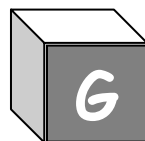




WHO Child Growth Standards

Training Course on Child Growth Assessment



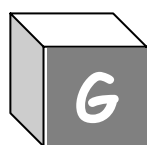
Facilitator Guide



World Health
Organization

WHO Child Growth Standards

Training Course on Child Growth Assessment



Facilitator Guide

Version 1 — November 2006



**World Health
Organization**

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Facilitator Guide

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Facilitator Guide

Introduction to this *Facilitator Guide*

For whom is this course intended?

This course is designed for health care providers who are responsible for measuring and assessing the growth of children. These may include paediatricians, family practice physicians, nurses, clinical officers, health assistants, and nutritionists working in the public and private sectors.

What methods of instruction are used in this course?

This course uses a variety of methods of instruction, including reading, written exercises, discussions, role plays, demonstrations, and clinical exercises (i.e. practice with real children, either in the classroom or in a health facility setting). **Practice**, whether in written exercises, role plays, or clinical exercises, is considered a critical element of instruction.

How is the course conducted?

- Small groups of participants are led and assisted by “facilitators” as they work through the course modules (booklets that contain units of instruction). The facilitators are not lecturers, as in a traditional classroom. Their role is to answer questions, provide individual feedback on exercises, lead discussions, structure role plays, etc.
- The modules provide the basic information to be learned. Information is also provided through demonstrations, photographs, and a video.
- The modules are designed to help each participant develop specific skills necessary for assessing the growth of children and counselling about growth problems. Participants develop these skills as they read the modules and practise skills in written exercises, group discussions, role plays, and clinical exercises.
- To a great extent, participants work at their own pace through the modules. In some activities, such as role plays and discussions, the small group will work together.
- Each participant discusses any problems or questions with a facilitator and receives prompt feedback on completed exercises. (Feedback includes reviewing and discussing the exercise with the participant.)

What is a FACILITATOR?

A facilitator is a person who helps the participants learn the skills presented in the course. The facilitator spends much time in discussions with participants, either individually or in small groups. For facilitators to give enough attention to each participant, two facilitators are needed for each group of 6–9 participants. In your assignment to teach this course, YOU are a facilitator. You will work with a co-facilitator to lead a group.

As a facilitator, you need to be very familiar with the material being taught. It is your job to give explanations, do demonstrations, answer questions, talk with participants about their answers to exercises, conduct role plays, lead group discussions, and generally give participants any help they need to successfully complete the course. You are not expected to teach the content of the course through formal lectures. Lecturing is not recommended, even if this is the teaching method to which you are most accustomed.

What, then, DOES a FACILITATOR do?

As a facilitator, you do three basic things:

1. You INSTRUCT:

- Make sure that each participant understands how to work through the materials and what is expected in each module and each exercise.
- Answer the participant's questions as they occur.
- Explain any information that the participant finds confusing, and help the participant understand the main purpose of each exercise.
- Lead group activities, such as group discussions, role plays, and clinical exercises, to ensure that learning objectives are met.
- Promptly review each participant's work and give correct answers.
- Discuss how the participant obtained the answers in order to identify any weaknesses in the participant's skills or understanding.
- Provide additional explanations or practice to improve skills and understanding.

2. You MOTIVATE:

- Compliment the participant on correct answers, improvements or progress.
- Help participants to understand how to use skills taught in the course in their own work settings.

3. You MANAGE:

- Plan ahead and obtain all supplies needed each day, so that they are in the classroom when needed.
- Make sure that there are no major obstacles to learning (such as too much noise or not enough light).
- Monitor the progress of each participant.

How do you do these things?

- Show enthusiasm for the topics covered in the course and for the work that the participants are doing.
- Be attentive to each participant's questions and needs. Encourage the participants to come to you at any time with questions or comments. Be available during scheduled times.
- Watch the participants as they work, and offer individual help if you see a participant looking troubled, staring into space, not writing answers, or not turning pages. These are clues that the participant may need help.
- Promote a friendly, cooperative relationship. Respond positively to questions by saying, for example, "Yes, I see what you mean," or "That is a good question." Listen to the questions and try to address the participant's concerns, rather than rapidly giving the "correct" answer.
- Always take enough time with each participant to answer questions completely (that is, so that both you and the participant are satisfied).

What NOT to do.....

- During times scheduled for course activities, do not work on other projects or discuss matters not related to the course.
- In discussions with participants, avoid using facial expressions or making comments that could cause participants to feel embarrassed.
- Do not lecture about the information that participants are about to read. Give only the introductory explanations that are suggested in the *Facilitator Guide*. If you give too much information too early, it may confuse participants. Let them read it for themselves in the modules.
- Do not review text paragraph by paragraph. (This is boring and suggests that participants cannot read for themselves.) As necessary, review the highlights of the text during individual feedback or group discussions.

- Do not be condescending. In other words, do not treat participants as if they are children. They are adults.
- Do not talk too much. Encourage the participants to talk.
- Do not be shy, nervous, or worried about what to say. This *Facilitator Guide* will help you remember what to say. Just use it!

How can this FACILITATOR GUIDE help you?

This *Facilitator Guide* will help you teach the course modules. For each module, this *Facilitator Guide* includes the following:

- a list of the procedures to complete the module, highlighting the type of feedback to be given after each exercise
- guidelines describing:
 - how to do demonstrations, role plays, group discussions, and clinical exercises
 - points to make in group discussions or individual feedback
 - how to lead a visit to a health facility and structure practice there
- copies of answer sheets for exercises.

Answer sheets are also provided in a separate packet for each participant. Individual answer sheets should be detached and given to each participant after exercises, during individual feedback or after a group discussion. For convenience, some facilitators tear out all of the answer sheets for an upcoming exercise and put them in a stack to have them ready to give to each participant as needed.

At the back of this *Facilitator Guide* is a section titled "Guidelines for all modules." This section describes training techniques to use when working with participants during the course. It provides suggestions on how to work with a co-facilitator. It also includes important techniques to use when:

- participants are working individually;
- you are providing individual feedback;
- you are leading a group discussion;
- you are coordinating a role play; or
- are directing a clinical exercise;

To prepare yourself for each module, you should:

- read the module and work the exercises,
- check your answers by referring to the answer sheets (provided in the *Facilitator Guide*),
- read in this *Facilitator Guide* all the information provided about the module,

- plan with your co-facilitator how work on the module will be done and what major points to make,
- collect any necessary supplies for exercises in the module,
- think about sections that participants might find difficult and questions they may ask,
- plan ways to help with difficult sections and answer possible questions,
- ask participants questions that will encourage them to think about using the skills in their own work settings.

Checklist of instructional materials needed in each small group

Item needed	Number needed
Set of five modules (A–E), includes: <i>A: Introduction</i> <i>B: Measuring a Child’s Growth</i> <i>C: Interpreting Growth Indicators</i> <i>D: Counselling on Growth and Feeding</i> <i>E: Photo Booklet</i>	1 set for each facilitator and 1 set for each participant
<i>F: Answer sheets</i> (set in tablet)	1 tablet for each participant
<i>G: Facilitator Guide</i>	1 for each facilitator
WHO child age calculator	1 for each facilitator and participant
<i>Boy’s Growth Record</i>	2 for each facilitator and participant <i>(1 will be used for exercises; the other may be taken home blank)</i>
<i>Girl’s Growth Record</i>	2 for each facilitator and participant <i>(1 will be used for exercises; the other may be taken home blank)</i>
Set of job-aids (2 booklets) including: <ul style="list-style-type: none"> • <i>Weighing and Measuring a Child</i> • <i>Investigating Causes of Undernutrition</i>, bound with <i>Investigating Causes of Overweight</i> 	1 set for each facilitator and 1 set for each participant
Set of overhead transparencies (42)	1 set per small group
Anthropometry Training Video (DVD or videotape)	1 per small group
Copy of course schedule	1 for each facilitator and participant

Checklist of supplies needed for work on modules

Supplies needed for each person include:

- name tag and holder
- 2 pens
- 2 pencils with erasers
- paper
- highlighter
- folder or large envelope to collect answer sheets
- calculator with x^2 button (optional but helpful) – Participants may be asked to bring this type of calculator if they have one; for those who do not have calculators, it is recommended to have one or two available to share in each small group.

Supplies and equipment needed for each group include:

- paper clips
- pencil sharpener
- stapler and staples
- 1 roll masking tape
- extra pencils and erasers
- flipchart and markers OR blackboard and chalk OR whiteboard and dry erase markers
- Equipment for playing and viewing a DVD or videotape (may be shared by groups)
- overhead projector and erasable markers for writing on overhead transparencies

Certain exercises require special **measuring equipment and other items**. These items are listed in the guidelines for each module. Your course director will tell you where to obtain the needed items, which include:

- a taring scale
- a length/height board set up to measure length
- a length/height board set up to measure height
- calibration tools: weights and rods
- paper towels or soft cloth to cover the length/height board
- small toys to entertain the children and offer as presents to take home
- tokens of thanks for the parents, such as a gift certificate for groceries.

Facilitator Guidelines for

A: Introduction

Notes for each of these numbered procedures are given on the following pages.

Procedures	Feedback
1. Introduce yourself and ask participants to introduce themselves.	-----
2. Do any necessary administrative tasks.	-----
3. Distribute and introduce module <i>A: Introduction</i> . Participants read the module (pages 1–5).	-----
4. Answer any questions about module <i>A: Introduction</i> .	-----
5. Explain your role as facilitator.	-----
6. Continue immediately to module <i>B: Measuring a Child's Growth</i> .	-----

1. Introduction of yourself and participants

Introduce yourself and your co-facilitator and write your names on the blackboard or flipchart. As the participants introduce themselves, ask them to write their names on the blackboard or flipchart. (If possible, also have them write their names on large name cards at their places.) Leave the list of names where everyone can see it. This will help you and the participants learn each other's names.

Explain to participants that you would like to learn more about their current responsibilities related to growth assessment. This will help you understand their situations and be a better facilitator for them. For now, you will ask participants to tell where they work and what their job is. During the course you will further discuss what they do in their work.

Begin with the first participant listed on the flipchart and ask the two questions below. Note the answers on the flipchart.

- Where do you work?
- What is your position or responsibility for assessing the growth of children?

Note: Have the participant remain seated. You should ask the questions and have the participant answer you, as in a conversation. It is very important at this point that the participant feel relaxed and not intimidated or put on the spot. (Though it may be interesting to ask more questions, do not do that now. This should not be a long discussion.)

2. Administrative tasks

There may be some administrative tasks or announcements that you should address. For example, you may need to explain the arrangements that have been made for lunches, transportation of participants, or payment of per diem.

Ask participants to turn off their cell phones during the course sessions.

Distribute the course schedule, and answer any questions about the schedule.

3. Introduction of module and manual

Distribute module A: *Introduction*. Explain that this introductory module provides a brief overview of the course. This module:

- stresses that growth assessment efforts must be associated with appropriate **response** to growth problems discovered,
- describes the significance of the WHO child growth standards, and
- describes the course methods and learning objectives.

Explain that this module, like all the modules that the participants will be given, is theirs to keep. As they read, they can highlight important points or write notes on the pages if they wish.

Point out the glossary at the end of the module *A: Introduction*. Participants should look in the glossary when they encounter an unfamiliar term.

Ask the participants to read pages 1–5 in module *A: Introduction* now.

4. Answering questions

When everyone has finished reading, ask if there are any questions about the module or the purpose of the course. Answer any questions.

5. Explanation of your role as facilitator

Explain to participants that, as facilitator (along with your co-facilitator), your role throughout this course will be to:

- guide them through the course activities,
- answer questions as they arise or find the answer if you do not know,
- clarify information they find confusing,
- give individual feedback on exercises where indicated,
- lead group discussions, drills, and role plays, and
- lead clinical exercises (with real children) in the classroom and in a health facility.

6. Continuing to the next module

Proceed directly to module *B: Measuring a Child's Growth*.

Facilitator Guidelines for

B: Measuring a Child's Growth

Notes for each of these numbered procedures are given on the following pages.

Procedures	Feedback
1. Distribute module <i>B: Measuring a Child's Growth</i> and other materials used in this module. Introduce the module.	-----
2. Participants read pages 1–5 of the module. Demonstrate use of the age calculator. Participants then read through page 7 and do written Exercise A (pages 8–9).	Individual feedback
3. Participants do written Exercise B (pages 10–11), in which they begin case studies about Nalah and Toman, a boy and girl whose growth will be followed throughout the course.	Individual feedback
4. Participants read pages 12–14 of the module and refer to the photo booklet to observe clinical signs of severe undernutrition.	-----
5. Participants read pages 15–23, do the short answer exercise on page 24, and then read page 25.	Self-checked
6. Video demonstration: Show selected sections of the <i>Anthropometry Training Video</i> .	-----
7. Live demonstration: Using real equipment, demonstrate how to check the scale and measuring boards.	
8. Lead clinical Exercise C (page 27), which involves weighing and measuring real children.*	Facilitators supervise and provide feedback
9. Participants read pages 28–29 and do the short answer exercise about BMIs on page 30.	Self-checked
10. Participants do Exercise D (page 31) – determining BMIs for the real children previously measured.	Compare results with another participant
11. Participants do Exercise E (pages 32–33), continuing case studies of Nalah and Toman.	Individual feedback
12. Conclude the module.	-----

* Children will be brought to the classroom for Exercise C. If this is not possible, travel to a clinic may be necessary before this step.

1. Introducing the module

Distribute module *B: Measuring a Child's Growth* and the following additional materials used with this module:

- *Boy's Growth Record* and *Girl's Growth Record* (2 copies of each per participant)
- *E: Photo Booklet*
- *WHO child age calculator*
- *Job-Aid: Weighing and Measuring a Child*

Each participant needs two copies of the *Boy's Growth Record* and two copies of the *Girl's Growth Record*. They will write in one copy to complete exercises in the course; the other copy can be kept clean.

Explain that this module teaches how to determine a child's age; recognize clinical signs of certain serious problems of undernutrition; weigh a child; measure length or height; and determine a child's BMI (body mass index). Later modules will describe how to use these measurements to determine growth indicators and assess a child's growth.

Review the list of objectives on page 1 of the module.

Describe how participants will work on this module and other modules:

- In general, participants will read until they come to an exercise (as on page 8 of the module) or an instruction in a box (as on page 26, where participants are instructed to stop for a video).
- **Written exercises are marked by a picture of a pencil** and are done independently.
- At the end of written exercises, there is usually a box that instructs participants to review and discuss their answers with a facilitator. This private discussion is called **individual feedback**. The purpose is to clarify any misunderstandings and help participants learn. Explain what participants should do when they are ready for individual feedback. (Depending on the room arrangement, they may raise their hands for a facilitator to come to them, or they may come to the facilitator who is sitting apart from the group.)
- The modules also include some **short answer exercises** (as on page 24 of module B). Participants are instructed to check these exercises themselves by looking at answers given at the end of the module. If participants have questions about a short answer exercise, they should talk with a facilitator.
- Some exercises involve **clinical practice** using real equipment and measuring real children.

- In some modules, there are **discussion and role play exercises** as well as written exercises and clinical practice. These are marked by pictures of a group or drama masks.

Ask participants to begin work on module B by reading pages 1–7. Tell them that when everyone has read at least to the top of page 5, you will give a brief demonstration of how to use the age calculator.

2. Reading, demonstration, and Exercise A: Written Exercise with individual feedback– Determining a child’s age, selecting growth charts to use

While participants are reading, watch to see whether any participants are struggling. If a participant is visibly struggling, go to that individual and ask quietly if the participant has a question or needs help. Some people find it very easy to use the WHO child age calculator, while other very intelligent people find it difficult. Help as needed. Leaving a participant to struggle is likely to result in frustration and loss of motivation.

Demonstration of using the age calculator

When everyone has read at least to the top of page 5 (and some may have read further), get the group’s attention for a brief demonstration of how to use the age calculator. With everyone holding their own calculators, follow the instructions on page 5 of the module to “walk them through” the example about Grace Madu given on pages 6. Make up another example for a child who is more than 1 year old, and lead the group through that example. You may also do an example for a child who is less than 3 months old.

After the demonstration, ask participants to finish reading page 7 and then complete Exercise A (pages 8–9) independently. When they have finished the exercise, they should see a facilitator for individual feedback.

Exercise A–Individual feedback

Watch as participants begin working on the first written exercise. Be sure that they are not confused about what to do, stuck with no pencil, etc. Some participants may need a bit of encouragement to write in the module book.

When you see that a participant has finished the exercise, you may need to initiate individual feedback by encouraging the participant to come to you. If individual feedback is a new method for the participants, they may wait to see whether and how individual feedback happens. Some may not come for feedback unless you prompt them. Be sure that every participant receives individual feedback on this exercise.

Make sure that this first experience with individual feedback is positive. Look at each participant’s answers carefully. Ask whether the participant has questions; listen attentively; and answer carefully. Build the participant’s confidence that these interactions will be pleasant and helpful. When interactions are positive and

participants feel that facilitators are interested in their work, they are more motivated to do the work well.

To provide feedback on Exercise A:

- Compare the participant's answers to those given on the next page.
- If there is a discrepancy in the age recorded by the participant, ask him or her to show you, using the WHO child age calculator, how the age was determined. Observe the participant to find out how the error occurred and correct any misunderstanding.
- Point out that the selection of growth charts to be used is dependent on the child's age.

Note: One of the growth charts is used for children from birth to 2 years of age, which includes two of the age groups in the *Growth Record*. This chart (weight-for-length, on page 35) may be used both for children from Birth to 6 months of age, and children 6 months to 2 years of age. The weight-for-length chart on page 31 is an enlargement of part of that chart, to make it easier to plot and read weight-for-length for children up to 6 months of age.

- Answer any questions that the participant may have.
- Give the participant a copy of the answer sheet for this exercise to keep. You will need to remove the answer sheet from the packet titled *G:Answer Sheets* to give it to the participant.
- Thank or congratulate the participant for his or her work. Then ask the participant to do Exercise B. Explain that the participant will need to use one copy of the *Boy's Growth Record* and one copy of the *Girl's Growth Record* in this exercise, which begins continuing case studies of a boy named Toman and a girl named Nalah.

Answers to Exercise A

1. Salaam's age today: 1 yr 9 mo

The growth charts to be used for Salaam are:

Length-for-age, Boys, 6 months to 2 years, on page 33
Weight-for-age, Boys, 6 months to 2 years, on page 34
Weight-for-length, Boys, Birth to 2 years, on page 35
BMI-for-age, Boys, 6 months to 2 years, on page 36

2. Ruby's date of birth: 1/5/2005

Ruby's age today: 11 mo

The growth charts to be used for Ruby are:

Length-for-age, Girls, 6 months to 2 years, on page 33
Weight-for-age, Girls, 6 months to 2 years, on page 34
Weight-for-length, Girls, Birth to 2 years, on page 35
BMI-for-age, Girls, 6 months to 2 years, on page 36

3. Ivan's age today: 12 wk

The growth charts to be used for Ivan are:

Length-for-age, Boys, Birth to 6 months, on page 29
Weight-for-age, Boys, Birth to 6 months, on page 30
Weight-for-length, Boys, Birth to 6 months, on page 31
BMI-for-age, Boys, Birth to 6 months, on page 32

3. Exercise B: Written exercise with individual feedback – Continuing case studies of Nalah and Toman

In this exercise the participant should have made entries in a *Girl's Growth Record* for Nalah and a *Boy's Growth Record* for Toman. Compare the entries on the Personal Data and Visit Notes pages to those shown on the answer sheet. Be sure that the child's "age today" in the Visit Notes is correct; if not, determine why the participant made an error and correct any misunderstanding.

Be sure that the participant understands the structure of the *Growth Record*, specifically, where to find the growth charts to use for each age group.

Note that only minimal information about feeding is recorded on the Personal Data page. More details of the child's feeding history may be recorded in the Visit Notes. There is no need to write "still breastfeeding" for Nalah on the Personal Data page; leave the line after "age at termination of breastfeeding" blank until termination occurs. Also leave the line for "adverse events" blank unless some event has occurred; do not write "none" as something may happen later.

Give the participant a copy of the answer sheet for Exercise B. Ask the participant to read pages 12–14 of the module and refer to *E: Photo Booklet* as instructed to view certain clinical signs of malnutrition. The participant should then continue reading and working in the module up to page 26, where there is an instruction to stop for a video demonstration.

Answers to Exercise B

Nalah

1. Nalah's Personal Data page should look something like the following:

Personal Data	
Child's name <u>Nalah Parab</u> Identification/Record number _____ Parents' names <u>Hamid and Shira Parab</u> _____ Address <u>40 Rim Road</u> _____	<input checked="" type="checkbox"/> Girl <i>If a boy, must use a Boy's Growth Record</i>
Birth information:	
Date of birth <u>7-2-2006</u> Gestational age at birth <u>38 wk</u> Single/multiple birth? <u>Single</u> Measurements at birth: Weight <u>2.9 kg</u> Length <u>49 cm</u> Head circumference _____ Birth rank <u>1st</u> Date of birth of next younger sibling (born to mother) _____	
Feeding:	
Age at introduction of any foods or fluids <u>3wk (water)</u> <i>More details of feeding history may be recorded in Visit Notes</i> Age at termination of breastfeeding _____	
Adverse events (dates):	
(such as death of parent, death of sibling age <5 years) _____ _____	

2. Nalah's Visit Notes (first row) should appear as follows:

Date of birth: <u>7-2-2006</u>		Visit Notes			
Date of visit	Age today (Completed years/months or weeks)	Measurements (Record below; then plot on charts)			Reason for visit, observations, recommendations
		Weight (kg)	Length/Height (cm)	BMI*	
<u>25-3-2006</u>	<u>6 wk</u>				<u>immunization</u>

**B: Measuring a Child's Growth
Answers to Exercise B, continued**

3. The health care provider should use the following growth charts for Nalah at this visit:

- Length-for-age, Girls, Birth to 6 months, page 29
- Weight-for-age, Girls, Birth to 6 months, page 30
- Weight-for-length, Girls, Birth to 6 months, page 31
- BMI-for-age, Girls, Birth to 6 years, page 32

Toman

1. Toman's Personal Data page should look something like the following:

Personal Data	
Child's name <u>Toman Baruni</u>	<input checked="" type="checkbox"/> Boy <small>If a girl, must use a Girl's Growth Record</small>
Identification/Record number _____	
Parents' names <u>Mother: Salwa Baruni</u> <u>(separated from Mr. Baruni)</u>	
Address <u>100 Centre Street, Apt 22</u>	
Birth information:	
Date of birth <u>10-7-2005</u>	
Gestational age at birth <u>term</u>	Single/multiple birth? <u>single</u>
Measurements at birth:	
Weight <u>3.5 kg</u>	Length _____ Head circumference _____
Birth rank <u>2nd</u>	
Date of birth of next younger sibling (born to mother) _____	
Feeding:	
Age at introduction of any foods or fluids <u>at birth (formula)</u>	More details of feeding history may be recorded in Visit Notes
Age at termination of breastfeeding <u>3 mo</u>	
Adverse events (dates):	
(such as death of parent, death of sibling age <5 years) _____	

B: Measuring a Child's Growth
Answers to Exercise B, continued

2. Toman's Visit Notes (first row) should appear as follows:

Date of birth: 10-7-2005		Visit Notes			
Date of visit	Age today (Completed years/months or weeks)	Measurements (Record below; then plot on charts)			Reason for visit, observations, recommendations <i>Note: Earlier Growth Record lost. Immunizations up-to-date at 6mo.</i>
		Weight (kg)	Length/Height (cm)	BMI*	
15-8-2006	1yr 1mo				well child visit, measles immunization needed

3. The health care provider should use the following growth charts for Toman at this visit:

- Length-for-age, Boys, 6 months to 2 years, page 33
- Weight-for-age, Boys, 6 months to 2 years, page 34
- Weight-for-length, Boys, Birth to 2 years, page 35
- BMI-for-age, Boys, 6 months to 2 years, page 36

4. Reading and observing signs of severe undernutrition in photos

As participants read page 12–14 of the module, watch to see that they refer to their photo booklets to see pictures of children with marasmus, kwashiorkor, and oedema of both feet. If participants have questions about the photos, answer them, but do not get involved in a long group discussion about the photos. There will be an opportunity to discuss the photos in module C.

5. Reading and short answer exercise

Participants read pages 15–23, which describe and illustrate how to weigh and measure a child. They should do the short answer exercise on page 24 independently, check their own answers, and then read page 25. They should stop at the box that instructs them to wait for the video demonstration.

6. Video demonstration of measuring weight, length, and height and caring for equipment

When everyone is ready, show selected sections of the *Anthropometry Training Video* as directed below. Explain that this video was used to train staff in the WHO Multicentre Growth Reference Study (MGRS). Some of the sections will not apply to this training course, and you will skip those sections.

As the equipment used in the course may be different from the equipment in the video, encourage participants to focus on weighing and measuring techniques rather than the equipment itself.

- Start the video at the beginning. First you will hear some general information about the WHO MGRS. Then you will view sections that show how to weigh a child using tared weighing, how to measure recumbent length, and how to measure standing height. Stop the video after viewing the screen titled “Summary of height,” just before the section on head circumference. (Viewing time to this point is about 8 minutes.)
- Pause to answer any questions about the weighing and measuring process. (Point out that, although adult weights and heights were measured in the study, this course will not teach measurement of adults. Nor will it teach measurement of head circumference, mid-upper arm circumference, etc.)
- Fast forward the video to the screen titled “Correct handling and care of instruments.” View the sections on care of the length and height boards and the Uniscale. Stop when you see the screen titled “Skinfold calipers.” (Viewing time for this section is about 3 minutes.)
- Answer any questions about the video. Explain that you will demonstrate checking the scale and measuring boards with real equipment next.

Note: For step 7 a scale and measuring boards should be brought to the classroom. For step 8 (Exercise C), mothers and children will need to be present. If children cannot be brought to the classroom, your group will need to go to a clinic where the equipment and children are available. Your course director will inform you of the arrangements.

If there is a delay before the live demonstration or clinical Exercise C, participants may continue reading in the module about BMI (pages 28–29) and may do the short answer exercise on page 30. If they work ahead in this way, they will be able to do Exercise D (determining BMIs) immediately following Exercise C.

7. Live demonstration of checking equipment

Note any differences in the equipment shown in the video and the available equipment.

Demonstrate to participants how to check the scale using known weights and the measuring boards using rods of known length. If the measurements are off, decide how to handle this. It may be possible to calibrate the scale. If not, explain to participants how they should adjust measurements by adding or subtracting.

8. Exercise C: Clinical practice – measuring weight, length, and height

Ensure that the equipment is set up properly and conveniently in the room with a station for weighing, measuring length, and measuring height. If the equipment is different than in the video, first demonstrate weighing and measuring a child using the equipment available. If there is no taring scale, it will be necessary to weigh the mother, then the mother with the baby, and then subtract to find the baby's weight.

Explain to mothers the purpose of the training. Emphasize that participants will need the mothers' help with measuring and reassuring the children.

Take notice of the number of children present and their apparent ages. You will try to ensure that each participant measures at least one child who is less than 2 years old and one child who is between 2 and 5 years of age.

Assign pairs of participants to work together. Assign each pair to weigh and measure a child. (When they have finished, you will assign them another child.)

Remind participants that they should do the steps listed in the module on page 27, starting by determining the child's date of birth, then age, etc. They should record results in the Visit Notes. Tell participants what to do if they discover that a child has a serious problem; for example, tell them whom to refer the child to. Remind

participants that if a mother is extremely heavy, they may need to ask a lighter adult to hold the child on a taring scale.

Observe participants closely as they work and correct their technique. There are many details to remember when measuring length and height, and guided practice is required. Help participants learn to measure correctly and quickly by giving them feedback while they work. Ensure that they record weight to the nearest 0.1 kg and length/height to the nearest 0.1 cm.

Make note of the names of some children whose measurements would be interesting to plot on growth charts (for example, children who may be underweight, overweight, or stunted). There will be a group discussion in the next module in which you will demonstrate (using the overhead projector) plotting the measurements of several children on growth charts to determine whether or not they have growth problems.

When each pair has had a chance to weigh and measure at least two children (one less than 2 years and one age 2–5 years), conclude the exercise and thank the mothers and children. Arrangements should have been made to give each child a small toy and to provide some token of thanks to each mother.

9. Reading and short answer exercise about BMIs

Ask participants to read pages 28–29 of the module and do the short answer exercise about BMIs on page 30.

If participants have calculators, they will want to use them in this part of the module. If not, they may share a calculator with someone who has one, or simply use the BMI table. Watch to see whether any participants are having difficulty with the calculator or the BMI table, and help anyone who seems confused.

10. Exercise D – Determining BMI for children previously measured

Participants will use the measurements previously recorded in Exercise C for this exercise. They may use the BMI table or a calculator to determine BMIs for the children that they measured in Exercise C.

There is no answer sheet for this exercise. Participants should check their results by comparing with those of another participant who measured the same children. Ask participants to consult with you if there are discrepancies that they cannot resolve.

11. Exercise E – Written exercise with individual feedback – Continuing case studies of Nalah and Toman (BMIs)

To complete this exercise, participants will need the *Growth Records* that they have begun for Nalah and Toman, as well as a calculator or the BMI table.

Participants will determine ages and BMIs for Nalah and Toman at a series of visits.

It is important to record all of the information provided or calculated in this exercise on the Visit Notes pages for Nalah and Toman. **This information will be used to complete graphs in the next module.**

Provide individual feedback using the answer sheets on the next pages. If a participant made an error in determining age, watch the participant repeat the process of using the WHO child age calculator in order to identify where the error was made.

If the participant used the BMI table to determine BMIs, compare answers to those written in the Visit Notes in the answer sheet. If the participant used a calculator to determine BMI, compare results to those typed below the Visit Notes. If there are errors, try to determine why; it is possible that errors are due to rounding. BMIs calculated using a calculator should be rounded to one decimal place (rounding up if the hundredths place is 0.05 or higher, rounding down if 0.04 or lower). BMIs found on the BMI table will usually be whole numbers; if the child's weight is exactly halfway between those shown on the table, i.e. "on the line," the BMI will end in 0.5.

Point out to the participant that the results found using a calculator or the BMI table are very close. Give the participant a copy of the answer sheet.

Answers to Exercise E

Nalah

Nalah's Visit Notes page should appear as follows if you used the BMI table to determine BMI. If you used a calculator, compare your results to the BMIs listed below the Visit Notes.

Date of birth: 7-2-2006		Visit Notes			
Date	Age today (Completed years/months or weeks)	Measurements (Record below; then plot on charts)			Reason for visit, observations, recommendations
		Weight (kg)	Length/Height (cm)	BMI*	
25-3-2006	6 wk	3.5	51.3	13.5	immunization
20-4-2006	10 wk	4.2	54.8	14	immunization
22-5-2006	3 mo	4.3	54.8	14	diarrhoea
26-6-2006	4 mo	4.8	56.2	15	immunization
15-8-2006	6 mo	5.4	58.1	16	well-baby visit

* BMI (body mass index) = weight in kilograms divided by length or height in meters squared (kg/m²)

Other information (e.g. drug or food allergies, chronic conditions):

Note: It is equally acceptable to write 13 weeks (instead of 3 month) for Nalah's third visit.

- Calculated BMIs:
- 13.3
 - 14.0
 - 14.3
 - 15.2
 - 16.0 (rounded from 15.99...)

B: Measuring a Child's Growth
Answers to Exercise E, continued

Toman

Toman's Visit Notes page should appear as follows if you used the BMI table to determine BMI. If you used a calculator, compare your results to the BMIs listed below the Visit Notes.

Date of birth: 10-7-2005

Visit Notes

Date	Age today (Completed years/months or weeks)	Measurements (Record below; then plot on charts)			Reason for visit, observations, recommendations <i>Note: Earlier Growth Record Lost - Immunizations up-to-date at 6 mo</i>
		Weight (kg)	Length/Height (cm)	BMI*	
15-8-2006	1yr 1mo	11.9	79.0	19	well-child visit, measles immunization needed
15-12-2006	1yr 5mo	13.5	84.5	19	well-child visit
16-3-2007	1yr 8mo	15.0	87.0	20	ear pain
12-7-2007	2yr 0mo	16.8	90.9	20	well-child visit

* BMI (body mass index) = weight in kilograms divided by length or height in meters squared (kg/m²)

Other information (e.g. drug or food allergies, chronic conditions):

Calculated BMIs: 19.1
 18.9
 19.8
 20.3

12. Concluding the module

When everyone has received individual feedback on Exercise E, take a moment to conclude the module. Ask participants if they have any questions about the module or how to weigh and measure children. Discuss whether and how participants can use the procedures taught in their own health facilities. Reinforce important points from the module as needed.

Note: This conclusion should not become a “lecture” by any means; it is simply a brief opportunity to provide closure for the module.

Proceed to module C: *Interpreting Growth Indicators*.

Facilitator Guidelines for C: Interpreting Growth Indicators

Notes for each of these numbered procedures are given on the following pages.

Procedures	Feedback
1. Distribute module <i>C: Interpreting Growth Indicators</i> . Introduce the module.	-----
2. Participants read pages 1–10 of the module and do the short answer exercises as they come to them.	Self-checked
3. Oral group drill: Using the overhead projector, lead the drill on reading plotted points on graphs (overheads 1–7).	Oral drill
4. Participants do written Exercise A (page 12) about Nalah and Toman.	Individual feedback
5. Participants read pages 13–20 of the module and refer to the <i>Growth Record</i> and the <i>Photo Booklet</i> as directed. Lead a group discussion of interpreting plotted points on graphs (blank graph overheads and overheads 8–12).	Group discussion
6. Participants do written Exercise B (pages 22–30) on interpreting plotted points for growth indicators.	Individual feedback
7. Participants read pages 31–38 of the module. Lead a group discussion about interpreting trends on graphs (overheads 13–20).	Group discussion
8. Participants do written Exercise C about Nalah and Toman.	Individual feedback
9. Conclude the module.	-----

1. **Introducing the module**

Distribute module *C: Interpreting Growth Indicators*. Tell participants that they will also need their *Growth Records* for Nalah and Toman and *E: Photo Booklet* as they work on this module.

Explain that this module will teach how to use the measurements taken in the last module in order to assess growth. Participants will use the growth charts that appear in the *Growth Record*.

Review the objectives listed on page 1 of the module.

2. **Reading and short answer exercises**

Ask participants to read in the module until they see the box with a picture of an overhead projector on page 11. There they should stop and wait for the group oral drill. Participants should do the short answer exercises in this section as they come to them. Be available to answer questions. Notice whether any participants are having difficulty, and offer to help as needed.

Use some of the time while participants are reading to ensure that your overhead transparencies are in order for the group oral drill and that the overhead projector is plugged in, etc. When participants have reached page 11 of the module, announce the oral drill.

3. **Oral group drill – reading plotted points on graphs (overheads 1–7)**

The purpose of this drill is for participants to practise reading points on the growth charts. A number of growth charts with plotted points are provided on pages C-5 through C-11 of this guide and are also photocopied on transparencies to be used as overheads.

In this drill, you will show the growth charts on the overhead projector, and participants will take turns reading the points. For example, a participant will say, “This girl weighed ___ kg at age ___ months” or “This boy had a length of ___ cm and weighed ___ kg.” If the participant hesitates, point to the graph and ask questions to prompt a response, such as, “Looking here at the ages along the x-axis, how old was the child at this visit?”

A few of the overheads (# 5, 6, and 7) illustrate possible mistakes in measurement. If participants notice these mistakes, congratulate them. If they do not notice, ask questions such as, “What seems unusual about this growth chart? Do you think there could have been a mistake? What type of mistake?”

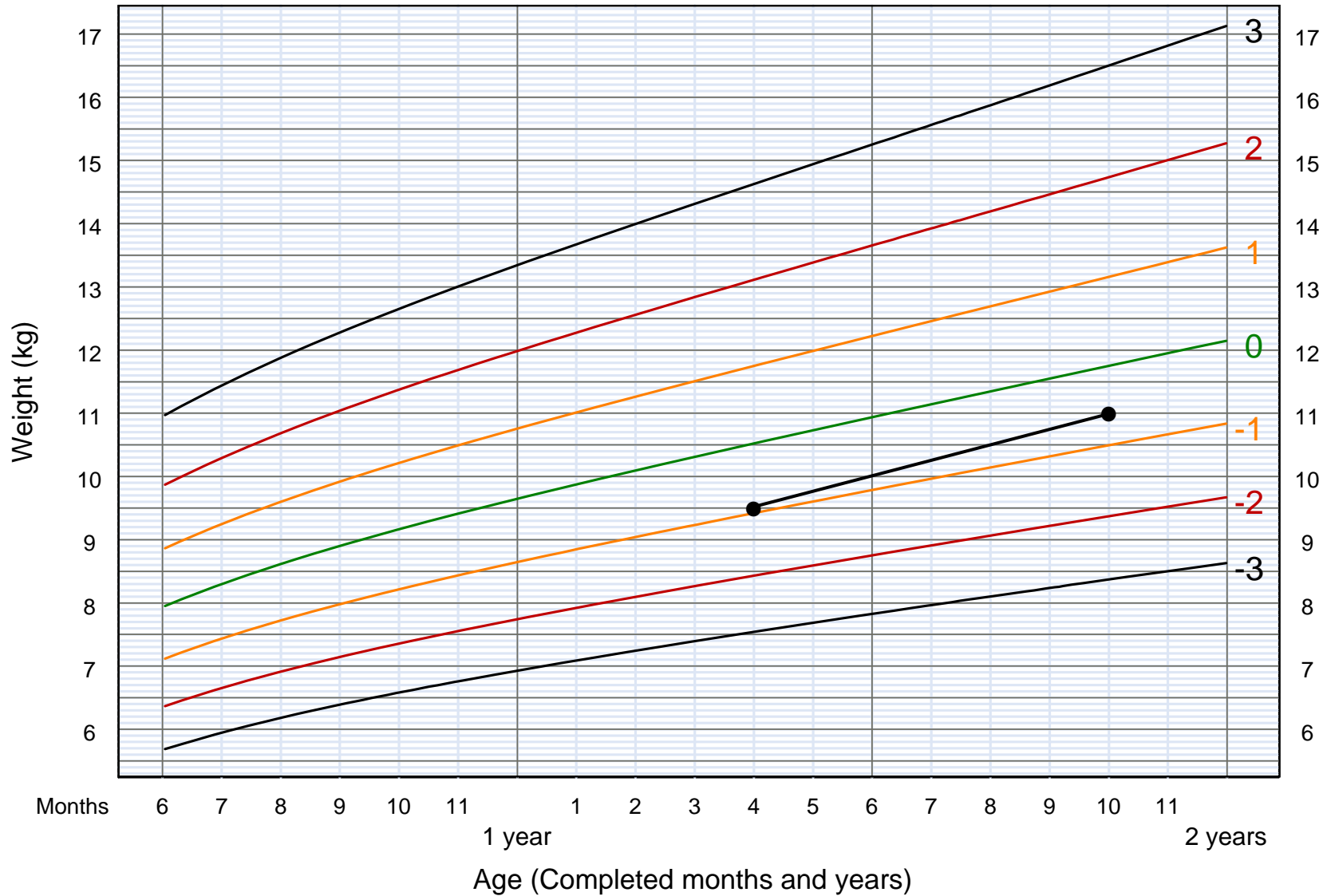
Participants have not yet learned to interpret the plotted points in terms of the growth curves or definitions of growth problems, so do not try to identify growth problems or interpret the child’s growth pattern during this drill. Participants should focus simply on reading the points correctly and identifying possible measurement mistakes.

Points on overheads 1–7 should be read as follows:

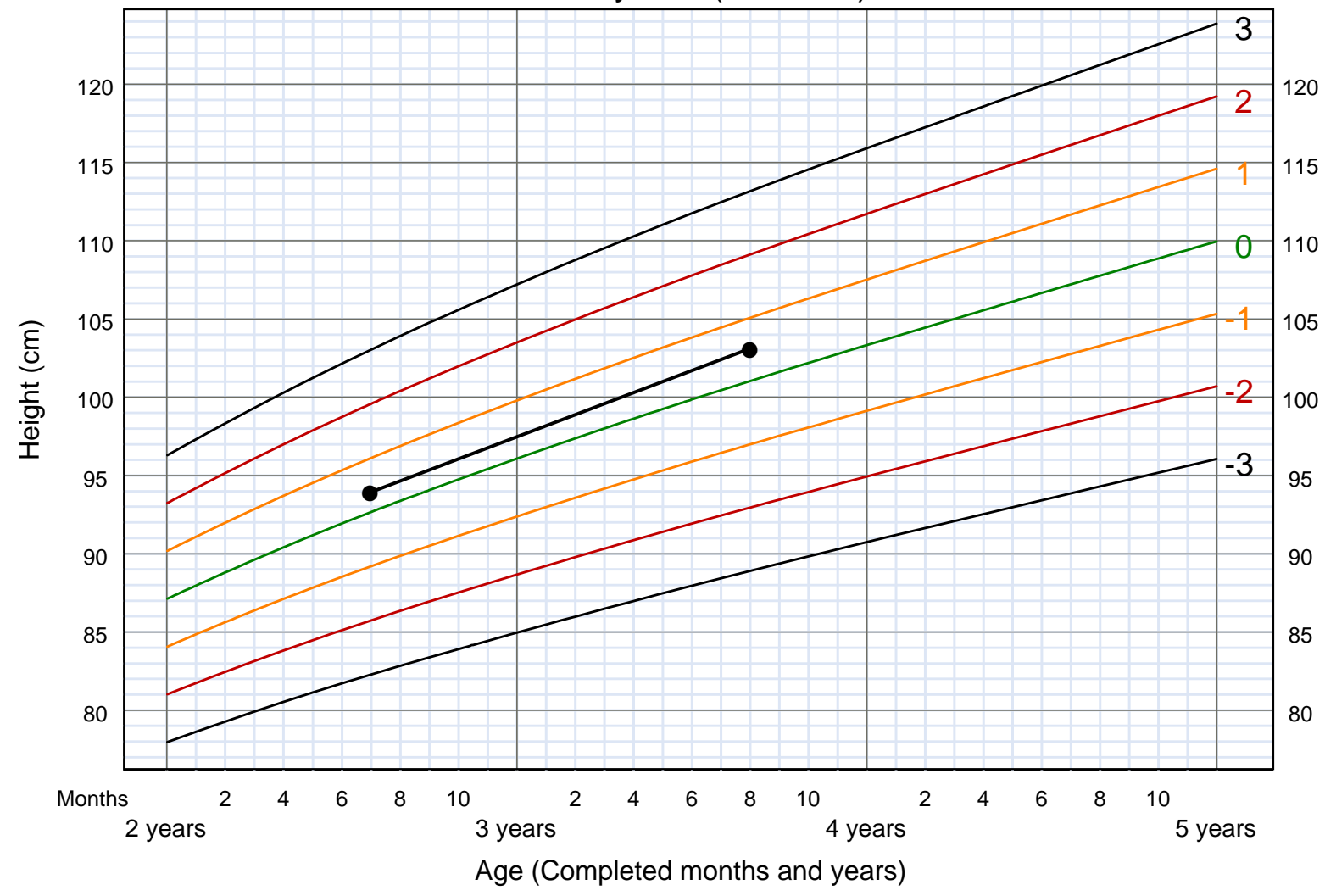
- Overhead 1:** At age 1 year and 4 months, this boy weighed about 9.5 kg.
At age 1 year and 10 months, this boy weighed about 11 kg.
- Overhead 2:** At age 2 years and 7 months, this boy was 94 cm in height.
At age 3 years and 8 months, this boy was 103 cm in height.
- Overhead 3:** At the first visit, this girl was 65 cm in length and weighed 9 kg.
At the second visit, this girl was about 82 cm in length and weighed about 12.7 kg. (*It is necessary to estimate where the second point is located between the lines.*)
- Overhead 4:** At 6 weeks of age, this girl's BMI was 15. (*Until a child is 3 months old, age is measured in weeks.*)
At age 3 months, this girl's BMI was 16.
At age 6 months, this girl's BMI was 16.5.
- Overhead 5:** The growth chart suggests that this boy was 61 cm in length at age 10 weeks and 60 cm in length at age 3 months. That would mean he got shorter! One of the length measurements may have been inaccurate. Possibly the baby was measured with bent knees at age 3 months. Another possibility is that the measurements were correct, but one of them was graphed incorrectly. It would be a good idea to check the measurements recorded in the Visit Notes of this child's *Growth Record*.
- Overhead 6:** This growth chart shows a very unlikely weight gain from birth to 3 weeks. It looks as though the girl weighed 3 kg at birth and 5.5 kg at 3 weeks old. Since the Uniscale is accurate, it is possible that there was a mistake in reading or recording the weight, or in graphing the child's age, at the second visit. Perhaps the child was actually 3 **months** old instead of 3 weeks old at the second visit. It would be a good idea to check the Visit Notes.
- Overhead 7:** This graph shows a dramatic change in weight-for-age. According to the graph, this boy has lost 3 kg between age 9 months and the age of 1 year and 3 months. Either there was a mistake in measuring or recording the child's weight or age, or this child is dying.

Weight-for-age BOYS 6 months to 2 years (z-scores)

C-5

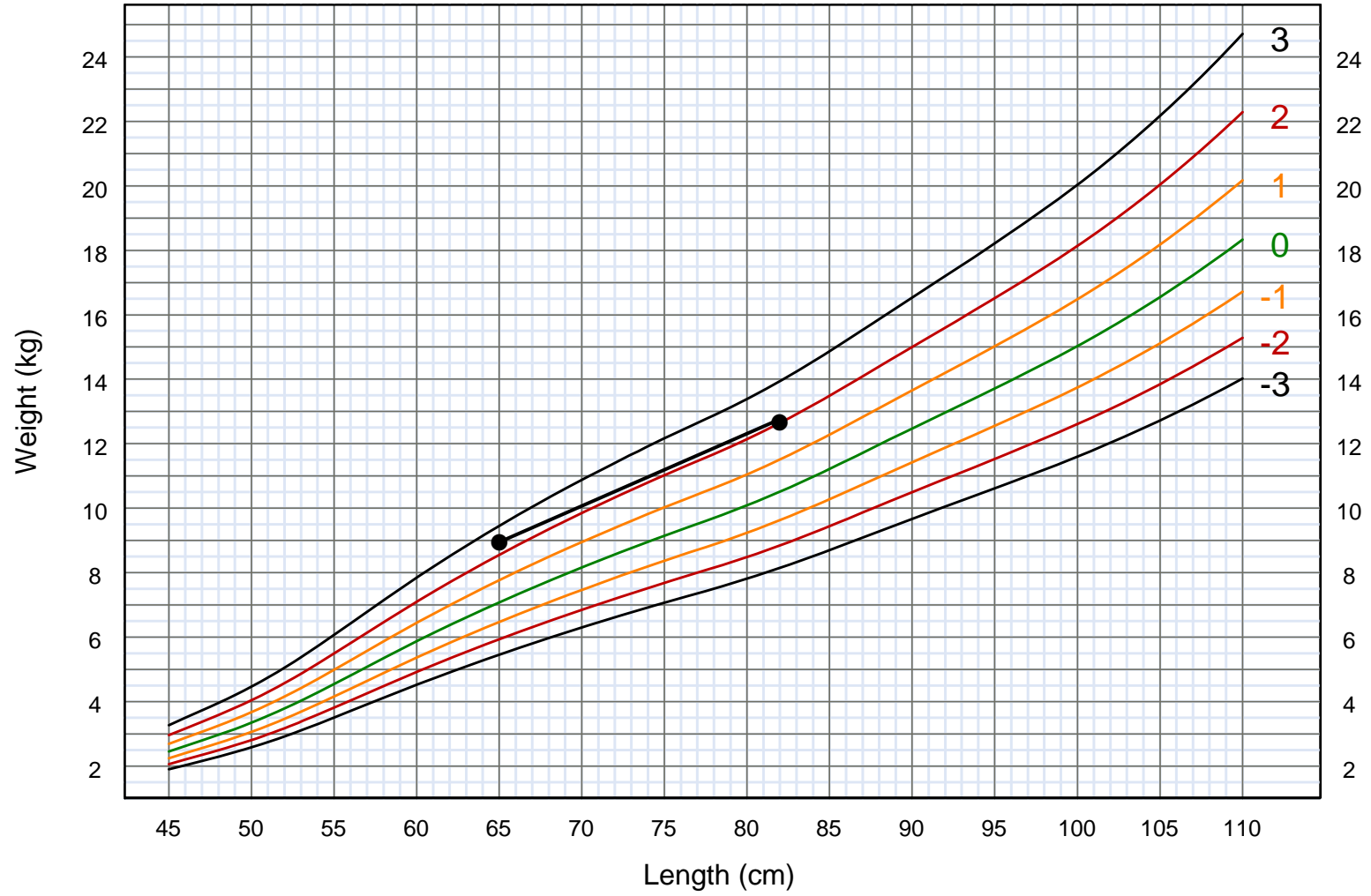


Height-for-age BOYS 2 to 5 years (z-scores)



C-6

Weight-for-length GIRLS Birth to 2 years (z-scores)

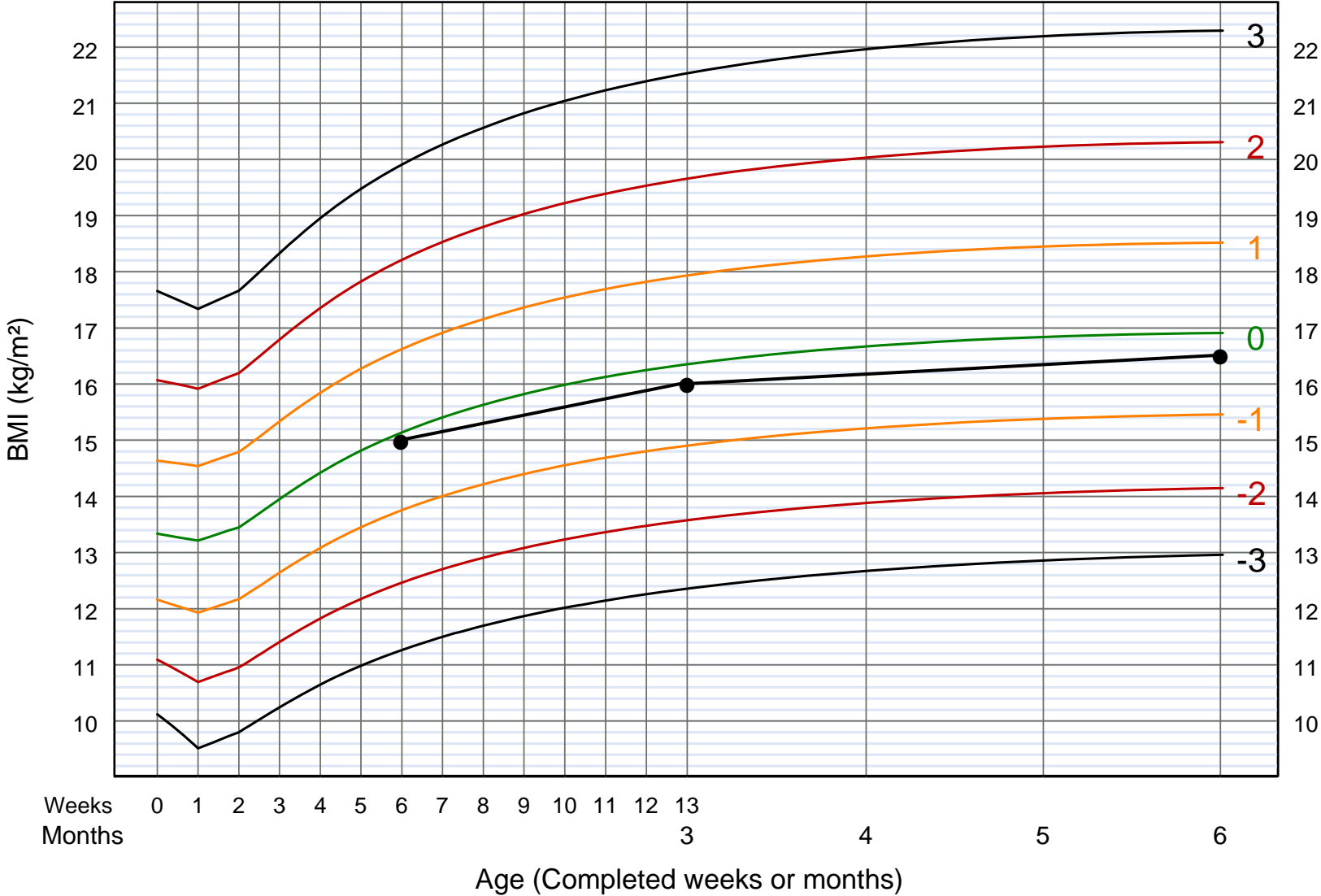


C-7

BMI-for-age GIRLS

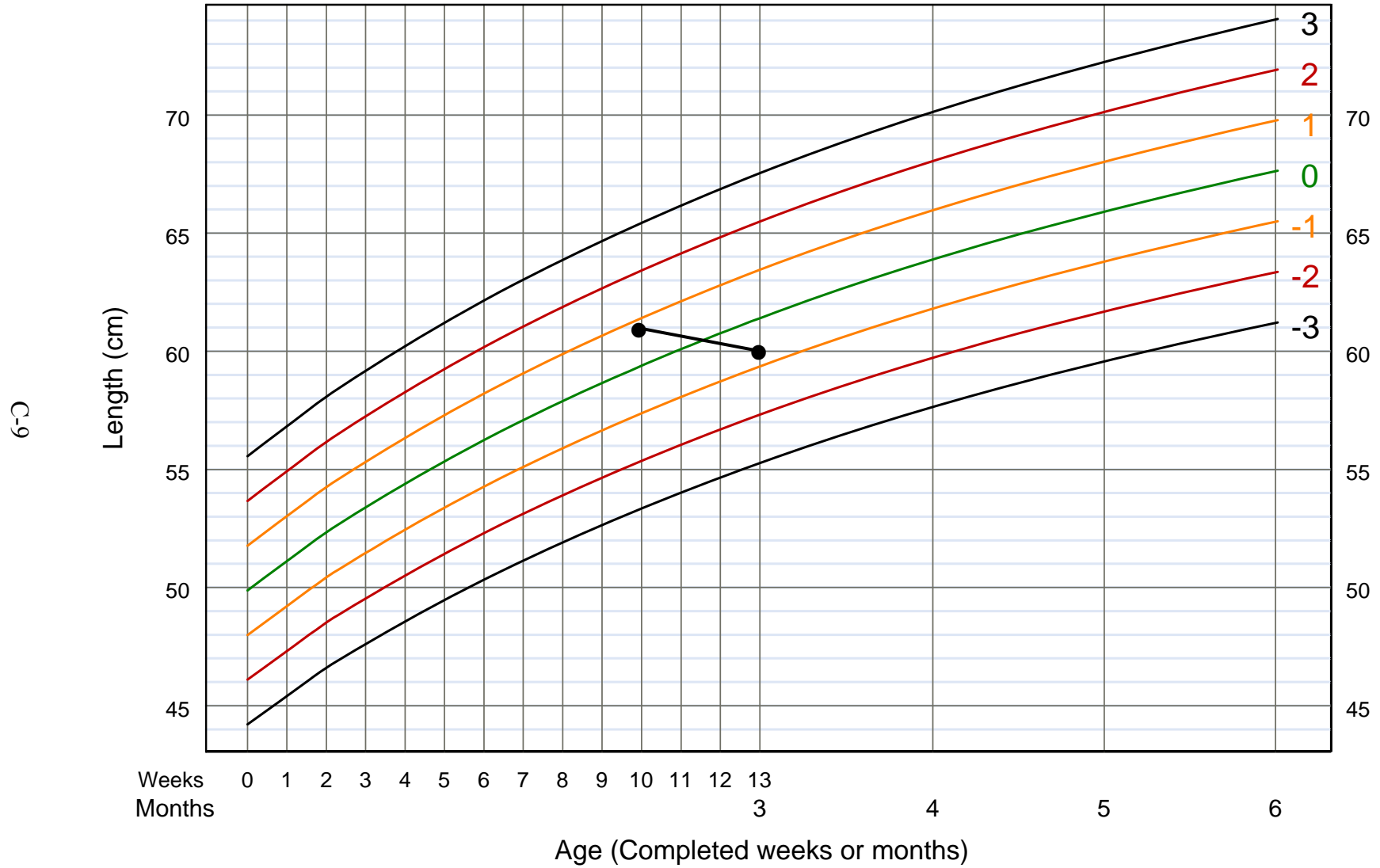
Birth to 6 months (z-scores)

8-8



Length-for-age BOYS

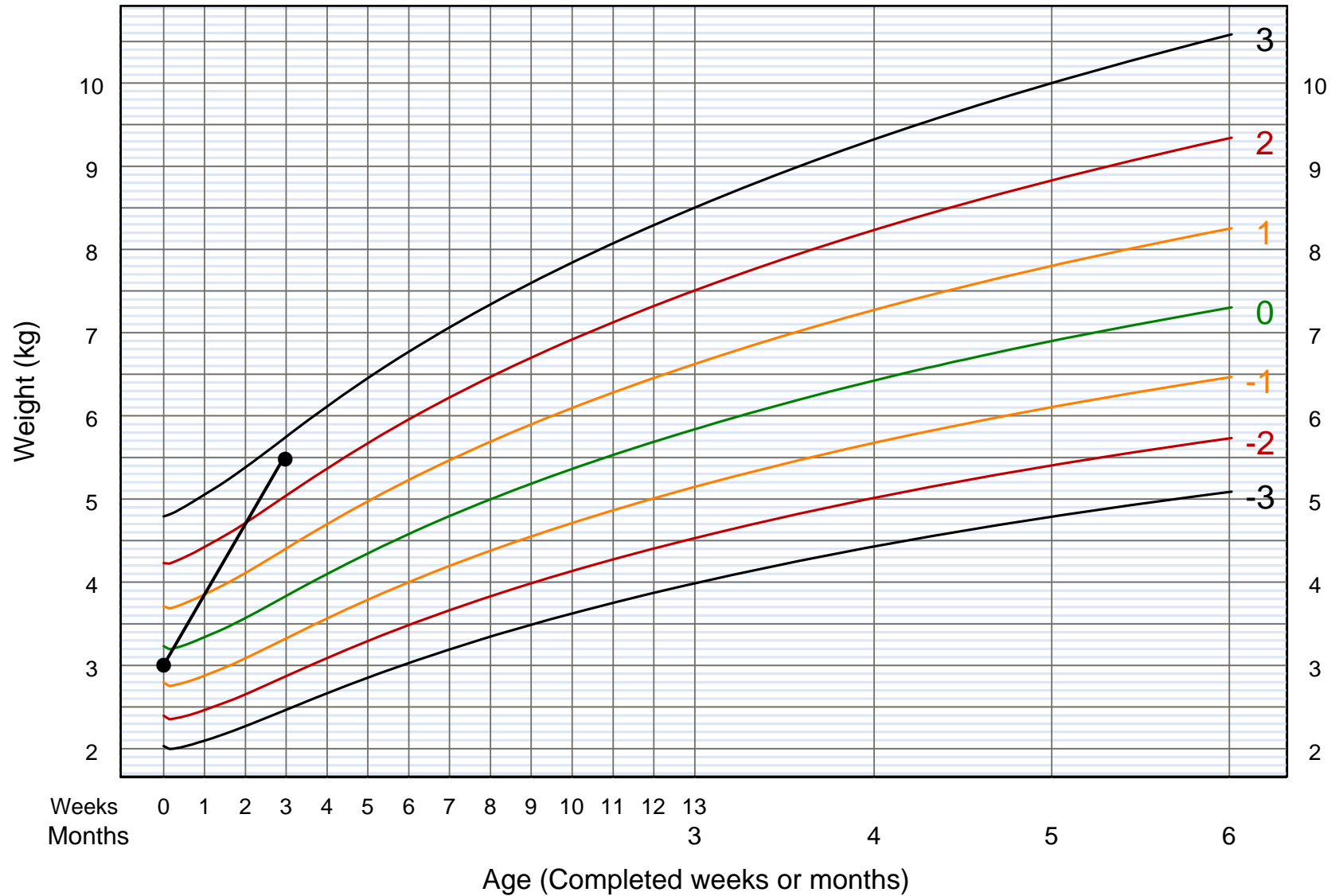
Birth to 6 months (z-scores)



Weight-for-age GIRLS

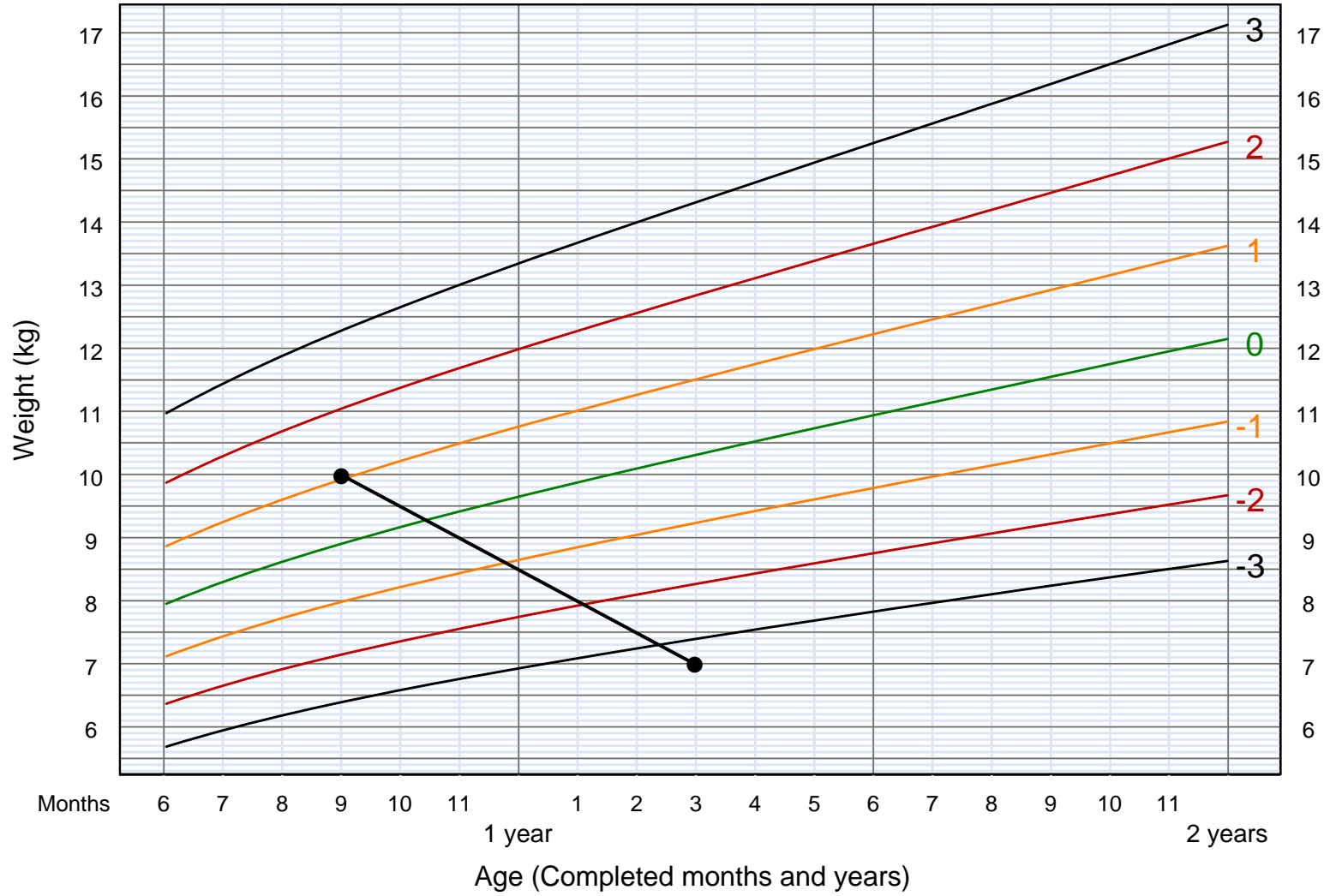
Birth to 6 months (z-scores)

C-10



Weight-for-age BOYS 6 months to 2 years (z-scores)

C-11



4. Written Exercise A – Nalah and Toman, followed by individual feedback

Participants will need the *Growth Records* that they have begun for Nalah and Toman in order to complete this exercise. They will plot points for a series of visits for each child. For Nalah, remind participants to plot her birth measurements as well as those from later visits.

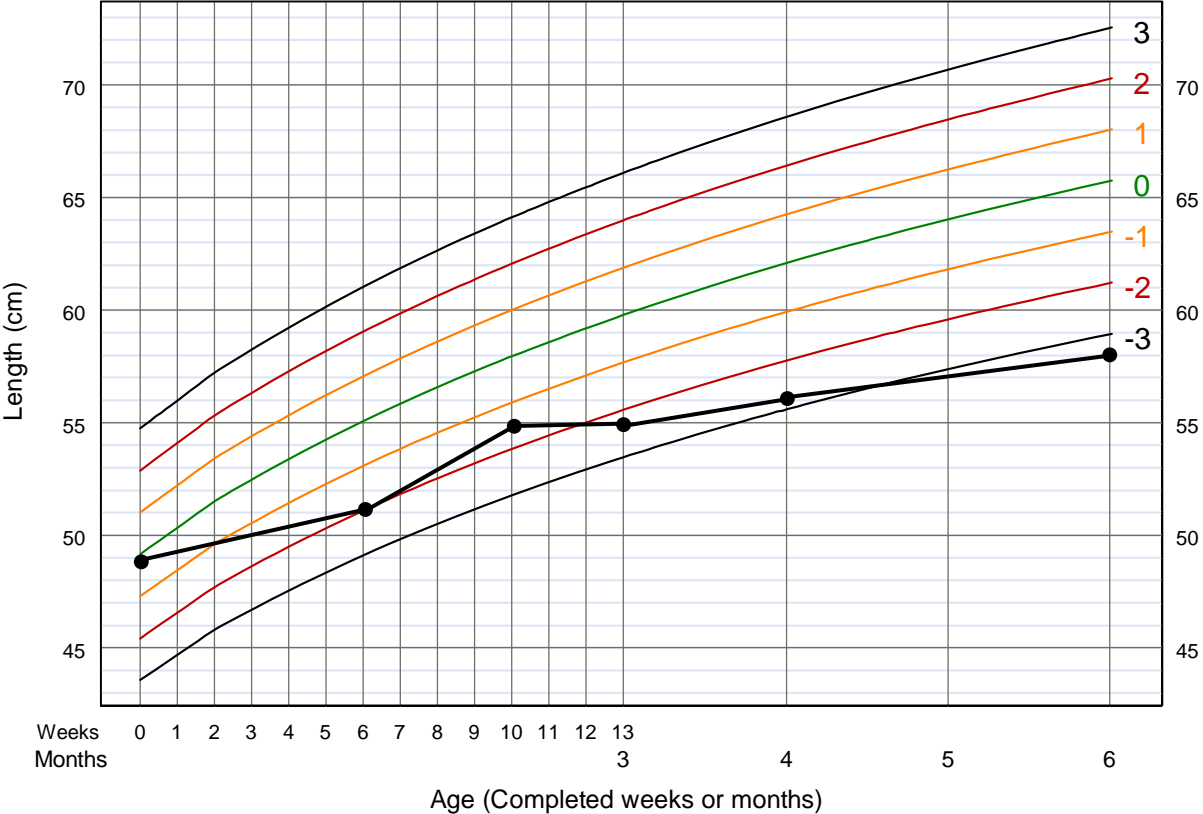
If participants want individual feedback after plotting points on Nalah's growth charts, be available to give feedback. Otherwise, they may work to the end of the exercise before seeking feedback.

Use the graphs on the answer sheets on the next pages when giving feedback. Remember that this exercise is just about plotting points accurately. Interpretation and discussion of trends will occur in a later exercise. The participants have not yet learned to interpret trends, so do not discuss trends yet.

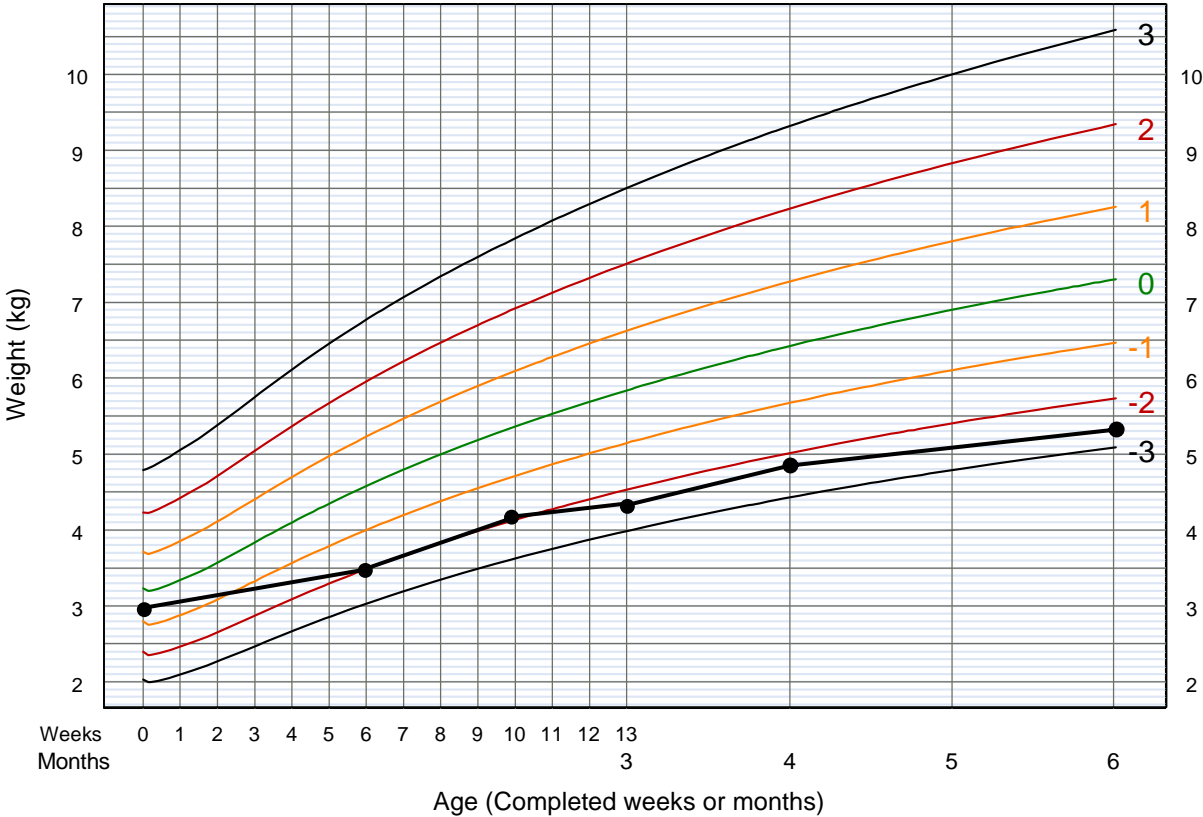
Give each participant a copy of the answer sheet. Ask the participant to continue reading in the module (pages 13–20) and refer to the *Growth Record* and *E: Photo Booklet* as directed in the module.

Answers to Exercise A, Nalah

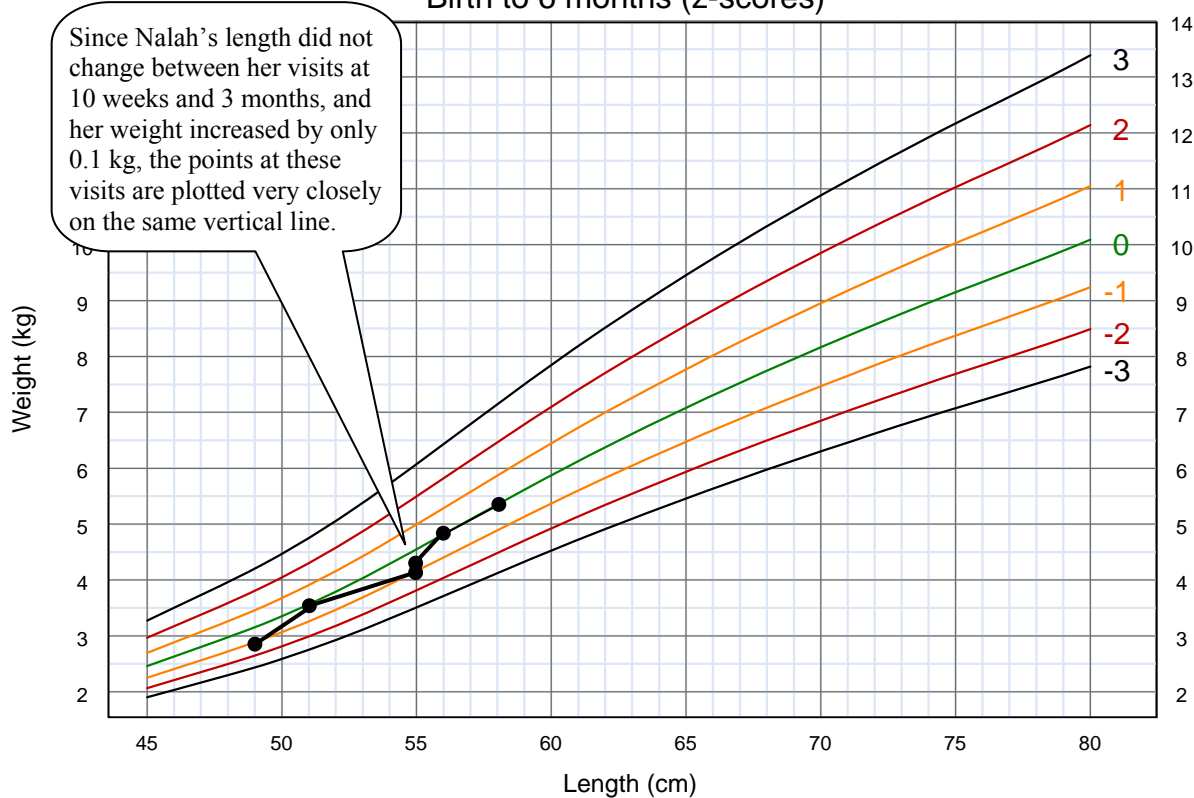
Length-for-age GIRLS
Birth to 6 months (z-scores)



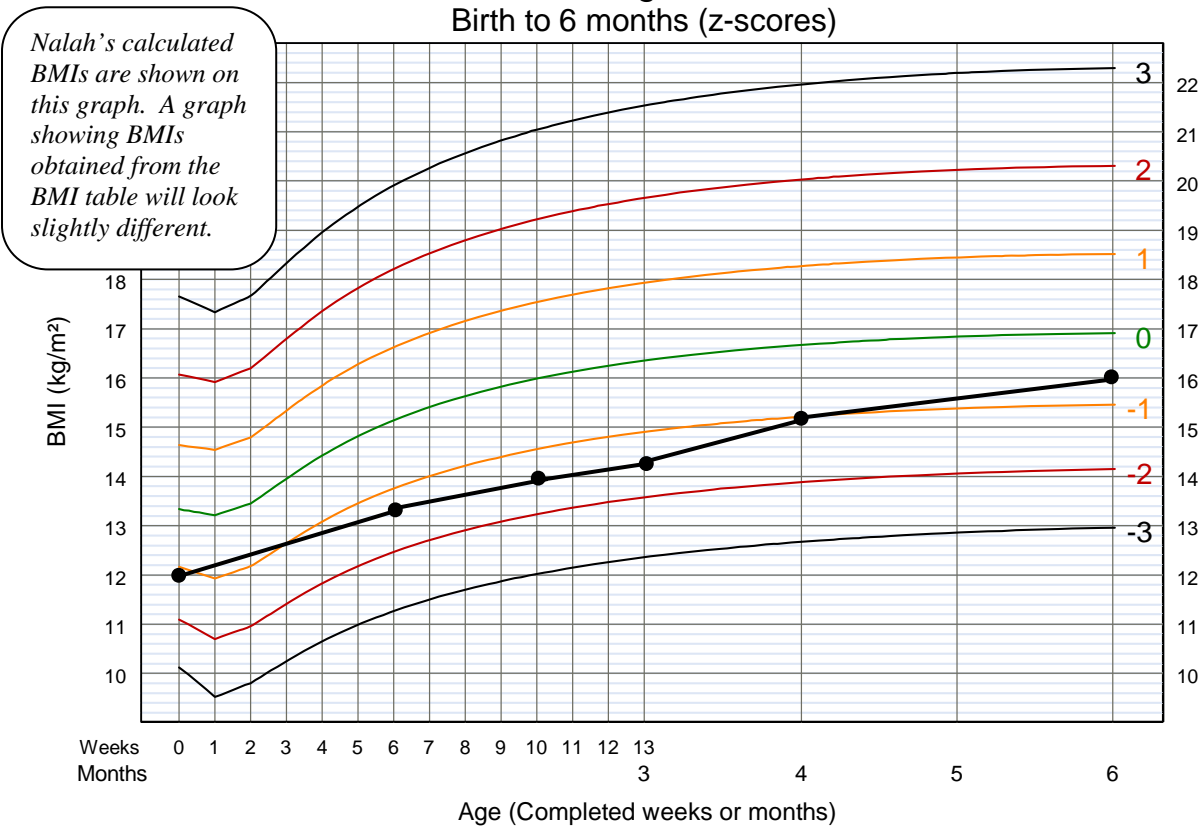
Weight-for-age GIRLS
Birth to 6 months (z-scores)



Weight-for-length GIRLS
 Birth to 6 months (z-scores)

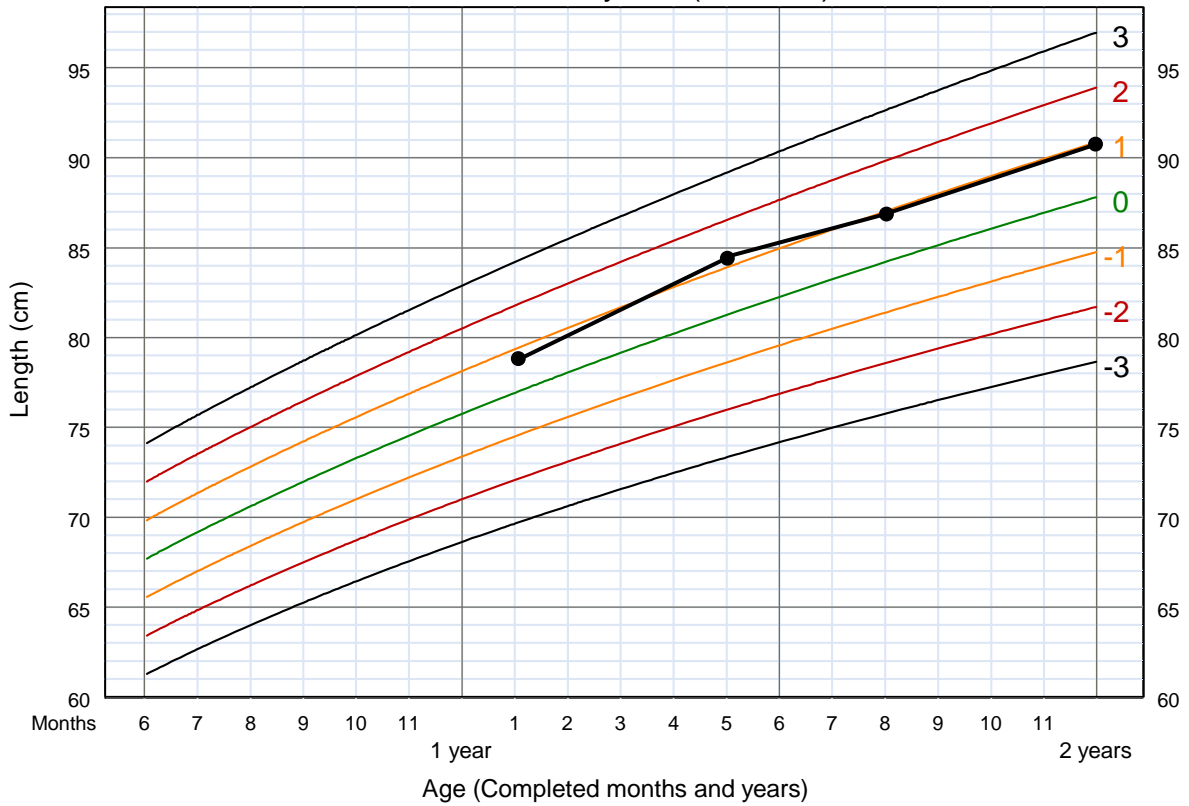


BMI-for-age GIRLS
 Birth to 6 months (z-scores)

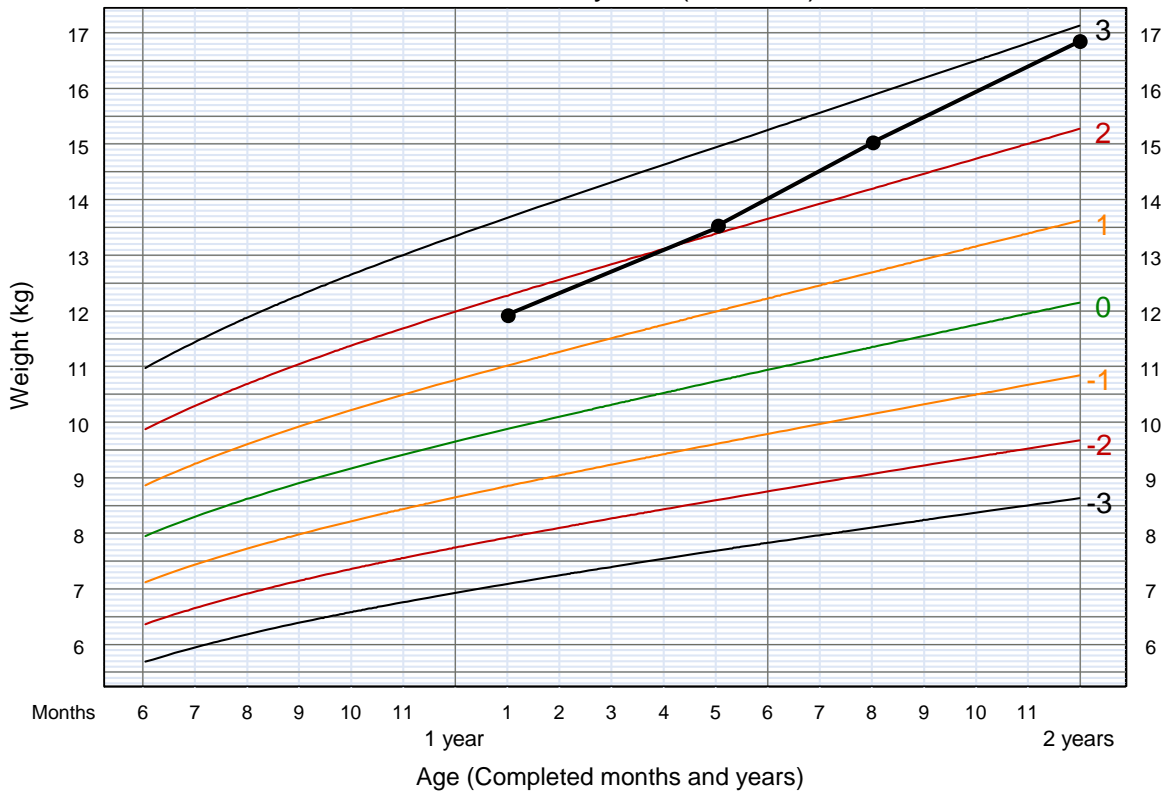


Answers to Exercise A, Toman

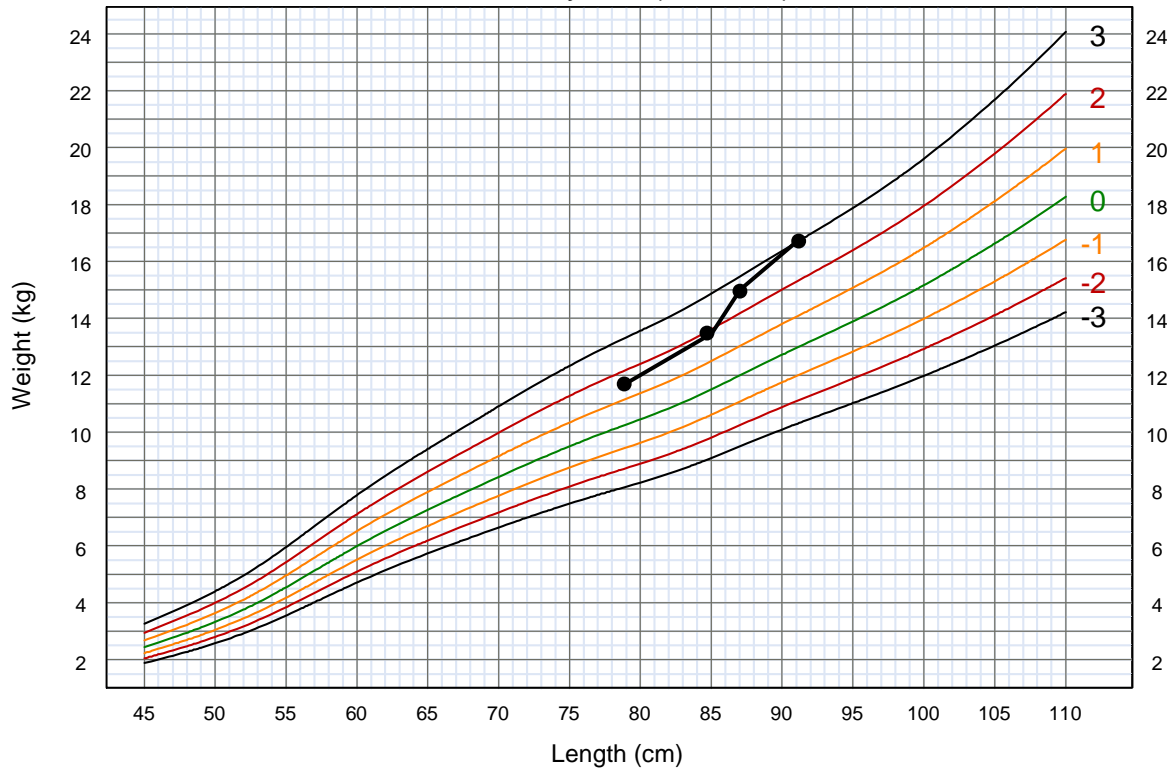
Length-for-age BOYS
6 months to 2 years (z-scores)



Weight-for-age BOYS
6 months to 2 years (z-scores)

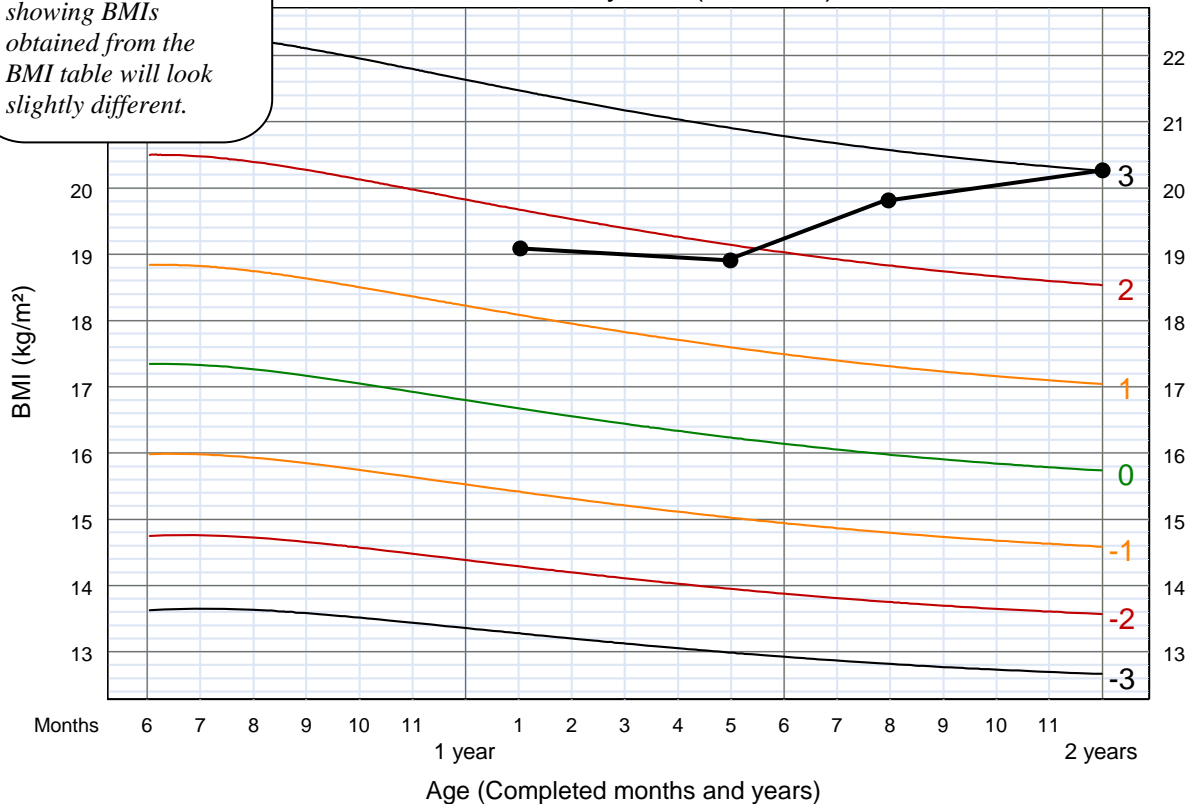


Weight-for-length BOYS
 Birth to 2 years (z-scores)



Toman's calculated BMIs are shown on this graph. A graph showing BMIs obtained from the BMI table will look slightly different.

BMI-for-age BOYS
 6 months to 2 years (z-scores)



5. Reading followed by group discussion – Interpreting plotted points on graphs (overheads of blank growth charts and overheads 8–12)

As participants read pages 13–20 of the module, they should refer to the *Growth Record* and *E: Photo Booklet* as directed. As they read, prepare for the group discussion described in the box on page 21 of the module.

For this discussion you will use the overhead projector and a set of blank boy’s and girl’s growth charts on overhead transparencies. You will also need some erasable markers for use on the transparencies.

Before the discussion, identify several children whose measurements you wish to plot and show on the growth chart transparencies. Choose from the children whom participants measured in the previous module. (Participants recorded the measurements of these children on the Visit Notes page in Exercise C of module B and calculated their BMIs in Exercise D.) Try to select children with a variety of growth problems.

Plot the points for each child on a set of four blank overheads for the child’s age and sex. (Note: If some participants are ahead of the rest of the group, you may ask them to prepare some of the overheads for you and present the cases.)

When everyone is ready, announce the group discussion. Lead the discussion of each child as follows:

1. Put up the first chart plotted for a selected child. Show the plotted point on the growth chart as you explain how it was plotted and what it means. For example, say, “I plotted the point on the vertical line for Maria’s age and on the horizontal line for her height. This point shows that Maria is 90 cm in height at age 2 years and 3 months.”
2. Ask participants if the plotted point shows that the child has any growth problem, and if so, what growth problem. If there is a growth problem, ask participants whether they could have guessed it simply by looking at the child.
3. Repeat steps 1 and 2 for each of the relevant growth charts for the child. As you plot points on the other growth charts, discuss what each additional chart reveals. For example, if you found that a child was stunted but normal weight-for-length, what does this reveal?

After discussing several of the real children measured in module B, use overheads 8–12, shown on the following pages, to illustrate the importance of looking at all of the growth charts together. These overheads show measurements for two girls on the same graphs. One girl is indicated by the mark **X** and the other by a round point. (Remind participants that they would never really graph measurements for two children on the same chart; these examples are intended simply for discussion.)

Overheads 8–12 show that two children can have the same measurements and very different z-scores. These two girls have the same height, weight, and BMI. However, they are two years apart in age. Their ages make the difference in their z-scores and the identification of growth problems.

Be sure to discuss the following points about each overhead:

Overhead 8: The girls' measurements are the same, but their ages are two years apart.

Overhead 9: Girl **x** is just below the median in height-for-age. Girl **•** is well below the -3 z-score line (severely stunted).

Overhead 10: Girl **x** is on the median in weight-for-age. Girl **•** is below the -2 z-score line (underweight).

Overhead 11: Since the girls have the same weight and height, their points are plotted in the same place on the weight-for-height growth chart. Both girls are above the median in weight-for-height.

Overhead 12: The BMI-for-age for both girls is above the median.

Stress that it is important to look at all of the growth charts for a child. According to two of the charts, girl **x** does not have a growth problem. According to the other two charts, she is severely stunted and underweight.

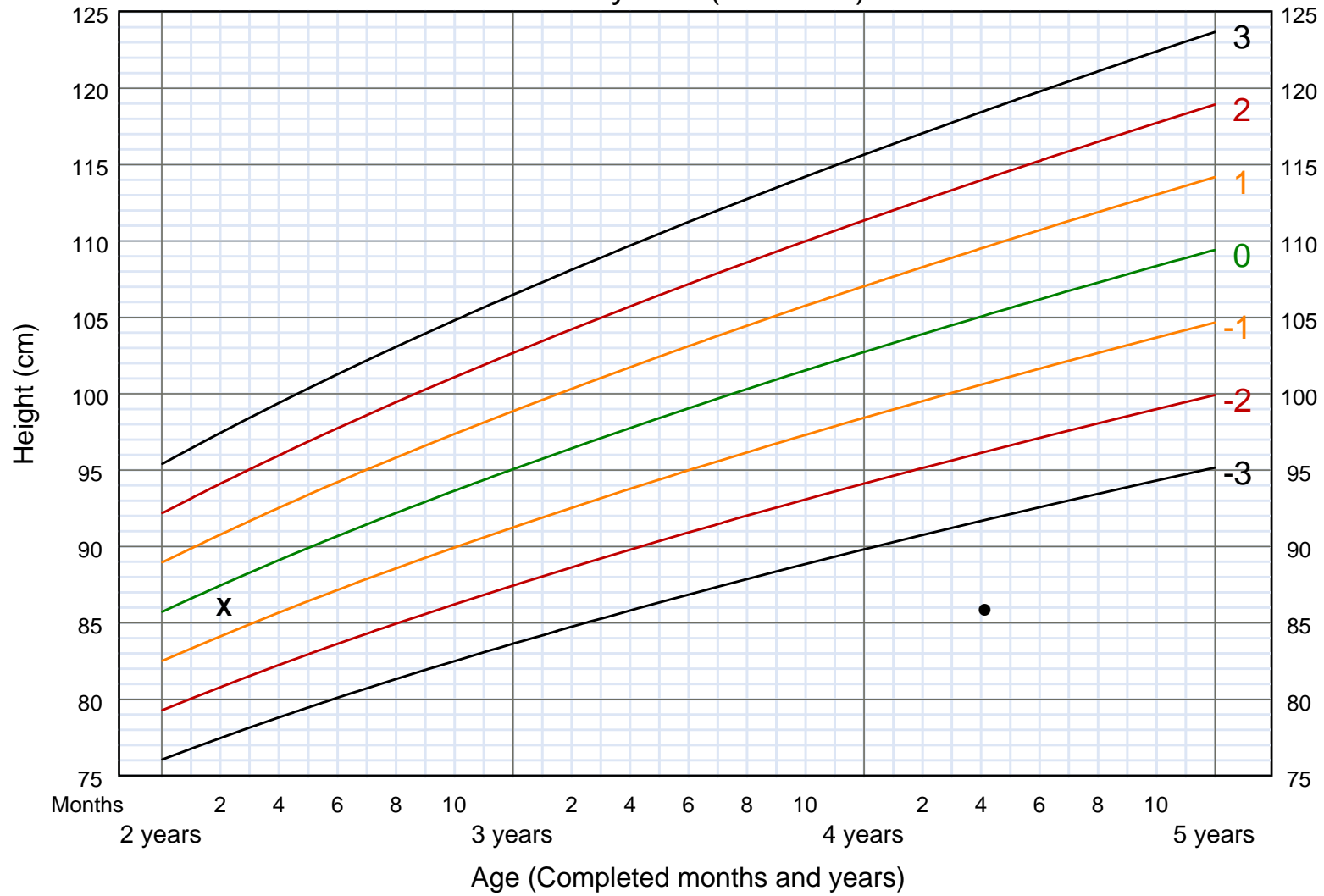
These growth charts on overheads 8–12 represent the two little girls shown in photo 13 in *E: Photo Booklet*. Ask participants to look at photo 13. In the photo both girls appear healthy and normal in size. Only by charting height and weight with age can one see that the older girl is severely stunted and underweight.

You may want to ask participants to guess which girl is the older, stunted one. (They are likely to guess wrong.) It is the girl on the right, wearing a dress, who is older.

Measurements for two girls

	Age	Height	Weight	BMI
Girl X	2 yr 2 mo	86 cm	12 kg	16.2
Girl ●	4 yr 4 mo	86 cm	12 kg	16.2

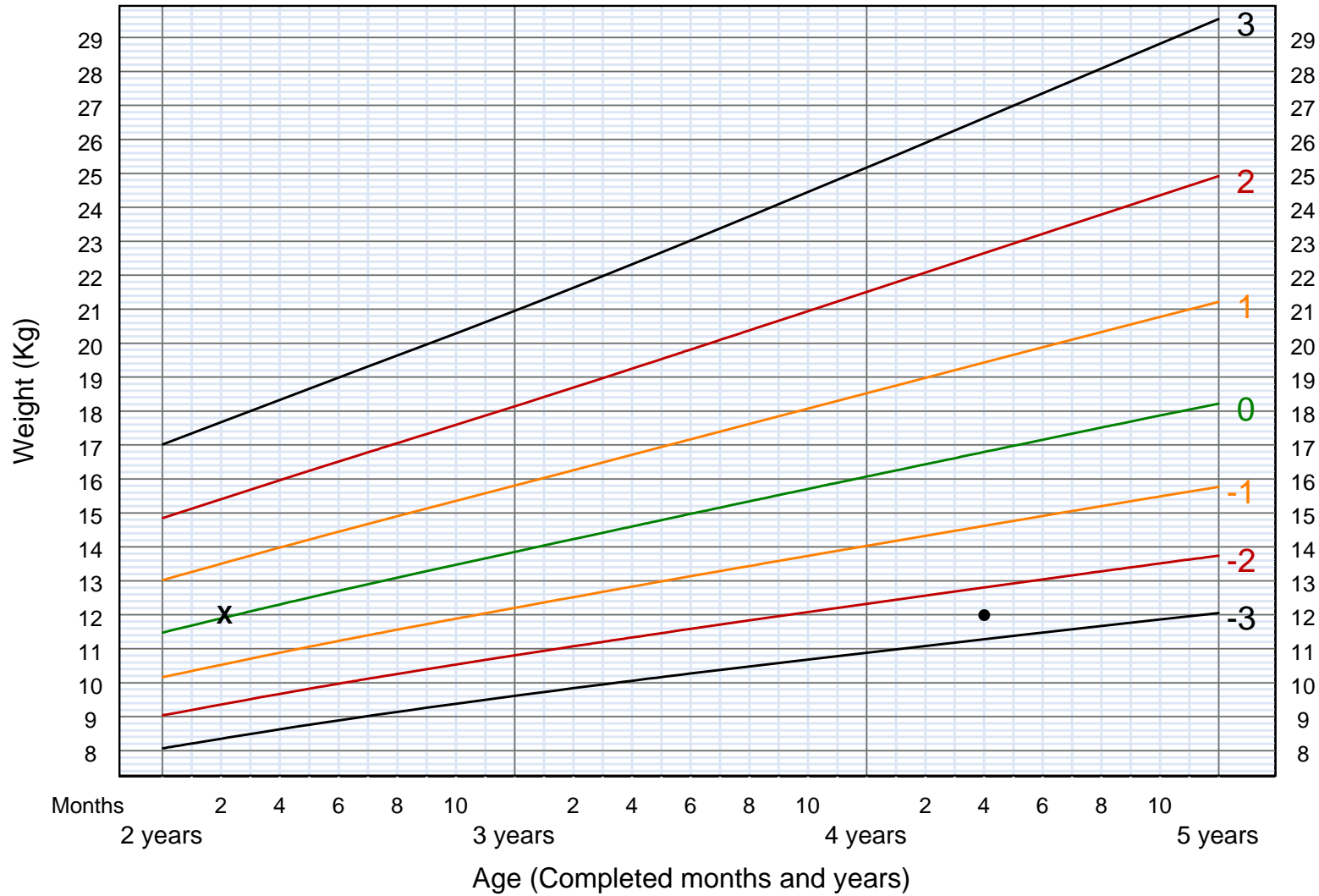
Height-for-age GIRLS 2 to 5 years (z-scores)



C-22

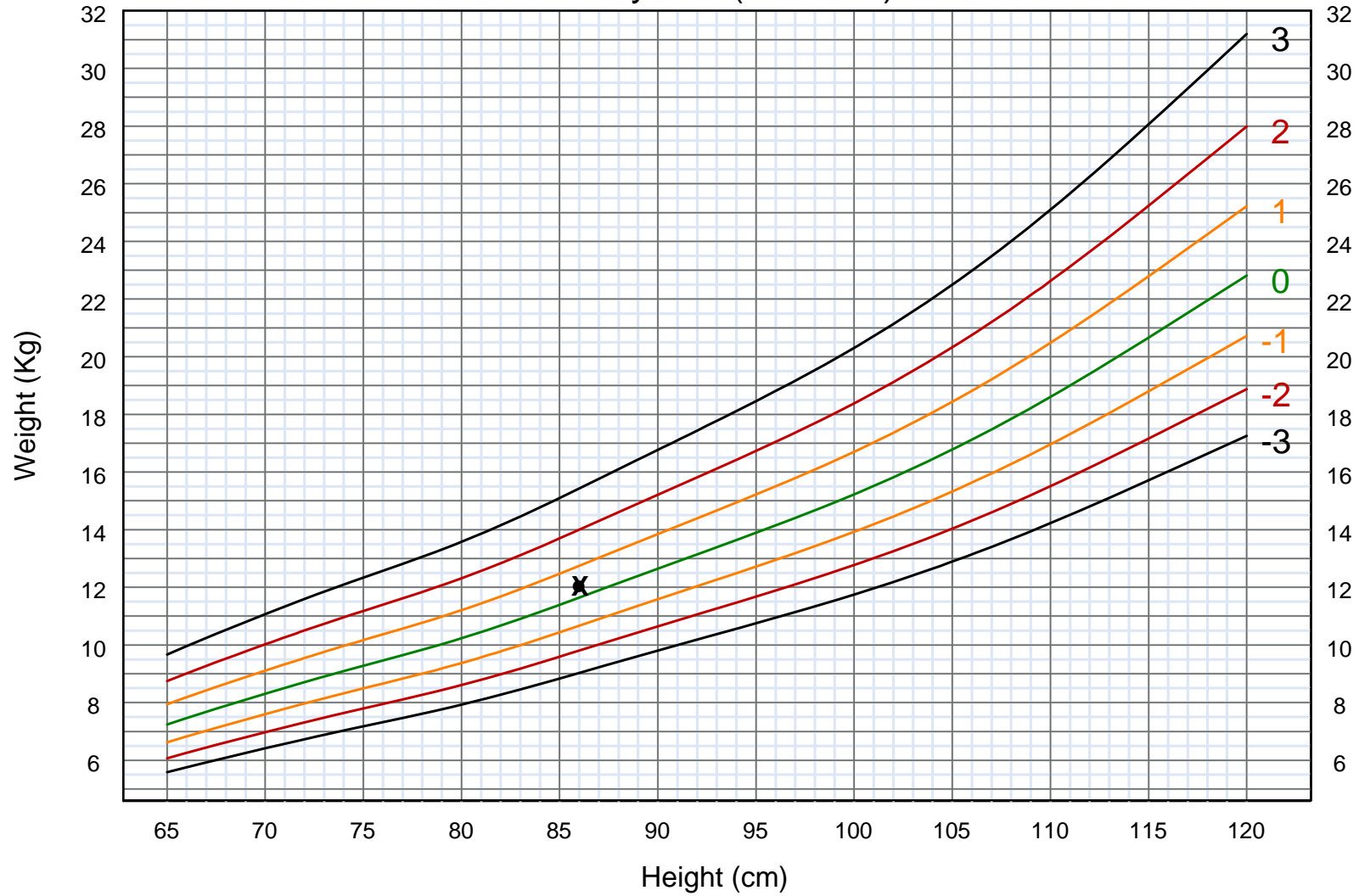
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Weight-for-age GIRLS 2 to 5 years (z-scores)



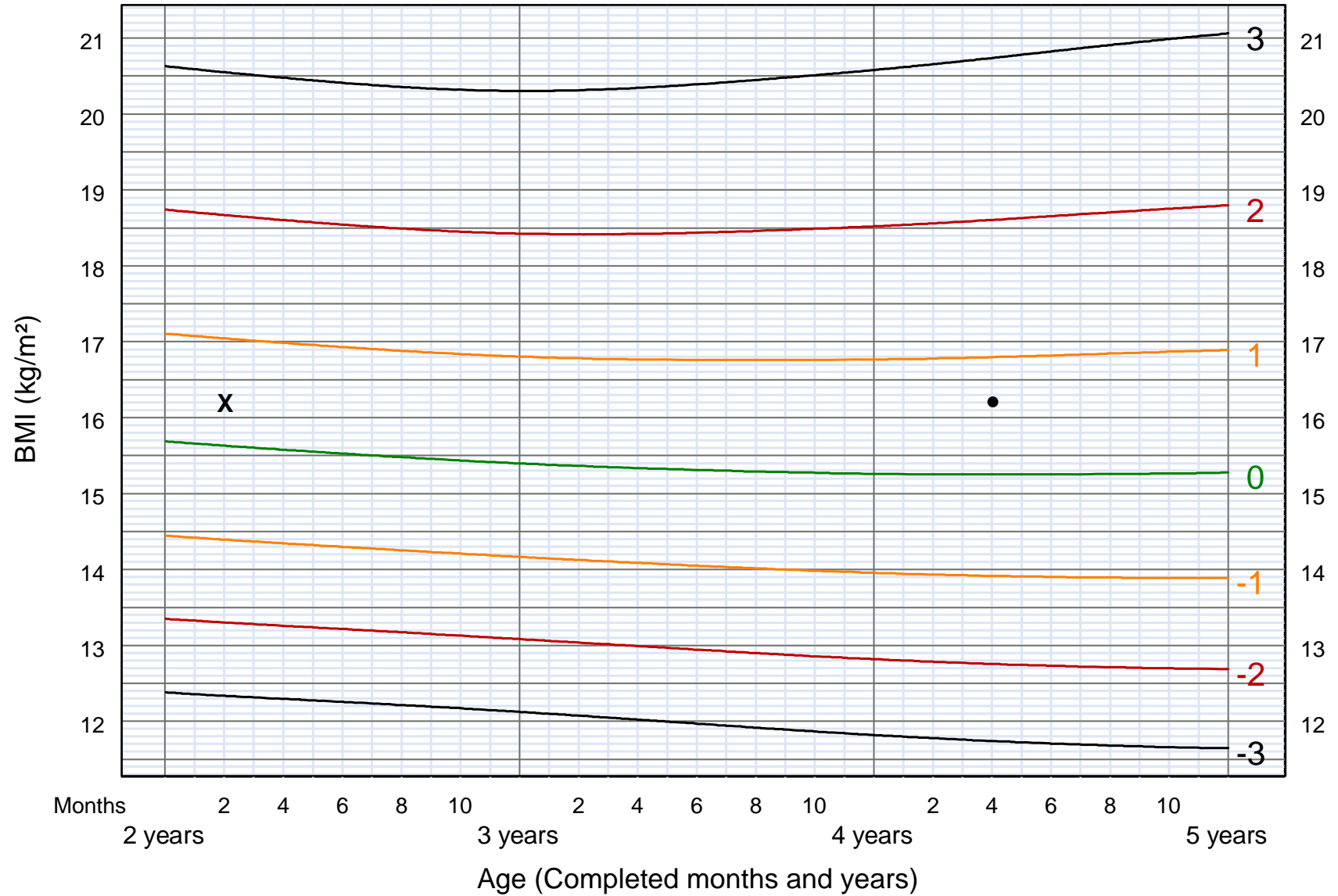
C-23

Weight-for-height GIRLS 2 to 5 years (z-scores)



BMI-for-age GIRLS 2 to 5 years (z-scores)

C-25



6. Written Exercise B followed by individual feedback

After the group discussion, ask participants to do written Exercise B individually. In this exercise they will look at growth charts (provided in the module) for three children. They will interpret the plotted points for each child at a single visit.

Use the answers provided on the next page as a guide in giving individual feedback. Do not be too concerned if a participant reads a point slightly differently than the given answer (e.g. sees the point as “on” a line instead of “just below” a line); sometimes it is difficult to see exactly where the point lies. The important issue is whether or not the child has a growth problem or is at possible risk of a growth problem.

After giving feedback, give the participant a copy of the answer sheet. Ask the participant to continue reading in the module (pages 31–38) until the instruction to stop for a group discussion.

Answers to Exercise B

Case 1 – Malek

1. Malek's length-for-age is on or just below the median.
2. Malek's weight-for-age is on the median.
3. Malek's weight-for-length is on the median.
4. Malek's BMI-for-age is just above the median.
5. Malek does not seem to have any growth problem or risk of a growth problem.

Case 2 – Nora

1. Nora's height-for-age is on the median, so it is average for girls her age.
2. Nora's weight-for-age is between the 1 and 2 z-score lines, so she is heavier than average for her age.
3. Nora's weight-for-height is above the 2 z-score line (above 2).
4. Nora's BMI-for-age is also above 2.
5. Nora is overweight.

Case 3 – Delphie

1. Delphie's length-for-age is below -2 .
2. Delphie's weight-for-age is just below the -3 z-score line.
3. Delphie's weight-for-length is on the -2 z-score line.
4. Delphie's BMI-for-age is below -2 .
5. The following growth problems should be ticked: stunted, severely underweight, wasted (based on BMI-for-age).
6. Delphie does not appear severely wasted, and she is not below -3 in weight-for-length, so she does not need to be referred for hospital or specialized care. However, her mother needs thorough counselling about feeding, and Delphie needs to be watched very carefully and return soon for another visit.

7. Reading followed by group discussion on interpreting trends (overheads 13–20)

As participants read pages 31–38 of the module, prepare for the group discussion. For this discussion you will use the overhead projector and overheads 13–20 (on the following pages), which show growth charts for two children, Ben and Delia.

Lead a discussion of the growth trends apparent on the charts for each child. Use the questions below to guide the discussion. Possible answers are given below each question.

Ben (Overheads 13–16)

Tell participants that Ben's growth charts show 5 visits from age 6 to 24 months.

Overhead 13: What trend is shown on Ben's weight-for-length chart? Does this chart show a growth problem or trend towards a growth problem?

Ben's weight-for-length has stayed close to the median. No problem is evident on the weight-for-length chart.

Overhead 14: What trend is shown on Ben's length-for-age chart? Has his growth line crossed any z-score lines, and if so, in what direction? Does this chart show a growth problem or trend towards a growth problem?

Ben's length-for-age was close to the median at age 6 months, but over the next 18 months his growth line trended downward and crossed the -1 and the -2 z-score lines. By age 24 months he was stunted.

Overhead 15: What trend is shown on Ben's weight-for-age chart? Has his growth line crossed any z-score lines, and if so, in what direction? Does this chart show a growth problem or trend towards a growth problem?

Ben's weight-for-age was on the median at age 6 months, but over the next 18 months his growth line trended downward and crossed the -1 z-score line. Ben is not yet underweight, but his growth line shows a gradual trend towards underweight.

Overhead 16: What trend is shown on Ben's BMI-for-age chart? Does this chart show a growth problem or trend towards a growth problem?

Ben's BMI-for-age has also stayed close to the median. No problem is evident on the BMI-for-age chart.

Using Ben as an example, stress the importance of looking at trends on all four growth charts. If you only looked at the weight-for-length chart, you might think that Ben was growing well. However, when you look at the weight-for-age and height-for-age charts, problem trends become apparent.

Delia (Overheads 17 – 20)

Tell participants that Delia's growth charts show five visits from age 2 years and 0 months up to age 4 years and 0 months.

Overhead 17: What trend is shown on Delia's height-for-age chart? Does this chart show a growth problem or trend towards a growth problem?

For almost two years Delia's height-for-age has stayed just below the -2 z-score line. She is stunted. The stunting does not seem to be getting any worse.

Overhead 18: What trend is shown on Delia's weight-for-age chart? Does this chart show a growth problem or trend towards a growth problem?

At age two years Delia's weight-for-age was slightly below the median; then over the next two years it climbed to a point slightly above the median. No problem is evident from this chart alone.

Overhead 19: What trend is shown on Delia's weight-for-height chart? Has her growth line crossed any z-score lines, and if so, in what direction? Does this chart show a growth problem or trend towards a growth problem?

Delia's weight-for-height is trending upward. Over a period of two years, her growth line has crossed the 1 and 2 z-score lines. She has become overweight. Although her weight is normal for her age, it is high for her stunted height.

Overhead 20: What trend is shown on Delia's BMI-for-age chart? Has her growth line crossed any z-score lines, and if so, in what direction? Does this chart show a growth problem or trend towards a growth problem?

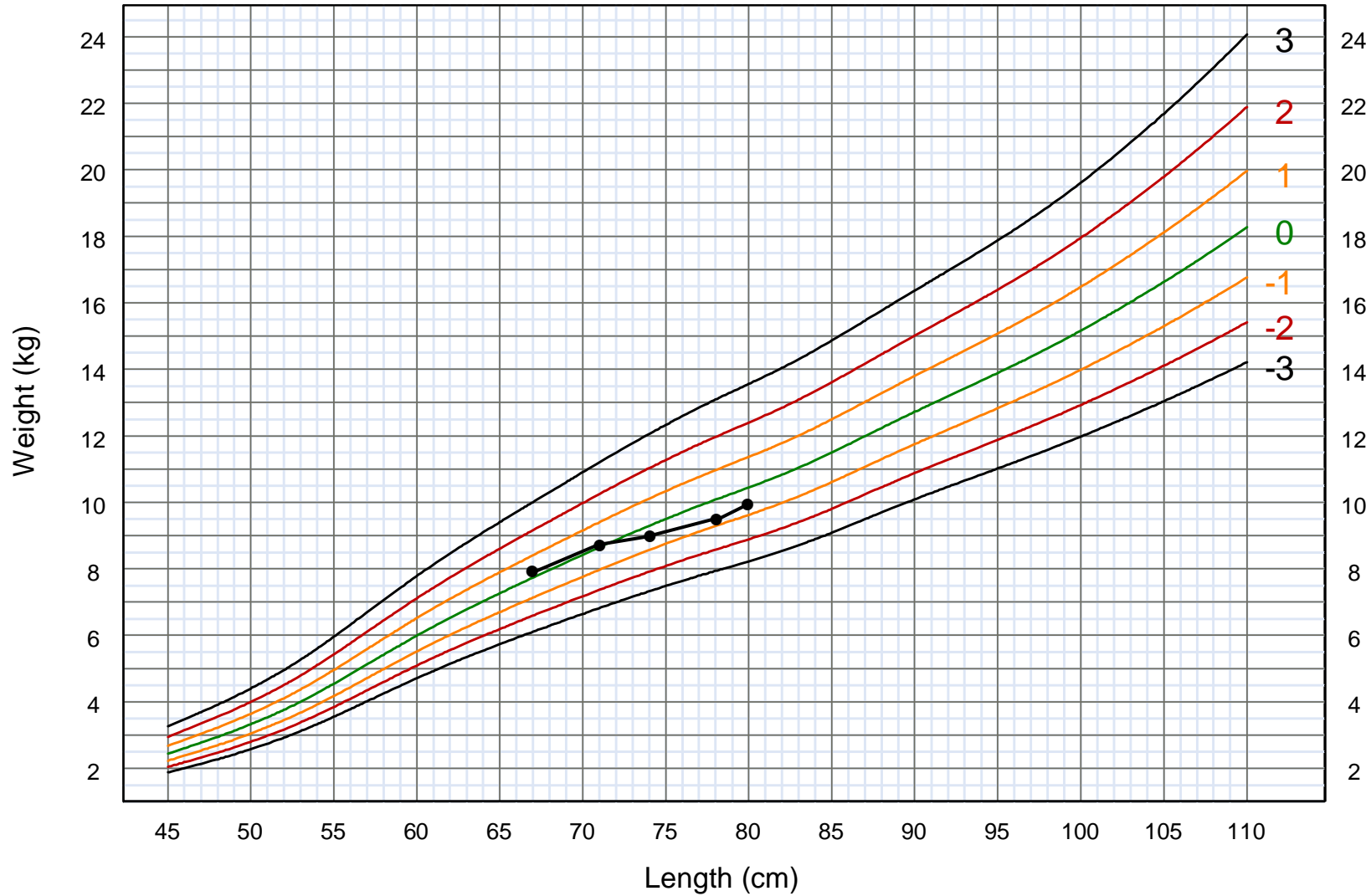
Like her weight-for-height, Delia's BMI-for-age is trending upward. It has increased from the 1 z-score line to above 2. Delia is overweight.

Again, use this example to stress the importance of looking at trends on all of the growth charts. If you look only at Delia's weight-for-age, she appears to be growing normally. If you look only at her height-for-age, you might think that she is just a short child tracking along a low z-score but since her stunting is not getting any worse, she is fine. However, if you look at weight-for-length, the growth problem of overweight becomes apparent.

Weight-for-length BOYS

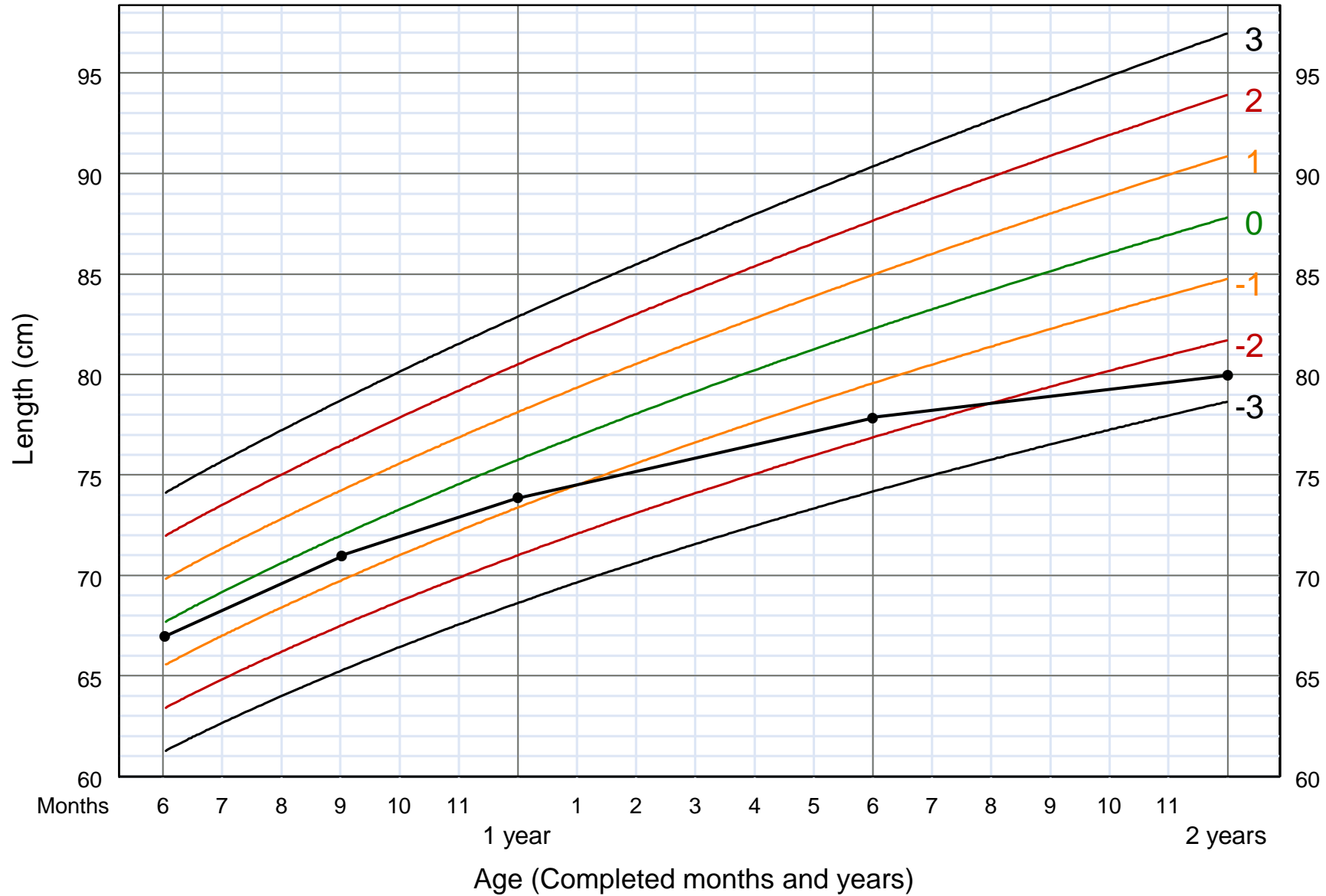
Birth to 2 years (z-scores)

C-31



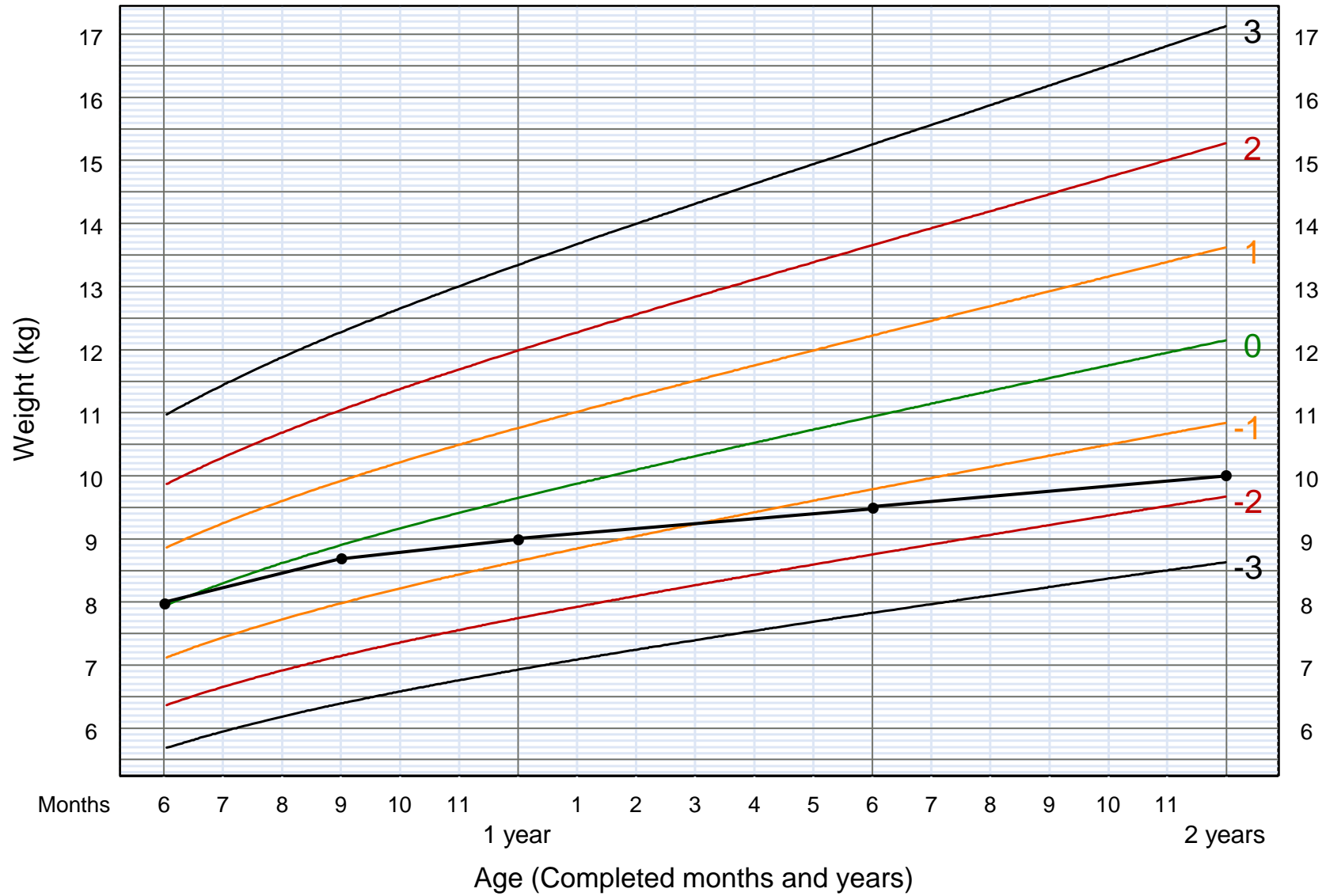
Length-for-age BOYS 6 months to 2 years (z-scores)

C-32



Weight-for-age BOYS 6 months to 2 years (z-scores)

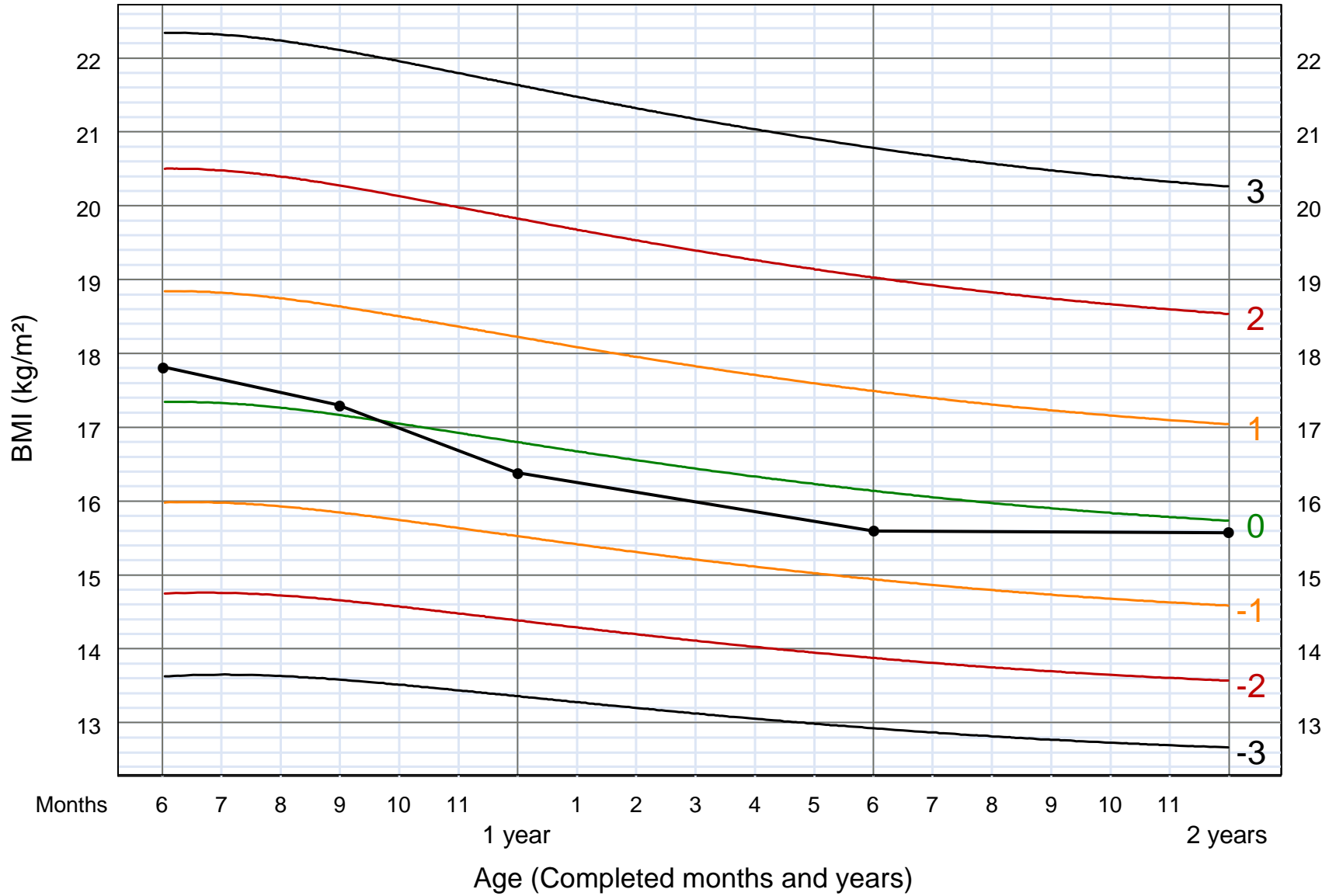
C-33



BMI-for-age BOYS

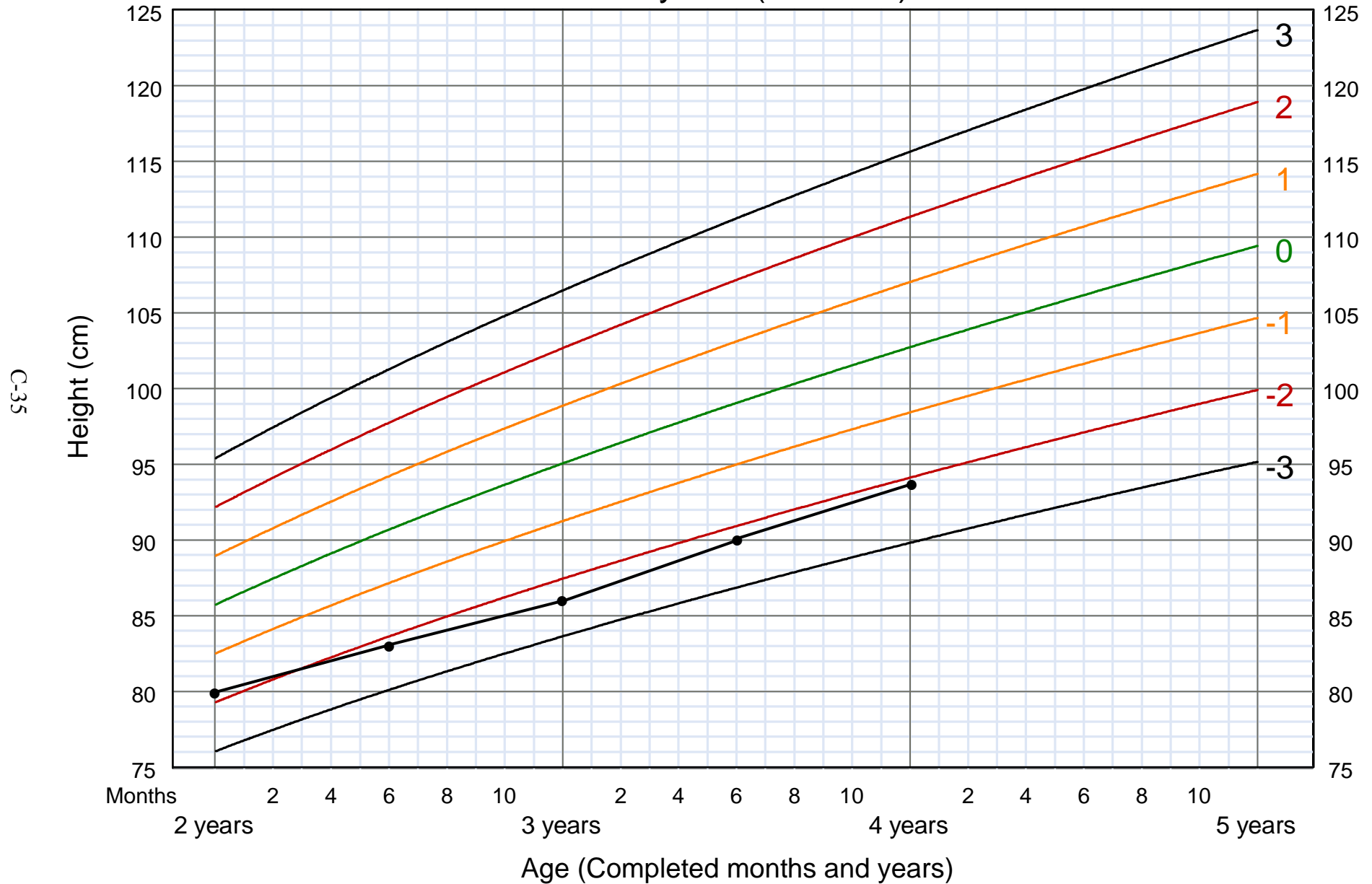
6 months to 2 years (z-scores)

C-34



Height-for-age GIRLS

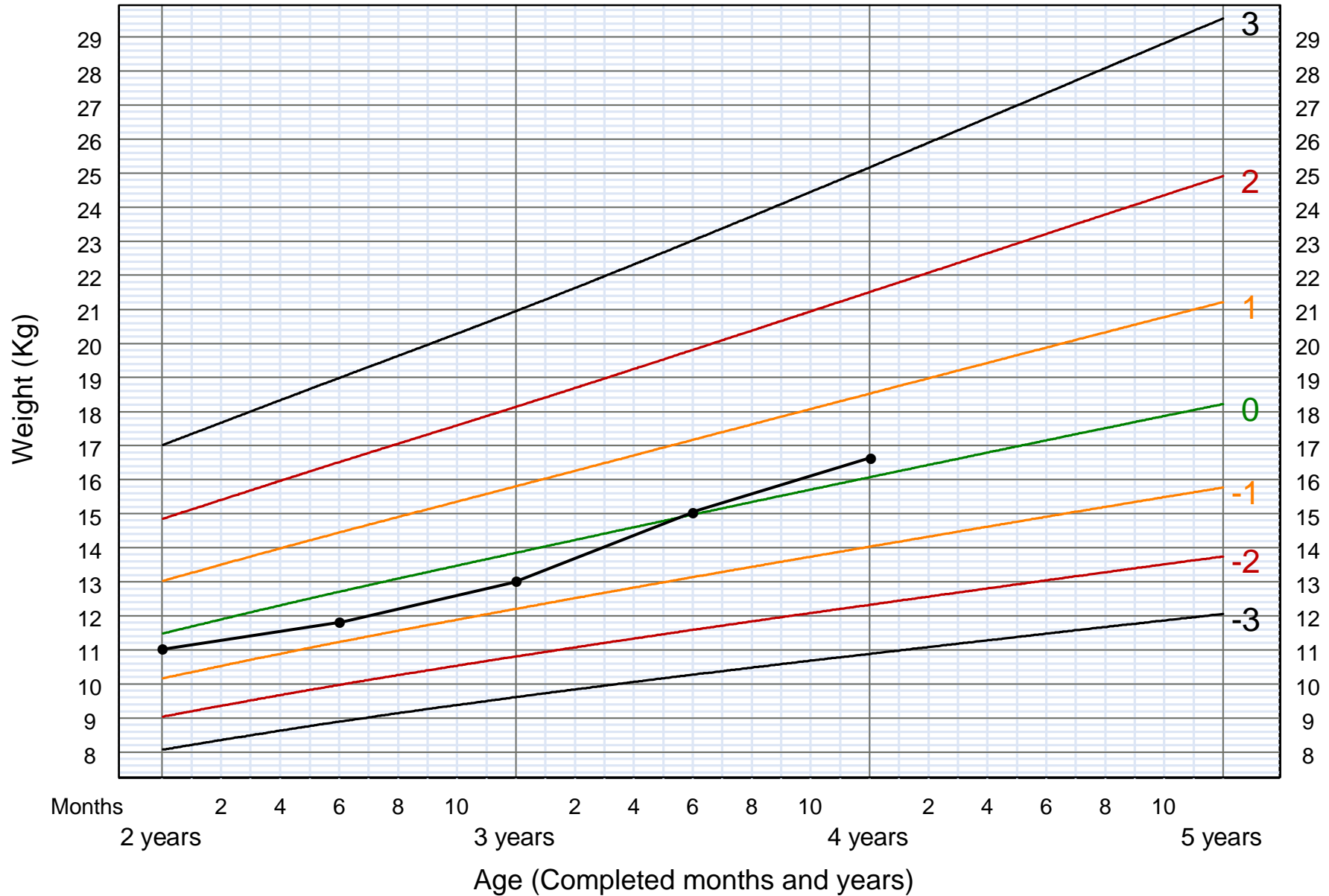
2 to 5 years (z-scores)



Weight-for-age GIRLS 2 to 5 years (z-scores)

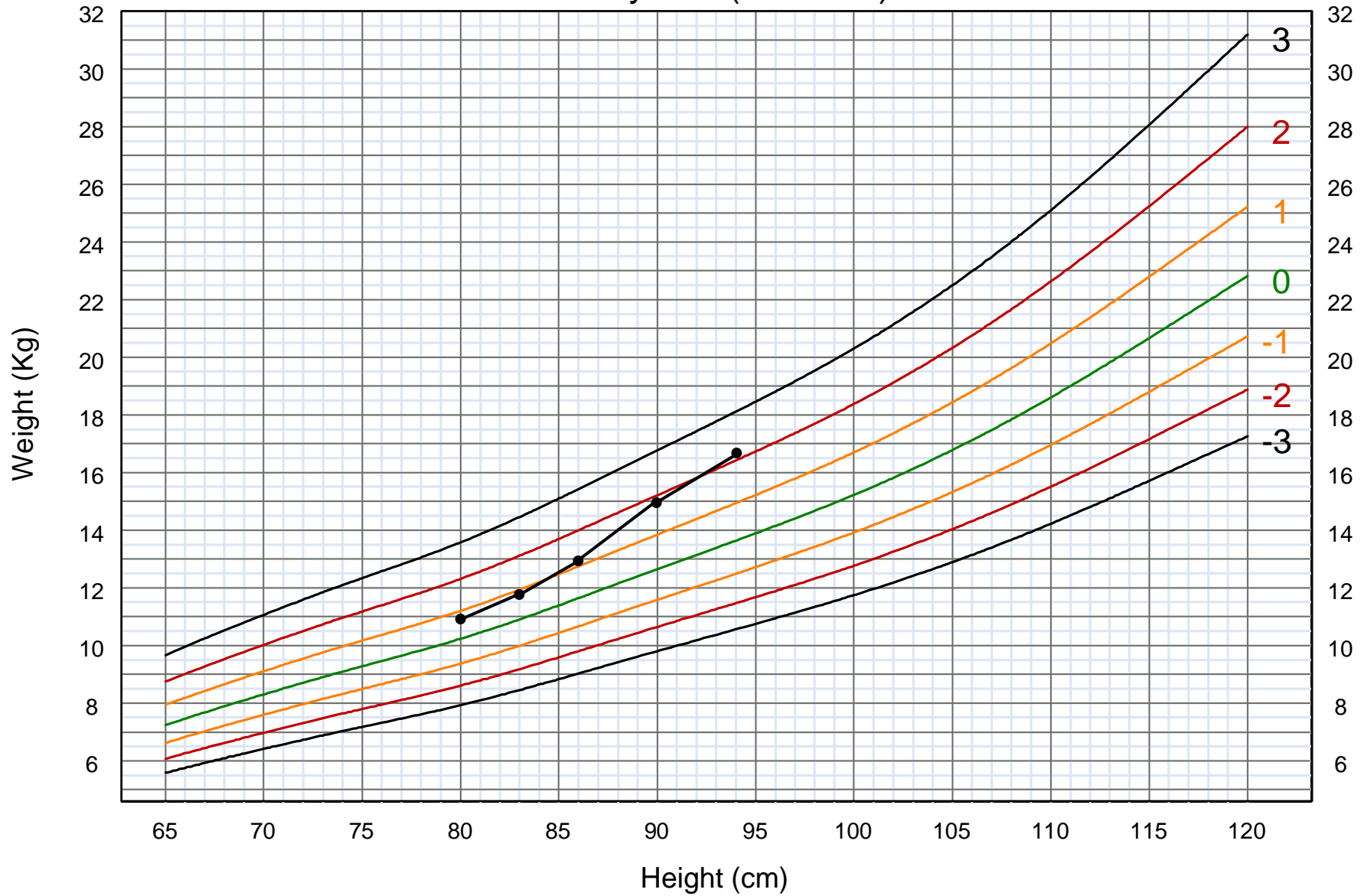
Overhead 18
Delia

C-36



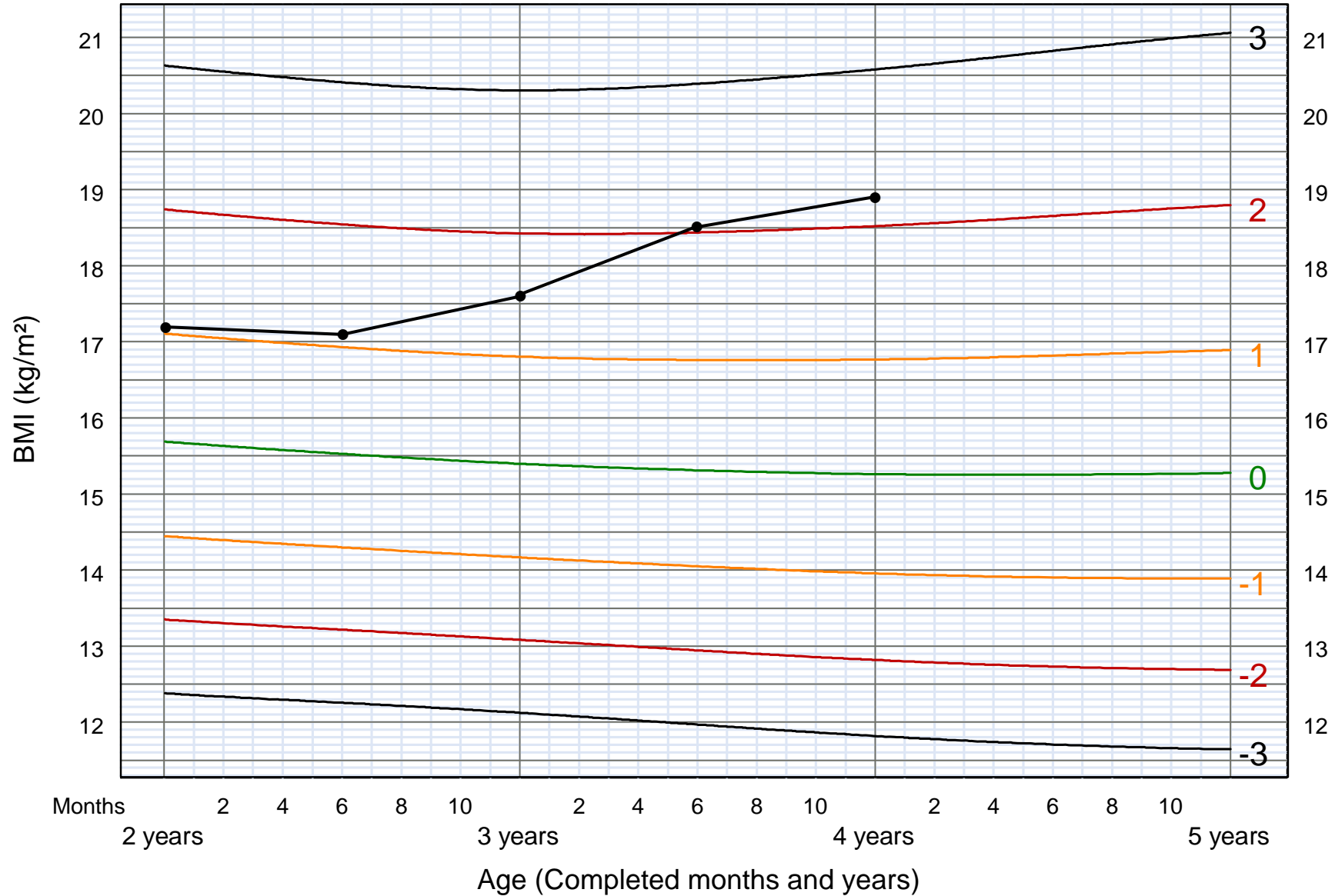
Weight-for-height GIRLS 2 to 5 years (z-scores)

C-37



BMI-for-age GIRLS 2 to 5 years (z-scores)

C-38



8. Written Exercise C – Nalah and Toman, followed by individual feedback

In this exercise participants will interpret trends in Nalah and Toman's growth. They will refer to the graphs that they did in Exercise A (or they may refer to the answer sheets for that exercise).

Use the answer sheets on the following pages as a guide when giving individual feedback. If a participant's answers differ greatly, find out why. There may be a simple explanation (for example, the participant may have been looking at the wrong graph, or reading the wrong point on the graph).

Give each participant a copy of the answer sheet.

9. Concluding the module

When everyone has finished, take a moment to conclude the module. Answer any questions and highlight important points.

Answers to Exercise C

Nalah

1.
 - a) At birth, Nalah's length-for-age was on the median.
 - b) At age 6 months, Nalah's length-for-age was below the -3 z-score line.
 - c) Nalah's growth in length has been slow. Her growth in length was stagnant from age 10 – 13 weeks. Since the age of 10 weeks, she has crossed two z-score lines (-2 and -3) and is now below -3 .
 - d) Nalah is severely stunted.

2.
 - a) Nalah's weight at birth was just above the -1 z-score line, a bit below average.
 - b) Nalah's weight-for-age at age 6 months was below the -2 z-score line.
 - c) Nalah's weight-for-age has not increased at the expected rate. Her weight-for-age dropped below the -1 z-score line, to just over -2 , remained there from age 6 to 10 weeks and then crossed below the -2 z-score line.
 - d) Nalah is underweight. She has been below -2 in weight-for-age since she was 3 months old.

3.
 - a) At birth, Nalah's weight-for-length was on or just below the -1 z-score line.
 - b) Her weight-for-length at age 6 months was on or just below the median.
 - c) Nalah's weight-for-length has stayed around or just below the median.
 - d) The weight-for-length chart does not show a growth problem or risk of a problem.

4.
 - a) At birth, Nalah's BMI-for-age was on the -1 z-score line.
 - b) At age 6 months, her BMI-for-age was below the median but above -1 .
 - c) Nalah's BMI-for-age is improving.
 - d) The BMI-for-age chart does not show a growth problem or risk of a problem.

C: Interpreting Growth Indicators
Answers to Exercise C, continued

5. Although Nalah was average length at birth, she became severely stunted by the age of 6 months. Her growth in both length and weight stagnated between age 10 weeks and 13 weeks, perhaps because of the episode of diarrhoea for which she was seen at the end of this period. Her weight has stayed appropriate for her length, so problems are not apparent on the weight-for-length and BMI-for-age chart. However, she is severely stunted and underweight according to the length-for-age and weight-for-age charts.

Toman

1. a) At age 1 year and 1 month, Toman's length-for-age was above the median, at approximately the 1 z-score line.
- b) His length-for-age at 2 years was close to the 1 z-score line.
- c) His length-for-age has been consistent, staying very close to the 1 z-score line.
- d) No problem or risk of a problem is evident on the length-for-age chart.
2. a) At age 1 year and 1 month, Toman's weight-for-age was above the 1 z-score line.
- b) His weight-for-age at 2 years was above the 2 z-score line.
- c) Toman's weight is increasing too rapidly in relation to his age. His weight-for-age line has crossed the 2 z-score line and continued rising.
- d) The weight-for-age chart shows that Toman is very heavy for his age, but a judgment of whether he has a problem with overweight should be based on his weight-for-height or BMI-for-age.
3. a) At age 1 year and 1 month, Toman's weight-for-length was above the 1 z-score line.
- b) His weight-for-length at 2 years was on the 3 z-score line.
- c) Toman's weight is increasing too rapidly in relation to his length. His weight-for-length has crossed the 2 z-score line and reached the 3 line.
- d) The weight-for-length chart shows that Toman is overweight and is at risk of becoming obese.
4. a) At age 1 year and 1 month, Toman's BMI-for-age was above the 1 z-score line.

C: Interpreting Growth Indicators
Answers to Exercise C, continued

- b) His BMI-for-age at 2 years was on the 3 z-score line.
 - c) Toman's BMI-for-age line is staying the same when it should be falling. It crossed the 2 z-score line and is now on the 3 z-score line.
 - d) Toman is overweight and is at risk of becoming obese.
5. Toman has grown normally in length, but his weight has increased too rapidly for his length and his age. On three of the growth charts (weight-for-age, weight-for-length, and BMI-for-age), Toman's growth line is near or on the 3 z-score line, indicating a definite trend towards obesity.

Facilitator Guidelines for D: Counselling on Growth and Feeding

Notes for each of these numbered procedures are given on the following pages.

Procedures	Feedback
1. Distribute module <i>D: Counselling on Growth and Feeding</i> and the job-aid on investigating causes of undernutrition and overweight. Introduce the module.	-----
2. Participants read pages 1–9 of the module and the feeding recommendations in the <i>Growth Record</i> . They do the short answer exercises on pages 4 and 7 when they come to them.	Self-checked
3. Group oral drill: Lead the drill on checking questions related to the feeding recommendations.	Drill
4. Participants answer the questions in Exercise A, page 10. Lead a group discussion of local feeding practices.	Group discussion
5. Participants read pages 11–12 of the module and study the job-aid titled <i>Investigating Causes of Undernutrition</i> . Then they do a short answer exercise on page 13 and continue reading on page 14.	Self-checked
6. Facilitators introduce Exercise B and act out the script of an interview with Nalah’s mother about the causes of undernutrition.	Group discussion
7. Participants read pages 18–21 of the module and do the short answer exercise on page 19.	Self-checked
8. Participants do the first (written) part of Exercise C (page 22).	Individual feedback
9. Act out the script at the end of Exercise C (pages 23–25), the conclusion of the counselling session with Nalah’s mother.	Group discussion
10. Participants read pages 26–27 of the module and study the job-aid titled <i>Investigating Causes of Overweight</i> . Then they do the short answer exercise on page 28.	Self-checked

11. Facilitators introduce Exercise D and act out the script of an interview with Toman's mother about the causes of his overweight.	Group discussion
12. Participants read pages 33–35 of the module and do the short answer exercise on page 34.	Self-checked
13. Participants do the first (written) part of Exercise E (pages 36–37).	Individual feedback
14. Act out the script at the end of Exercise E (pages 38–39), the conclusion of the counselling session with Toman's mother.	Group discussion
15. Role plays: Conduct role play Exercise F (pages 40–48) on interviewing and counselling mothers.	Role play
16. Introduce Clinic Exercise G. Participants read page 49.	-----
17. Clinic Exercise G: Visit a health facility, where participants will measure children and interview and counsel their mothers.*	Facilitators supervise and provide feedback
18. Conclude the module.	-----

* *Your Course Director will give you instructions about the time of the visit, arrangements for transportation, etc.*

1. Introducing the module

Distribute module *D: Counselling on Growth and Feeding* and the booklet (job-aid) on investigating causes of undernutrition and overweight. Show participants that one side of the booklet is titled *Investigating Causes of Undernutrition*. If they turn the booklet over, they will find *Investigating Causes of Overweight* on the reverse side.

Explain that this module describes how to interview and counsel a mother after her child's growth assessment. Many factors can affect a child's feeding and growth, so it is especially important to find out the real causes of a problem for a particular child **before** giving advice. The job-aid provided with this module will help health care providers find the causes of problems in order to tailor their advice. Participants will practise using the job-aid in role plays in this module and during a clinic visit.

In giving feeding advice, participants will refer to the feeding recommendations in the *Growth Record*. Participants will become very familiar with the feeding recommendations by using them in this module. Point out that the feeding recommendations are reproduced in the annex to module D. The annex also includes recommendations for "Care for development." These are messages, provided for general information, on how to stimulate a child's emotional, intellectual, and motor development. Ask participants to read the messages on care for development at some point when they have time, perhaps when they find themselves ahead of the rest of the group.

Review the objectives of the module listed on page 2.

2. Reading and short answer exercises

Ask participants to read pages 1–9 of the module and do the short answer exercises on pages 4 and 7 as they come to them. They should check their own answers. Be available to help as needed.

As instructed in the box on page 6 of the module, participants should also read the feeding recommendations on pages 13–20 of the *Growth Record*. If you do not see participants reading the feeding recommendations, encourage them to do so. They will need to be familiar with the feeding recommendations for later exercises in the module.

3. Group oral drill: Checking questions related to feeding recommendations

The purpose of this drill is for participants to become more familiar with the feeding recommendations in the *Growth Record* as they learn to formulate checking questions. Remind participants that it is best to use open-ended checking questions rather than "yes" or "no" questions.

Participants will take turns responding aloud in this drill. Proceed as follows:

1. A facilitator presents a feeding recommendation for a child of a certain age. Examples are given in the table on the next pages.

2. A participant suggests a related checking question. (If the question is not suitable, the facilitator gives feedback and the participant re-frames the question.)
3. The facilitator presents another feeding recommendation to another participant; the participant suggests a checking question; and the process continues until each participant has two or more turns. In some cases, several checking questions may be suitable following one recommendation.

Examples for oral drill

1. A facilitator presents a feeding recommendation, such as:	2. Participant suggests a checking question, such as:
Give your child only breast milk from birth to 6 months of age.	How old should your child be before you start giving any other food or fluids besides breast milk?
Breastfeed as often as your child wants, at least 8 times in 24 hours.	How often should you breastfeed?
Breastfeed whenever your child shows signs of hunger, such as fussing, sucking fingers, or moving his lips.	How will you know when your child is hungry?
Now that your baby is 6 months old, start giving 2–3 tablespoons of thick porridge or well-mashed foods 2–3 times a day.	What food will you start giving your baby now? How often will you give it? How much will you give?
Feed your child a staple food such as rice or wheat cereal.	What staple foods will you give your child?
You need to give your child some animal-source foods such as meat, chicken, fish, eggs, milk, cheese, yogurt, and curds.	What foods will you give that come from animal sources?
Peas and beans are another good source of protein.	Besides animal and milk foods, what is another good source of protein for your child?
Also give a variety of other foods such as leafy green and yellow-coloured vegetables and fruits.	What leafy green vegetables will you give? What yellow vegetables will you give? What fruits will you give?

At 9–11 months of age, give your baby 3-4 meals per day plus 1–2 snacks.	How many meals and snacks does your baby need at age 9 months?
At each meal your baby (age 9 months) needs about 1/2 cup of finely chopped or mashed foods.	How much food should you give at each meal?
Feed your child from her own plate or bowl so you will know when she has eaten her entire serving.	Why is it important to feed your child from her own plate or bowl?
Patiently help your baby eat. Talk to her, look into her eyes, and encourage her.	When you feed your child, how will you keep her interested?
Now that your child is 2 years old, he should eat family foods at 3 meals each day. Also, twice daily between meals, give nutritious snacks such as yogurt or fruit.	How many family meals should your child have each day? How many snacks? What are some nutritious snacks that you can give?

If you wish, you may continue this drill using additional feeding recommendations from the *Growth Record*.

Remind participants that mothers may respond vaguely or incompletely to checking questions. If so, it may be necessary to ask a follow-up checking question. For example:

Health care provider asks: How many meals and snacks does your baby need?

Mother responds: She needs to eat at the regular times.

Health care provider asks a follow-up question: How many times each day is that?

4. Exercise A: Group discussion – Local feeding practices

As participants finish the reading, ask them to begin work on Exercise A on page 10 of the module. Allow participants time to think about the questions on page 10 and write brief answers in order to prepare for the discussion. When everyone appears to be ready, lead a discussion of each question.

Some examples of local feeding practices in various cultures are listed below. You may mention these to encourage participants to discuss examples from their area.

- Mothers may give children thin soup instead of thick porridge. A better practice is to give thick soup or porridge. For example, in one country, mothers normally

give fish broth to children; however, some mothers have learned to give their children the fish itself or to grind the fish into the soup.

- Food may be overcooked (e.g. boiled in lots of water, which is discarded). A better practice is to boil food in just enough water for the food to absorb, or use the extra cooking liquid in a sauce.
- Eggs may be delayed until children are at least 9 months of age. There is no need for this delay, and eggs are a recommended source of protein.
- Eggs and meat may be forbidden for children. If this practice cannot be changed, mothers will need to provide other sources of protein.

Ask participants about local foods that may be used for nutritious snacks.

Ask participants about local terms that are used to describe problems related to undernutrition and overweight. For example, ask, “What is the local word for ‘stunting’?”

When discussing feeding advice needed by mothers in the area, also explore ways to express advice so that it makes sense to mothers. For example, to explain why exclusive breastfeeding is recommended for 6 months, one might say, “Wait to give other foods when the intestines are strong enough to accept foods besides breast milk.”

5. Reading and short answer exercise

Ask participants to read pages 11–12 of the module. In the box on page 12, they will also be directed to study the job-aid titled *Investigating Causes of Undernutrition*. This job-aid is a guide for interviewing the mother of a child with an undernutrition problem.

After studying the job-aid they should do the short answer exercise on page 13 and continue reading on page 14.

6. Exercise B: Interview with Nalah’s mother about the causes of undernutrition

When everyone has finished the reading, introduce Exercise B. Explain that you and your co-facilitator will act out an interview with Nalah’s mother, Mrs Parab. Read aloud the background information on page 15 of the module with the group. Tell them who will act the role of the “nurse” and who will act the role of Mrs Parab.

Explain that the scripted interview follows the job-aid titled *Investigating the Causes of Undernutrition*. The steps are labeled in the script. Preview the script as follows:

- Step 1 is covered in the background information and at the beginning of the interview, when the nurse explains the nutritional problem to Mrs Parab.
- In Step 2, the nurse asks permission to interview the mother about causes of the problem.

- Since Nalah is not ill, the nurse will do Step 3 of the job-aid (asking about breastfeeding).
- Then the nurse will locate the page for a baby age 6 months to 1 year (Step 4) and ask questions from that page.
- The nurse will then ask the questions intended for children of all ages (listed in Steps 5–6).
- This script will end with Step 7, identifying likely causes of undernutrition. The next exercise will deal with counselling to address these causes.

Ask participants to follow the job-aid as you act out the script. Be sure to keep your voices lively, interesting, and loud enough to be heard.

After the interview lead a discussion of the probable causes of Nalah’s undernutrition. List these causes on the flipchart or blackboard. Focus on **causes** rather than possible solutions or advice to give the mother. Solutions and advice will be the focus of the next exercise.

There is no answer sheet for this discussion.

7. Reading and short answer exercise

Ask participants to read pages 18–21 of the module. In the box on page 18, they are asked to look again at the job-aid titled *Investigating Causes of Undernutrition*. This time they should focus on the advice listed on the right side of the job-aid.

Participants should do the short answer exercise about Arif (page 19) when they come to it. They should check their own answers.

8. Written part of Exercise C, followed by individual feedback

After completing the reading, participants should do the first part of Exercise C (page 22) independently and then ask for individual feedback from a facilitator.

Use the answer sheet on the following page to provide individual feedback. The participant may not have written down the advice to be given in detail; be sure that the participant knows where to find the advice in the *Growth Record*.

Participants may select different points of advice as most important to tell the mother. If their selections differ, that is acceptable if they have good reasons for their choices.

Point out that notes on feeding history and advice should be written in Visit Notes in the *Growth Record*, pages 6–11. An example is given in the answer sheet. Give the participant a copy of the answer sheet.

Note: If two participants finish the written part of Exercise C early, you may wish to ask them to prepare to act out the script given on pages 23–25 of the module.

Possible Answers to Exercise C

1. Since Nalah is 6 months old, the health care provider should use the list of recommended foods on page 15 of the *Growth Record* and the feeding recommendations on pages 16–17.

2. **Causes of Nalah's undernutrition**

Nalah has not been fed frequently enough. Because Nalah's mother works, she has not been able to breastfeed enough.

Nalah is sickly (runny nose, tired), which may be partly due to hygiene problems in the home.

Possible advice to be given

Nalah needs more frequent feedings.

* Breastfeed as often as possible.

Give other milk when you cannot breastfeed. (Advice on expressing breast milk may be given if mother is willing and it is possible to store the milk safely.)

* Give Nalah a soft staple food such as thick porridge mixed with a bit of oil. Give the porridge 2–3 times a day, 2–3 tablespoons each time.

Increase the amount gradually up to 1/2 cup of mashed food 3 times a day.

Give 1–2 snacks between meals depending on her appetite.

Continue boiling drinking water. Wash utensils used for feeding Nalah in boiled water. Be sure to heat cooked food thoroughly. Wash hands after going to the group latrine, before preparing food, and before feeding Nalah.

3. *Introduce new foods one at a time. Wait a few days before giving another new food. Give Nalah staple foods and a variety of animal source and other nutritious foods listed on page 15 of the *Growth Record*.

At 8 months of age, give finger foods and let her try to feed herself.

Feed Nalah from her own plate or bowl. Actively encourage her to eat by looking into her eyes, talking to her, etc.

4. See items marked by a * above as most important and relevant. See as an example, on the next page, the entry that the health worker wrote in Nalah's *Growth Record*.

D: Counselling on Growth and Feeding

Example of Visit Notes for Nalah

Visit Notes

Feeding: Notes on history, any problems, counselling given
<i>Nalah is underweight and short for her age. Advised to increase breastfeeding; give thick porridge (2–3 tablespoons 2–3 times a day); introduce new foods one at a time such as those on page 15. Return 15 September 2006.</i>

9. Conclusion of Exercise C – Counselling Nalah’s mother

When everyone has finished the written part of Exercise C, the facilitators (or two participants) should act out the conclusion of the counselling session with Nalah’s mother, for which a script is given on pages 23-25 of the module.

Explain that this script covers Step 8 of the job-aid titled *Investigating Causes of Undernutrition*. The “nurse” will counsel Mrs Parab using relevant advice from the right-hand side of the job-aid, as well as feeding recommendations for age group 6 months to 1 year from the *Growth Record*. Ask participants to follow the job-aid and refer to the *Growth Record* as they listen to the counselling session with Mrs Parab. The three main points of advice are indicated by numbers to the left of the script.

After enacting the counselling session, ask participants whether they noticed that the nurse asked checking questions. One checking question is identified in the script. Ask participants to identify some other checking questions that the nurse asked (there are 5 more). Ask participants whether the nurse adequately tailored the advice to the mother’s situation.

Point out that the last step in the counselling session was to agree on when to bring the child back to see her progress.

10. Reading and short answer exercise

Ask participants to read pages 26–27 of the module. In the box on page 26, they will also be directed to study the job-aid titled *Investigating Causes of Overweight*. This job-aid is a guide for interviewing the mother of a child who is overweight or has a growth trend towards overweight.

Participants should do the short answer exercise about Mona (page 28) after studying the job-aid. They should check their own answers.

11. Exercise D: Interview with Toman’s mother about the causes of overweight

When everyone has finished the short answer exercise, introduce Exercise D. Explain that you and your co-facilitator will act out an interview with Toman’s mother, Mrs Baruni. Read aloud the background information on page 29 with the group. Tell them who will act the role of the “nurse” and who will act the role of Mrs Baruni.

Explain that the scripted interview follows the job-aid titled *Investigating Causes of Overweight*. Steps from the job-aid are indicated in the script. Preview the script as follows:

- Step 1: First the nurse will explain the nutritional problem and the purpose of the interview to Mrs Baruni.
- Step 2: Since Toman is exactly 2 years old, the nurse will start with the questions for a baby from birth to 2 years. (Based on Mrs Baruni's answers, she will then skip the questions for breastfed babies.) Then the nurse will ask other relevant questions about feeding for children age 2 to 5 years of age.

- Step 3: The nurse will ask about physical activity.
- This script will end with Step 4, identifying likely causes of overweight. The next exercise will deal with counselling to address these causes.

Ask participants to follow the job-aid as you act out the script. Be sure to keep your voices lively, interesting, and loud enough to be heard.

After the interview lead a discussion of the probable causes of Toman's overweight. List these causes on the flipchart or blackboard. Focus on **causes** rather than possible solutions or advice to give the mother. Solutions and advice will be the focus of the next exercise.

There is no answer sheet for this discussion.

12. Reading and short answer exercise

Ask participants to read pages 33–35 of the module. In the box on page 33, they are asked to look again at the job-aid titled *Investigating Causes of Overweight*. This time they should focus on the advice listed on the right side of the job-aid.

They should do the short answer exercise about Mona on page 34 and check their own answers.

13. Written part of Exercise E, followed by individual feedback

After completing the reading, participants should do the first part of Exercise E independently (pages 36–37) and then ask for individual feedback from a facilitator.

Use the answer sheet on the following page to provide individual feedback. The participant may not have written down the advice to be given in detail; be sure that the participant knows where to find the advice.

Participants may select different points of advice as most important to tell the mother. If their selections differ, that is acceptable if they have good reasons for their choices.

Point out that notes on feeding history and advice should be written in Visit Notes in the *Growth Record*, pages 6–11. An example is given in the answer sheet.

Give the participant a copy of the answer sheet.

Note: If two participants finish the written part of Exercise E early, you may wish to ask them to prepare to act out the script given on pages 38–39 of the module.

Possible Answers to Exercise E

1. The recommendations on page 19 of the *Growth Record* are applicable for Toman.
2.

<u>Causes of Toman's overweight</u>	<u>Possible advice to be given</u>
<i>Too many high energy food choices such as:</i>	*Stop adding sugar and chocolate to milk.
<i>Milk with added sugar or chocolate</i>	Limit soft drinks (no more than twice per week)
<i>Soft drinks</i>	Limit sweets (no more than twice per week)
<i>Sweets like cookies and cake</i>	Use high-calorie spreads sparingly
<i>Sweet chocolate and nut spreads</i>	
<i>Bottle of milk used to get Toman to sleep</i>	*Give only 500 ml of milk per day. Try rocking or singing Toman to sleep. If he is thirsty, give him water or milk in a cup, not a bottle.
<i>Lack of control over feeding at father's and grandmother's home</i>	Talk to the father and grandmother about Toman's overweight. Show them his <i>Growth Record</i> . Tell them the advice given by the health care provider.
<i>Lack of physical activity and too much television</i>	*Make sure that Toman has some physical activity each day. Ask the babysitter and Toman's father to take him outside to play. Sit together at a table for meals instead of watching television.
3. Toman should have 3 meals of family foods each day, plus 2 nutritious snacks between meals. Offer and encourage eating a variety of foods. Do not force him to eat. Give realistic portions based on his age, size and activity level.
4. See items marked by a * above as most important and relevant. See as an example, on the next page, the entry that the health worker wrote in Toman's *Growth Record*.

Example of Visit Notes for Toman

Visit Notes

Feeding: Notes on history, any problems, counselling given
<i>Toman is overweight. Advised to stop adding sugar and chocolate to milk; give only 500 ml milk each day (in cup); increase physical activity (play outdoors). Return 12 October 2007.</i>

14. Conclusion of Exercise E – Counselling Toman’s mother

When everyone has finished the written part of Exercise E, the facilitators (or two participants) should act out the conclusion of the counselling session with Toman’s mother, for which a script is given on pages 38-39 of the module.

Explain that this script covers Step 5 of the job-aid titled *Investigating Causes of Overweight*. The “nurse” will counsel Mrs Baruni using relevant advice from the right-hand side of the job-aid, as well as feeding recommendations for age group 2–5 years from the *Growth Record*. The three main points of advice are indicated by numbers to the left of the script. Ask participants to follow the job-aid and refer to the *Growth Record* as they listen to the counselling session with Mrs Baruni.

After enacting the counselling session, ask participants whether they noticed that the nurse asked checking questions. One checking question is identified in the script. Ask participants to identify two more checking questions that the nurse asked. Ask participants whether the nurse adequately tailored the advice to the mother’s situation.

Point out that the last step in the counselling session was to agree on when to bring the child back to see his progress. Ask the participants for any other comments that they may have about the counselling session with Mrs Baruni.

15. Role Play Exercise F – Interviewing and counselling mothers

Divide participants into small groups of three for role plays. Three role play situations are provided in the module, each of which presents a different nutritional scenario. Each small group will do all of the role plays, with participants taking turns in the roles of health care provider, mother, and observer. The small groups will do their role plays simultaneously, in separate parts of the room.

When the small groups go to their separate areas, each person will need to take their job-aid on investigating causes, their *Boy’s Growth Record* and *Girl’s Growth Record*, a note pad, and a pen or pencil.

Ask the participants in each group to decide on their first roles and read the relevant instructions on page 40–41. They should all also **read the background information** for role play situation 1 and look at the growth charts for Veebol.

Ask the groups if they have any questions about what to do, and clarify the instructions as needed. Then send each small group of three to a separate area, or perhaps out in a corridor. They should not go far away, however, as the facilitators need to observe them.

Observe as the groups get started and help them as necessary. Move around to be sure that each group is staying on track. Give instruction and feedback as necessary.

After each role play, the observer in the group should make brief comments. Then encourage the group to quickly switch roles and move on to the next role play (Razia, and then Anete). It is important to keep the role plays moving along so that participants do not become bored or frustrated. When participants are ready to do the role play about Anete, you may need to point out that Anete is stunted (but average weight-for-length), so the job-

aid on causes of undernutrition applies, and the nurse should give the special advice for the stunted child.

When all of the small groups have finished with the role plays, gather the entire group for a brief discussion of lessons learned during the role plays.

16. Introduce Clinic Exercise G – Measuring children, interviewing and counselling mothers

Tell participants that there will be a visit to a clinic or clinics so that they can practice measuring children and interviewing and counselling mothers. Ask participants to read page 49.

Describe the logistic arrangements that have been made by the Course Director (transportation, time of departure, dividing of the groups to visit two different clinics, etc.) Review the tasks that each participant will perform (listed under “Instructions” on page 49 of the module. Answer any questions about the visit.

17. Clinic Exercise G – Measuring children, interviewing and counselling mothers

This exercise requires a health facility visit. Your Course Director will inform you of the plans.

Remind participants that they will need a note pad, their WHO age calculator, and their job-aids on measuring children and on investigating causes of undernutrition and overweight. Bring a supply of pencils, small toys, *Boy’s Growth Records*, and *Girl’s Growth Records*. The health facility may keep different types of growth records on children. If so, the Course Director will advise you on how to handle the situation. You may need to explain to health facility staff and mothers that you are using new *Growth Records* from WHO.

At the health facility, meet the person in charge, and describe what you are planning to do. (The Course Director will have visited beforehand to obtain permission and describe the course and the purpose of the visit.) Ask the person in charge where best to position the participants who will be measuring children, counselling mothers, etc.

Assign participants to work in pairs. If language is an issue, be sure that one participant in each pair speaks the local language. Facilitators should help pairs select children from the waiting area so that each pair sees a variety of ages, including some children with normal growth and some with growth problems.

Facilitators should supervise pairs as they measure children and do counselling. Participants should follow the instructions on page 49 of the module. Watch participants closely and, if needed, correct their technique (discreetly) as they measure children.

Counselling will be based on a single growth assessment at this visit, since it is unlikely that there will be comparable growth records from past visits.

- If the child has no growth problem, participants will counsel the mother about feeding recommendations for the child's next age group.
- If there is a growth problem, participants will use the appropriate job-aid to interview the mother about causes of undernutrition or overweight and then give the most important advice.

After each counselling session, give feedback to the participants. Avoid questioning or correcting a participant in front of the mother; reminders if needed should be given discreetly.

Each pair of participants should see as many children and mothers as possible. Participants should take turns with the measuring, recording, and counselling tasks.

18. Concluding the module

If participants have any questions about the module or the counselling process, discuss them. Make any important points that you want to reinforce with these participants. Discuss how participants can practically implement the counselling process in their own health facilities.

Remind participants about the care for development messages in the annex to module D. If participants have not yet read these messages, they should do so at their convenience.

Guidelines for All Modules

Facilitator Techniques

A. Techniques for motivating participants

Encourage interaction

1. During the first day, you will talk individually with each participant several times (for example, during individual feedback). If you are friendly and helpful during these first interactions, it is likely that the participants:
 - will overcome their shyness,
 - will realize that you want to talk with them, and
 - will interact with you more openly and productively throughout the course.
2. Look carefully at each participant's work. Check to see whether participants are having any problems, even if they do not ask for help. If you show interest and give each participant undivided attention, the participants will feel more compelled to do the work. Also, if the participants know that someone is interested in what they are doing, they are more likely to ask for help when they need it.
3. Be available to talk with participants as needed.

Keep participants involved in discussions

4. Frequently ask questions of participants to check their understanding and to keep them actively thinking and participating. Questions that begin with "what," "why," or "how" require more than just a few words to answer. Avoid questions that can be answered with a simple "yes" or "no."

After asking a question, PAUSE. Give participants time to think and volunteer a response. A common mistake is to ask a question and then answer it yourself. If no one answers your question, rephrasing it can help to break the tension of silence. But do not do this repeatedly. Some silence is productive.

5. Acknowledge all participants' responses with a comment, a "thank you" or a definite nod. This will make the participants feel valued and encourage participation. If you think a participant has missed the point, ask for clarification, or ask whether another participant has a suggestion. If a comment is ridiculed or ignored, the participant may withdraw from the discussion entirely or not speak voluntarily again.
6. Answer participants' questions willingly, and encourage participants to ask questions when they have them rather than to hold the questions until a later time.
7. Do not feel compelled to answer every question yourself. Depending on the situation, you may turn the question back to the participant or invite other participants to

respond. You may need to discuss the question with the course director or another facilitator before answering. Be prepared to say "I don't know but I'll try to find out."

8. Use names when you call on participants to speak, and when you give them credit or thanks. Use the speaker's name when you refer back to a previous comment.
9. Maintain eye contact with the participants so everyone feels included. Be careful not to always look at the same participants. Looking at a participant for a few seconds will often prompt a reply, even from a shy participant.

Keep the session focused and lively

10. Keep your presentations lively:
 - Present information conversationally rather than read it.
 - Speak clearly. Vary the pitch and speed of your voice.
 - Use examples from your own experience, and ask participants for examples from their experience.
11. Write key ideas on a flipchart as they are offered. (This is a good way to acknowledge responses. The speaker will know that the idea has been heard and will appreciate having it recorded for the entire group to see.)

When recording ideas on a flipchart, try to use the participant's own words. If you must be more brief, paraphrase the idea and check it with the participant before writing it. You want to be sure the participant feels you understood and recorded the idea accurately.

Do not turn your back to the group for long periods as you write.

12. At the beginning of a discussion, write the main question on the flipchart. This will help participants stay on the subject. When needed, walk to the flipchart and point to the question.

Paraphrase and summarize frequently to keep participants focused. Ask participants for clarification of statements as needed. Also, encourage other participants to ask speakers to repeat or clarify statements as needed.

Restate the original question to the group to get them focused on the main issue again. If you feel someone will resist getting back on track, first pause to get the group's attention, tell them they have gone astray, and then restate the original question.

Do not allow several participants to talk at once. When this occurs, stop the talkers and assign an order for speaking. (For example, say "Let's hear Dr Samua's comment first, then Dr Salvador's, then Dr Lateau's.") People usually will not interrupt if they know they will have a turn to talk.

Thank participants whose comments are brief and to the point.

13. Encourage quieter participants to talk. Ask to hear from a participant in the group who has not spoken before, or walk toward someone to encourage that person to talk.

Manage any problems

14. Some participants may talk too much. Here are some suggestions on how to handle an overly talkative participant:
 - Do not call on this person first after asking a question.
 - After a participant has gone on for some time say, "You have had an opportunity to express your views. Let's hear what some of the other participants have to say on this point." Then rephrase the question and invite other participants to respond, or call on someone else immediately by saying, "Dr Samua, you had your hand up a few minutes ago."
 - When the participant pauses, break in quickly and ask to hear from another member of the group or ask a question of the group, such as, "What do the rest of you think about this point?"
 - Record the participant's main idea on the flipchart. As the participant continues to talk about the idea, point to it on the flipchart and say, "Thank you, we have noted your idea." Then ask the group for another idea.
 - Do not ask the talkative participant any more questions. If the same participant answers all the questions directed to the group, ask for an answer from another individual specifically or from a specific subgroup. (For example, ask, "Does anyone on this side of the table have an idea?")
15. Try to identify participants who have difficulty understanding or speaking the course language. Speak slowly and distinctly so you can be more easily understood, and encourage the participant's efforts to communicate.

Discuss with the course director any language problems that seriously impair the ability of a participant to understand the written material or the discussions. It may be possible to arrange help for the participant.

Discuss disruptive participants with your co-facilitator or with the course director. (The course director may be able to discuss matters privately with the disruptive individual.)

Reinforce participants' efforts

16. As a facilitator, you will have your own style of interacting with participants. However, a few techniques for reinforcing participants' efforts include:
 - avoiding use of facial expressions or comments that could cause participants to feel embarrassed,
 - sitting or bending down to be on the same level as participants when talking to them,

- answering questions thoughtfully, rather than hurriedly,
- encouraging participants to speak to you by allowing them time,
- appearing interested, saying "That's a good question/suggestion."

17. Reinforce participants who:

- try hard,
- ask for an explanation of a confusing point,
- do a good job on an exercise,
- participate in group discussions, or
- help other participants (without distracting them by talking at length about irrelevant matters).

B. Techniques for relating modules to participants' jobs

1. Discuss how participants can use the procedures taught in the course in their own jobs. This type of discussion will help participants begin to think about how to apply what they are learning.
2. Reinforce participants who ask questions about using the procedures in their own jobs. Acknowledge and respond to any concerns.

C. Techniques for co-facilitators to work together

1. Spend some time with your co-facilitator when group assignments are first made. Exchange information about prior teaching experiences and individual strengths, weaknesses, and preferences. Agree on roles and responsibilities and how to work together.
2. Both facilitators should be available simultaneously to give individual feedback. Do not leave your co-facilitator to handle all the participants.
3. Assist one another in conducting group discussions. For example, one facilitator may lead a group discussion, and the other may record the important ideas on the flipchart. The second facilitator could also check the *Facilitator Guide* and add any points that have been omitted.
4. Each day, review the teaching activities that will occur the next day (such as role plays and discussions), and agree who will lead the discussion, collect the necessary supplies, etc.
5. Work *together* on each module rather than taking turns having sole responsibility for a module.

Guidelines for All Modules

When participants are working:

- Look available, interested and ready to help.
- Watch the participants as they work, and offer individual help if you see a participant looking troubled, staring into space, not writing answers, or not turning pages. These are clues that the participant may need help.
- Encourage participants to ask you questions whenever they need some help.
- If important issues or questions arise when you are talking with an individual, make note of them to discuss later with the entire group.
- If a question arises that you cannot answer adequately, obtain assistance as soon as possible from another facilitator or the course director.
- Review the points in this *Facilitator Guide* so you will be prepared to discuss the next exercise with the participants.

Guidelines for All Modules

When providing individual feedback:

- Before giving individual feedback, refer to the appropriate notes in this guide to remind yourself of the major points to make.
- Compare the participant's answers to the answer sheet.
- If the participant's answer to any exercise is incorrect, ask questions to determine why the error was made. There may be many reasons for an incorrect answer. For example, a participant may not understand the question, may not understand certain terms used in the exercise, may be accustomed to different procedures, may have overlooked some information about a case, or may not understand a basic process being taught.
- Once you have identified the reason for the incorrect answer to the exercise, help the participant correct the problem. For example, you may only need to clarify the instructions. On the other hand, if the participant has difficulty understanding the process itself, you might try using a specific case example to explain. After explaining, ask questions to be sure that the participant understands.
- Give the participant a copy of the answer sheet, if one is provided.
- Reinforce the participant for good work. For example:
 - comment on how well the participant understands,
 - show enthusiasm for the participant's ideas for application of the skill on the job,
 - mention that you enjoy discussing exercises with the participant, or
 - comment that the participant's hard work is appreciated.

Guidelines for All Modules

When leading a group discussion

- Plan to conduct the group discussion at a time when you are sure that all participants will have completed the preceding work. Wait to announce this time when most participants are ready, so that others will not hurry.
- Before beginning the discussion, refer to the appropriate notes in this guide to remind yourself of the purpose of the discussion and the major points to make.
- Begin the group discussion by telling the participants the purpose of the discussion.
- Often there is no single correct answer that needs to be agreed on in a discussion. Just be sure the conclusions of the group are reasonable and that all participants understand how the conclusions were reached.
- Try to get most of the group members involved in the discussion. Record key ideas on a flipchart as they are offered. Keep your participation to a minimum, but ask questions to keep the discussion active and on track.
- Always summarize, or ask a participant to summarize, what was discussed in the exercise. Give participants a copy of the answer sheet, if one is provided.
- Reinforce the participants for their good work. For example:
 - praise them for the list they compiled,
 - comment on their understanding of the exercise,
 - comment on their creative or useful suggestions for using the skills on the job, or
 - praise them for their ability to work together as a group.

Guidelines for All Modules

When coordinating a role play:

- Before the role play, refer to the appropriate notes in this guide to remind yourself of the purpose of the role play, background information, and major points to make afterwards.
- At the beginning of the role play,
 - review instructions for the role play,
 - assign groups of three participants to do the role play together,
 - make sure that role play participants have any supplies needed, for example, a copy of the *Boy's Growth Record* and the *Girl's Growth Record*.
 - suggest that each group of three go to a separate corner or area to work.
- Observe each group quietly, and make notes of points to cover later with the entire group.
- Interrupt only if the players are having tremendous difficulty or have strayed from the purpose of the role play.
- When all groups have finished the role plays, conclude the exercise with a brief discussion. Discuss things done well and things that could be improved.
- Ask participants to describe what they learned from the role plays.

Schedule for the course

	Activity	Time
Day 1	Registration	0.5 hour
	Welcome or opening plenary	1 hour
	Module A: <i>Introduction</i>	1 hour
	Module B: <i>Measuring a Child's Growth</i> (includes exercise measuring children in the classroom in the afternoon, starting around 3:00 pm)*	4.5 hours
Day 2	Continuation of module B, if needed	1 hour
	Module C: <i>Interpreting Growth Indicators</i>	6 hours
Day 3	Module D: <i>Counselling on Growth and Feeding</i> (up to Exercise G, which requires a health facility visit)	7 hours
Day 4 (half day)	Health facility visit to do Exercise G of module D (counselling mothers)	3 hours**
	Closing session, awarding of course certificates	1 hour

* If children cannot be available on the first afternoon, they may be asked to come at the beginning of Day 2.

** Time estimate for health facility visit includes 1 hour of travel and 2 hours at the health facility.

