

Training Course on Child Growth Assessment

WHO Child Growth Standards

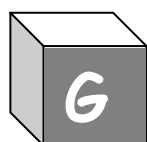
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Facilitator's Guide



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**World Health
Organization**

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Facilitator's Guide

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Facilitator's Guide

Introduction to this *Facilitator's 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.
- Demonstrate and explain correct measuring techniques; guide participants as they learn correct measuring techniques.
- Promptly review each participant's written 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).
- Plan ahead to ensure that the necessary equipment, supplies, transportation, and children will be available to enable successful clinical practice.
- 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.
- During clinical practice, actively guide the participants to practice measuring using correct technique. Intervene and guide them to measure correctly.
- 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's 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.
- During clinical practice, do not overlook participants' mistakes, e.g., measuring from the wrong position, holding the measuring board incorrectly, positioning the child incorrectly, etc. Do not let them practice wrong technique, or they are likely to repeat it. Intervene and guide them to measure correctly.
- 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's Guide* will help you remember what to say. Just use it!

How can this FACILITATOR'S GUIDE help you?

This *Facilitator's Guide* will help you teach the course modules. For each module, this *Facilitator's 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 block 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's 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
- you 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's Guide*),
- read in this *Facilitator's 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,
- think of questions to ask participants that will encourage them to think about how they will use 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 a block)	1 for each participant
<i>G: Facilitator’s Guide</i>	1 for each facilitator
WHO child age calculator	1 for each facilitator and participant
<i>Boy’s Growth Record</i>	1 for each facilitator and participant (<i>Extra copies for module D exercise G – one per working pair/team</i>)
<i>Girl’s Growth Record</i>	1 for each facilitator and participant (<i>Extra copies for module D exercise G – one per working pair/team</i>)
Set of job-aids (2 booklets): <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) and erasable markers (or PowerPoint file)	1 set per small group
Anthropometry Training Video (DVD or videotape)	1 per small group
Measuring: It’s not so easy (PowerPoint file)	1 per small group
Copy of course schedule	1 for each facilitator and participant
Course Registration Form	1 for each participant
Course Evaluation Form	1 for each 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 PowerPoint projection and video-viewing (videotape or DVD) (may be shared by groups if necessary)
- 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
- paper towels or soft cloth to cover the length/height board
- several cups and bowls to show quantities of food servings for children
- small toys to entertain the children and offer as presents to take home
- if possible, tokens of thanks for the parents, such as a gift certificate for groceries.

When should you distribute the various materials to the participants in your group?

Distribute the instructional materials to participants **module by module** as they need them. Distribute the related job-aids along with the module that uses them.

To begin, give each participant:

A: Introduction and

- Course Registration Form
- Copy of course schedule
- Supplies, such as name tag, pencils, pens, paper, highlighter, envelope for answer sheets

Thereafter, when each module is completed, give participants the materials needed for the next module.

B: Measuring a Child's Growth and

- *Boy's Growth Record*
- *Girl's Growth Record*
- WHO child age calculator
- *Weighing and Measuring a Child* (job-aid)
- *E: Photo Booklet*
- Calculator

C: Interpreting Growth Indicators (no additional materials to distribute)

D: Counselling on Growth and Feeding and

- *Investigating Causes of Undernutrition*, bound with *Investigating Causes of Overweight* (job-aid)

Keep all the copies of **F: Answer Sheets**. When a participant completes an exercise, take out that particular answer sheet and give it to the participant to keep (during the individual feedback or group discussion). Participants can collect the answer sheets that they receive in a large envelope or folder given to them for that purpose.

On the last day of the course, distribute the Course Evaluation Form.

Facilitator's 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

This introduction will likely take place after an opening ceremony at which general introductions may have been made and the Multicentre Growth Reference Study documentary video seen and discussed. From this point onwards, this guide describes what takes place in the small working groups.

Ask each participant to complete the Course Registration Form that will give you a profile of their backgrounds. Explain to participants that you would like to learn more about their current responsibilities related to growth assessment to better to facilitate the course for them. Do study the registration forms later to understand the participants' backgrounds.

Introduce yourself and your co-facilitator and write your names on the blackboard or flipchart. Ask the participants introduce themselves, ask them to write their names on the blackboard or flipchart and briefly tell the group where they work and what growth assessment responsibilities they have. (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.

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's 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 1–4 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. Live demonstration: Using real equipment, demonstrate how to set up and use the scale and measuring boards.	-----
7. Participants practice using the equipment to weigh and measure themselves, dolls, or other substitutes.	Facilitators supervise and provide feedback
8. Video demonstration: Show selected sections of the <i>Anthropometry Training Video</i> .	-----
9. Participants read pages 27–28 and do the short answer exercise about BMIs on page 29.	Self-checked
10. Participants do Exercise C (pages 30–31), continuing case studies of Nalah and Toman.	Individual feedback

11. Lead clinical Exercise D (page 32), which involves weighing and measuring real children.*	Facilitators supervise and guide; participants compare results
12. Slide show – Measuring: It’s not so easy: Slide by slide, ask participants what good or poor points they can see about the position of the measurers or the child.	Group discussion
13. 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* (a copy of each per participant)
- *E: Photo Booklet*
- *WHO child age calculator*
- *Job-Aid: Weighing and Measuring a Child*

Each participant needs a copy of the *Boy's Growth Record* and a copy of the *Girl's Growth Record*.

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 demonstration).
- **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 1–4. Tell them that when everyone has read the four pages, you will give a brief demonstration of how to use the child age calculator.

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

Demonstration of using the age calculator:

When everyone has read the 4 pages (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 page 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 pages 6–7 and then complete Exercise A (pages 8–9) independently. When they have finished the exercise, they should see a facilitator for individual feedback.

Reading:

While participants are reading, watch to see whether anyone is struggling. If a participant is visibly struggling, go to that individual and ask quietly if he/she has a question or needs help. Some people will understand immediately how to use the age calculator, while others need time to understand it. Help as needed. Leaving a participant to struggle is likely to result in frustration and loss of motivation.

Additional examples for age calculation:

- A baby born on 1 August who visits the clinic on 31 January the following year is exactly 6 completed months.
- A baby born on 28 February visiting the clinic on 28 June of the same year is 3 completed months by definition. However, in real-life application of the standards, his/her measurements should be plotted on 4 months for a correct assessment of growth status.

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 (from *F: Answer Sheets*) for him/her to keep. Each participant should have received an envelope or folder in which to keep the answer sheets.
- Thank or congratulate the participant for his or her work. Then ask him/her to do Exercise B. Explain that he/she 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 the demonstration of use of the equipment.

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>	<input checked="" type="checkbox"/> Girl <small>If a boy, must use a Boy's Growth Record</small>
Identification/Record number _____	
Parents' names <u>Hamid and Shira Parab</u>	
Address <u>40 Rim Road</u>	
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:

Visit Notes					
Date of birth: <u>7-2-2006</u>		Measurements (Record below; then plot on charts)			Reason for visit, observations, recommendations
Date of visit	Age today (Completed years/months or weeks)	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>	
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
		Weight (kg)	Length/Height (cm)	BMI*	
15-8-2006	1yr 1mo				Note: Earlier Growth Record lost. Immunizations up-to-date at Gmo. 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 on page 26 that instructs them to wait for the live demonstration.

Note: For step 6 a scale and measuring boards should be brought to the classroom. For step 11 (Exercise D), 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.

6. Live demonstration of use of measuring equipment

In this step you will demonstrate how to use the taring scale and a height/length board. The following equipment is needed in the classroom for this demonstration:

- a taring scale
- a length/height board set up to measure height
- a length/height board set up to measure length
- paper towels or soft cloth to cover the length/height board
- a large doll is very helpful

The description below of how to demonstrate and the key points to mention is very detailed. It is not expected that you will follow this description word for word. Instead, read it carefully a few times before the demonstration to remind you of the important steps and key points to make. Your co-facilitator can help to make sure that all the points are mentioned.

a. Demonstrate use of the taring scale:

As you demonstrate use of the taring scale, mention these key points (from pages 16–18 of the module). Ask a participant to be the mother for this demonstration. For this demonstration, prepare a “baby” that will weigh over 2 kg, such as 2–3 handbags or a bag holding several water bottles or books.

- Place the scale on a flat, hard surface. The solar panel should be in good light.
- Mention that the mother would undress the baby.
- To turn on the scale, cover the solar panel for a second (literally one second). Wait until the number 0.0 appears.
- Ask the mother to remove her shoes. Then ask her to step on the scale and stand still. Ask her to remain on the scale even after her weight appears, until you have finished weighing the baby.
- After the mother's weight is displayed, tare the scale by covering the solar panel for only a second and then waiting for the number 0.0 to appear along with a figure of a mother and baby.
- Gently hand the "baby" to the mother. In a moment, the "baby's" weight will appear.
- **Note:** If the scale takes a long time to show 0.0 or a weight, it may not have enough light. Reposition the scale so that the solar panel is under the most direct light available.
- **Note:** If a mother is very heavy (such as more than 100 kg) and the baby is light (such as less than 2.5 kg), the baby's weight may not register on the scale. In such cases, have a lighter person hold the baby on the scale.

b. Demonstrate use of the length board:

If the length/height board requires assembling, begin by demonstrating how to assemble and disassemble the board.

Then as you demonstrate use of the length board, mention the key points below (from page 21-22 of the module). It is most helpful if you have a large doll for this demonstration.

- Place the length board on a sturdy surface, such as a table or the floor. Cover the length board with a cloth or paper towel.
- Stand on the side where you can see the measuring tape and move the footboard.
- Explain to the mother that she will need to place the baby on the length board herself and then help to hold the baby's head in place while you take the measurement. Show her where to stand when placing the baby down. Also show her where to place the baby's head (against the fixed headboard).
- When the mother is ready, ask her to lay the child on his back with his head against the headboard, compressing the hair.
- Quickly position the head so that the child's eyes are looking straight up (imaginary vertical line from the ear canal to the lower border of the eye socket is perpendicular to the board). The person assisting should stand behind the headboard and hold the head in this position (see illustration on p. 21 of module B).
- Speed is important.
- Check that the child lies straight along the board and does not change position.

- Hold down the child's legs with one hand and move the footboard with the other. You will have best control if you hold the child's legs at the knees (with one finger between the knees) and gently press them down.
- While holding the knees, move the footboard against the soles of the child's feet. The soles should be flat against the footboard, toes pointing upwards. If the child bends the toes or arches the foot, scratch the soles slightly and slide in the footboard quickly when the child straightens the toes.
- Read the measurement and record the child's length in centimeters to the last completed 0.1 cm (this is the last line that you can see).
- **Note:** If the child is extremely agitated and both legs cannot be held in position, measure with one leg in position.
- **Note:** It is not possible to straighten the knees of newborns. Apply minimum pressure because newborns are fragile and could be injured easily.
- Remember that if the child whose length you measured is 2 years or older, subtract 0.7 cm from the length and record the result as height in the Visit Notes.

c. Demonstrate use of the height board:

Demonstrate use of the height board and mention the key points below (from page 23 of the module). It is also helpful if you have a large doll for this demonstration, or even a stick.

- Place the height board with its back against the wall, so that it sits flat on the floor and cannot tip backward.
- Place yourself to the right of the height board, kneeling down so that your head is at the level of the child's head.
- Position the "child" (doll) on the baseboard with the back of the head, shoulder blades, buttocks, calves, and heels touching the vertical board.
- Ask the person assisting to kneel down, hold the child's knees and feet in place, and to focus the child's attention and soothe the child as needed.
- Position the child's head and hold the chin in place with your left hand. Push gently on the tummy to help the child stand to full height.
- With your right hand bring down the headboard to rest on the top of the head. These positions are illustrated on p. 23 of module B.
- Read and record the measurement to the last completed 0.1 cm. This is the last line that you can actually see.

7. Participants practise using the equipment

Ask participants to come up in pairs and try measuring weight, length, and height. Give guidance as participants use the scale, length and height boards. Since there are no children present to measure, this practice will just give some experience handling the equipment and learning where to position oneself when taking a measurement. When each pair has practised with one piece of equipment, they can move to the next.

Measuring weight:

Let each participant have a turn using the scale to measure an adult (their partner) and then a “baby,” getting a feel for the quick covering of the solar panel to tare the scale, and pausing for the scale to re-register.

Measuring height:

Participants may practise measuring height by measuring one another. Then ask them to pretend to measure a child (e.g. a large doll or a stick). Be sure to guide each person into the correct position:

Assistant: Kneeling to the left of the child; holding the child’s knees, ankles and tummy to keep the legs straight; watching that feet are flat and heels, calves, buttocks and head are against the back board; talking to the child to focus and soothe him; and watching that the child stays in position. Both people should kneel or crouch down to the level of the child (not bend over).

Measurer: Kneeling on the right side of the child standing on the board, left hand holding the child’s chin and right hand operating the headboard; eyes even with the child’s head in order to see the last completed 0.1 cm

Measuring length:

Ask each pair of participants to measure the length of a large doll (or stick). Again, be sure that each person is standing in the correct position:

Assistant: Behind the headboard to hold the child’s head

Measurer: On the side of the length board with the measuring tape, where he or she can hold the knees, move the footboard, and read the measurement.

After the practice, comment on what was done well and what could be improved.

8. Video demonstration of measuring weight, length and height

When everyone is ready, show selected section 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.) If you think it would help to answer a question or would be beneficial to participants, rewind and show the video (or a section of it) again.
- Fast-forward the video (to about 26' 29") to show the calibration of the Uniscale. Even if a different type of weighing equipment is used, its calibration follows the same principles to check the scales' reliability through all ranges of weight.

9. Reading and short answer exercise about BMIs

Ask participants to read pages 27–28 of the module and do the short answer exercise about BMIs on page 29.

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 C – 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.

Provide individual feedback using the answer sheets on the next pages. Check that the participant recorded 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.** 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 C

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 months) 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 C, 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 6mo</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

11. Exercise D: Clinical practice – measuring weight, length, and height

Ensure that the equipment is set up properly and conveniently in the room. There should be stations in different areas of the room, each with a scale and a length/height board. Assign pairs of participants to work at each station (or multiple pairs who will take turns). A facilitator should work with each small group, if possible. You will also need:

- paper towels or soft cloth to cover the length/height board
- small toys or fruit to entertain the children and offer as presents to take home

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 follow the steps listed in the module on page 32, 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.

Two participants measuring one child may record different measurements. Retain these for use in the plotting exercise in Module C to illustrate how such differences could lead to very different conclusions about the child's growth status. For the clinic exercise on counselling, measurements have to be taken accurately so as to identify problems correctly before counselling caregivers. Allowable differences between two measurers are 0.1 kg for weight and 0.7 cm for length or height.

Participants may use the BMI table or a calculator to determine BMIs for the children that they measure.

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

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.

12. Slide show – Assessing measuring techniques

Immediately after the exercise of measuring real children, show the PowerPoint presentation titled “Measuring—It’s not so easy” (provided on a disk with the *Facilitator's resource files*) and discuss each slide. When you show each slide, ask the participants what they can observe about the position of the measurer or assistant or the position of the child. Slides show some good points of technique and some mistakes. Comments are provided below about each slide. There may be other valid comments too.

Slide 1: Measuring: It’s not so easy

Measuring height

Slide 2: Child held in position at knees and tummy. Measurer is in good position.

Slide 3: Measurer on right leaning over to read tape. Assistant should be over to left, so that measurer can take position in front of the child.

Slide 4: Measurer is well down on the level of the child. She should hold the head board at its top centre. She should hold the child’s head, not the assistant. The assistant should be over to left of board, so that measurer can be in front of the tape to read it.

Slide 5: Measurer should be holding child’s head, not the assistant. Measurer should hold the board at its top centre. Assistant should check feet and hold knees. Child seems to be leaning toward assistant with weight not balanced equally on both feet.

Slide 6: Good position of child’s head. Measurer is holding headboard correctly.

Measuring length

Slide 7: Diaper interferes with straightening of legs. Assistant is holding one shoulder, instead of holding both sides of head, so baby’s torso is twisted.

Slide 8: Feet flat on board. Child is wearing a lot of clothes.

Slide 9: Feet not flat.

Slide 10: Measurement taken with one leg only. Head held in good position. Important to be certain torso is straight.

- Slide 11: Head held in good position, knees controlled well. Difficult child measured well.
- Slide 12: Going into position—most children get upset at this point when mother is laying them down, so measurer should be closer and ready to move quickly. Board should be closer to the edge of the table.
- Slide 13: Knees held in good position by measurer. Child's torso is straight. Assistant is holding head in good position by holding hands over ears with thumbs on shoulders. Feet do not look flat yet; measurer should be working the footboard.
- Slide 14: Good position of knees and feet. Measurer bends close to check feet and read tape accurately. Assistant in good position.
- Slide 15: Poor head position. Dangerous to have toy in mouth.
- Slide 16: Torso not straight. Person other than the measurer is holding the knees. (Too many helpers often do more harm than good.) Measurer could see child's body position better if child was undressed.
- Slide 17: Cannot see this child's feet!
- Slide 18: Child in good position, as we can see without clothes. Knees held well, legs and torso are straight. (Too many helpers around head.)
- Slide 19: Cooperative child!
- Slide 20: Measurer took feet out of clothes so could see them. Measurer is holding knees and footboard correctly. Assistant holding head correctly. Would be better if child were undressed.
- Slide 21: Child's body is very crooked. Head not in position. Assistant should be standing behind headboard.
- Slide 22: Child in good position. Torso straight. Measurer and assistant are in good position.
- Slide 23: Assistant should stand at head of child—no one is holding or checking head. Measurer should hold footboard by its centre support.
- Slide 24: Clothes make it difficult to see the knees. Feet are not yet flat against footboard with toes pointing up. Mother should be on opposite side so that the measurer has more space. Assistant seems to have good control of the head.

Measuring weight

- Slide 25: Scale gives error message when robe swings, covering and uncovering solar panel.
- Slide 26: Notice person on left is holding back robe to keep it out of the way.
- Slide 27: Too many clothes! Jeans, diaper, shirts can weigh a kg and more!
- Slide 28: Child undressed so that this weight measurement will be accurate.
- Slide 29: Child standing nicely on centre of scale. Clothes were not removed.

13. Concluding the module

When you have finished the slide show and everyone has received individual feedback on Exercise D, 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 the following important points from the module:

- Four pieces of information are essential for growth assessment: age, sex, weight and length or height. If any of these is incorrect, the growth assessment will be incomplete or inaccurate.
- For correct age assessment, use any available written records or make a local events calendar to help determine children's ages as precisely as possible. The local events calendar has to be updated regularly.
- Equipment needs to be in good working order and to be calibrated regularly.
- Measuring children requires specific skills, speed and confidence. With practice everyone can improve their measuring skills.

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's 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 drill: Using the overhead projector or PowerPoint slides, 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 module <i>E: Photo Booklet</i> as directed. To prepare for the discussion, plot on blank chart overheads the measurements of several real children. Lead a group discussion of interpreting plotted points on graphs (overheads of charts of real children 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 31–39 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 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 (or PowerPoint slides) are in order for the oral drill and that the projector is plugged in, etc. When participants have reached page 11 of the module, announce the oral drill.

3. Oral 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-4 through C-10 of this guide and are also photocopied on transparencies to be used as overheads. (Alternatively, slides 1–7 can be shown in PowerPoint, from the disk of *Facilitator's resource files*).

Conventions for plotting on graphs may vary among countries. What is important is to apply them consistently.

Point out that the plotting convention used in this course for age-based charts is consistent with the estimation of age in completed weeks/months/years illustrated in Module B. Therefore, when the x-axis is age, plot points on the vertical lines corresponding to completed age units (weeks/months/years). The vertical line representing the completed unit of age is followed to wherever it intersects with the most precise estimate of the y-axis measurement (e.g. 91.8 cm).

When the x-axis is length or height, decimal units are rounded up (0.5 to 0.9) or down (0.1 to 0.4) to the nearest complete centimetre. This enables the user to follow a solid vertical line as a guide from the x-axis upwards to where it intersects with the precise weight to be plotted (e.g. 4.7 kg).

In this drill, you will project the growth charts, 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.

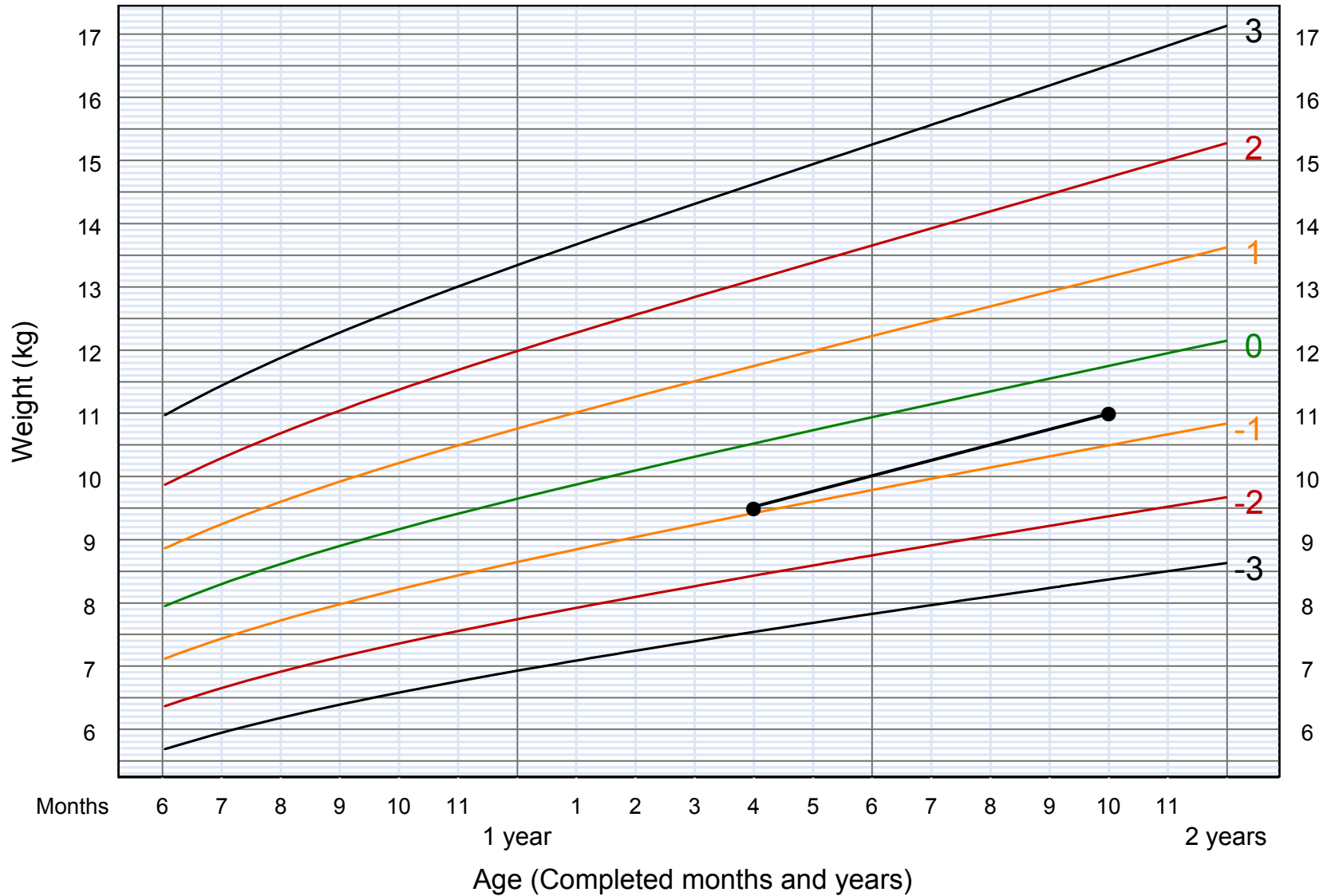
Overhead 5: The growth chart suggests that this boy was 61 cm in length at age 10 weeks and 60 cm in length at age 3 months. That would mean he got shorter! One of the length measurements may have been inaccurate. Possibly the baby was measured with bent knees at age 3 months. Another possibility is 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.

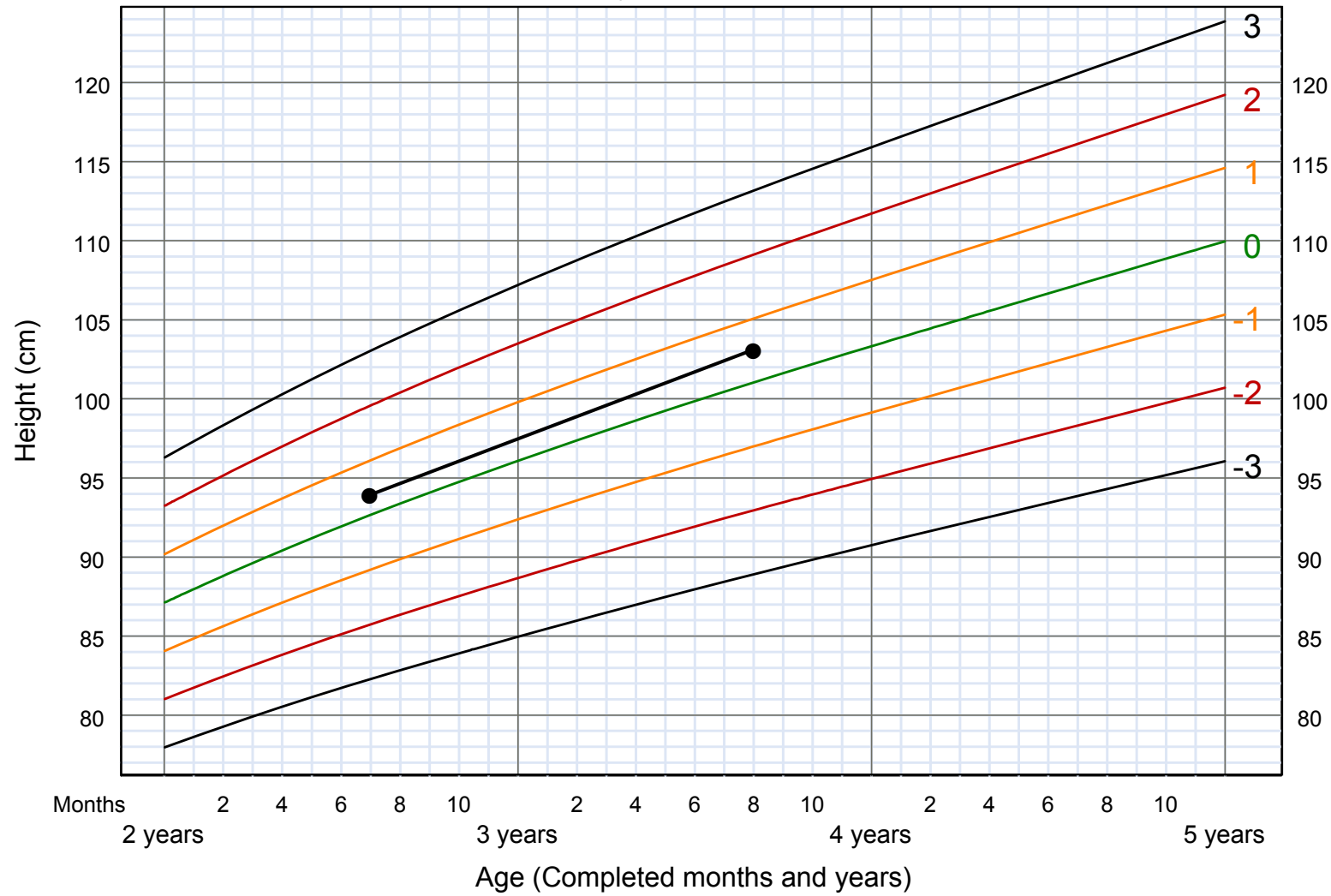
Weight-for-age BOYS 6 months to 2 years (z-scores)

C-4

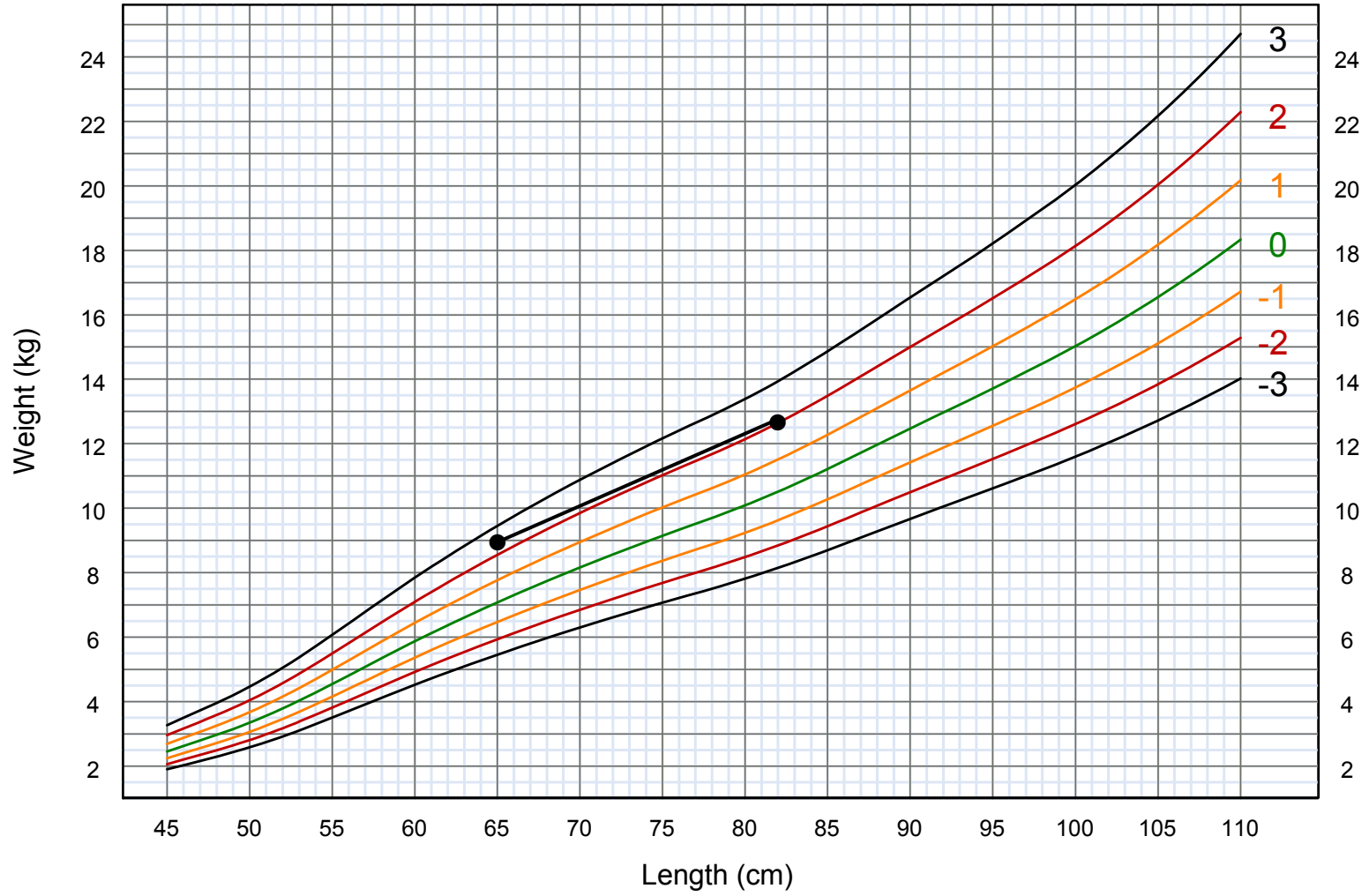


Height-for-age BOYS 2 to 5 years (z-scores)

C-5



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

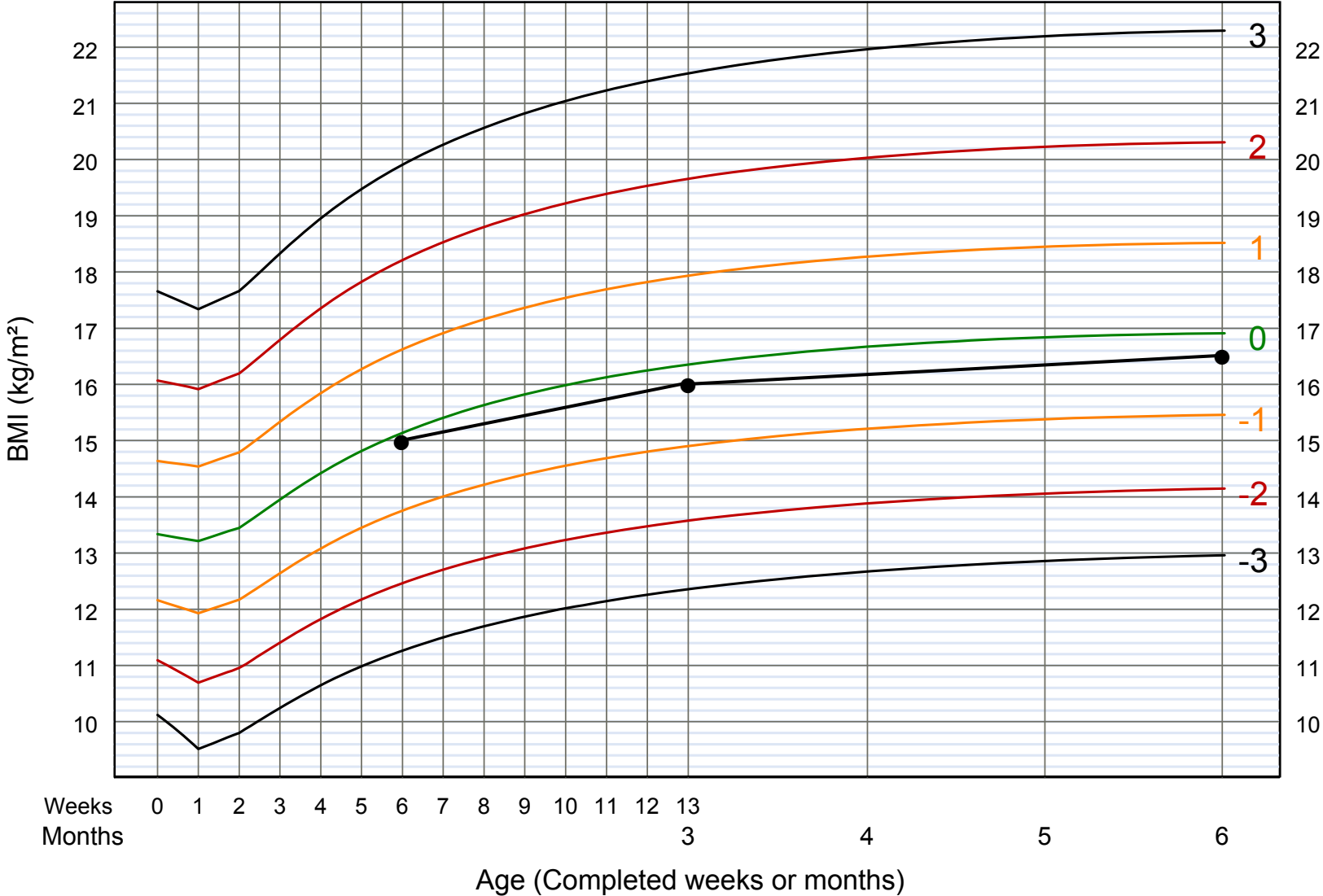


C-6

BMI-for-age GIRLS

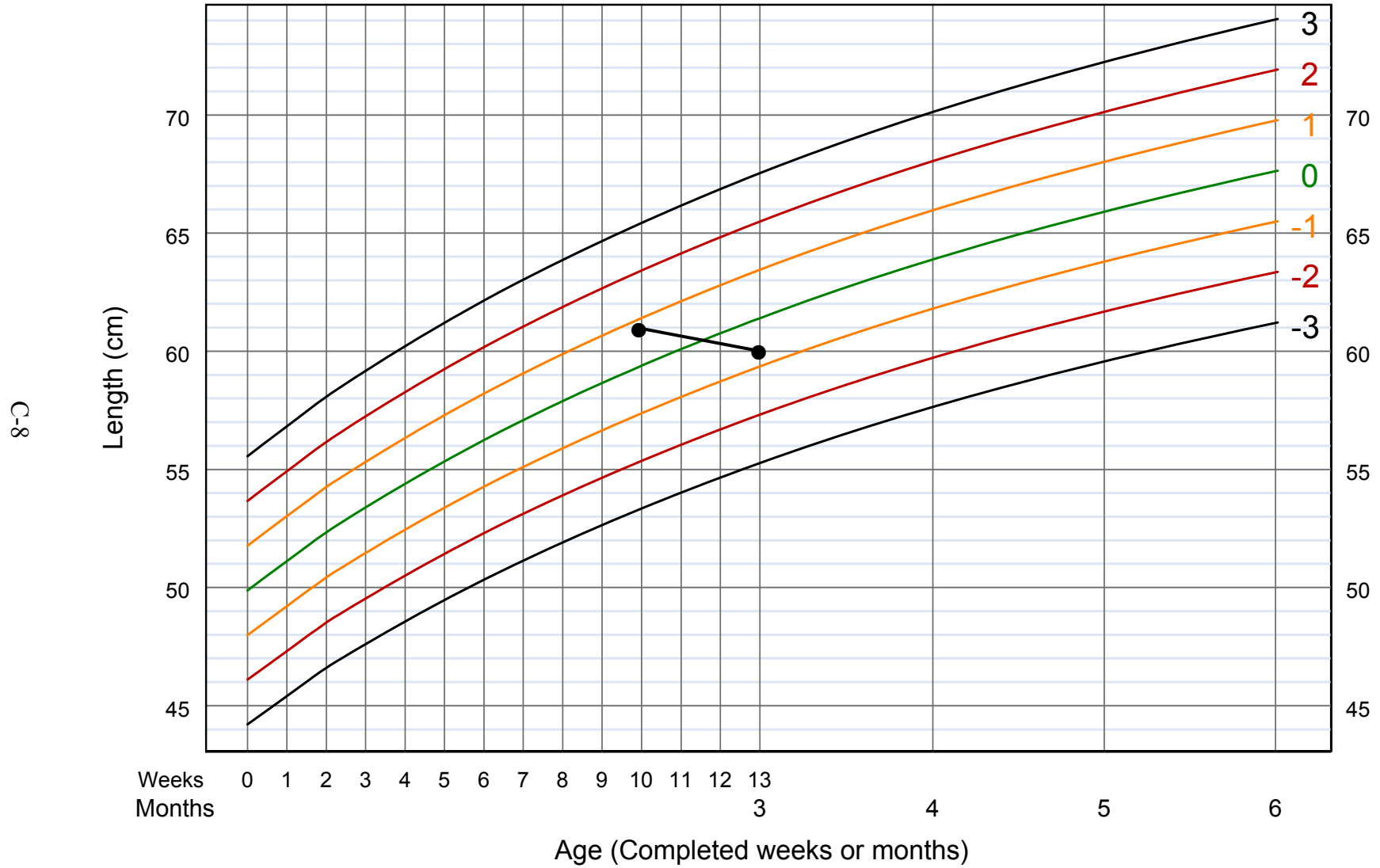
Birth to 6 months (z-scores)

C-7



Length-for-age BOYS

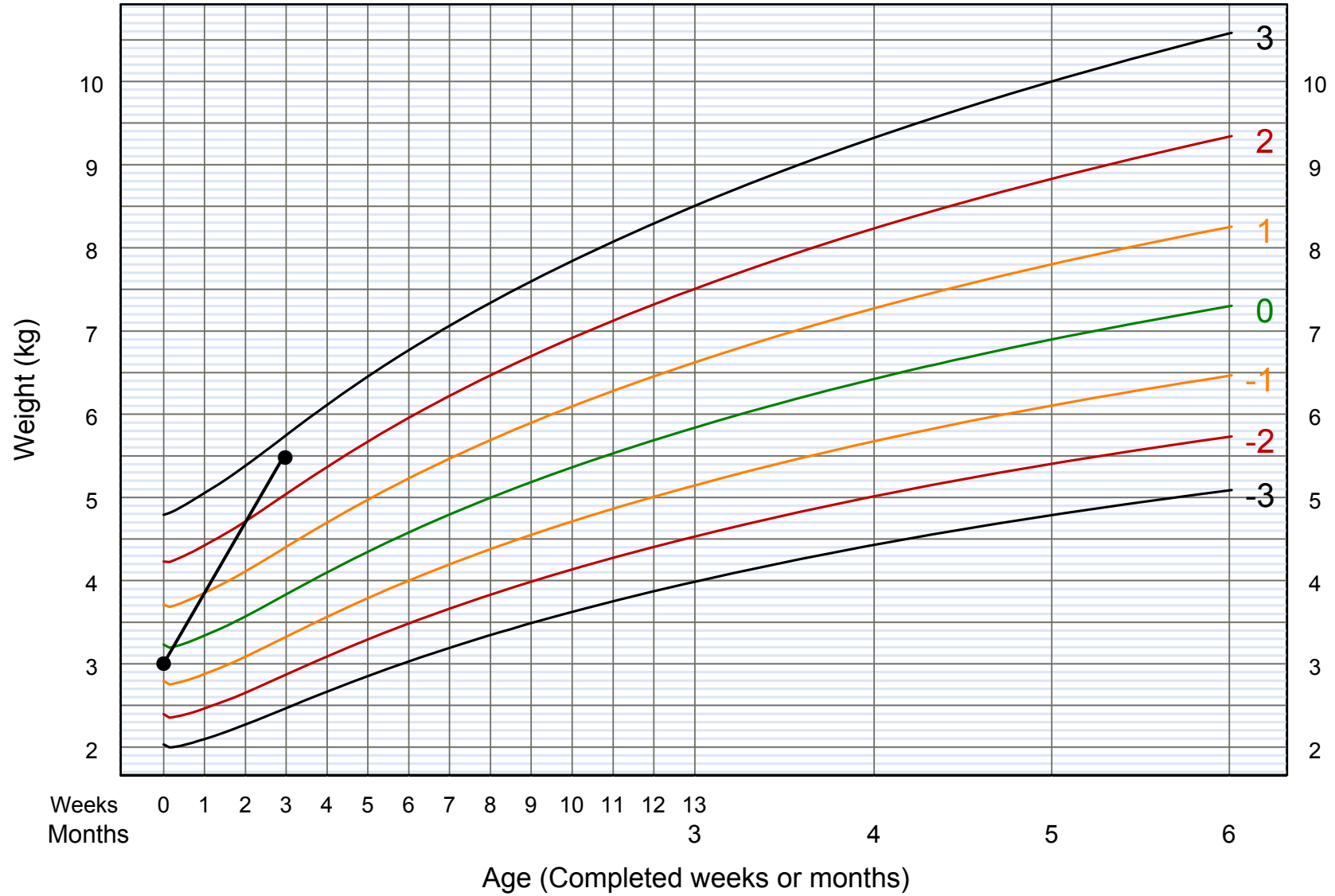
Birth to 6 months (z-scores)



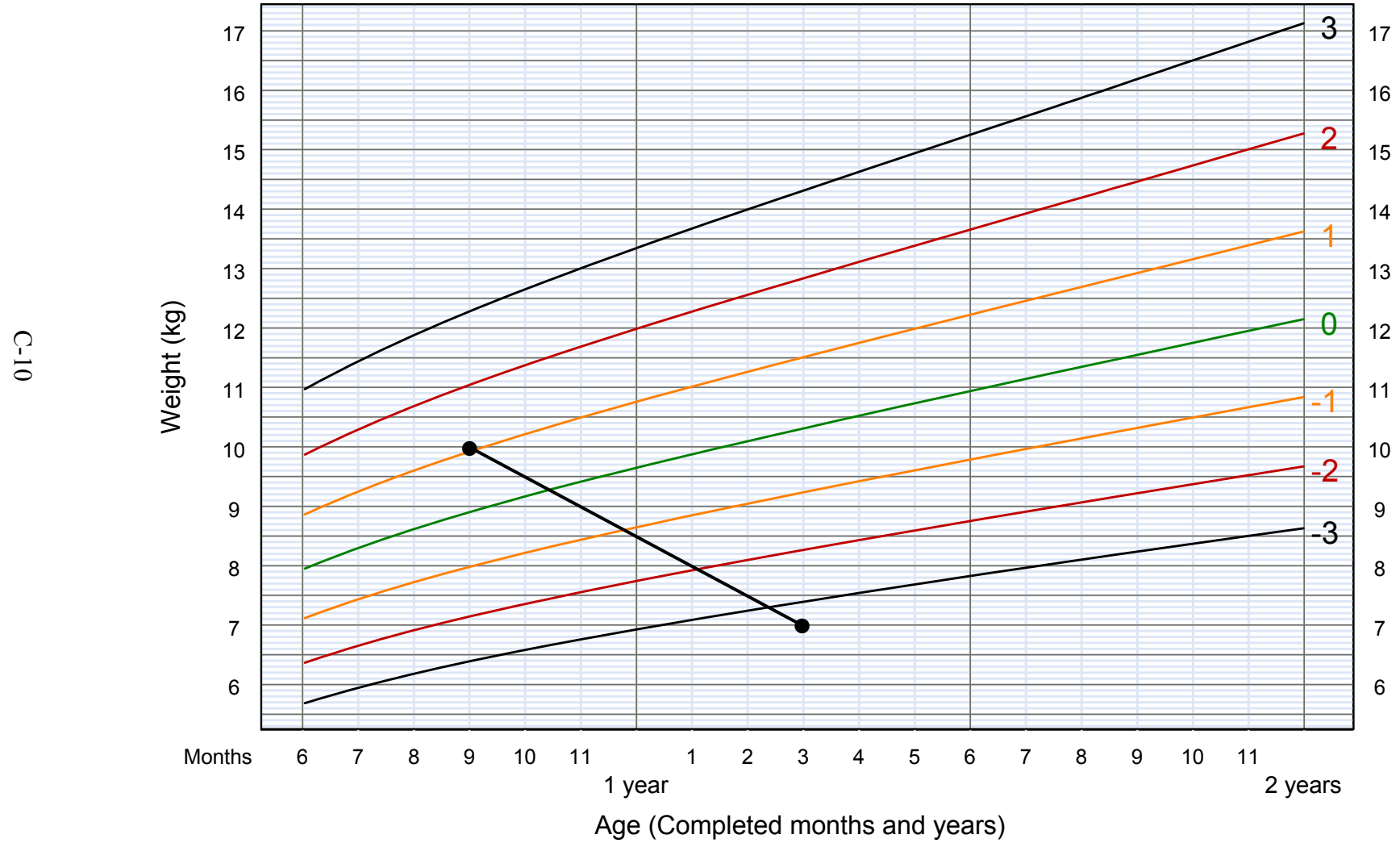
Weight-for-age GIRLS

Birth to 6 months (z-scores)

6-9



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



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.

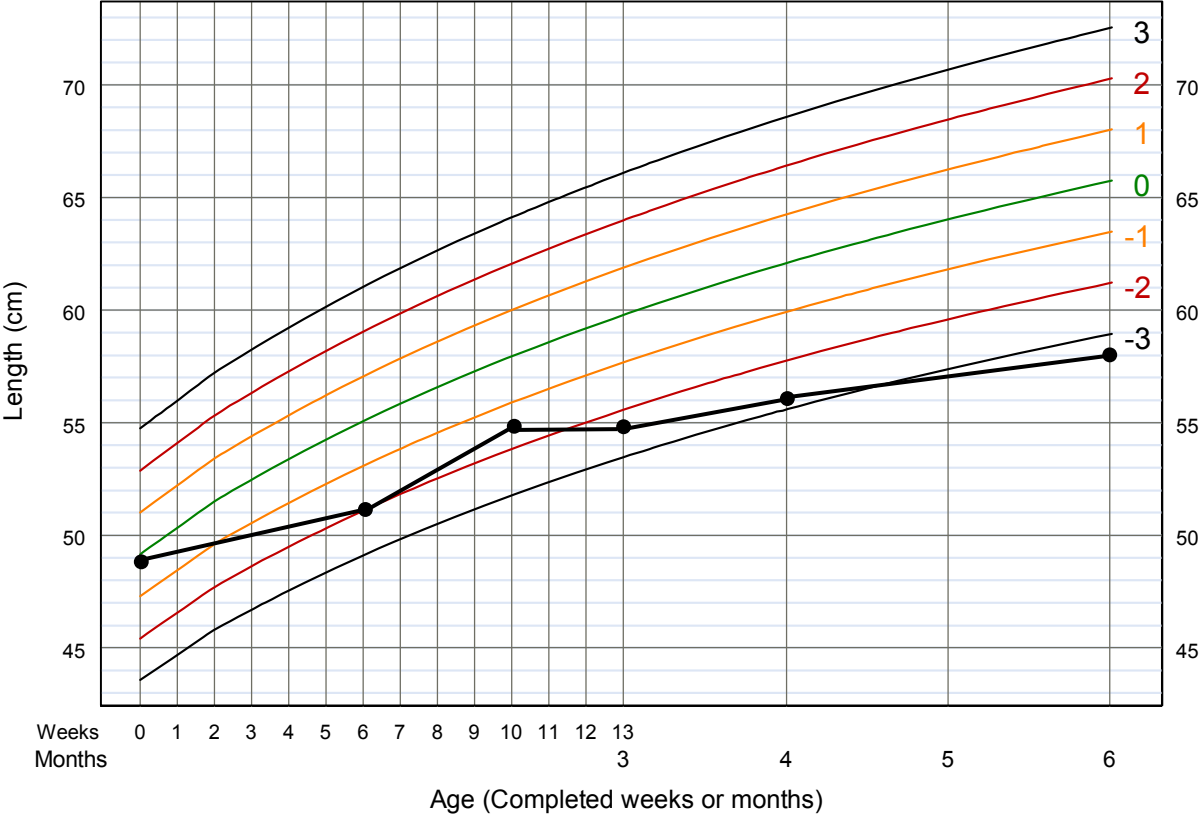
If participants want individual feedback after plotting points on Nalah's growth charts, be available to give feedback. Otherwise, they may work to the end of the exercise before seeking feedback.

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.

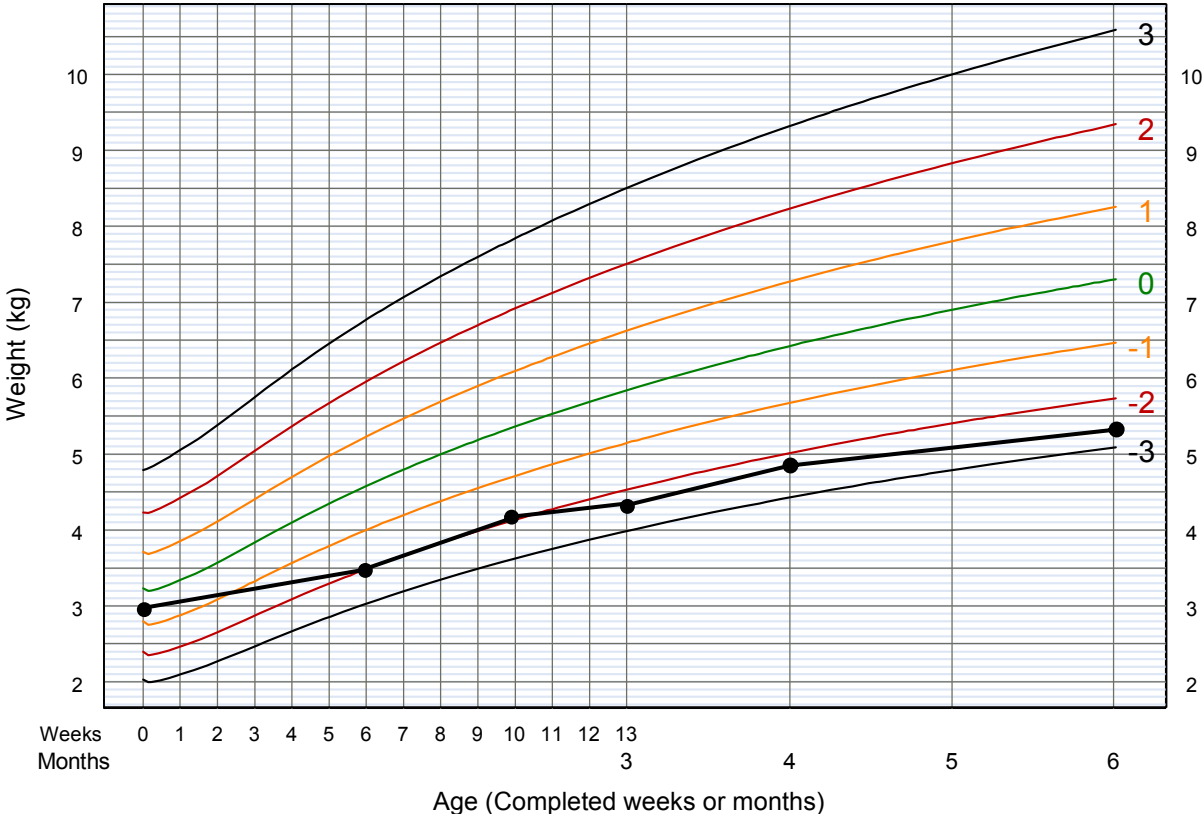
Give each participant a copy of the answer sheet after giving them feedback. Then ask the participant to continue reading in the module (pages 13–20) and refer to the *Growth Record* and *E: Photo Booklet* as directed in the module.

Answers to Exercise A, Nalah

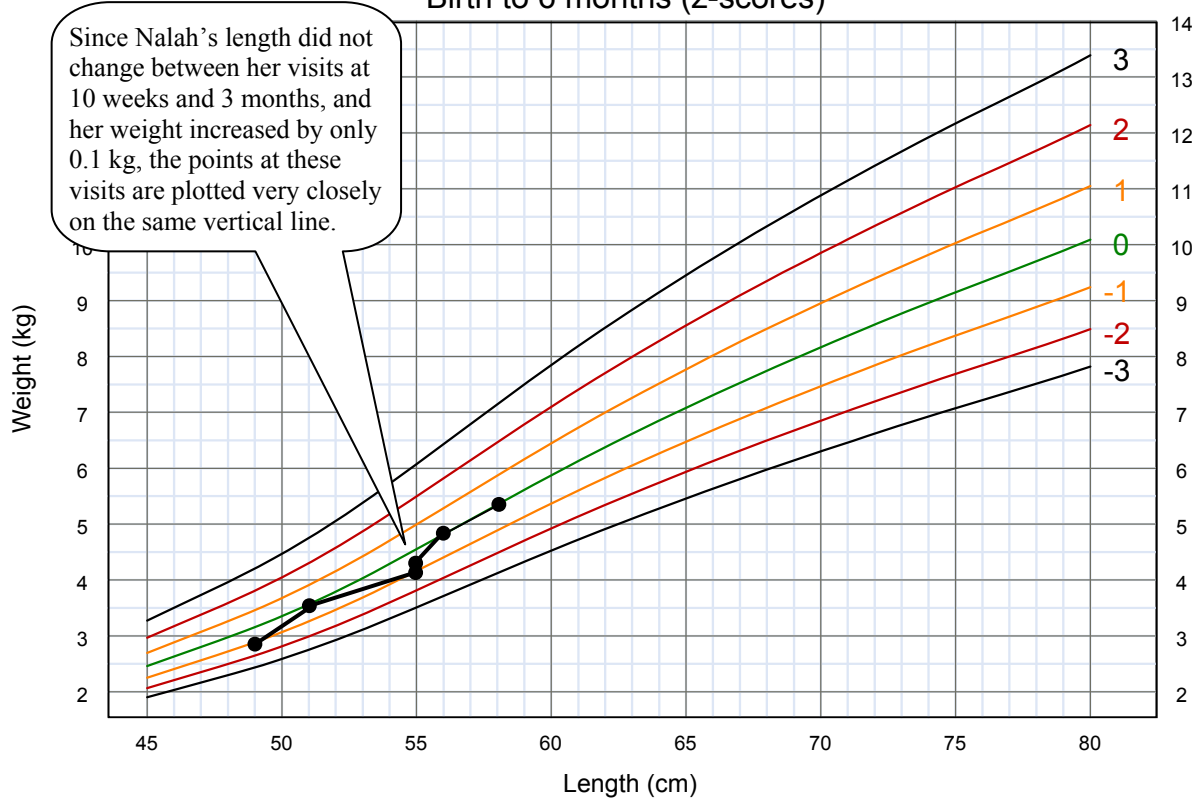
Length-for-age GIRLS
Birth to 6 months (z-scores)



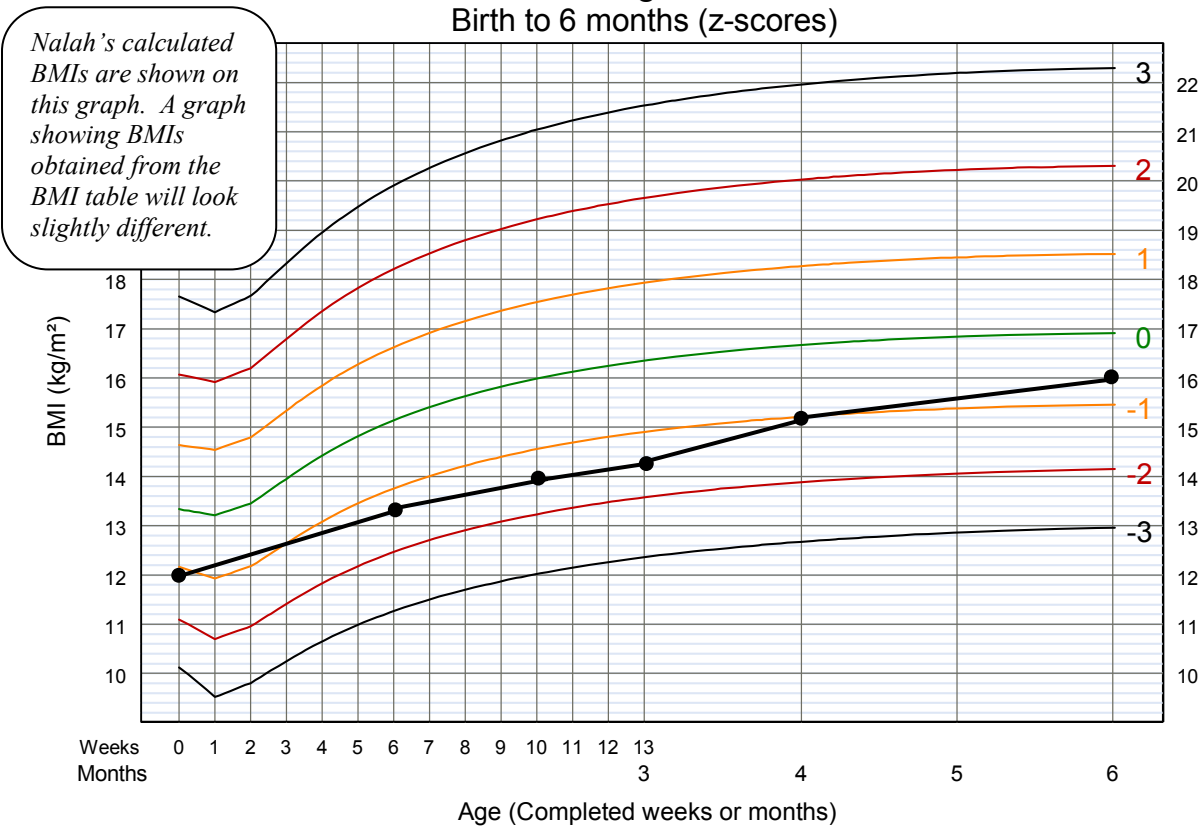
Weight-for-age GIRLS
Birth to 6 months (z-scores)



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

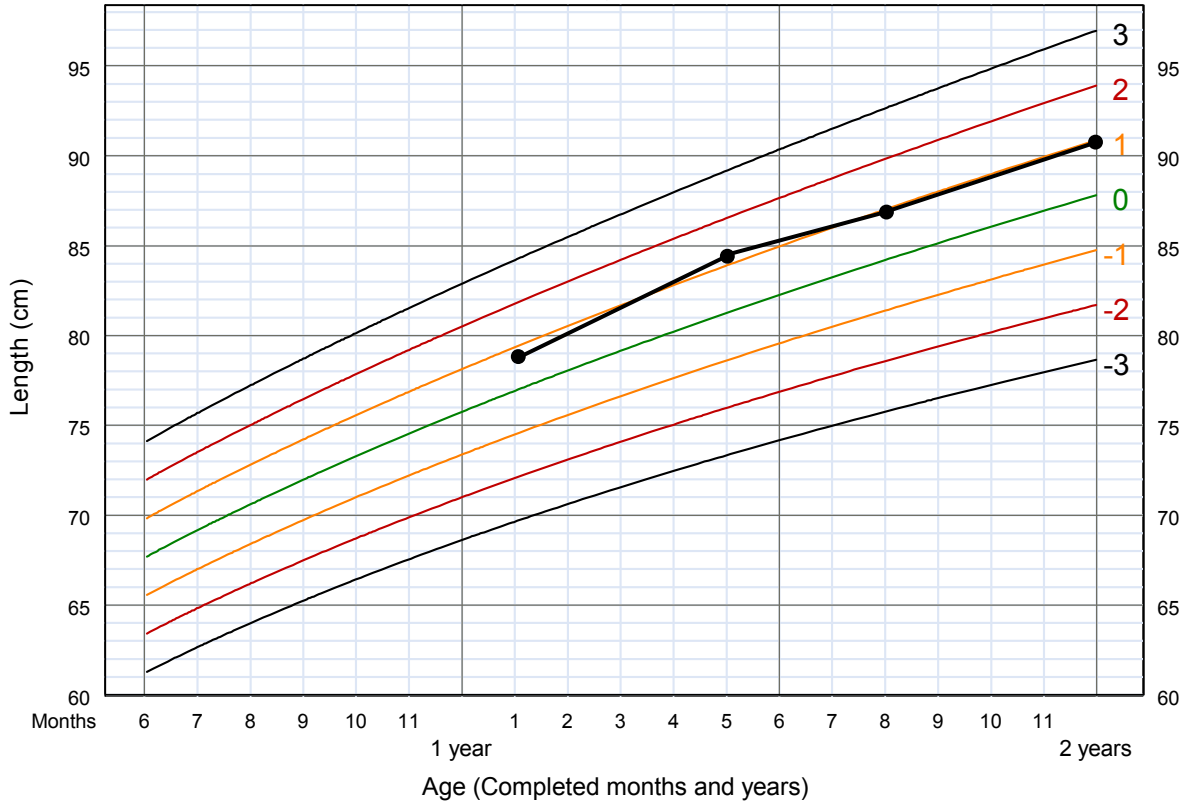


BMI-for-age GIRLS
 Birth to 6 months (z-scores)

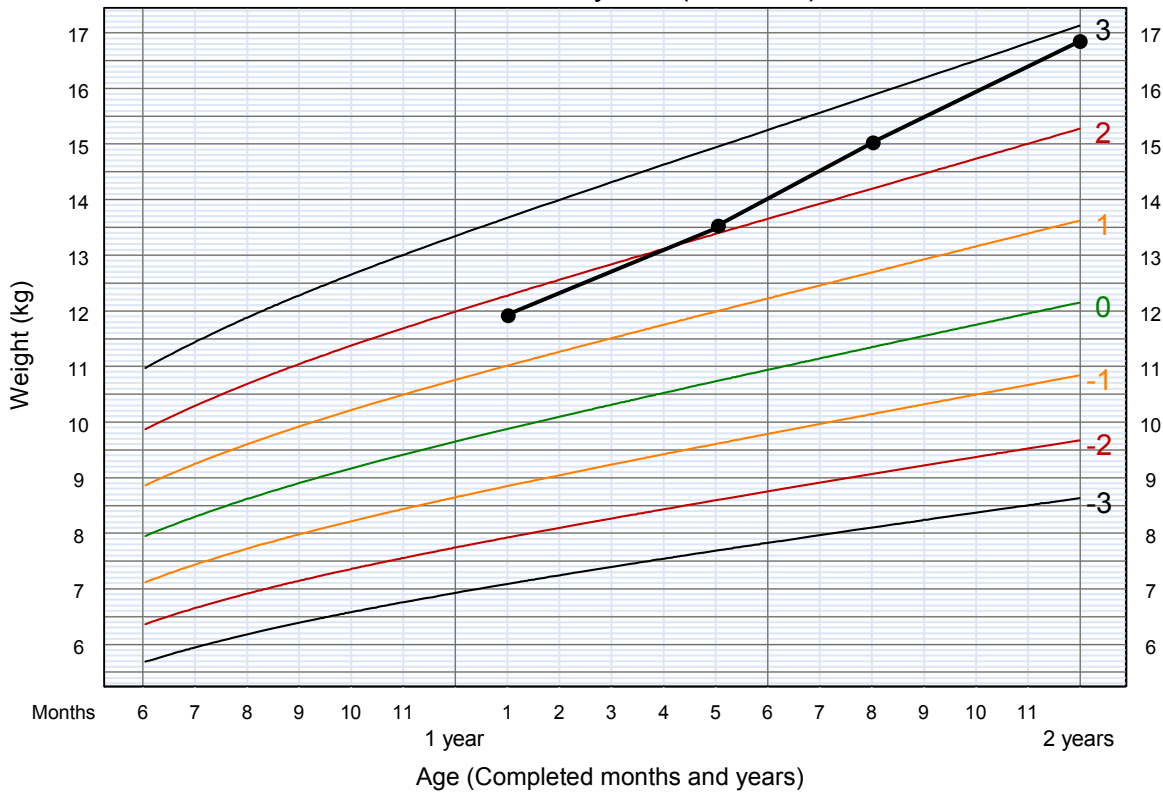


Answers to Exercise A, Toman

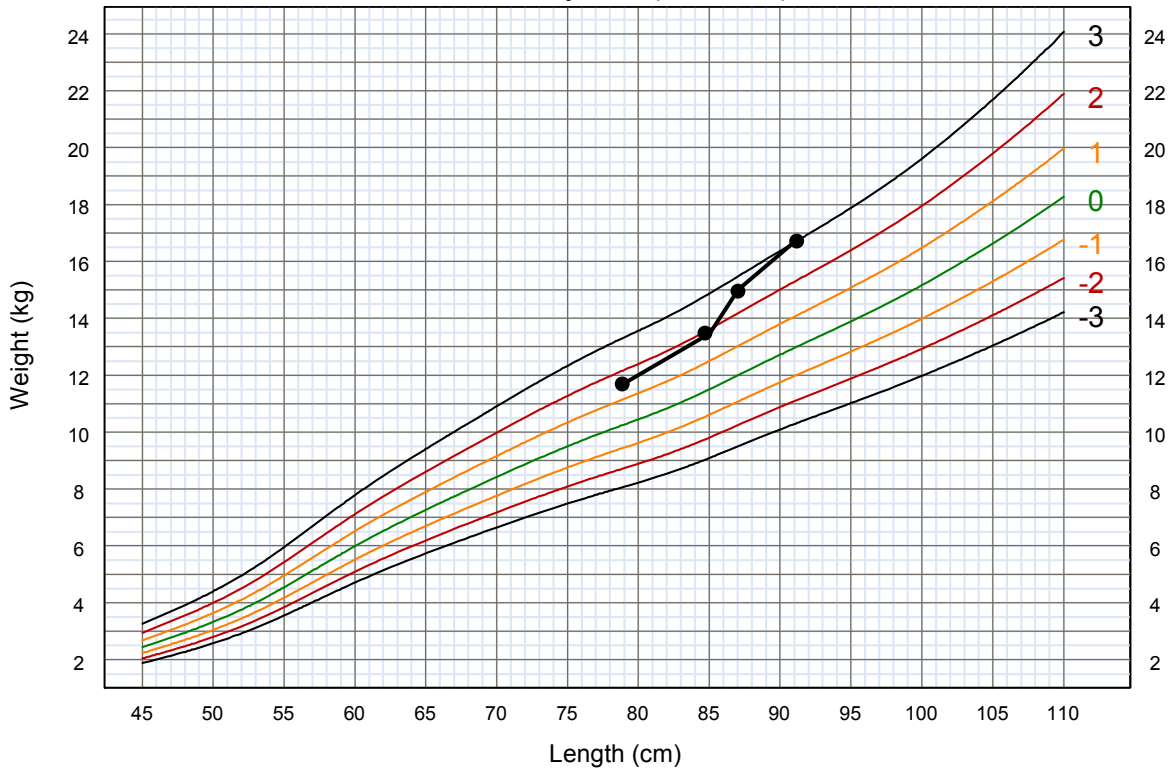
Length-for-age BOYS
6 months to 2 years (z-scores)



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

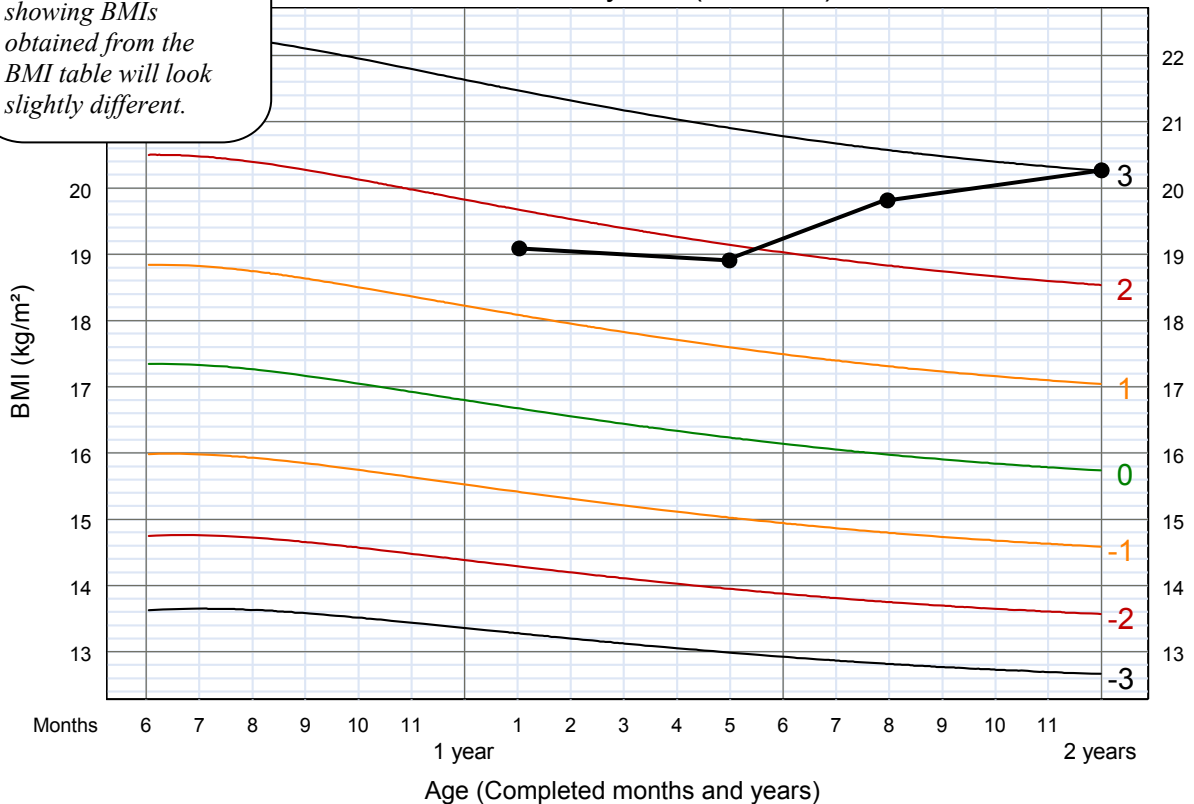


Weight-for-length BOYS
 Birth to 2 years (z-scores)



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.

Preparation for the discussion:

As participants read, prepare for the group discussion described in the box on page 21 of the module. 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. (The blank charts are also available in PowerPoint on the disk of *Facilitator’s resource files*. However, because you and some participants will plot points on the transparencies and then show them to the group, it is strongly recommended to use blank charts on actual transparencies and the overhead projector.)

Before the discussion, identify four of the 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 and BMIs of these children on the Visit Notes page in Exercise D of module B.). Select children with a variety of growth problems.

Prepare overheads for the first child, which you will present, and select participants to present each remaining child. Provide each selected participant with a set of four blank overheads for the assigned child’s age and sex and an erasable marker. The participant should plot the points for the child on the four transparencies before the discussion begins.

Group discussion of real children:

When everyone is ready, announce the group discussion. Lead the discussion of the first 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 show the plotted 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?”

4. Ask the participant to present the next child in the same way. Ask questions of participants as needed to analyse each chart and each child's growth problems.

Growth assessment of two girls:

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. (Alternatively, slides 8–12 can be shown in PowerPoint, from the disk of *Facilitator's resource files*).

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 **•** does not seem to have a growth problem, but 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.

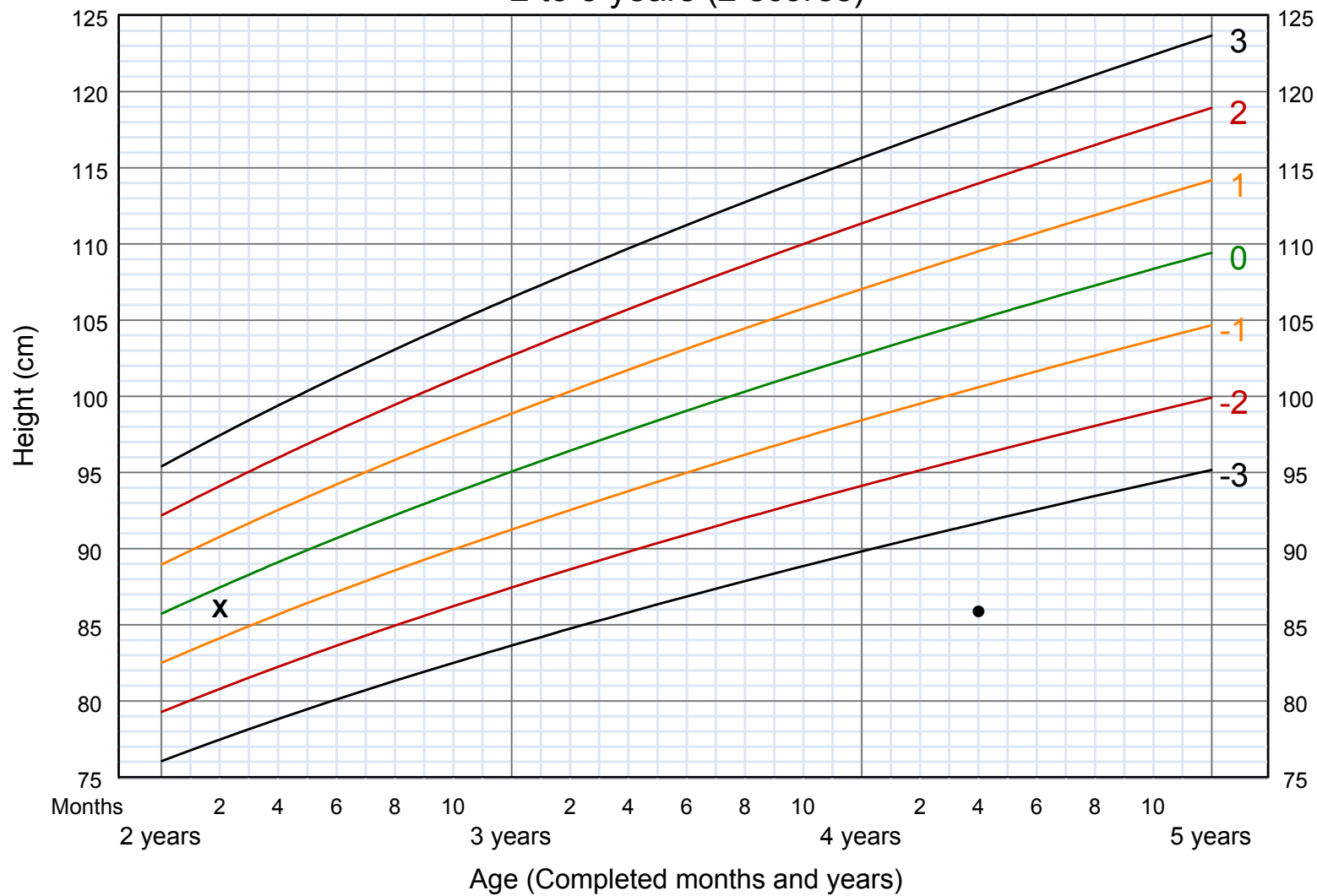
You may want to ask participants to guess which girl is the older, stunted one. (They are likely to guess wrong.) It is the girl on the right, wearing a dress, who is older.

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

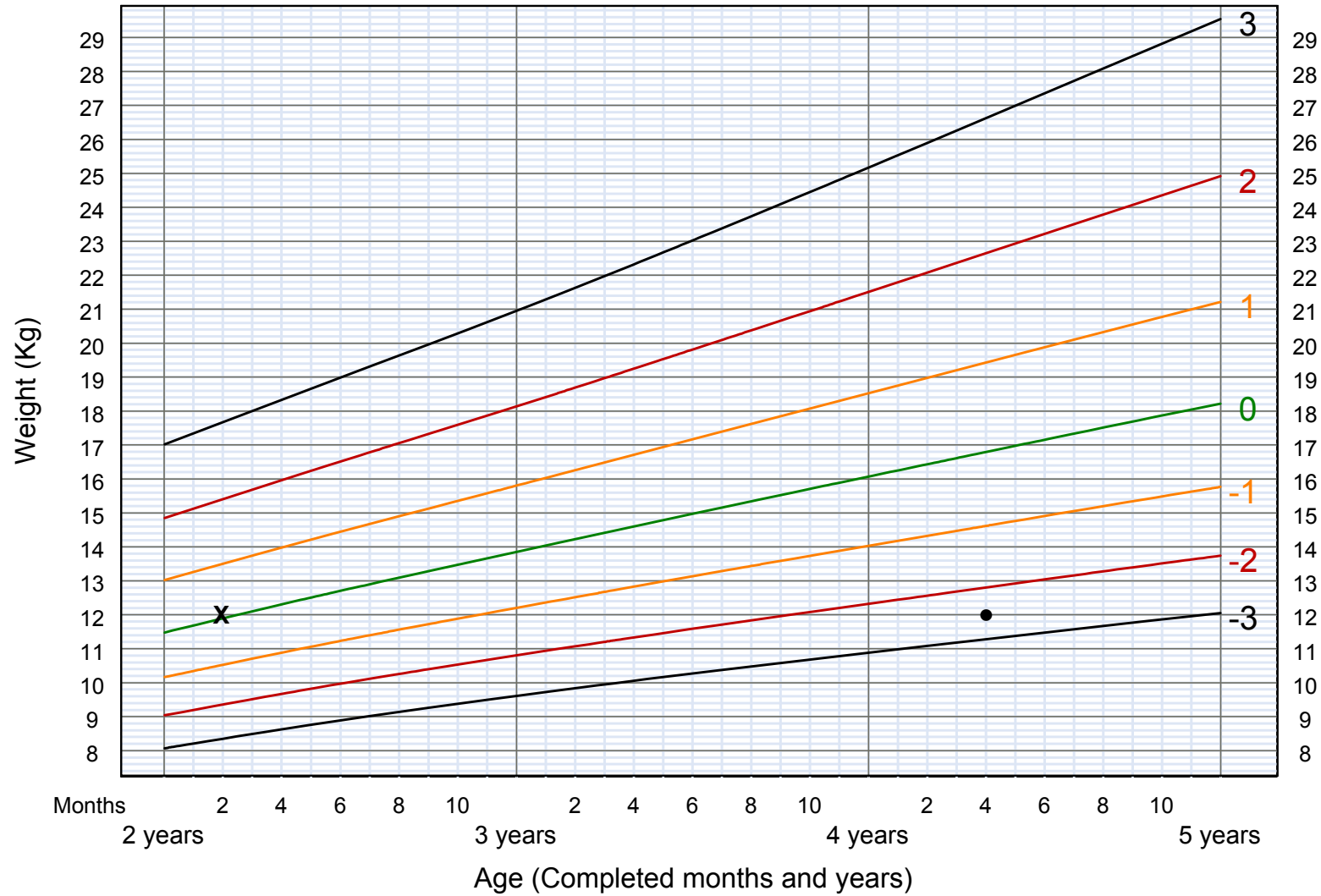
Height-for-age GIRLS 2 to 5 years (z-scores)

C-19

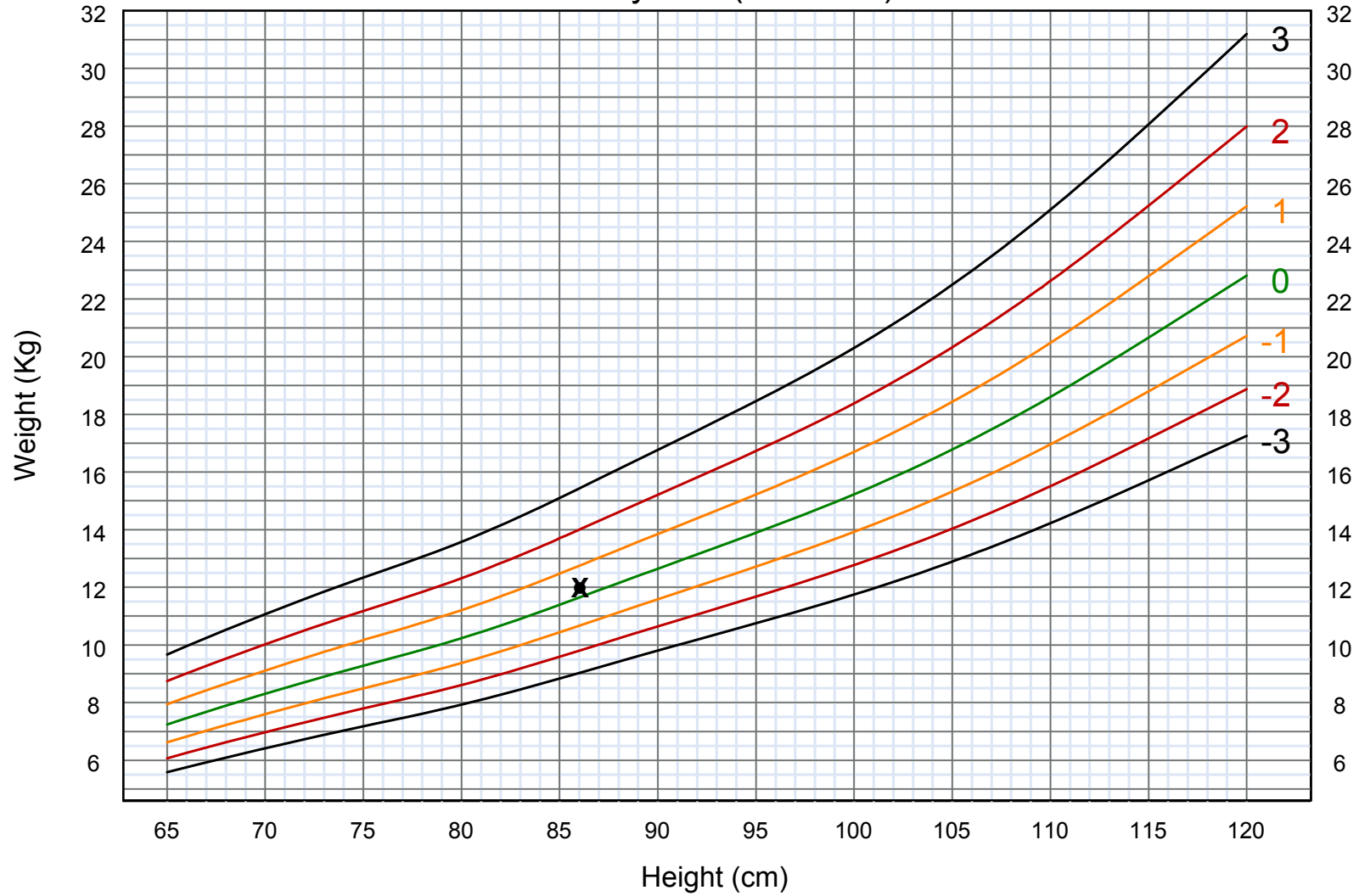


Weight-for-age GIRLS 2 to 5 years (z-scores)

C-20

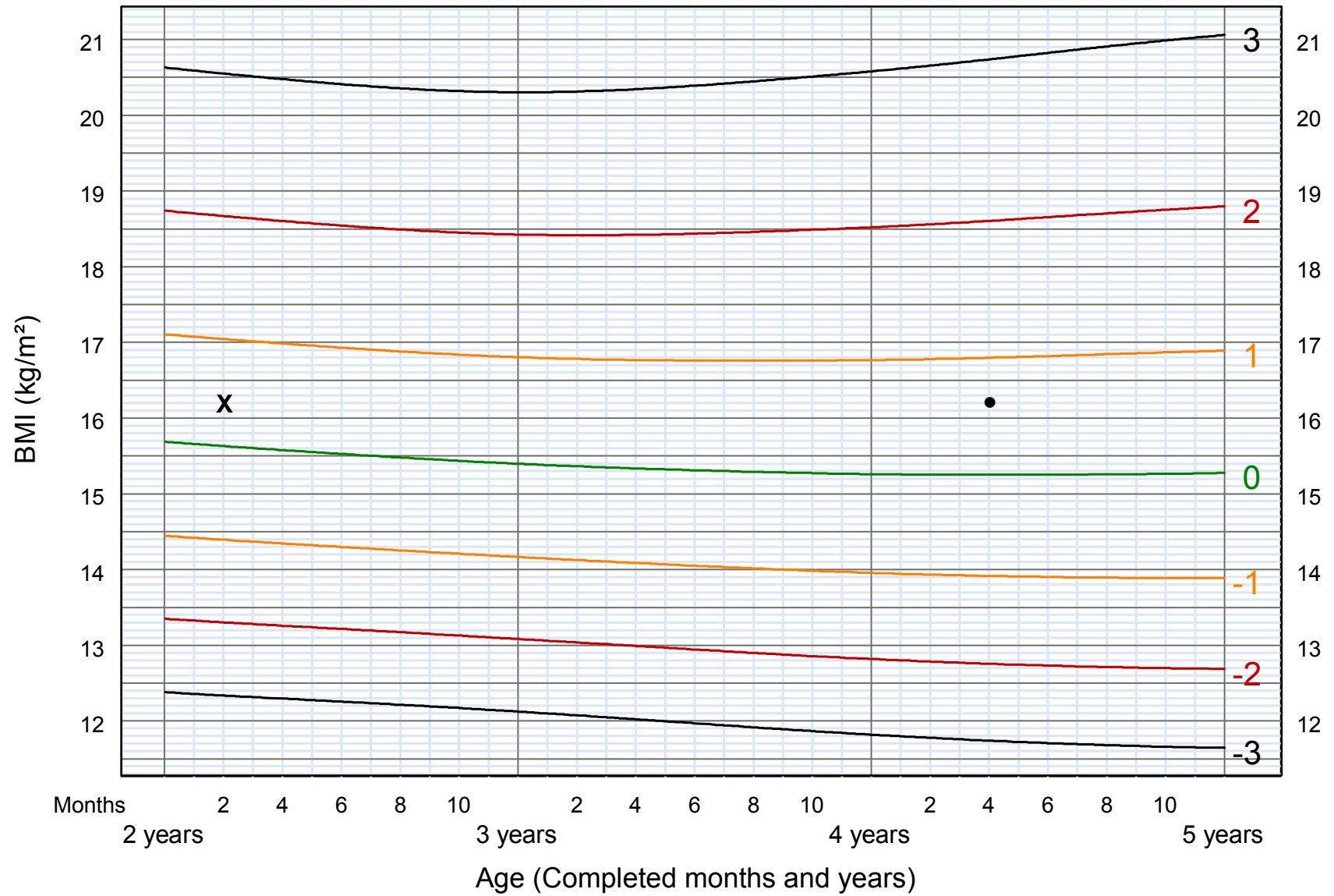


Weight-for-height GIRLS 2 to 5 years (z-scores)



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

C-22



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 31–39) until the instruction to stop for a group discussion about trends.

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).

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

As participants read pages 31–39 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. (Alternatively, slides 13–20 can be shown in PowerPoint, from the disk of *Facilitator's resource files*).

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 length-for-age chart? Has his growth line crossed any z-score lines systematically, 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 systematically downward and crossed the -1 and the -2 z-score lines. By age 24 months he was stunted.

Overhead 14: What trend is shown on Ben's weight-for-age chart? Has his growth line crossed any z-score lines systematically, 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 systematically away from the median, crossed the -1 z-score line, and by 2 years was close to the -2 z-score line.

Overhead 15: What trend is shown on Ben's weight-for-length chart? Does this chart show a growth problem or trend towards a growth problem?

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

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?

Like weight-for-length, Ben's BMI-for-age has also stayed close to the median, indicating no growth problem. His weight relative to length is normal because Ben experienced proportional slow growth in both length and weight.

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 systematically, 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 systematically, and if so, in what direction? Does this chart show a growth problem or trend towards a growth problem?

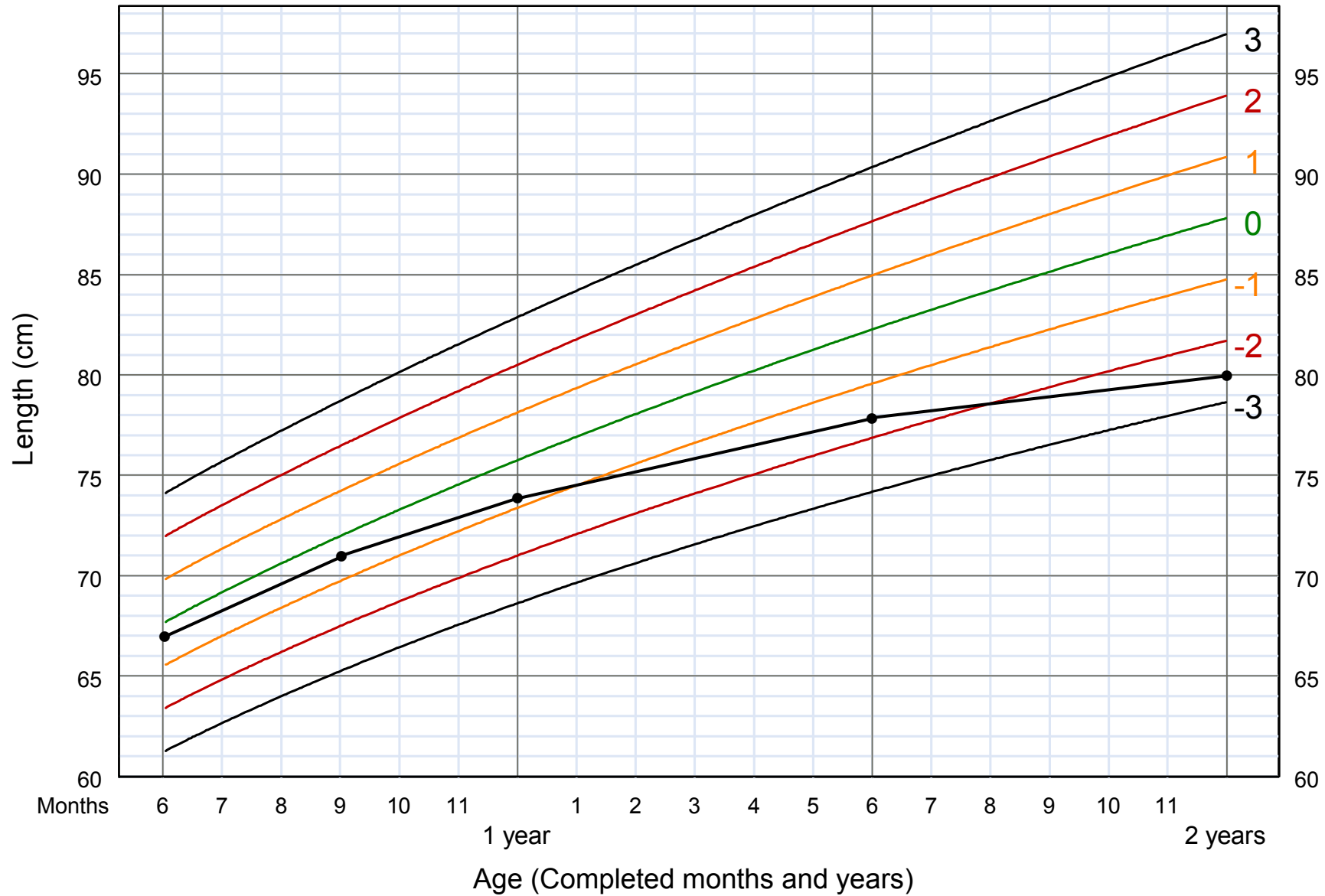
Like her weight-for-height, Delia's BMI-for-age has followed a systematic upward trend from the 1 z-score line to above 2. Delia is overweight.

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.

Length-for-age BOYS

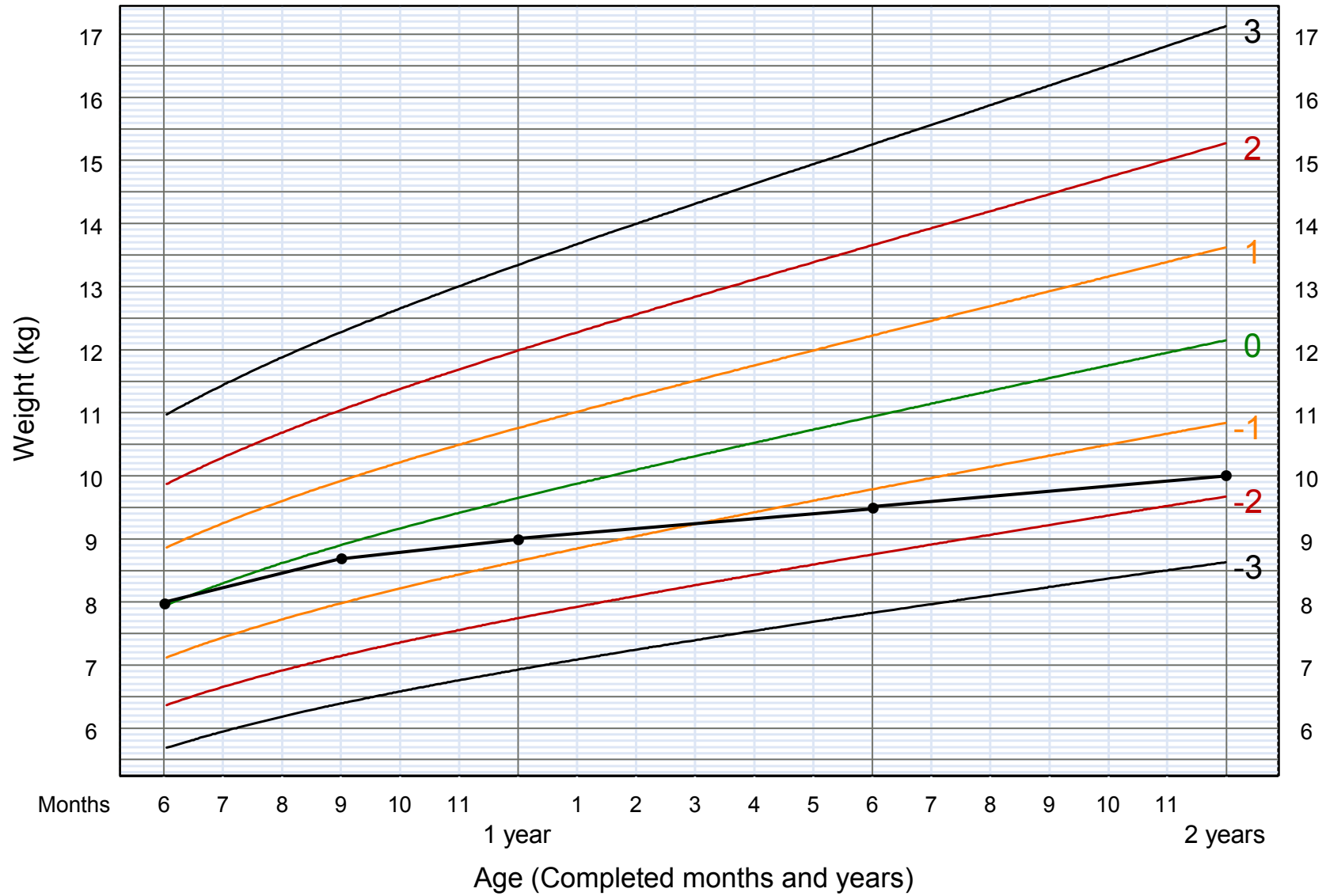
6 months to 2 years (z-scores)

C-27



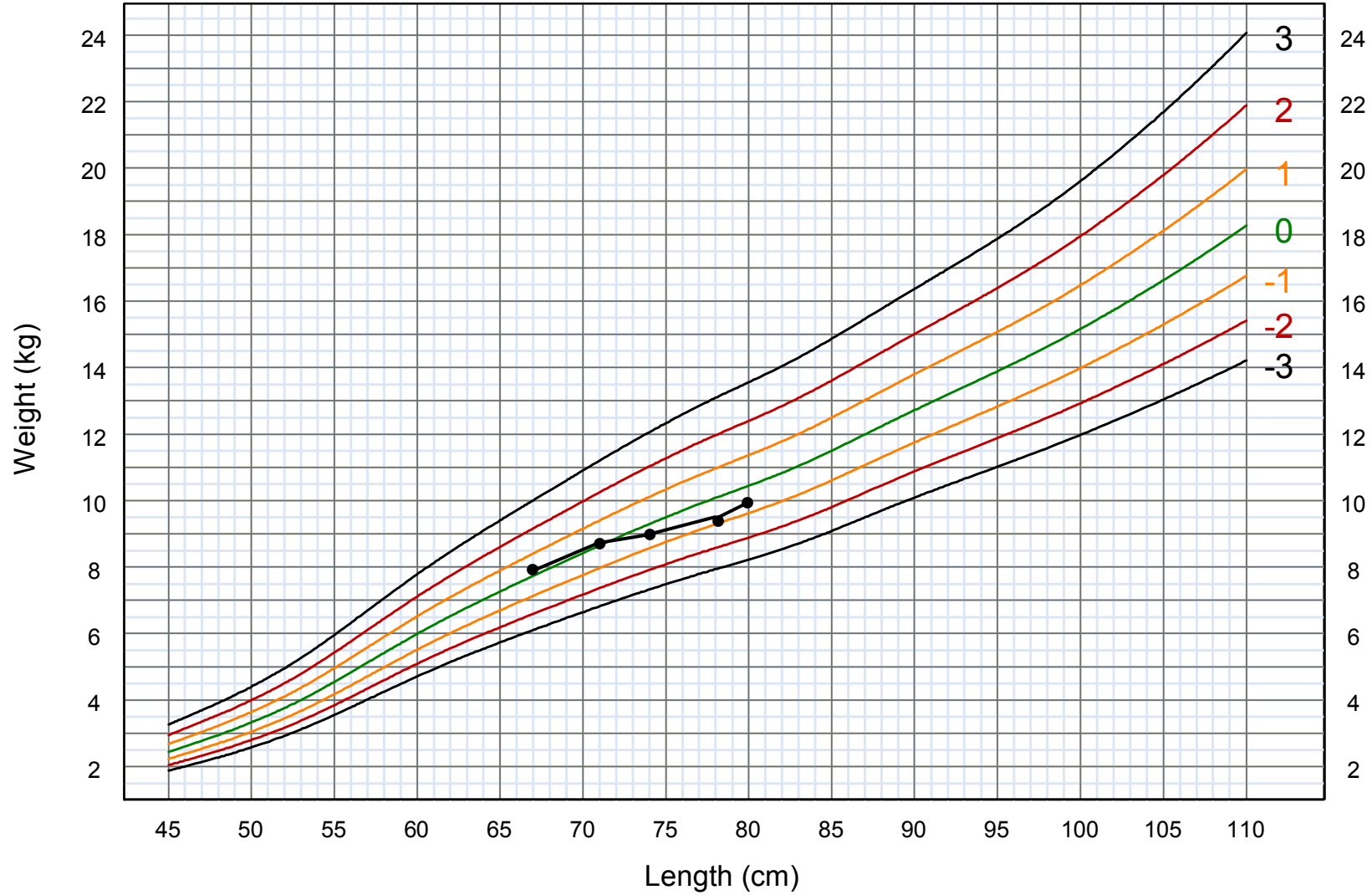
Weight-for-age BOYS 6 months to 2 years (z-scores)

C-28



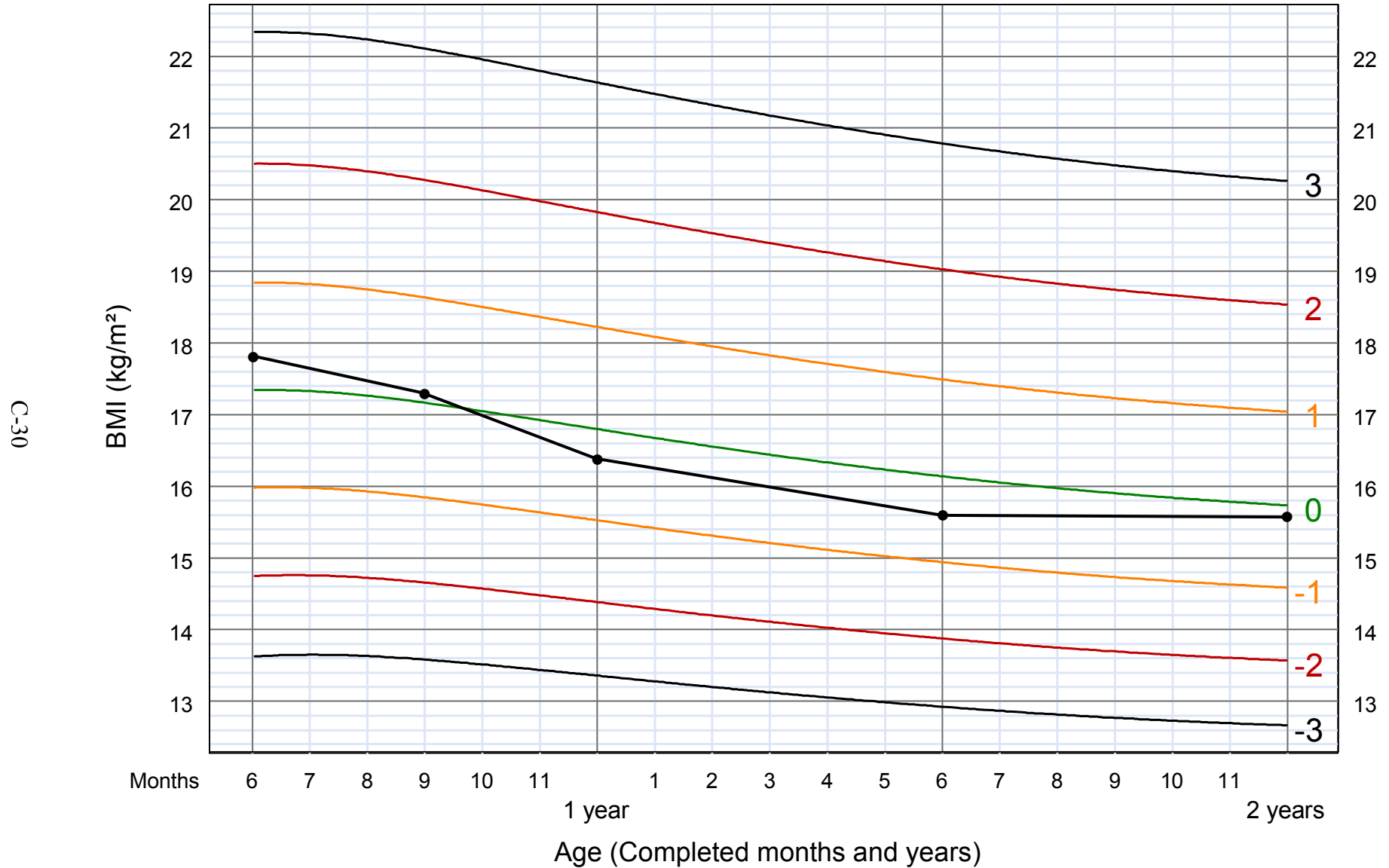
Weight-for-length BOYS

Birth to 2 years (z-scores)



BMI-for-age BOYS

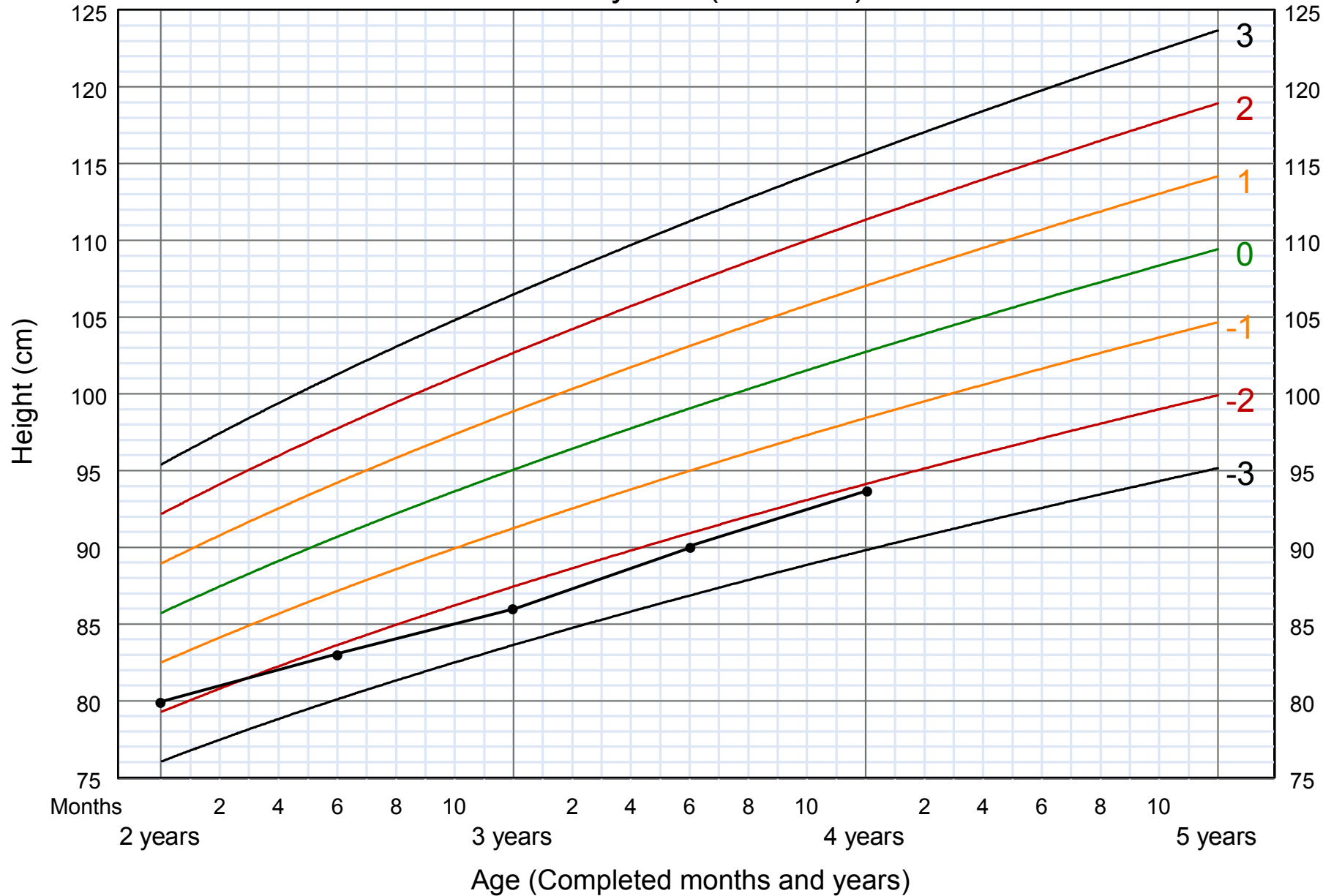
6 months to 2 years (z-scores)



Height-for-age GIRLS

2 to 5 years (z-scores)

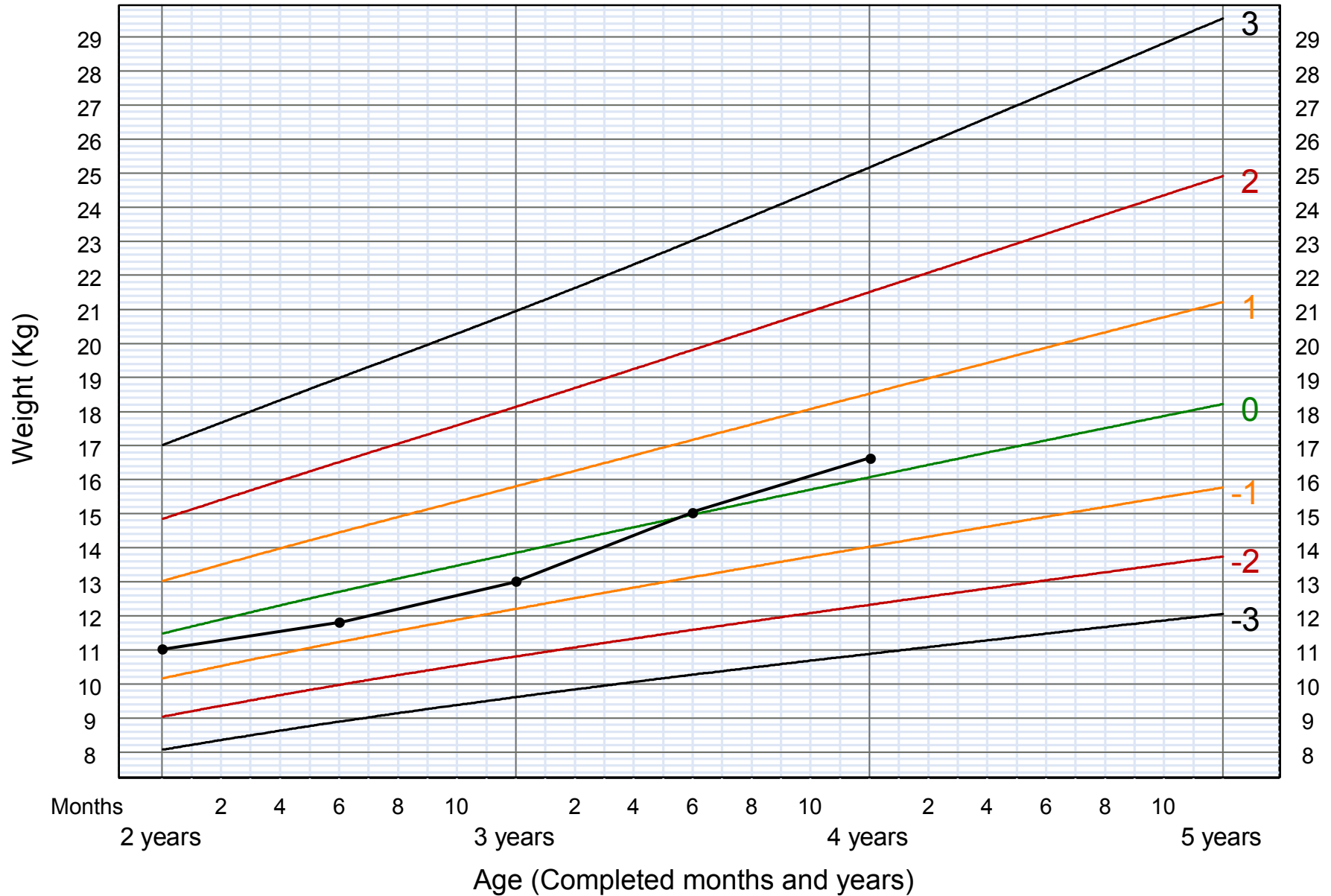
C-31



Weight-for-age GIRLS

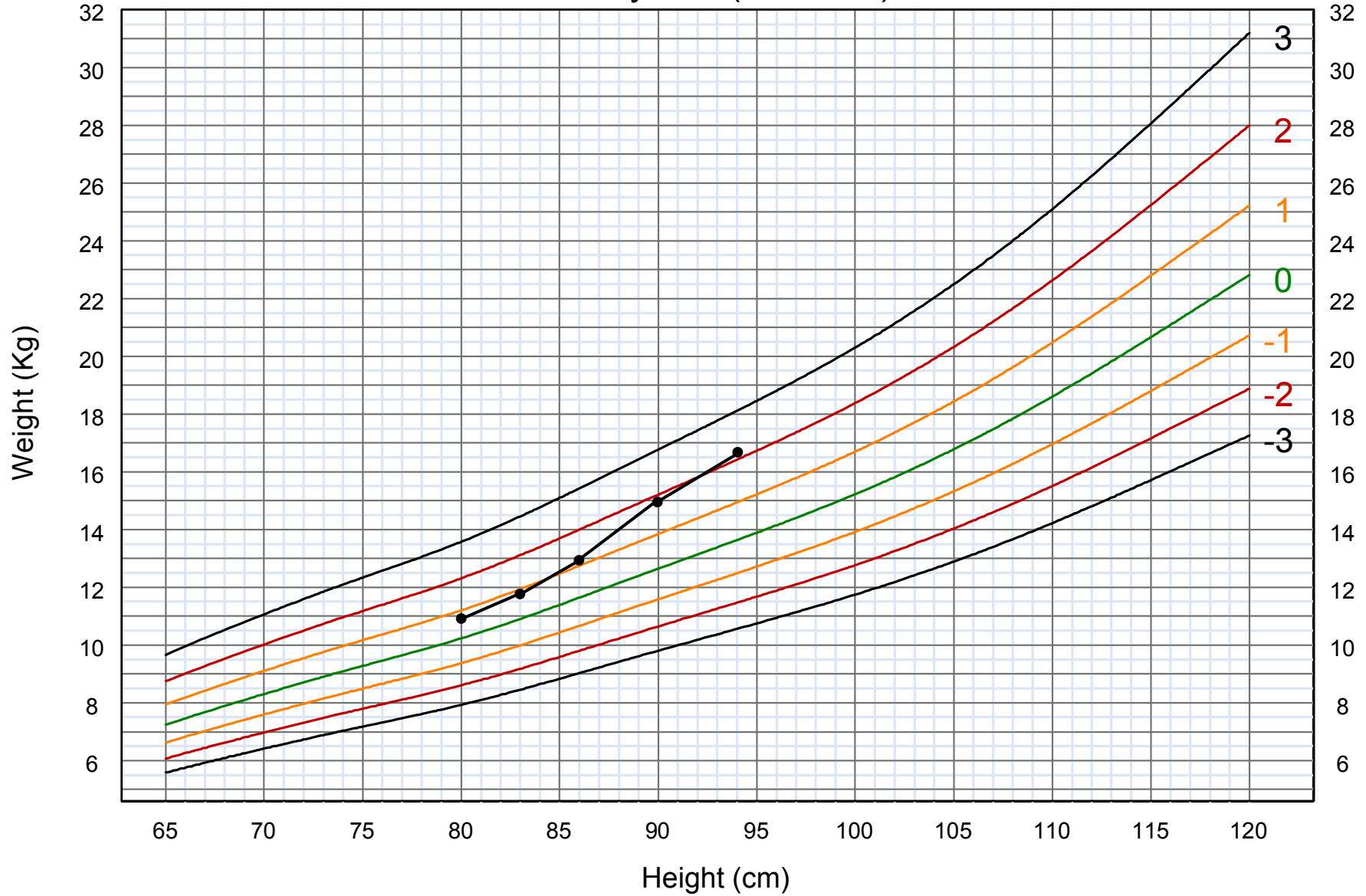
2 to 5 years (z-scores)

C-32



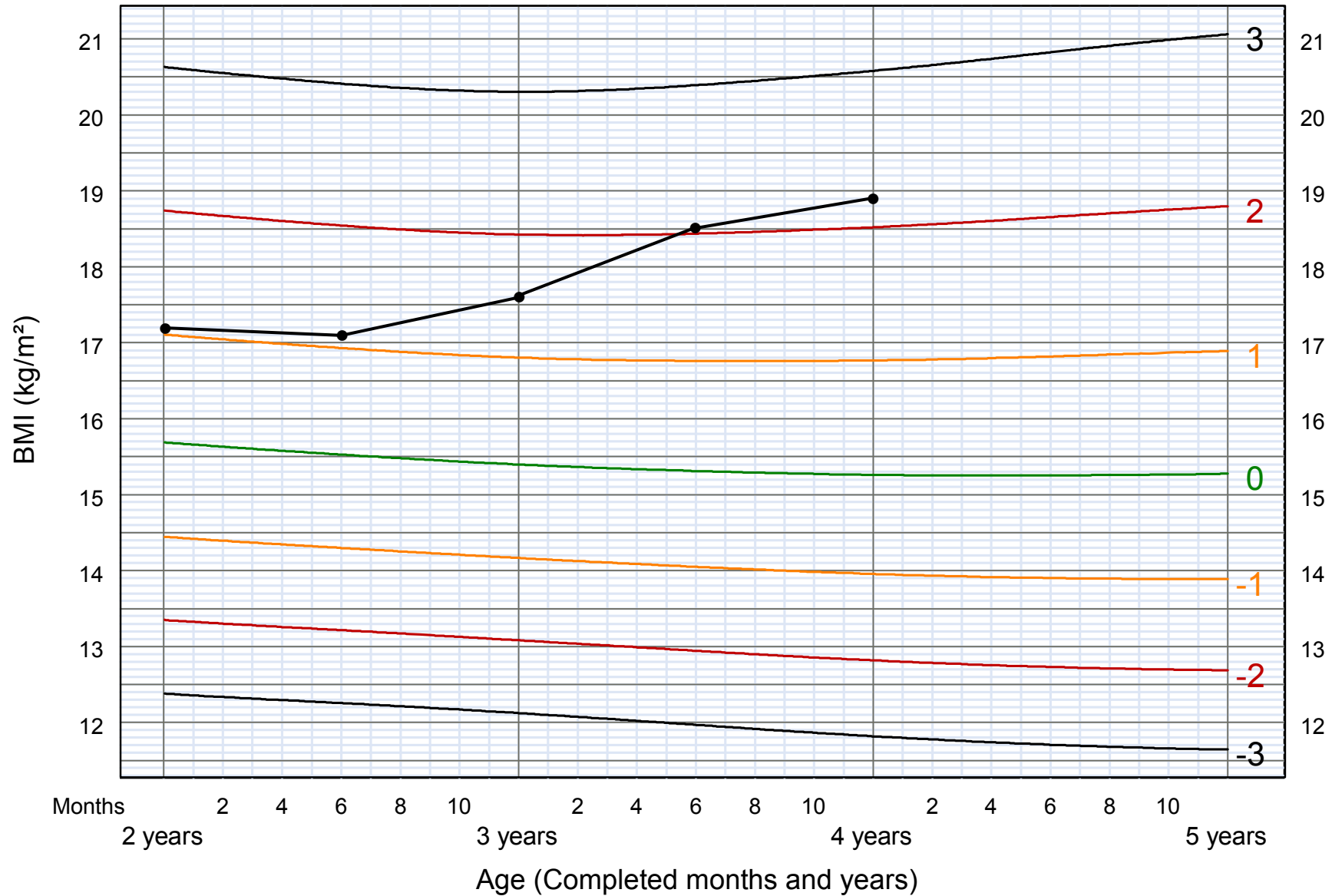
Weight-for-height GIRLS 2 to 5 years (z-scores)

C-33



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

C-34



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 the following important points:

- Measurements have to be plotted correctly on the appropriate age and sex charts as a start to assessing how well a child is growing.
- With measurements from a single visit, three indicators give a better picture of the child's growth status than one indicator on its own.
- An assessment of growth trends indicates whether a growth problem is chronic or of recent onset. Changes in growth trend are often linked with events such as illness.

Proceed to module *D: Counselling on Growth and Feeding*.

Answers to Exercise C

Nalah

1. a) Nalah was an average length at birth but has experienced periods of slow growth and stagnation. Her length-for-age has thus dropped from the median at birth to below -3 z-score at 6 months.
b) At 6 months, Nalah is severely stunted.
2. a) Nalah's weight at birth was just below the median but because of periods of very slow growth (e.g., birth to 6 weeks, 10 to 13 weeks), followed by inadequate catch-up growth (e.g., at 6 to 10 weeks and at 3 to 4 months), her weight-for-age has dropped systematically to below -2 z-score at 6 months.
b) Nalah is underweight.
3. a) Nalah's weight-for-length has fluctuated between -1 z-score and the median since birth and at 6 months is tracking along the median.
b) The weight-for-length chart shows the stagnation in length that occurred when Nalah was 55 cm long but currently it does not indicate a growth problem or risk of a problem.
4. a) Nalah's BMI-for-age has stayed close to the -1 z-score line and by 6 months is approaching the median.
b) This chart does not indicate a current growth problem or risk of a problem.
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.

C: Interpreting Growth Indicators
Answers to Exercise C, continued

Toman

1. a) His length-for-age has been consistent, staying very close to the 1 z-score line.
b) No problem or risk of a problem is evident on the length-for-age chart.
2. a) 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.
b) 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) 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.
b) The weight-for-length chart shows that Toman is overweight and is at risk of becoming obese.
4. a) (Note: The shape of the BMI-for-age curve will differ slightly when using calculated values versus values from the table). Toman's BMI has increased from above 1 z-score to reach the 3 z-score line (or just below if BMI values from the table are used).
b) Toman is not only overweight but on the threshold of obesity (on or just below 3 x-score).
5. Toman has grown normally in length, tracking along line 1 z-score. But his weight has increased too rapidly for his length and his age, as shown on three of the growth charts (weight-for-age, weight-for-length, and BMI-for-age), where his growth lines are near or on the 3 z-score line. His is overweight and has a definite trend towards obesity.

Facilitator's 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 1–8 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. Participants answer the questions in Exercise A, page 9. Lead a group discussion of local feeding practices.	Group discussion
4. Participants read pages 10–11 of the module and study the job-aid titled <i>Investigating Causes of Undernutrition</i> . Then they do a short answer exercise on page 12 and continue reading on page 13.	Self-checked
5. Facilitators introduce Exercise B. Two participants act out the script of an interview with Nalah's mother about the causes of undernutrition. Lead a group discussion of the causes of Nalah's undernutrition.	Group discussion
6. Participants read pages 18–21 of the module and study the advice column of the job-aid. They do the short answer exercise on page 19.	Self-checked
7. Participants do the first (written) part of Exercise C (page 22).	Individual feedback
8. Two participants 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
9. Oral drill: Lead the drill on checking questions related to the feeding recommendations.	Drill
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. Two participants act out the script of an interview with Toman's mother about the causes of his overweight. Lead a group discussion of the causes of Toman's overweight.	Group discussion
12. Participants read pages 33–35 of the module and study the advice column of the job-aid. They 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. Participants 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. (If desired, conduct one or more additional role plays to provide additional practice. Guidelines and handouts are provided on pages D-19 to D-23)	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. Discuss the clinic exercise.	Group discussion
19. Conclude the module and training course.	-----
20. Distribute the evaluation questionnaire to participants and allow them time to complete it. Collect the completed questionnaires.	_____

* *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 1–8 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. Exercise A: Group discussion – Local feeding practices

As participants finish the reading, ask them to begin work on Exercise A on page 9 of the module. Allow participants time to think about the questions on page 9 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 terms that are used to describe problems related to undernutrition and overweight. For example, ask, “What is the local word for ‘stunting’?”

4. Reading and short answer exercise

Ask participants to read pages 10–11 of the module. In the box on page 11, 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 12 and continue reading on page 13.

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

When everyone has finished the reading, introduce Exercise B. Ask two participants to act out an interview with Nalah’s mother, Mrs Parab. Read aloud the background information below (from page 14 of the module).

Background information

Nalah is now 6 months old and has visited the health centre 5 times since her birth. Nalah is the only child at home living with her mother and father. Both parents are in good health; neither is known to be HIV positive. Her growth has been charted in the *Girl’s Growth Record*. Because Nalah is below the –2 z-score line in both length-for-age and weight-for-age, the nurse will counsel the mother, Mrs Parab, about growth and feeding. Before giving any advice, the nurse will interview Mrs Parab about Nalah’s feeding and the home situation in order to find out possible causes of her undernutrition.

Step 1: Nalah is not currently ill and has no known chronic disease.

Tell participants 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.
- (The nurse locates the pages in the job aid for a baby age 6 months to 1 year.)
- 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 go to Step 4 and ask questions about feeding 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 along in the script and mentally compare the mother's answers about feeding to the recommended practices for Nalah's age group to identify possible causes of her undernutrition.

Group Discussion:

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 might be other questions that participants feel should have been asked (e.g. when was porridge started and why?). However, in a health facility where many other mothers and children may be waiting to be seen, the health worker will be trying to keep the interview brief, so this is not an exhaustive investigation.

Wrap up the discussion by classifying all the causes listed as one of the three main causes of undernutrition shown in the figure on page 1 of Module D: insufficient food security, inadequate maternal and child care; and insufficient health services and unhealthy environment.

There is no answer sheet for this discussion.

6. 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.

7. **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.

If time to complete the module is short, group discussion may be used instead of individual feedback. Participants' answers can be compared with the answer sheet.

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 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.

Introduce new foods one at a time. Give Nalah staple foods and a variety of animal-source and other nutritious foods listed on page 15 of the *Growth Record*.

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.

See as an example, on the next page, the entry that the health worker wrote in Nalah’s *Growth Record*.

Example of Visit Notes for Nalah

Visit Notes

<p>Feeding: Notes on history, any problems, counselling given</p>
<p><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></p>

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

When everyone has finished the written part of Exercise C, ask two participants to 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 along in the script or the job-aid and refer to the *Growth Record* as they listen to the counselling session with Mrs Parab. The three main actions suggested are indicated by numbers to the left of the script.

When the counseling session is over, review what a checking question is: A question intended to find out what a person has learned, so that you can provide more information or clarify instructions as needed. A checking question should require an answer that is more than simply yes or no.

Then 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:

- Now, to review, please tell me how you will feed Nalah for the next month.
- What else?
- How much porridge and how often?
- And what other foods will you start giving, one at a time?
- What food will you give that comes from an animal?)

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 thank the mother and agree on when to bring the child back to see her progress.

9. Oral drill: Checking questions related to feeding recommendations

Advance preparation for this drill: *Because many participants have difficulty hearing and quickly understanding the feeding recommendations when they are read aloud, copy the feeding recommendations onto pages of a flip chart or onto transparencies that can be shown on the overhead projector, or use the PowerPoint slides (from the disk of Facilitator’s resource files). Then, when conducting the drill, present each recommendation by both saying and pointing to it.*

This drill will provide practice in formulating checking questions. The subject matter of the checking questions in this drill will be the child feeding recommendations in the *Growth Record*, but checking questions may be used in any type of counselling. Remind participants that it is best to use open-ended checking questions rather than “yes” or “no” questions. Checking questions often begin with: How..., Why..., When..., What..., Could you please show me..., Could you please tell me.....?

Participants will take turns responding aloud in this drill, spontaneously, in order around the table. Proceed as follows:

1. A facilitator presents a feeding recommendation for a child of a certain age (by saying and pointing to it). Examples are given in the table on the next pages.
2. A participant suggests a related checking question. You may need to prompt the participants (e.g. ask, “What would your checking question be?”) until the pattern of the drill is clear. (If the question is not suitable, the facilitator gives feedback and the participant re-frames the question; or the facilitator asks the next participant for a checking question.)
3. The facilitator presents another feeding recommendation to the next 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.	<p>How many family meals should your child have each day?</p> <p>How many snacks?</p> <p>What are some nutritious snacks that you can give?</p>

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?

Summary:

After the drill, review some tips on constructing checking questions:

- a. Identify the key words or phrases in the recommendation that the mother should know.
- b. Construct the checking questions using some key words/phrases and starting the question with the words:
 - How....?
 - Why....?
 - When....?
 - What....?
 - Could you please show me....?
 - Could you please tell me.....?
- c. Avoid questions that can be answered by Yes/No such as those starting with:
 - Do you....?
 - Will you....? (e.g. Will you breastfeed your baby until 6 months?)
 - Are you....?

10. Reading and short answer exercise

Ask participants to read pages 26–27 of the module. In the box on page 27, 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 the interview with Toman’s mother, Mrs Baruni. Read aloud the background information below (from page 29 of the module).

Background information

Toman is now 2 years old. Toman is the only child at home living with his mother. Mr and Mrs Baruni are separated, and Toman spends weekends with his father. Both parents are in good health; neither is known to be HIV positive. Mrs Baruni does not appear to be overweight.

His growth has been charted in the *Boy’s Growth Record*. Because Toman is above the 2 z-score line in weight-for-height and BMI-for-age, the nurse is going to counsel his mother, Mrs Baruni, about growth and feeding. Before giving any advice, the nurse will interview Mrs Baruni about Toman’s feeding and the home situation in order to find out the possible causes of his overweight.

Tell participants 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*. The steps are labelled 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 6 months to 2 years to establish how Toman has been fed up to this point.
- 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 the participants to note down possible causes of Toman’s overweight as they listen to the interview.

Group Discussion:

After the interview lead a discussion of the probable causes of Toman's overweight. Prepare the flipchart or blackboard with the following main headings: FOOD, CARE, and ENVIRONMENT. As each participant gives a probable cause of Toman's overweight, ask him/her which main heading the cause will fall under. List the cause under the appropriate heading. 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.

If time to complete the module is short, group discussion may be used instead of individual feedback. Participants' answers can be compared with the answer sheet.

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. **Causes of Toman's overweight**

Possible advice to be given

*Too many high energy food choices
such as:*

*Milk with added sugar or chocolate
Soft drinks
Sweets like cookies and cake
Sweet chocolate and nut spreads*

Stop adding sugar and chocolate to milk.

Limit soft drinks (no more than twice per week)

Limit sweets (no more than twice per week)

Use high-calorie spreads sparingly

Bottle of milk used to get Toman to sleep

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.

*Lack of control over feeding at father's
and grandmother's home*

Talk to the father and grandmother about Toman's overweight. Show them his *Growth Record*. Tell them the advice given by the health care provider.

*Lack of physical activity and
too much television*

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.

See as an example, on the next page, the entry that the health worker wrote in Toman's *Growth Record*.

D: Counselling on Growth and Feeding

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, 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. The three main actions suggested 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.

Group Discussion:

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. (They are:

- Now just to review, let me ask how will you reduce the amount of sugar that Toman is taking?
- And how will you increase his activity?)

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. It is very important that each participant takes time to study the scenarios and begin to formulate some ideas of the counselling approach before beginning to act out the role plays.

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 (pages 42–44).

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. Watch and listen for the following during each role play (refer to role play highlights below):

- The correct growth problem is identified when the health worker interprets the graphs (e.g. trend towards overweight).
- Health worker uses the correct job aid to investigate causes (e.g. too much food, lack of physical activity); health worker remembers to turn to the page to ask about physical activity.
- Actions are suggested to address causes found.

After each role play, the observer in the group should make brief comments, followed by the mother and health worker.

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.

Highlights of the Exercise F role play situations

1—Mrs Khan and her son Veebol

Veebol's growth lines (at age 9 months) show a trend toward overweight. His portions are too large (1 cup instead of the recommended $\frac{1}{2}$ cup per meal). He eats 3 to 4 meals, instead of the recommended 3 meals plus one snack. The health worker should explore whether he has sufficient physical activity.

Mrs Khan should be advised about portion size and frequency of meals, and also to provide opportunities for Veebol to move around freely and play in a safe environment.

2—Mrs Begum and her niece Razia

Razia's growth lines (at age 3 years 3 months) show a disturbing trend because her growth in weight has been almost stagnant during the past year. She is underweight and wasted and her growth lines are on a downward trend.

Mrs Begum is in a very difficult situation with four children to feed and inadequate resources. The health worker can suggest giving Razia her own plate and encouraging her to eat so that she consumes her portion. She could talk to Mrs Begum about inexpensive foods that can substitute for meat (beans, pulses, eggs). The health worker might also refer Mrs Begum to some sources of food assistance. If possible,

Mrs Begum should take Razia for HIV testing, in case Razia's decline is caused in part by HIV.

3—Mrs Lima and her daughter Anete

Anete (age 18 months) is stunted, though she seems healthy and active. Inadequate nutrition over a period of time seems to have caused her stunting.

Anete does not have much appetite or interest in eating. She eats only $\frac{1}{4}$ cup at 3 meals per day. Mrs Lima should be advised to try to increase her portion to $\frac{3}{4}$ —1 cup and to sit with her to encourage her to eat. Since Anete is stunted, her mother should be given the special advice (from the job aid on investigating causes of underweight) to add legumes and animal-source foods to meals to improve the nutrient quality of the diet. She could also try to offer Anete wider variety of good foods, to increase her interest, and offer her two healthy snacks each day in addition to her meals.

Group Discussion:

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.

Summarize the steps that the health care provider should follow after weighing/measuring the child and plotting the indicators. Suggested steps are as follows:

1. Show and explain the meaning of the charts to the mother.
2. If there is a growth problem, determine if the mother recognizes it.
3. Follow the steps in the relevant job-aid: Investigating causes of undernutrition or overweight.
4. Ask the mother what she thinks are the most likely causes of her child's growth problem.
5. Counsel: 2-3 actions (only) for her to take. (Do not forget to praise the mother for things she is doing correctly!)
6. Ask checking questions.
7. Set date of next clinic visit.
8. Thank the mother.

Finally, remind the participants what to do and say to the mother if the child is growing well: let the mother know and congratulate her. Then review the feeding recommendations for the child's present age or the one approaching.

Instructions for Additional Role Plays (if used)

Use one or more of these role plays to give participants more practice counselling, particularly if time for a clinic visit is limited or the clinic visit is omitted.

These role plays should be conducted in small groups of three, much as the role plays in Exercise F of module D. However, in these role plays, **the "health worker" will first**

need to plot the child's measurements in a *Growth Record* and determine whether the child has a growth problem. Then he will interview and advise the "mother" appropriately. The health worker, the mother and the observer are each given some background information, but the health worker should not see the mother's information. The health worker will discover the mother's information only by interviewing her.

Select from the three role plays summarized below to give participants the specific practice needed, or use all three. Use the summaries of each situation below to help you select. Then make two copies of the handout for each selected role play (from pages D-21–D-23) for each small group of three participants. Cut one role play page in half along the dotted line and give the appropriate half to the "health worker" and the "mother." Also give a copy of the full page to the observer.

Summaries of Additional Role Plays

Highlights of role play 1:

Ashook is a boy, age 3 years 4 months. He is above the 1 z-score line height-for-age, on the median weight-for-age, and below –1 z-score line weight-for-height. So he is somewhat taller and thinner than most boys his age, but within the normal range.

Causes: It is not necessary to interview about any causes, as there is no growth problem.

Important advice: Feeding recommendations for children age 2 to 5 years (page 19 in the Growth Record), recommended foods (page 15)

Highlights of role play 2:

Mina is a girl, age 7 months. She is below –1 z-score line length-for-age, above 1 z-score line weight-for-age, both within the normal range. However, she is above 3 z-score line weight-for-length, so she is obese.

Causes: She is probably receiving too much food, and perhaps too much high energy food, including sweetened juices. She moves around very little.

Important advice: Suitable foods, appropriate frequency of feeding and portion size, and increasing opportunities for the baby's play and free movement.

Highlights of role play 3:

Samir is a boy, age 12 weeks. He is on the line –1 length-for-age, below the –2 z-score line weight-for-age, and below the –2 z-score line weight-for-length. So, he is underweight and wasted (almost severely wasted).

Causes: He is receiving formula and water in addition to breast milk and has had repeated episodes of diarrhoea. He is his mother's third child and she is very busy.

Important advice: Stop giving the water, gradually decrease the formula and feed only breast milk. She can produce all the milk the baby needs. Breastfeed, whenever the baby wants, at least 8 times in 24 hours. Exclusive breastfeeding will help prevent more diarrhoea.

D: Counselling on Growth and Feeding

Additional Role Play 1 Health Worker's information

Ashook's mother brings him to the health centre for a growth monitoring session on 20 September 2007.

When you measure Ashook, his weight is 15 kg and his height is 105 cm.

Ask his mother for his birthdate. Then plot his measurements on the appropriate pages in the *Growth Record*.

If he has a growth problem, interview his mother to learn about the most important causes. Then give the mother the most important and relevant advice (2 or 3 actions to take).



D: Counselling on Growth and Feeding

Additional Role Play 1 Mother's information

Your son Ashook was born on 10 May 2004.

Your name is Shariti. You are a self-employed fashion designer and work at home. Your husband is a supervisor at a bank.

You have a caregiver for Ashook who keeps him busy during the day, so that you can work at home. The caregiver makes a special effort to sit with him at meal time, but Ashook does not always eat all the food on his plate. He eats the same meals as the rest of the family.

D: Counselling on Growth and Feeding

Additional Role Play 2 ***Health Worker's information***

Mina is brought to the clinic by her mother today, 20 September 2007. This is her first visit to the clinic.

When you measure her, Mina weighs 9.5 kg and her height is 63.5

Ask her mother for her birth date. Then plot her measurements on the appropriate pages in the *Growth Record*.

If she has a growth problem, interview her mother to learn about the most important causes. Then give the mother the most important and relevant advice (2 or 3 actions to take).



D: Counselling on Growth and Feeding

Additional Role Play 2 ***Mother's information***

You have brought your daughter, Mina, to the clinic today, 20 September 2007. Mina's birth date is 5 February 2007.

You travel in your job and feel guilty that you were never able to breastfeed her. You buy a variety of bottled baby foods and cereals for her. Mina's grandmother lives with you and looks after her when you are away. Mina receives formula. The grandmother started giving Mina water and sweetened fruit juice, in addition to the formula, from 1 month of age.

You think the grandmother is very protective of Mina. She keeps Mina in a cot close to her all the time while she watches television. The grandmother is very pleased with the way Mina is growing.

D: Counselling on Growth and Feeding

Additional Role Play 3 Health Worker's information

Samir is brought to the clinic today, 20 September 2007, by his mother.

When you measure him, his weight is 4.6 kg and his length is 59 cm.

Ask his mother for his birth date. Then plot his measurements on the appropriate pages in the *Growth Record*.

If he has a growth problem, interview his mother to learn about the most important causes. Then give the mother the most important and relevant advice (2 or 3 actions to take).



D: Counselling on Growth and Feeding

Additional Role Play 3 Mother's information

You bring your son, Samir, to the clinic today, 20 September 2007. Samir was born on 1 July 2007.

You have three children: Samir, a 6-year-old son, and a 3-year-old daughter. You are breastfeeding Samir and also give him formula and a little water. You give him about two bottle feeds of formula and about ½ cup of water daily. You started the formula when he was about 6 weeks of age, because he cried after his breastfeeds. He has had diarrhoea on and off.

Your husband works at two jobs to earn enough money to support his family. There is piped water in the house and a toilet.

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

Exercise G requires a health facility visit. Your Course Director will inform you of the plans.

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 carefully now.**

When they have finished reading, explain that only three indicators (length/height-for-age, weight-for-age and weight-for-length/height) will be used during the counselling exercise. The measurements must be taken accurately for the counselling to be appropriate.

It will not be necessary to start growth records for the children seen at the clinic. Note each child's age and measurements on a note pad. Plot the child's measurements on the appropriate pages of a growth record (in pencil, so that you can erase them later). Then use those pages for interpretation and conversation with the caregivers.

Review the steps to follow in counselling mothers (or other caregivers):

1. After measuring and plotting, show and explain the meaning of the charts to the mother.
2. If the child is growing well, let the mother know and congratulate her. Then review the feeding recommendations for the child's present age or the one approaching. Thank the mother and let her go.
3. If there is a growth problem, determine if the mother recognizes it as this will influence how the dialogue continues.
4. Follow the steps in the relevant job-aid: Investigating causes of undernutrition or overweight.
5. Ask the mother what she thinks are the most common causes of her child's growth problem.
6. Counsel: suggest 2 – 3 actions only for her to take (do not forget to praise the mother for things she is doing correctly!)
7. Ask checking questions
8. Speak to a staff member of the facility if you have proposed a return visit for follow-up. Thank the mother and let her go.

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.) Answer any questions about the visit.

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

Remind participants that they will need a note pad, their child age calculator, and their job-aids on measuring children and on investigating causes of undernutrition and overweight. Bring a supply of pencils, small toys, cups and bowls, *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.

If you have time (such as while waiting for transportation), and especially if you did not have enough time to prepare the participants well yesterday, review with them what they will do during the visit (described on page D-24 above).

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 current age or the one approaching.
- 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. **Discussing the clinic exercise**

When the participants return from the facility visit and gather in the classroom, ask them questions and encourage them to talk about their experiences. What did they learn during the experience? What was more difficult than expected? What was most valuable to them?

Ask them if they have any questions about measuring children or counselling their mothers, or about any of the particular children that they saw. Discuss as needed.

Ask participants whether they can implement this counselling process in their own health facilities.

19. Concluding the module and training course

If participants have any questions about the module or the counselling process, discuss them.

Conclude the module by highlighting the following important points:

- The goal of growth assessment is to identify any growth problems and take action to address them. But counselling includes providing information to mothers of children that are growing well to maintain the good trend.
- There are immediate causes of growth problems (dietary intake, disease and activity levels), and usually the actions suggested to mothers relate to causes at this level. It is more difficult to change underlying causes of undernutrition in the short term.
- Counselling requires skills of positive interaction with mothers to encourage them to share information that will indicate why the child is not growing well. The health worker then should give advice that is appropriate and practical given the family's circumstances.
- At the end of a successful counselling session the mother will be eager to carry out the actions proposed by the health worker and to return for the follow-up visit.

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.

Conclude the training course:

Say to the participants that in their work, it is very important to measure accurately, record and plot accurately, and interpret correctly, so that every child's assessment or diagnosis is correct.

It is not enough to measure a child correctly; it is not enough to identify that a child has a problem or trend toward a problem. We must take action to help the child, to improve the child's growth or prevent a growth problem.

Thank the participants for their hard work and enthusiasm.

20. Evaluation questionnaire

Distribute the evaluation questionnaire to the participants. Ask them to complete it now and turn in the completed questionnaire to you.

Collect the completed questionnaires and give them to the Course Director.

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 towards 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's 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's 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. Allow him/her to revise the answer in front of you unless it is likely to take too long.
- 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.
- Tell the participant what to do next.

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.

Guidelines for All Modules

When directing a clinical exercise:

In preparation for the clinical exercise (e.g. the day before):

- Divide the group into pairs/teams depending on the equipment sets available and interpretation if needed for interaction with mothers.
- Go through the checklist of materials needed so that each team takes responsibility for bringing what they require.
- For an exercise at the training venue, inform participants about space arrangements and logistics for receiving mothers and children.
- For an exercise at an outside facility, explain the set-up and space availability for each team.
- Agree on which teams will be supervised by each facilitator.

During the exercise:

- Facilitate the distribution of children among the teams.
- Work closely with the teams assigned to you to ensure that each participant gets a chance to learn/practice skills. Ensure that other participants do not crowd or interfere.
- Observe participants closely as they work and correct their technique; help them learn to measure correctly and quickly by giving them feedback as they work.
- Ensure that participants' difficulties are resolved quickly and efficiently (e.g. assist them to obtain accurate measurements and then let them practise how to measure correctly).
- Mothers and children are treated with care and respect.
- The objectives of the exercise are achieved as best possible.

Schedule for the course

	Activity	Time
Day 1	Registration	0.5 hour
	Welcome or opening plenary	1.5 hour
	Module <i>A: Introduction</i>	1 hour
	Module <i>B: Measuring a Child's Growth</i>	4.0 hours
Day 2	Exercise D of module B, measuring children in the classroom Continuation of module B	2.0 hours*
	Module <i>C: Interpreting Growth Indicators</i>	6 hours
Day 3	Module <i>D: Counselling on Growth and Feeding</i> (up to Exercise G, which requires a health facility visit)	7 hours
Day 4	Health facility visit to do Exercise G of module D (counselling mothers)	4.5 hours**
	Closing session, awarding of course certificates	1 hour

* If participants must travel to a facility for this exercise, extend the schedule accordingly.

**Time estimate for health facility visit includes 2 hours of travel, 2 hours at the health facility and 30 minutes of discussion on return. If travel will take longer, extend the schedule accordingly.



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