behaviours:* eat together as a family.

Mr P

"I don't agree that my child has obesity – she looks fine to me. I think your chart is wrong."

Building a rapport and starting "where people are at" are both essential. Understanding the parent's priorities is key. It is also important to explain the difference between physical appearance and obesity – the medical condition. If the child has been clinically diagnosed with obesity, then what we are talking about is a health concern – not a concern about physical appearance. The health care professional can explain that a full medical assessment has been done and the child is experiencing health concerns based on her BMI and EOSS. Explain that many of us do not notice gradual weight changes in those close to us as it happens slowly. Also, we value our children for who they are and not what they look like. Helping the family to engage in a longer-term review of the child's health issues would be very valuable. Change is likely to be slow, but continuity of care in primary care may allow future consultations to build on early positive discussions.

Mr and Mrs Q

"We know our son eats a lot, but he says he's always hungry."

It is important to explore what is driving the patient's hunger. There could be many reasons for this increased hunger (hormones, medications, meal patterns, etc.). Do not assume anything. Make sure you conduct a full medical assessment before you initiate a discussion about a child's weight and health concerns. If there is no health concern right now, the discussion might focus on stopping the weight gain so that no further health problems develop. Assessing the drivers of hunger and weight gain can be positioned as a way to prevent further weight gain and weight-related health problems. Take this opportunity to support the parent in helping their child achieve the best health they can have.

Hunger can be reduced if mealtimes are very regular and predictable, whereas chaotic and irregular eating habits make hunger worse. Reduce portion sizes of less healthy items and increase portions of healthier foods such as fruit and vegetables. Review of medications and assessment of physiological/hormonal changes are also necessary.

Mrs R

"I know you said she has obesity, but she is really active. Of course, she eats plenty – she has to, to have enough energy for all the things she does."

Take this opportunity to inform the parent about obesity – the disease. If the child has been clinically diagnosed with obesity – i.e. there is a medical concern related to the child's weight – then the health care professional can approach the discussion accordingly.

If the child has a BMI in the range of obesity but has no medical conditions (i.e. EOSS stage 0), then the discussions are different. Instead of focusing on the weight or BMI, there is an opportunity to focus on health behaviours. Encourage the family to stay active and healthy. Explain that people and children come in different shapes and sizes. As long as the child is healthy and their weight is not affecting their health, there is no need to intervene. Explore issues of weight bias and body confidence; ask why they are concerned about their daughter's weight.

Broaden the approaches to tackling healthy behaviours by building on approaches that the family enjoy and feel are relevant to them. This may include dietary goals, snacking habits and family routines, in addition to physical activity.

Mrs S

"He can't do sports at school because his asthma might cause trouble."

Explore why the family believe this and provide them with information and resources about how asthma can be controlled so that children can stay active. Building fitness and stamina will be helpful in preventing asthma-related symptoms. Involve the child in the discussion and focus on activities that are currently successful and can be expanded or increased.

Exercise E2 Case example: Jay

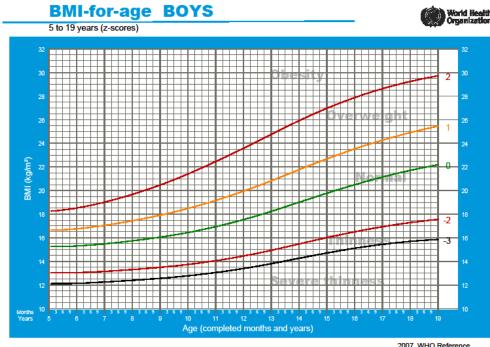
- Start by building a rapport. Offer to measure height and weight once a positive discussion develops, to avoid risk of alienation – measurement may take place at a follow-up appointment once a relationship has been established.
- The family brought up the subject of Jay's weight, so they clearly have concerns. Habits and attitudes learned in childhood commonly persist throughout life, so this is an investment in Jay's long-term health.
- Starting "where people are at" is essential. In this case, the family have raised the issue of financial needs (one of the 4 Ms of obesity management). Address the socioeconomic concerns that the family have brought up. How can you support the family? Are there community services they can use?
- Build on approaches that the family enjoy and feel are relevant to them. These may include dietary goals, snacking habits, physical activity or family routines.
- Childhood lasts a long time, so small changes that slow down the rate of weight gain can stabilize a child's weight pattern. The reduction in BMI from 21.8 to 21.5 is a very positive step forward and the family should be congratulated. If no action had been taken, it could have been predicted that Jay's BMI would have increased further. Avoiding further progression of EOSS stage is a positive goal in itself.
- Encourage and support body confidence. Take this opportunity to educate the family that the
 goal is to focus on health and not on weight or size. BMI is just a tool to keep track of weight
 and size the really important thing is to monitor health outcomes.
- If the child has been diagnosed with obesity (after a full assessment), then the family will need support to address this disease, just like any other.
- A growth chart is useful in illustrating how excess weight gain has led to crossing to a higher centile, and how slowing down further weight gain can reverse this trend. In a child that has yet to reach adult height, weight loss may not be an appropriate goal, but tracking change in BMI percentile is useful. Explaining the timescale for expected change can help families develop a realistic understanding.
- The growth chart centile lines reflect expected changes from puberty. Note that girls typically reach adult height at an earlier age than boys.
- Encourage the family to develop goals that feel most relevant to them, but rein in unrealistic
 goals that are likely to lead to a sense of failure. Check how the family plan to measure
 progress towards the goals they choose.

Using growth charts

Exercise F1 Using percentile and z-score charts

Billy is growing. At 9 years his BMI is 18.5; at 14 years it is 21.5.

1a Plot Billy's BMI using the z-score chart.



Interpretation of cut-offs

Overweight: >+1SD (equivalent to BMI 25 kg/m² at 19 years)

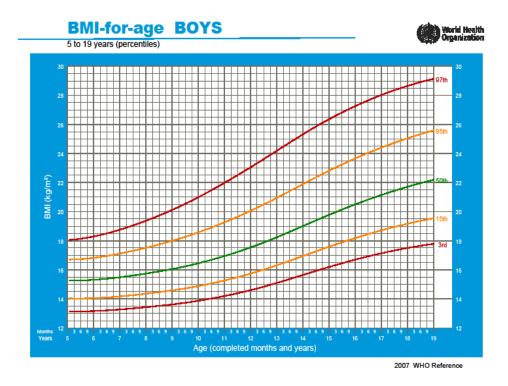
Obesity: >+2SD (equivalent to BMI 30 kg/m² at 19 years)

Thinness: <-2SD Severe thinness:

<-3SD

2007 WHO Reference

1b Plot Billy's BMI using the percentile chart.



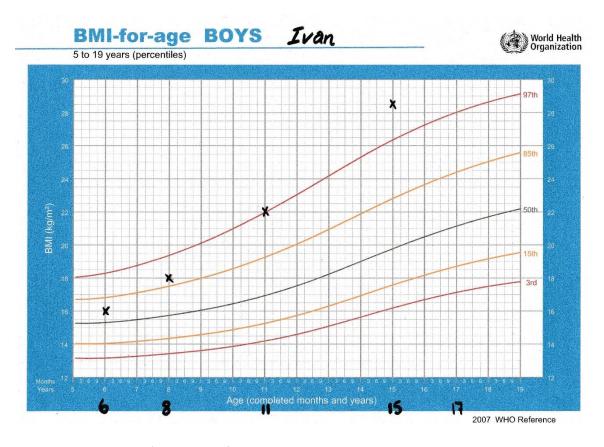
Explain, as if to Billy's parent, what this growth trajectory means. Which do you find easier to explain – z-score or percentile?

Exercise F1 Model responses

- (1) Using the z-score chart, at 9 years old Billy's BMI is more than 1SD (standard deviation) from the norm. This falls in the overweight range, which is more than 1SD but less than 2SD from the norm. By 14 years, Billy's BMI z-score has fallen to within 1SD from the norm, which is in the normal range.
- (2) Using the percentile chart, at 9 years old Billy's BMI is just above the 85th percentile, meaning that over 85% of children in a normal population will weigh the same or less. By 14 years, Billy's BMI percentile has fallen slightly he now falls below the 85th percentile, which is within the normal range.

Exercise F2 Interpreting a growth trend over time

Ivan's BMI readings at ages 6, 8, 11, 15 and 17 are plotted on the growth chart below.



In the table below, fill in the information on percentile and weight range.

Name (boy)	Age	ВМІ	Describe which percentile	What weight range is this?
Ivan	6	16		
	8	18		
	11	22		
	15	28.5		

In pairs, practise explaining this trend as if you were speaking to Ivan and his parent.

- (1) Can you predict Ivan's BMI when he is at age 17?
- (2) Discuss reasons for this growth trend.
- (3) Imagine Ivan visits you at age 11. How could you use the growth chart to help him plan changes to his growth trend?
- (4) How would your advice change if you were speaking to Ivan at age 15 rather than at age 11?

Exercise F2 Model responses

- (1) Without behaviour change, the current trend suggests that Ivan's BMI may increase to around 31 by age 17.
- (2) Assessing and addressing the root causes of the weight gain is necessary. Such causes may go beyond behaviours and could include issues related to the other 4 Ms (Mental, Mechanical, Metabolic, and Milieu). These issues might include energy imbalance; disability or other reason for inactivity; genetic tendency, if both parents have obesity; poor diet – excess sugary drinks and snacks, frequent "grazing" or snacking, inappropriate portion sizes.
- (3) Ivan's BMI trend could flatten as he gets taller, but only if he improves his energy balance either by reducing his calorie intake or by increasing his physical activity or preferably both. If he continues his current lifestyle, it is predicted that his weight imbalance will worsen and he risks becoming obese.
- (4) At this point, at age 11, Ivan falls into the obese range (>+2SD). By age 15 he may be nearing his full height and so have little potential to "grow into his weight". Calorie restriction to achieve weight loss is required if Ivan wants his BMI to normalize.

Exercise F3 Comparing different growth trends

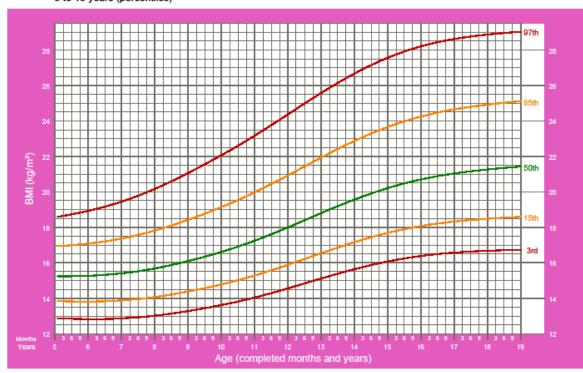
Use the BMI percentile chart below to compare the two contrasting growth trends for Marie and Tia.

	BMI at age 6	BMI at age 8
Marie	16	19
Tia	19.5	19



5 to 19 years (percentiles)





2007 WHO Reference

- (1) How would you explain to Marie's parent the concept of "growing into your weight"?
- (2) How would your advice differ if you were speaking to Tia's parent? What reasons might have led to this pattern?

Exercise F3 Model responses

(1) Marie

"Growing into your weight" is the process in which your rate of weight gain slows down as you grow in height ("stretch") – in other words, your BMI percentile falls without you having to lose weight.

Marie's BMI has increased quite rapidly from the normal range to near the top of the overweight range. There may be a number of factors underlying this trend; these may be revealed during the assessment and conversation with her parents. If Marie is taking in more

energy than she needs for her growth and activity levels, this will lead to excess weight gain. If she does not change her behaviour and the trend continues, Marie risks reaching the obese range in the near future.

Making small but long-term changes to Marie's eating and activity patterns could improve her energy balance, thus gradually reversing the trend towards weight gain. Such changes involve increasing physical activity and reducing average calorie intake – for example, by swapping to sugar-free drinks, reducing portion sizes and choosing healthier snacks. The more this can be tailored to Marie's own circumstances and family context, based on your assessment, the better.

(2) Tia

At age 6 Tia was above the 97th percentile, in the obese range. By age 8 her BMI had dropped slightly, resulting in a more normalized BMI; she now falls below the 97th percentile, in the overweight range (+1.5SD).

Tia's growth trend is encouraging. To some degree it may be considered that Tia has "grown into her weight". Explore the reasons that have led to this trend so that the family can build on the progress that has been made and perhaps look for further reduction in BMI z-score/lower BMI percentile with ongoing growth. Strategies to address weight require behaviour change, such as eating more healthily. However, even if the family and patient are able to make healthy behaviour changes, the weight itself may not change. This is OK: as long as the family/patient are improving their behaviours, we can measure success according to those positive changes and focus on finding the patient's "best weight". We don't need to focus solely on weight change.

Goal-setting

Exercise G1 Setting SMART goals

Remember that for a goal to be effective it should be:

Specific	What exactly do I want to achieve? Who is involved? What am I setting out to do? Where will it happen?
Measurable	How will I track progress and measure what I am doing? How will I know I am achieving my goal? Is it the right measure for what I am actually achieving?
Achievable	Is there a good chance of success or is my goal out of reach? Am I setting out to succeed or risking predictable failure?
Relevant	Is this goal worthwhile to me? Is it my own goal or someone else's?
Timely	Is my time frame clear to me? Do I have a start date and complete date in mind?

In pairs, discuss the following questions for each case below:

- What goal (if any) is the patient focusing on initially? How SMART is this goal?
- How could you encourage the patient to shape their ideas into SMART goals?
- What advice might help to ensure a chosen SMART goal becomes part of long-term lifestyle change?

Miss E, 45, has chronic depressive illness and is diabetic, taking oral hypoglycaemic agents. She lost weight on a commercial very low-calorie diet (VLCD) but put it all back on again after stopping the intervention. Her BMI is 42, her EOSS stage 2, and her HbA1c 65; she does not exercise and smokes 20 cigarettes a day.

"My weight is such a nightmare! My health is a complete disaster, so I'm going to lose weight with those meal replacements again **and** stop smoking."

Mr F, 48, is an ex-rugby player, with osteoarthritis in both knees. He has a BMI of 49, is at EOSS stage 2, and was recently diagnosed with diabetes. He is not keen to attend a "women's" slimming group.

"My wife keeps telling me I should lose some weight, but I've always been big. I think I'll cut out breakfast – that should help."

Mrs G, 37, has struggled with yo-yo dieting for years. She agrees it would be worth trying again. Her BMI is 31, her EOSS stage 2, and her HbA1c 38. She has polycystic ovarian syndrome (PCOS).

"It would be nice to lose weight for the cruise holiday next summer. I'm going to try those milkshake meal replacements I've seen advertised. They're bound to work!"

Miss H, 28, had a baby 8 months ago and has recently stopped breast-feeding. Her BMI is 29 and her EOSS stage 0. She attends for contraception, which you have already dealt with.

"There's no point going on a diet now as we're planning another baby next year – I'll just put it all back on again. I'll sort my weight out afterwards."

Mr J, 23, has been diagnosed with schizoaffective disorder and has started on antipsychotic medication. He has gained 6 kg in 4 months; his current BMI is 33 and his EOSS stage 1. He has attended for a medication review.

"I'm always hungry. My friend told me I'll lose weight if I smoke more."

Exercise G1 Model answers

Miss E	"My weight is such a nightmare! My health is a complete disaster, so I'm going to lose weight with those meal replacements again and stop smoking." Miss E's goal is not specific or timely as she has not suggested a weight loss target or timeframe, and hence she has no way to measure her progress. It is also unlikely to be achievable, as smoking cessation commonly results in weight gain. Rein in these goals and help Miss E set more realistic stepwise goals that she can register and build on; otherwise, it is likely she is setting herself up to fail – again. Exploring mental health issues and determining if they are a key driver of the weight gain would be an evidence-based strategy here. Addressing mental health issues may assist in setting and implementing SMART goals.
Mr F	"My wife keeps telling me I should lose some weight, but I've always been big. I think I'll cut out breakfast – that should help." Mr F's goal appears to be to please someone else (his wife), rather than something he himself thinks is worthwhile. Exploring his own reasons and benefits to be gained from weight control may improve his success. Cutting out a meal is not recommended for weight loss because increased hunger due to the missed meal is thought to cause overcompensation later in the day. Improving the nutritional balance of each meal and reducing portion size and snacks between meals are more evidence-based approaches. Exploring mechanical/functional health issues such as pain as a barrier to physical activity (in this case, osteoarthritis) would be an evidence-based strategy. Addressing pain and mobility issues may help Mr F set and implement SMART goals.
Mrs G	"It would be nice to lose weight for the cruise holiday next summer. I'm going to try those milkshake meal replacements I've seen advertised. They're bound to work!" Mrs G has suggested a short-term goal for superficial reasons – wanting to look nice on holiday – which is unlikely to act as a long-term motivator for maintaining weight loss, so she risks regaining weight after her holiday. Explore her views on longer-term health benefits and continuing lifestyle changes in order to avoid her previous yo-yo pattern.

Meal-replacement shakes can help short-term weight loss but may not be as effective for long-term weight maintenance. Having a two-stage strategy comprising initial weight loss and then ongoing support for her longer-term weight maintenance would be valuable. Considering the patient has been engaged in yo-yo dieting, it may be appropriate to address underlying factors such as internalized weight bias or body confidence issues that could be driving her dieting behaviour. Also, unrealistic weight loss expectations are a barrier to weight management. Addressing those weight loss expectations may help her to set and implement SMART goals. When setting expectations for a weight management plan, it is important to set realistic and achievable goals that work within a lifestyle that patients can enjoy. It may also be appropriate to assess underlying conditions such as PCOS as these may be affecting weight gain.

Miss H

"There's no point going on a diet now as we're planning another baby next year – I'll just put it all back on again. I'll sort my weight out afterwards."

There is very good evidence that losing pregnancy weight in between pregnancies is healthiest for both mother and future pregnancies. Progressive pregnancy weight gain is or was a significant factor for many women with obesity. Obesity increases risk of gestational diabetes, hypertension and pre-eclampsia, as well as stillbirth and congenital abnormalities. This case presents an opportunity to talk about healthy behaviours during and after pregnancy. There are many other factors that can influence pregnancy such as environmental factors (culture, socioeconomic status, psychological health, emotional stressors) and genetics. What is most important during pregnancy, no matter what weight a woman has at the beginning of pregnancy, is to practise behaviours that promote health and wellness.

Mr J

"I'm always hungry. My friend told me I'll lose weight if I smoke more."

It is a myth that smoking prevents weight gain, although it is true that smoking cessation is linked to weight gain. On average, ex-smokers gain around 5 kg. It is also true that some antipsychotic medications are linked to weight gain. Consider other medications that can be used that do not cause weight gain. Mr J will benefit from understanding how physical activity and meal and snack planning can help with weight control. Smoking more would not be a healthy option! Exploring mental health issues and determining if they are a key driver of the weight gain would be an evidence-based strategy here. Addressing mental health issues may assist in setting and implementing SMART goals.

Exercise G2 Changing barriers into goals

First read the example to remind yourself of motivational interviewing tactics to encourage the patient to set their own goals.

Example (motivational interviewing principles in italics)

Patient: My job is sedentary.

Health care professional (HCP): So you don't have any opportunity to exercise. (*Reflect back sustain talk – statement, not question.*)

Patient: Not during the day, I don't.

HCP: What about at other times? (*Elicit – invitation for patient to expand on their thoughts.*)

Patient: Yes, I could do a bit more at the weekends.

HCP: We know it is just as valuable to do several short spells of activity throughout the day as one long session. (*Provide information.*)

Patient: You mean doing something in my lunch break might be worthwhile even if it was only 10 minutes?

HCP: How feasible might that be for you? (*Elicit – encourage patient to develop their idea.*)

In pairs, practise ways to discuss barriers and explore how to elicit "change talk" instead of "sustain talk". For each example, what sort of response would you like to unlock from the patient?

Environmental barriers	Behavioural/ambivalence
My job is sedentary.	Life is OK despite my weight – I've always been like this.
The food I buy states it is healthy on the packets.	I'll need to buy new clothes if I change shape.
It is too expensive to eat healthily.	I'm too depressed/stressed with other problems to worry about my weight.
There is nowhere local to exercise.	I dislike/don't have time to exercise.
The shops here all sell junk food.	I'm planning another baby, so there's no point dieting now.
I never learned how to cook.	It will take enormous effort to lose weight and I know it won't last.
I thought the Olympic logo meant this food must be good for me.	I eat and drink the same as everyone else — I can't see what I'm doing wrong.

And finally ...

Reflective template		
What	What did I learn? How did this alter my previous understanding?	
List three learning points from this course:		
1.		
2.		
3.		
So what	Reflection/interpretation/analysis/evaluation	
	Importance/impact on individuals and/or practice	
Give examples of how you will put this learning into practice:		

1.	
2.	
3.	
Now what	Action points/change in practice/application to other situations
	next develop your knowledge? How will you develop the services that support your patients?