Combined course on growth assessment and IYCF counselling

Slides

WHO Library Cataloguing-in-Publication Data:

Combined course on growth assessment and IYCF counselling.

various v. + slides

Contents: Director's Guide -- Trainer's Guide -- Participant's Manual -- Guidelines for Follow-up After Training -- Set of slides – full colour job-aid – photo booklet

1.Infant nutrition. 2.Breast feeding. 3.Child nutrition. 4.Growth. 5.Child development. 6.Nutrition assessment. 7.Body weights and measures. 8.Teaching material. I.World Health Organization.

ISBN 978 92 4 150481 2 (NLM classification: WS 130)

Printed in Switzerland

Acknowledgement

Many people from numerous countries contributed their valuable time and expertise to the development and field-testing of this Combined Course.

The development of this course was led by Adelheid Onyango and Carmen Casanovas, Technical Officers, at the Department of Nutrition for Health and Development (NHD). Mercedes de Onis, NHD contributed to the development and field-testing of the course material Nigel Rollins, Department of Maternal, Newborn, Child and Adolescent Health, contributed substantially to the integration of the updated guidelines on HIV and infant feeding into the course Mrs Anne Sikanda, NHD assisted in formatting and assembling the manuals.

Special appreciation goes to Helen Armstrong, Genevieve Becker, Hilary Creed-Kanashiro, Felicity Savage King who were the authors of the WHO/UNICEF training courses on breastfeeding counselling, complementary feeding counselling, HIV and infant feeding counselling as well as to Chessa Lutter, Cutberto Garza, Ilgi Ertem for the technical inputs, and Patricia Whitesell Shirey and Florence C Johnson for developing the modules for the training course on child growth assessment. All these courses provided the foundation for this Combined Course.

Other contributors include staff of UNICEF and WHO regional and country offices, many individuals from the countries where the course was field-tested, namely, Solomon Islands, Malaysia and Zambia.

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Suggested citation:
World Health Organization. Combined course on growth assessment and IYCF counselling. Geneva, WHO, 2012.

Introduction to IYCF and WHO child growth standards

After completing this session participants will be able to:

- describe The Global Strategy for Infant and Young Child Feeding
- list the operational targets of The Global Strategy
- state the current recommendations for feeding children from 0-24 months of age
- describe the significance of the WHO child growth standards

The Global Strategy for Infant and Young Child Feeding

- Developed by WHO and UNICEF to revitalize world attention on the impact that feeding practices have on infants and young children
- Malnutrition has been responsible, directly or indirectly, for about one third of the 8.1 million deaths annually among children <5 years
- Over two-thirds of these deaths occur in the first year of life

Policy initiatives

- International Code of Marketing of Breast-milk Substitutes (1981)
- Innocenti Declaration (1990)
- Baby-friendly Hospital Initiative (1991)
- Global Strategy for Infant and Young Child Feeding (2002)

Exclusive breastfeeding

- Breastfeeding provides ideal food for the healthy growth and development of infants

- Infants should be exclusively breastfed for the first six months of life

Complementary feeds

- After six months all babies require complementary foods while breastfeeding continues for up to two years of age or beyond
- Complementary feeds should be:
  - timely
  - adequate
  - safe
  - properly fed

Feeding in exceptionally difficult circumstances

- Emergency situations
- Malnourished children
- Low-birth-weight babies
- Infants of HIV-infected mothers
- Orphans

Development of the WHO growth standards

- Based on a sample of children from six countries
  - Brazil, Ghana, India, Norway, Oman, USA
- WHO Multicentre Growth Reference Study (MGRS)
- How children ***should*** grow - selection criteria based on recommended behaviours (e.g., breastfeeding, providing standard paediatric care, and not smoking).
- Term babies followed from birth to 2 years of age, with frequent observations in the first weeks of life.
- Another group of children, age 18 to 71 months, measured once
- Data from the two samples combined to create the growth standards for birth to 5 years of age.

The WHO Multicentre Growth Reference Study (MGRS)

- The WHO growth standards differ from many existing single country references which merely describe the size of children assumed to be healthy

- By including children from many countries with recommended feeding and care, resulted in prescriptive **standards** for normal growth

- Show what growth can be achieved with recommended feeding and health care

- Can be used anywhere in the world

Benefits of the new growth standards

- Establish the breastfed infant as the model for normal growth and development
- They should lead to strengthening of public support for breastfeeding
- Will help better identify stunted and overweight/obese children
- New standards (such as BMI) are useful for measuring the increasing worldwide epidemic of obesity
- Charts that show patterns of expected growth rate over time enable health care providers to identify children at risk of undernutrition or overweight

Gross motor milestones

- Sitting without support
- Standing with assistance
- Hands-and-knees crawling
- Walking with assistance
- Standing alone
- Walking alone

Why breastfeeding is important

After completing this session participants will be able to:

- state the advantages of exclusive breastfeeding
- list the disadvantages of artificial feeding
- describe the main differences between breast milk and artificial milk

Advantages of breastfeeding

Breast milk

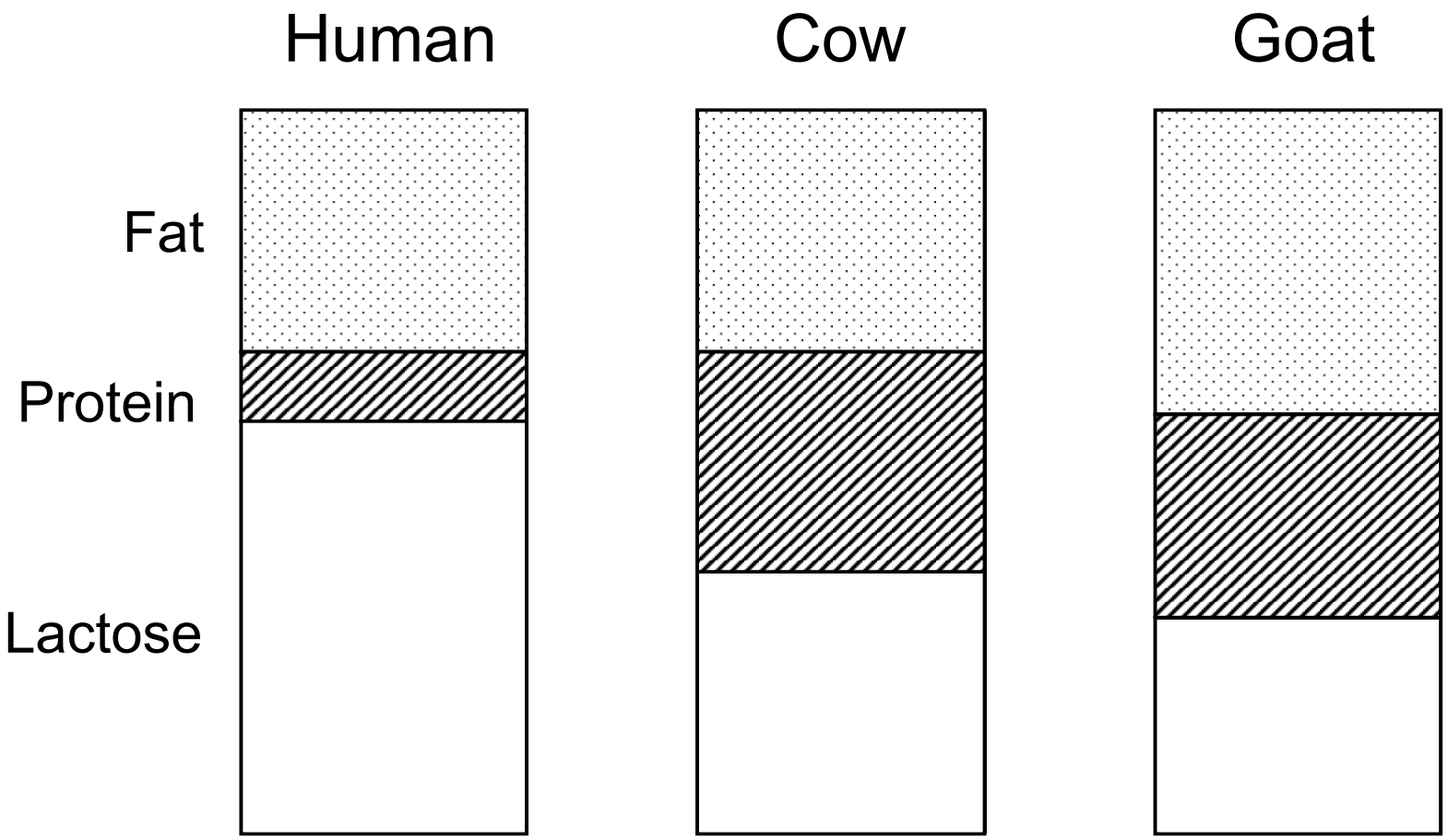
- Perfect nutrients
- Easily digested; efficiently used
- Protects against infection

Breastfeeding

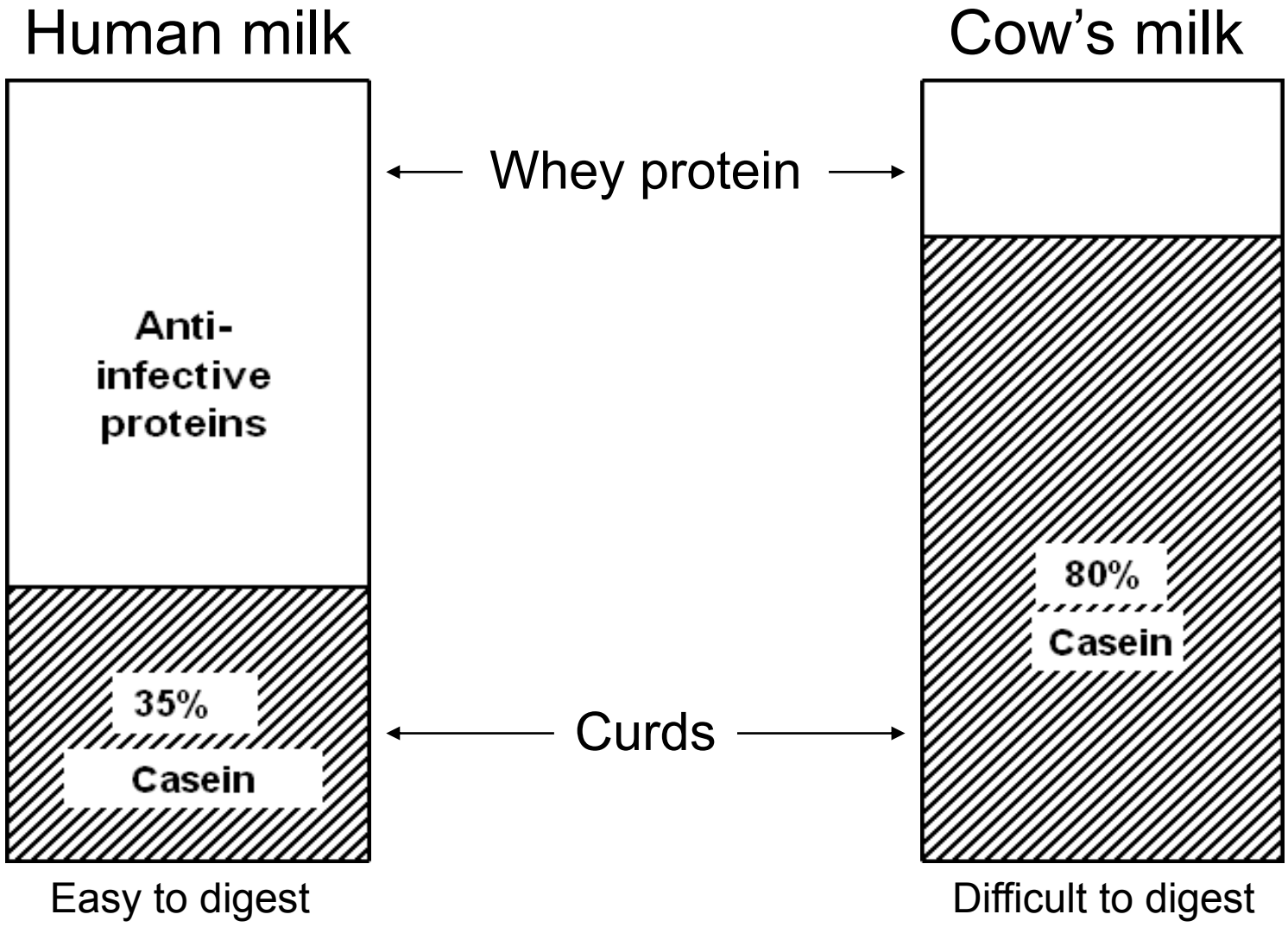
- Helps bonding and development
- Helps delay a new pregnancy
- Protects mothers' health

- Costs less than artificial feeding

Nutrients in human and animal milks



Differences in the quality of proteins in different milks



Protection against infection

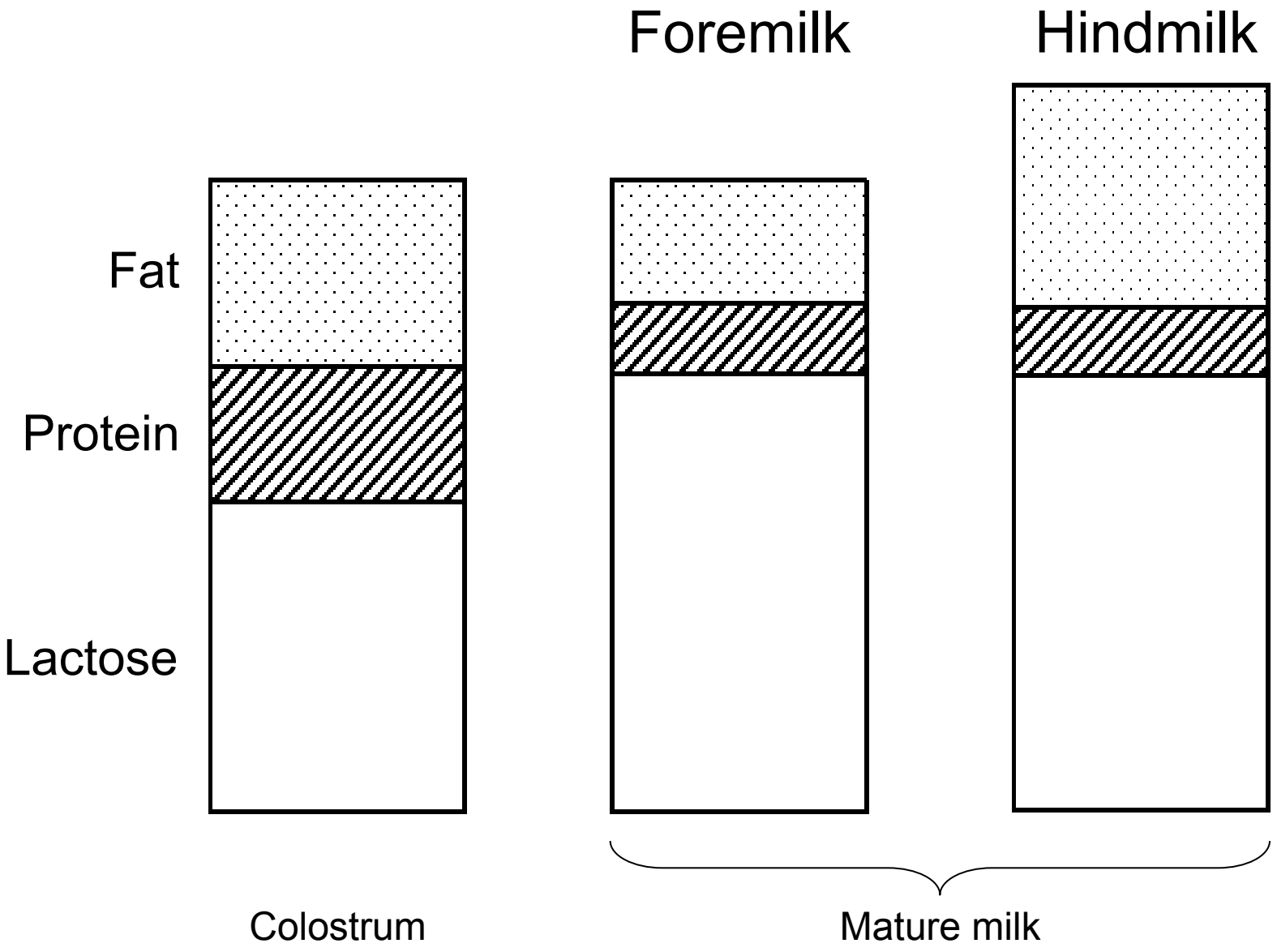
1. Mother infected

2. White cells in mother's body make antibodies to protect mother

3. Some white cells go to breast and make antibodies there

4. Antibodies to mother's infection secreted in milk to protect baby

Differences between colostrum and mature milk

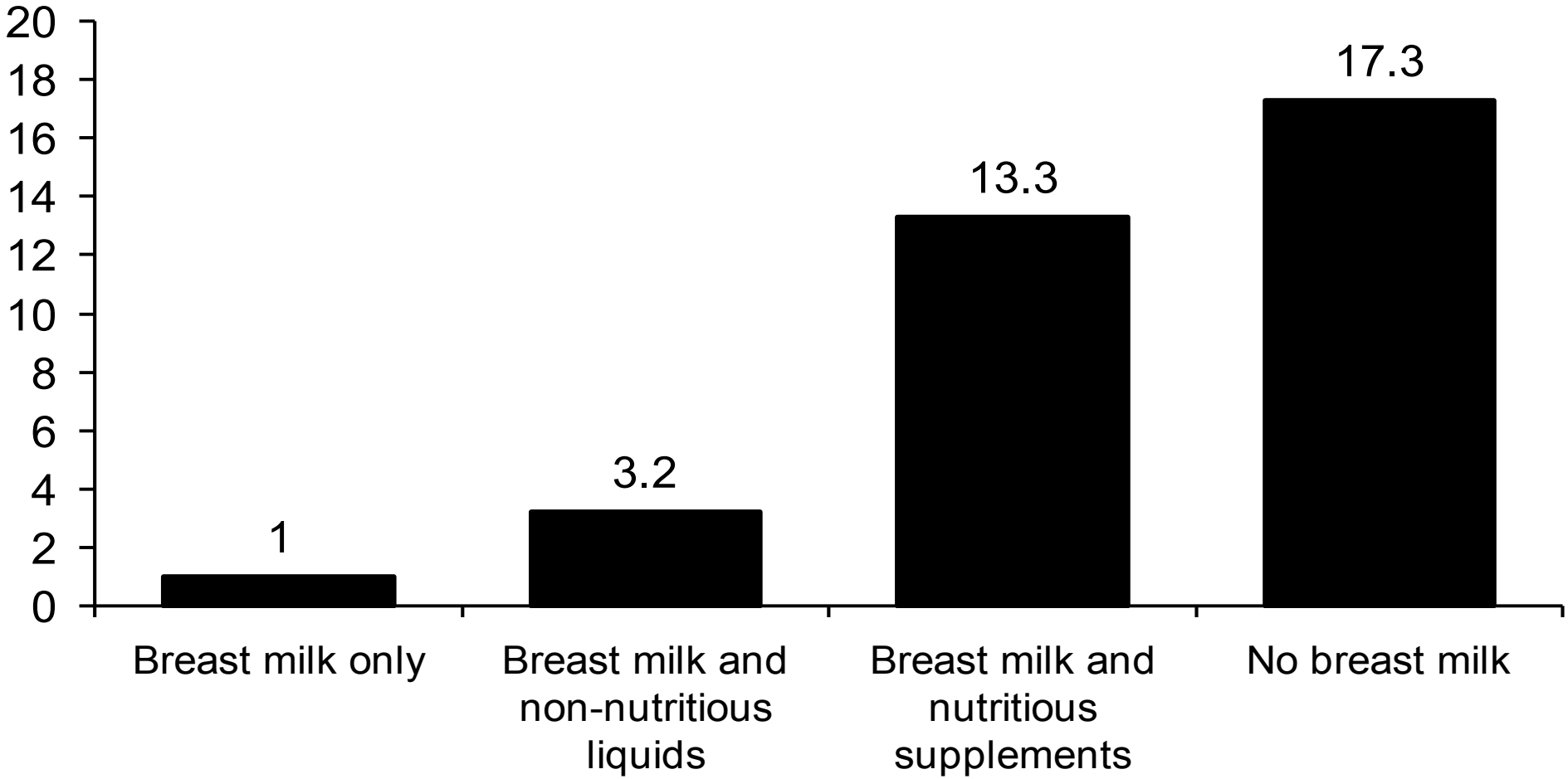


Colostrum

Property	Importance
• Antibody rich	- protects against allergy & infection
• Many white cells	- protects against infection
• Purgative	- clears meconium
	- helps to prevent jaundice
• Growth factors	- helps intestine to mature
	- prevents allergy, intolerance
• Rich in Vitamin A	- reduces severity of infection

Risk of diarrhoea by feeding method

Philippines, infants aged 0-2 months



Source: Popkin BM. Breast-feeding and diarrheal morbidity. Pediatrics 1990; 86: 874-82.

Psychological benefits of breastfeeding

Emotional bonding

- close, loving relationship between mother and baby
- mother more emotionally satisfied
- baby cries less
- baby may be more emotionally secure

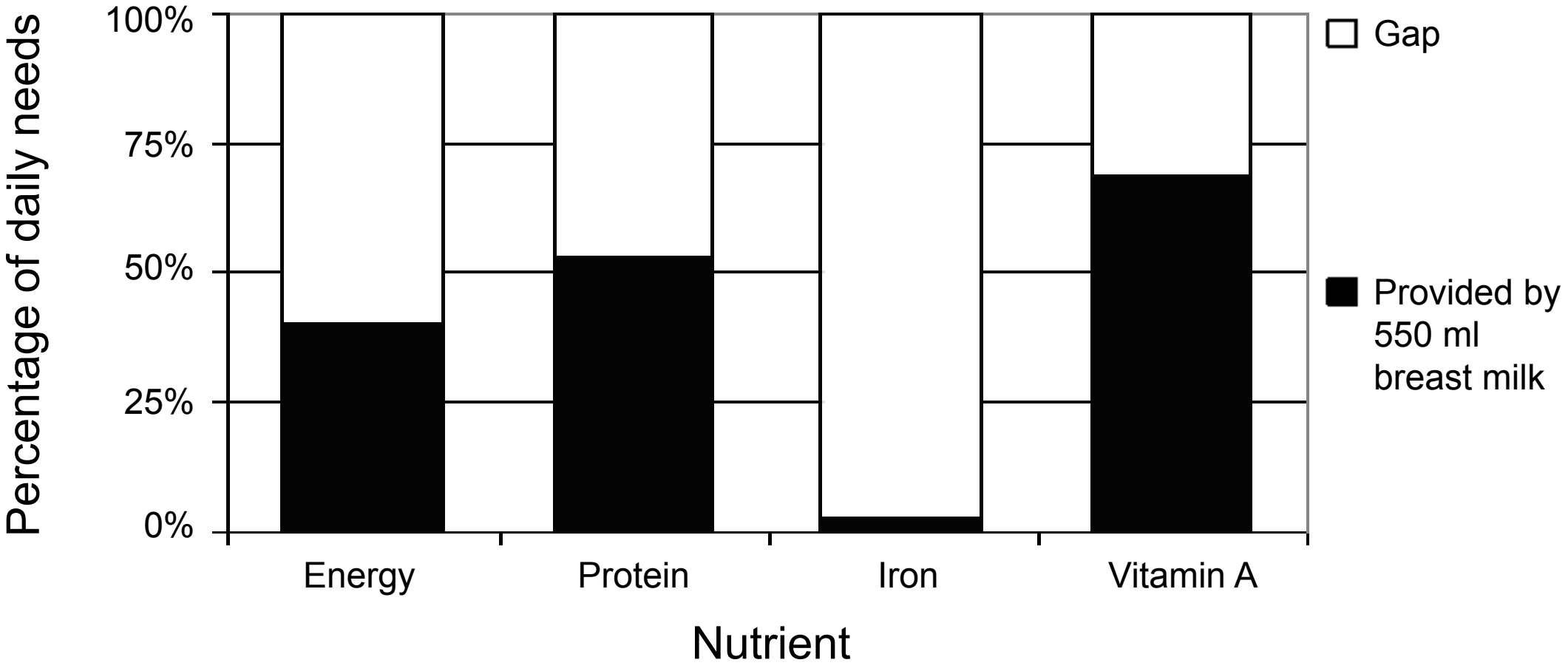
Development

- children perform better on intelligence tests

Disadvantages of artificial feeding

- Interferes with bonding
- More diarrhoea and persistent diarrhoea
- More frequent respiratory infections
- Malnutrition; Vitamin A deficiency
- More allergy and milk intolerance
- Increased risk of some chronic diseases
- Obesity
- Lower scores on intelligence tests
- Mother may become pregnant sooner
- Increased risk of anaemia, ovarian cancer, and breast cancer in mother

Breast milk in the second year of life

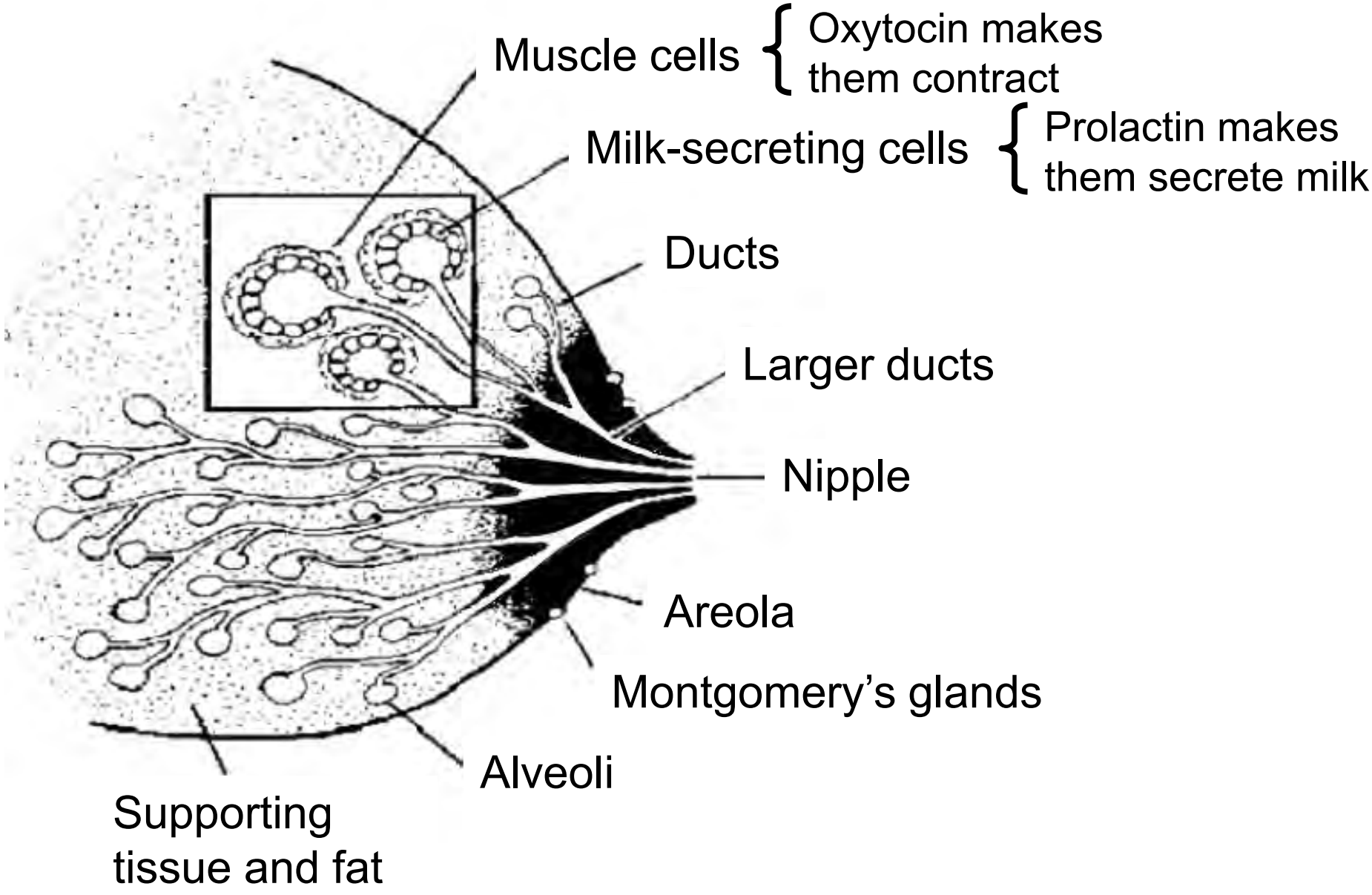


How breastfeeding works

After completing this session participants will be able to:

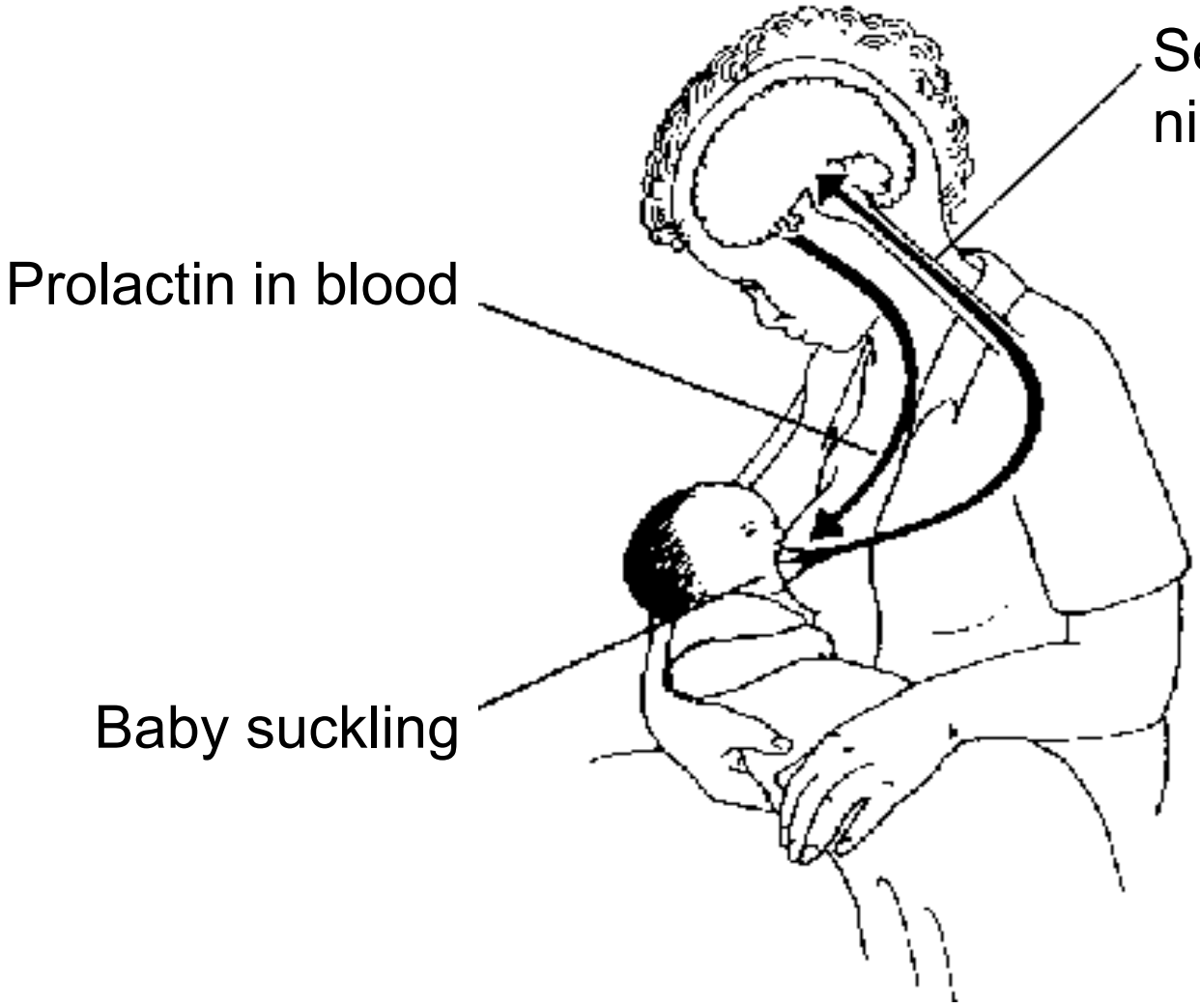
- name the main parts of the breast and describe their function
- describe the hormonal control of breast milk production and ejection
- describe the difference between good and poor attachment of a baby at the breast
- describe the difference between effective and ineffective suckling

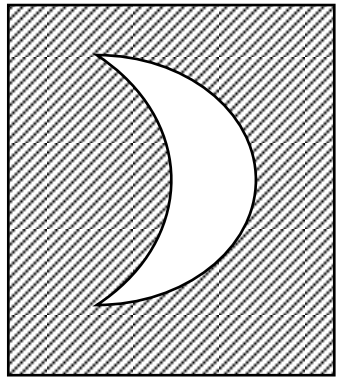
Anatomy of the breast



Prolactin

- Secreted *during* and *after* feed to produce *next* feed

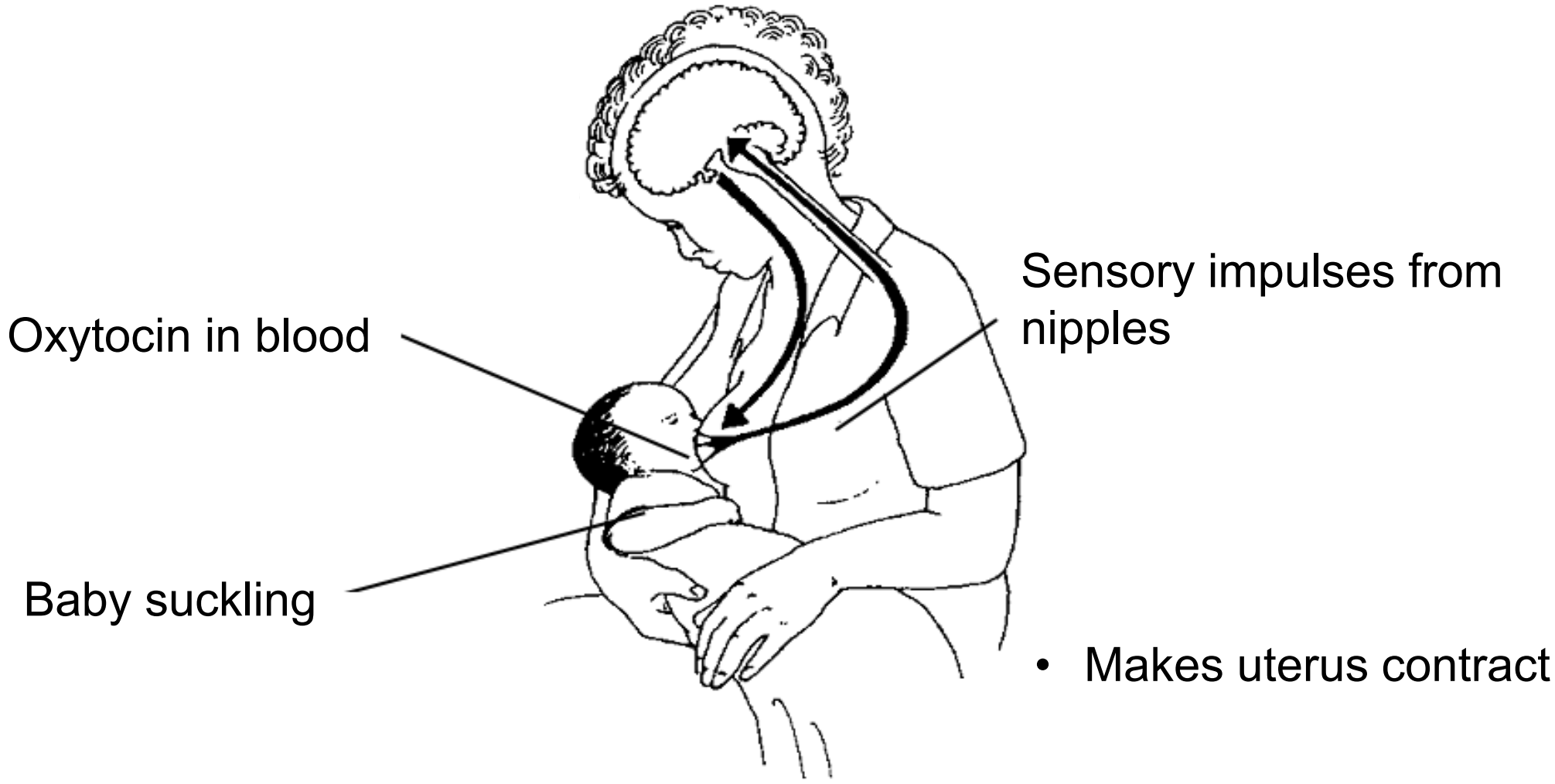




- More prolactin secreted at night
- Suppresses ovulation

Oxytocin reflex

- Works *before* or *during* feed to make milk flow



Helping and hindering of oxytocin reflex

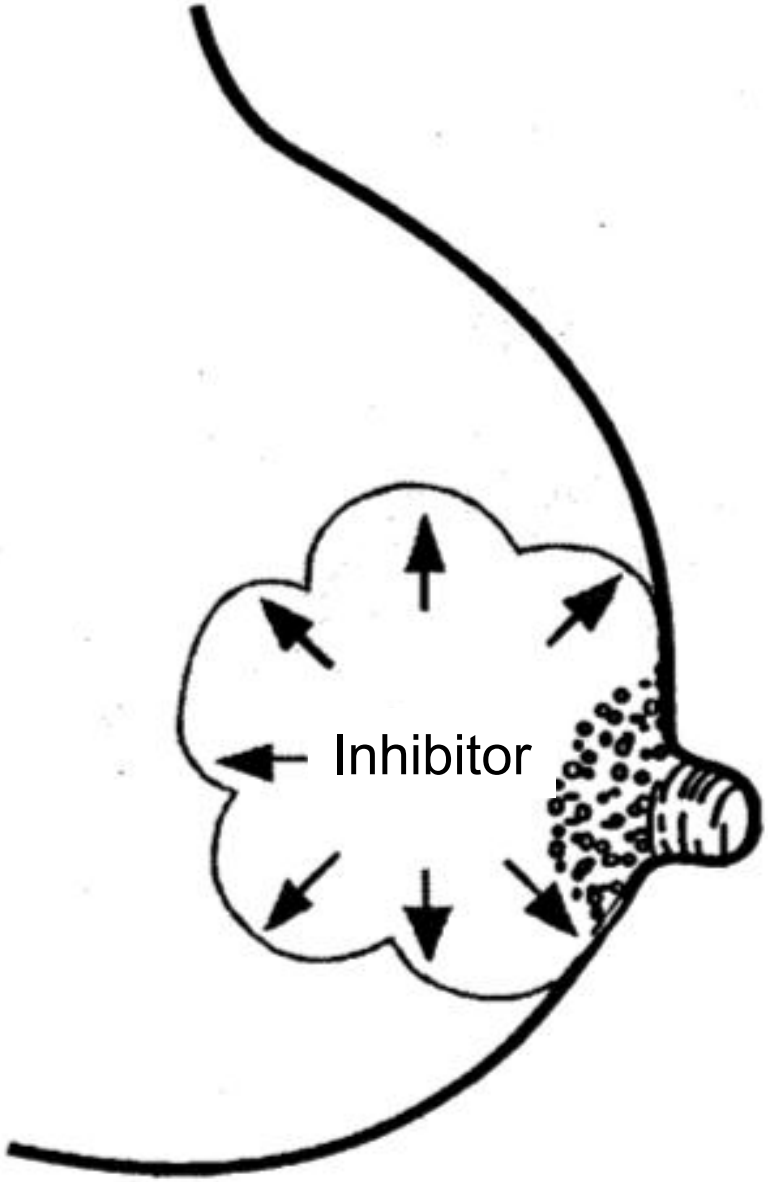
These *help* reflex

- Thinks lovingly of baby
- Sounds of baby
- Sight of baby
- Touches baby
- Confidence

These *hinder* reflex

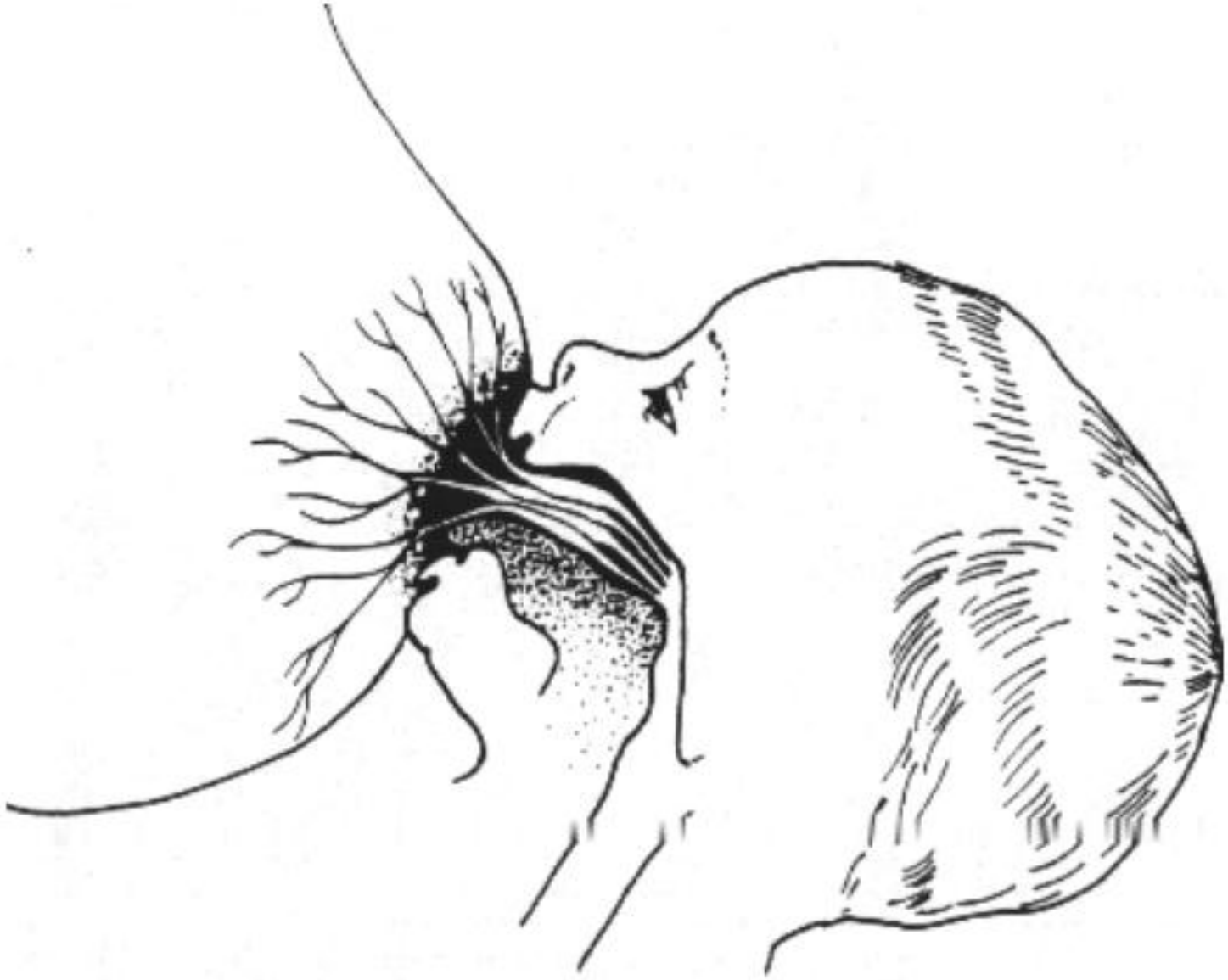
- Worry
- Stress
- Pain
- Doubt

Inhibitor in breast milk



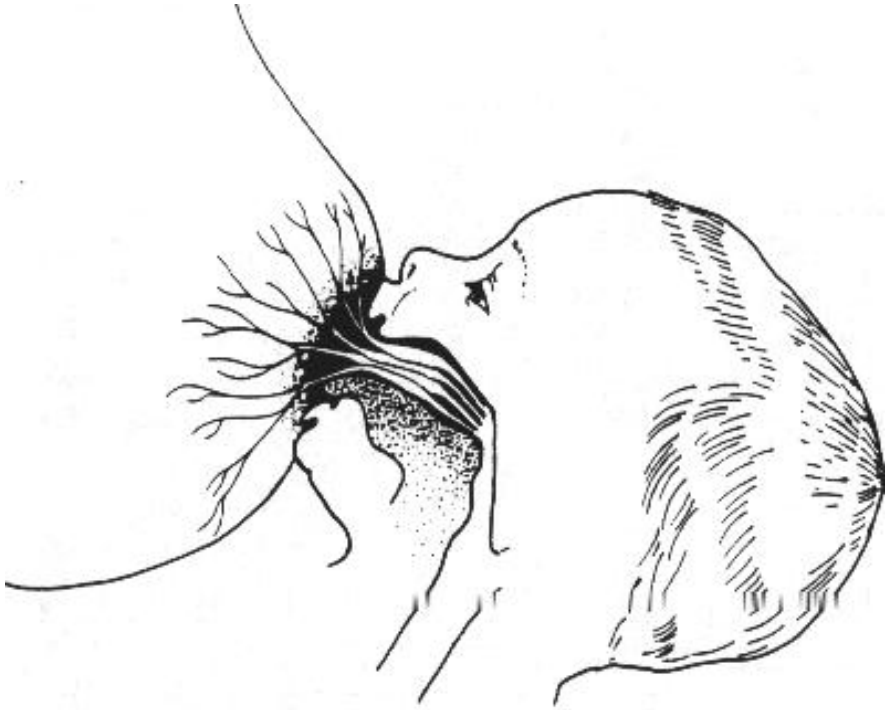
If breast remains full of milk, secretion stops

Attachment to the breast



Good and poor attachment

What differences do you see?



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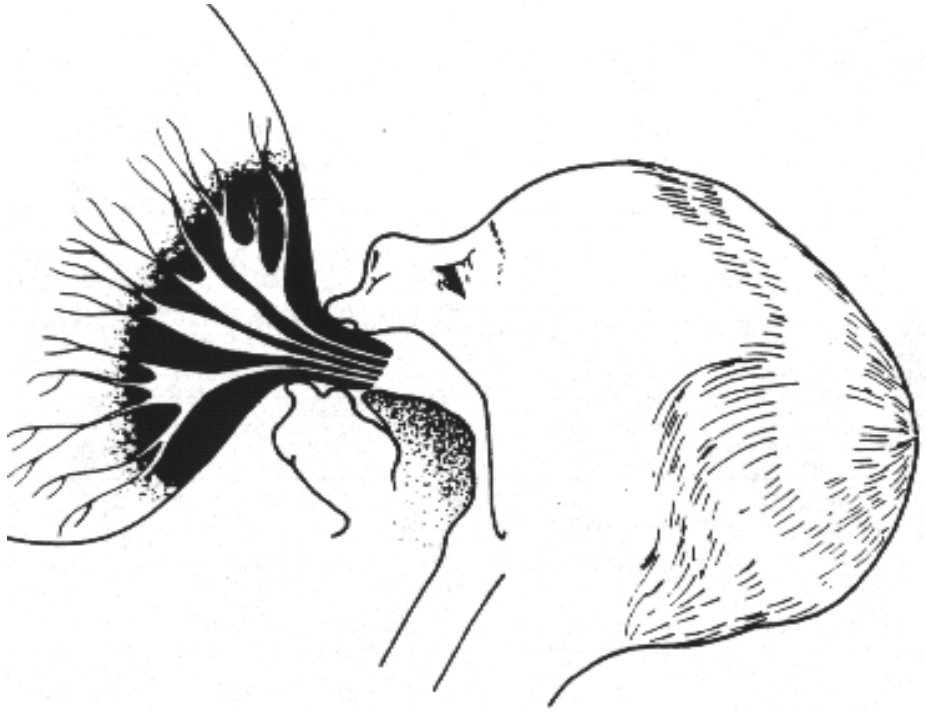

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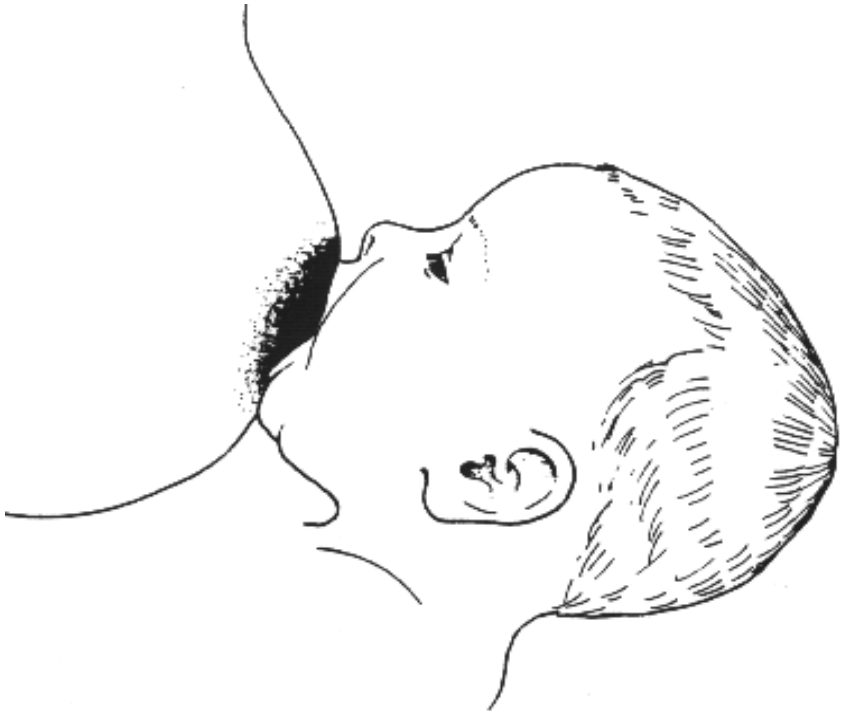
Attachment (outside appearance)

What differences do you see?



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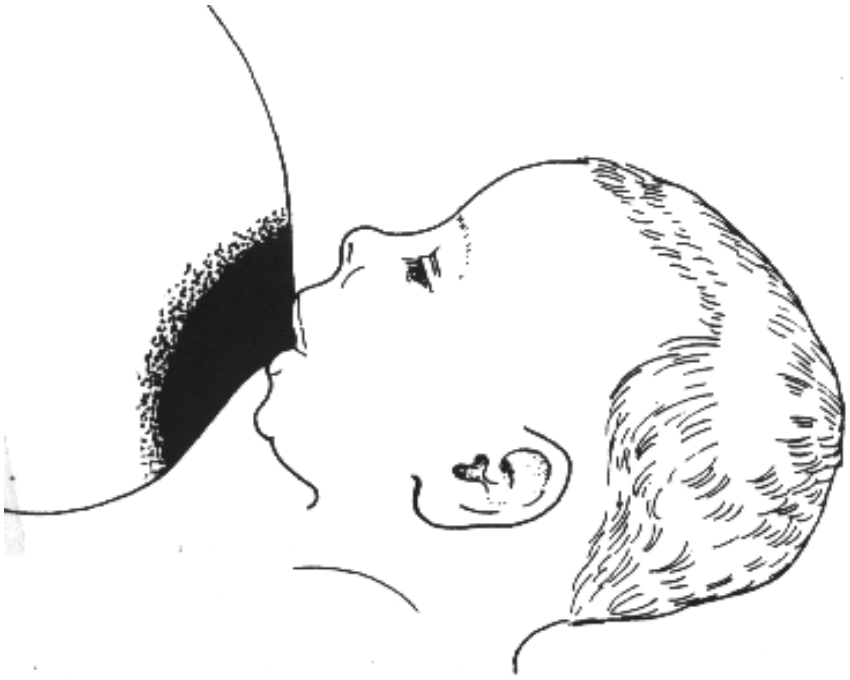


2

Results of poor attachment

- Painful nipples
- Damaged nipples
- Engorgement
- Baby unsatisfied and cries a lot
- Baby feeds frequently and for a long time
- Decreased milk production
- Baby fails to gain weight

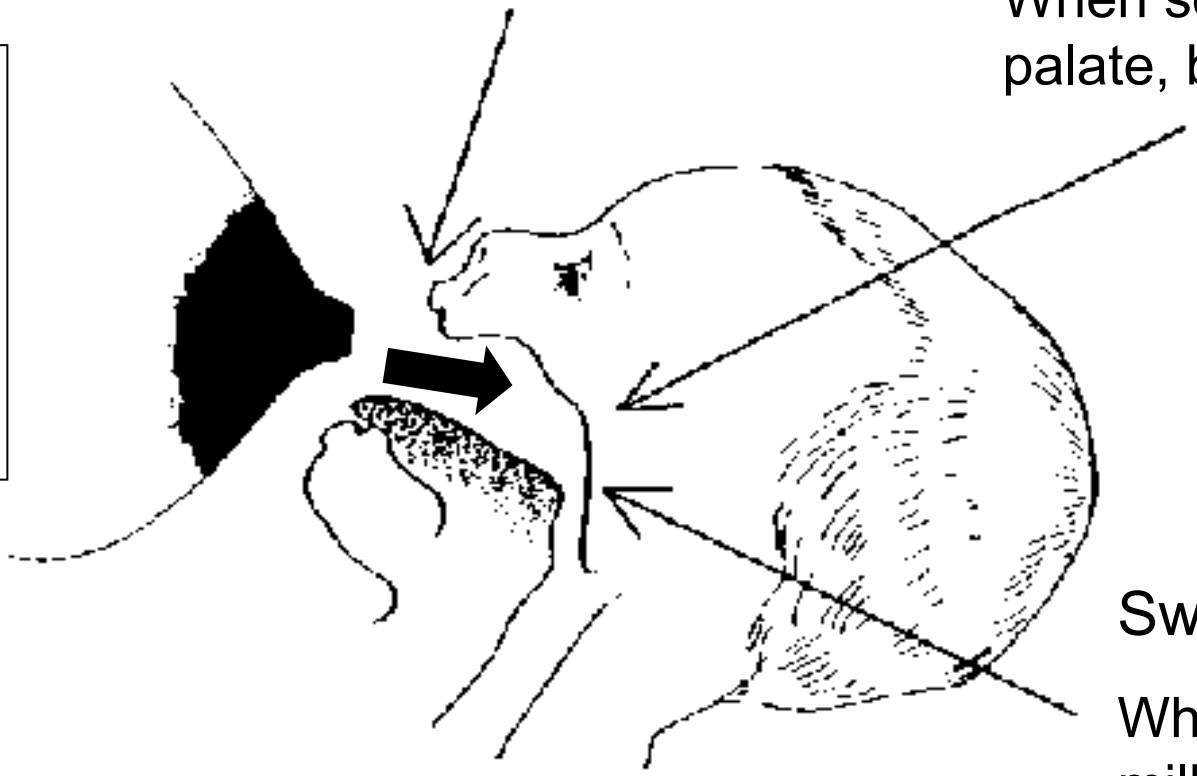
Reflexes in the baby

Rooting Reflex

When something touches lips, baby opens mouth, puts tongue down and forward

Sucking Reflex

When something touches palate, baby sucks



Skill

Mother learns to position baby

Baby learns to take breast

Swallowing Reflex

When mouth fills with milk, baby swallows

Assessing a breastfeed

After completing this session participants will be able to:

- explain the 4 key points of attachment
- assess a breastfeed by observing a mother and baby
- identify a mother who may need help
- recognize signs of good and poor attachment and positioning
- explain the contents and arrangement of the BREASTFEED OBSERVATION JOB AID

Introducing child growth assessment

After completing this session participants will be able to:

- Start a Growth Record for a child and select pages to use at a given visit
- Determine a child's age today
- Identify the correct charts to use (age and sex) on a given visit and where these charts are in the growth record

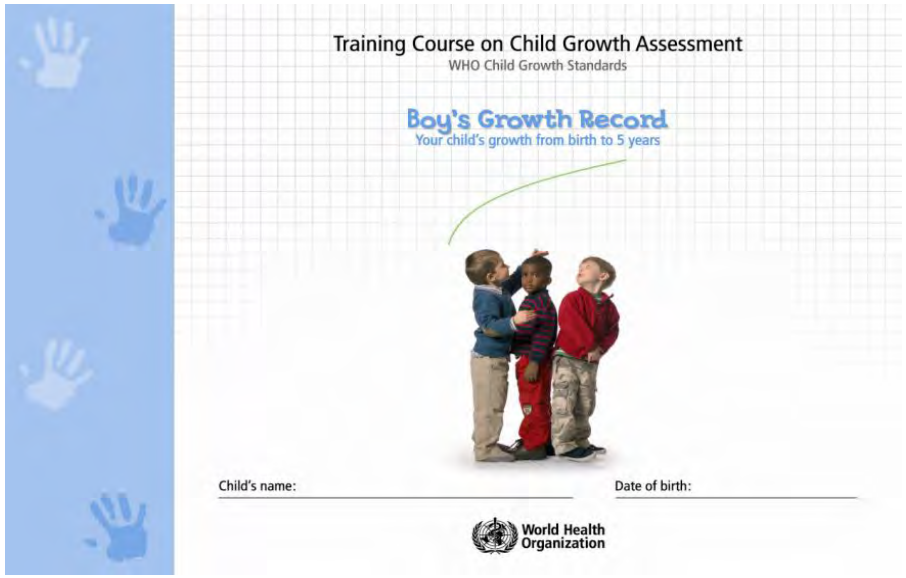
Child growth assessment I

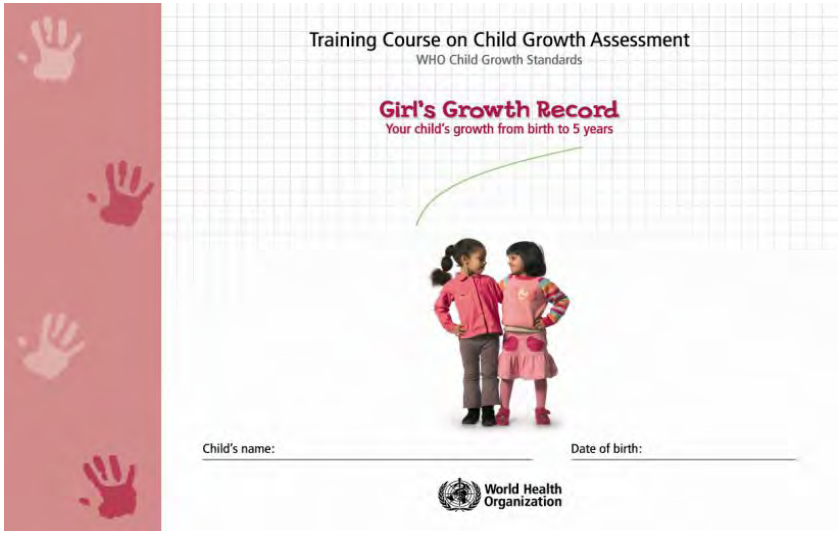
- Basic growth assessment involves measuring a child's weight and length/ height
- Measurements are then compared to growth standards
- **Why?** To determine whether child is growing normally, has a growth problem or trend towards a problem
- **Steps:** measure, plot, interpret, take action to address or prevent growth problems
- Correct measuring, plotting and interpreting essential to identify problems correctly

Child growth assessment II

- If there is a growth problem determine the causes
- Take action to address the causes of poor growth. Without appropriate action, programmes are ineffective in improving child health.
- In extreme poverty or emergencies, growth assessment aims to identify children who need urgent intervention, (therapeutic or supplementary feeding), to prevent death
- In health facility settings children with severe forms of undernutrition should be referred for specialized care
- Obese children need medical assessment and specialized management. Non-severe problems managed through counselling and age-appropriate advice on feeding and physical activity

The Child Growth Record





- Contains all of the charts needed to record and assess the growth of a child from birth up to 5 years of age

- A different *Growth Record* needed for boys and girls because boys and girls have different weights and lengths beginning at birth

Growth Record contents

- Personal data (pg 1)
- Visit notes (pp 6 -11)
- Special care (pg 12)
- Feeding recommendations (pp 13 -18)
- Food safety and hygiene (pg 20)
- Care for development (pp 21 -26)
- Growth charts (LH/A, WA, WL/H)
  - 0-6 mo (pp 29, 30, 31)
  - 6-24 mo (pp 33, 34, 35)
  - 2-5 y (pp 37, 38, 39)
- Gross motor milestones (page 41)

Start a new Growth Record

- Select a boy's or girl's record as appropriate
- Ensure the date of birth is correct
- Record measurements at birth (weight, length, head circumference)
- Later growth assessment depends on the correctness of birth date and measurements
- Other information will be entered later (birth of the next child, feeding history, any adverse events)

The child age calculator

- Important to know the precise child's age today in order to assess certain growth indicators
- Study the child age calculator
  - Circular 12-month calendar
  - Rotating disk
  - Age in completed weeks for the first three months
  - Age in completed months for 3-11 months
- To calculate age:
  - Work out completed years
  - Bold arrow points to the child's birthday
  - Locate today's date on stationary calendar
  - Count on rotating disk completed weeks/months since last birthday

Listening and learning

After completing this session participants will be able to:

- list the 6 listening and learning skills
- give an example of each skill
- demonstrate the appropriate use of the skills when counselling on infant and young child feeding

Measuring– It’s not so easy


FEED BACK


TRAINING COURSE
On Child
Growth Assessment
Dr. Hong Rathmony
PARTICIPANT


ShortBoard
unicef


SANTI


ShortBoard

Positioning a baby at the breast

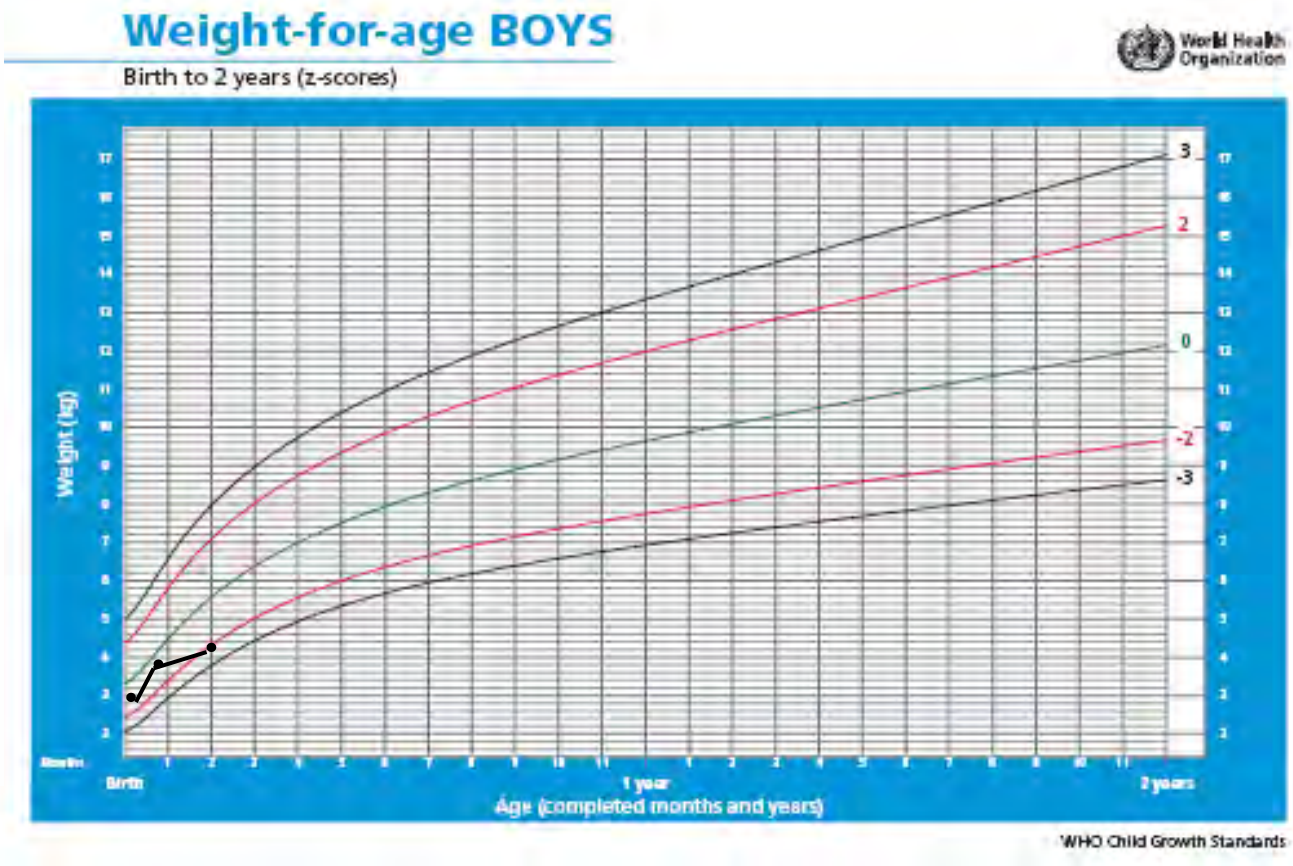
After completing this session participants will be able to:

- explain the 4 key points of positioning
- describe how a mother should support her breast for feeding
- demonstrate the main positions – sitting, lying, underarm and across
- help a mother to position her baby at the breast, using the 4 key points in different positions

Building confidence and giving support

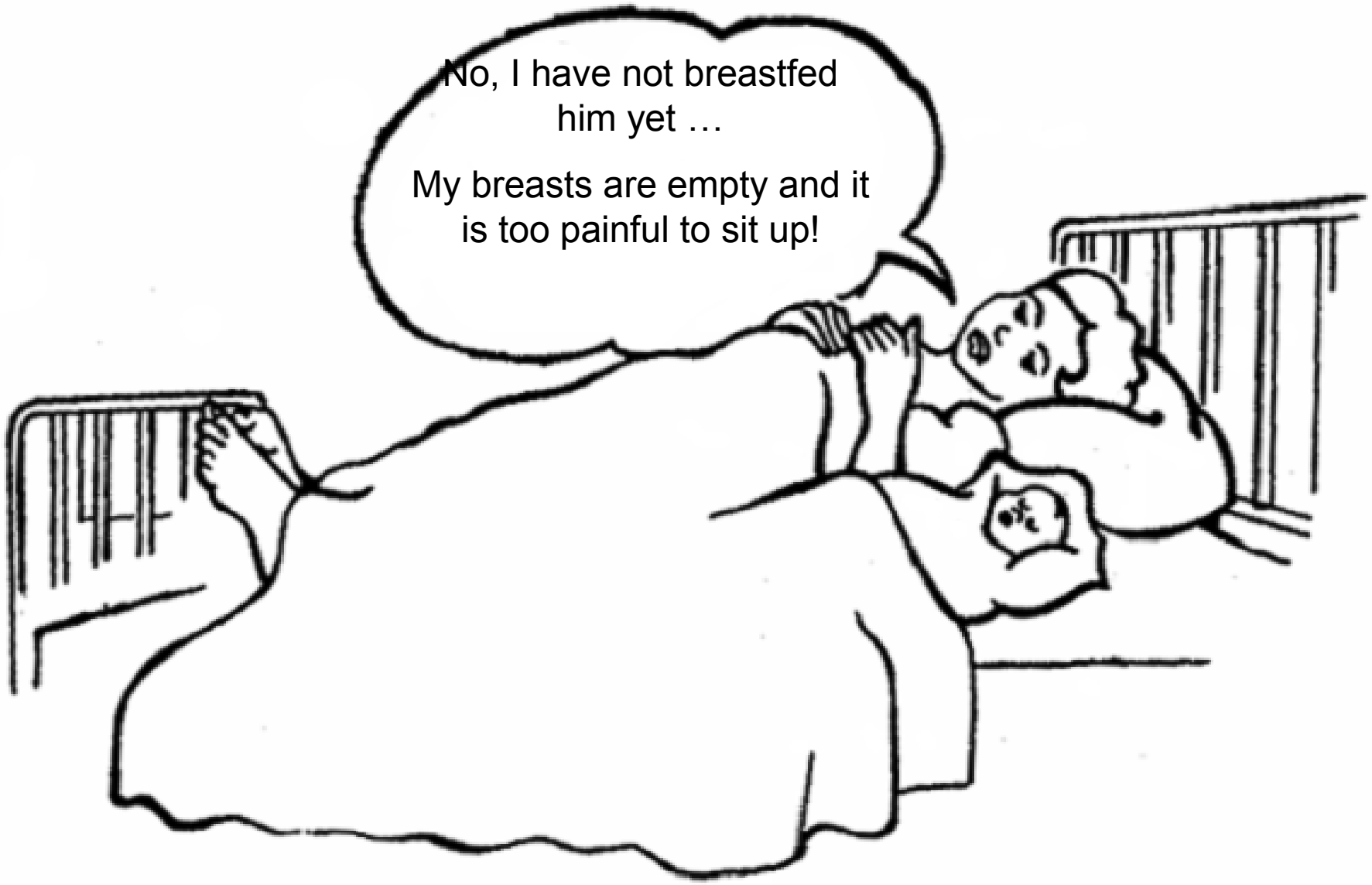
After completing this session participants will be able to:

- list the 6 confidence and support skills
- give an example of each skill
- demonstrate the appropriate use of the skills when counselling on infant and young child feeding


Weight-for-age BOYS
Birth to 2 years (z-scores)
World Health Organization
3
2
0
-2
-3
Weight (kg)
Birth
1 year
2 years
Age (completed months and years)
WHO Child Growth Standards

Which of these remarks will help to build the mother's confidence?

- "Your baby's growth line is going up too slowly."
- "I don't think your baby is gaining enough weight."
- "Your baby gained some weight last month just on your breast milk."


No, I have not breastfed him yet …
My breasts are empty and it is too painful to sit up!

Which response is more appropriate?

- “You should let your baby suckle now to help your breast milk to come in.”

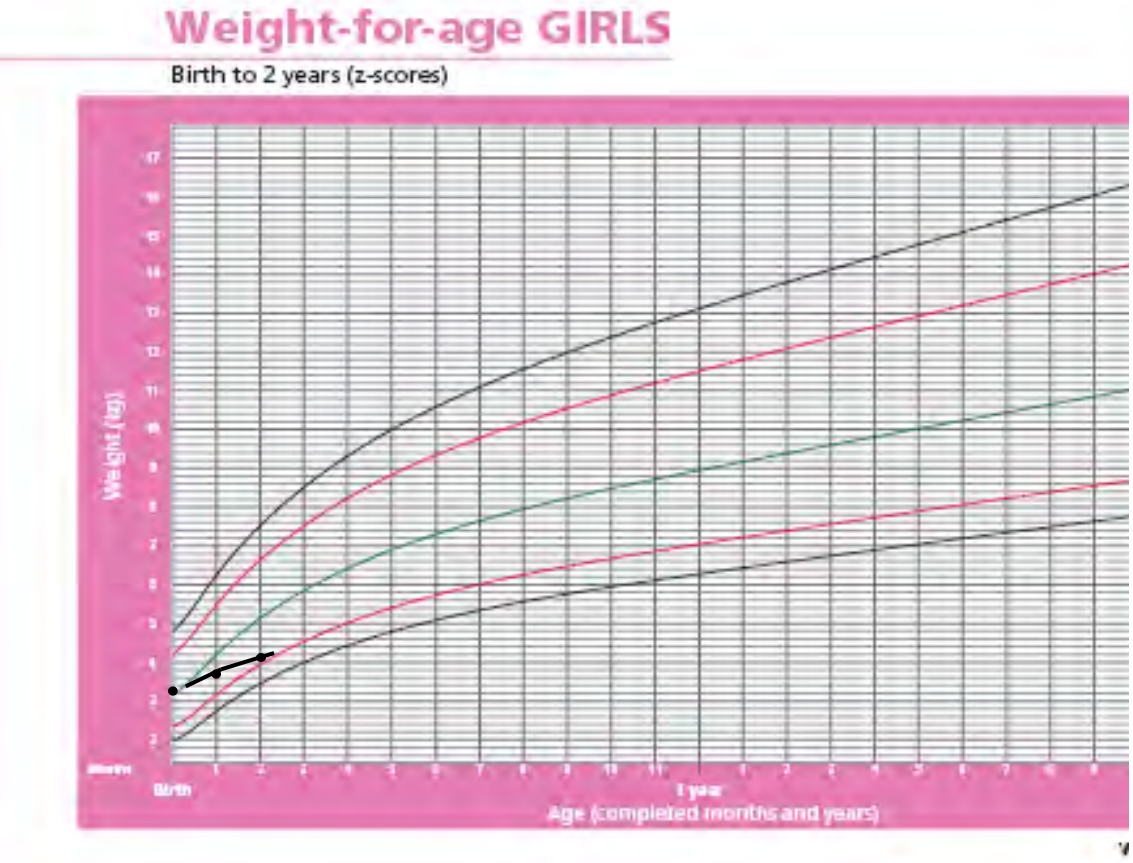
- “Let me try to make you more comfortable, and then I’ll bring you a drink.”


He has started to have loose stools.
Should I stop breastfeeding ?

Which response gives positive information?

- “It is good that you asked before deciding. Diarrhoea usually stops sooner if you continue to breastfeed.”

- “Oh no, don’t stop breastfeeding. He may get worse if you do that.”


Weight-for-age GIRLS
Birth to 2 years (z-scores)
Weight (kg)
Birth
1 year
Age (completed months and years)


I breastfeed Amy twice in the morning and twice in the evening …

Which of these responses is a command, and which is a suggestion?

- “You must feed Amy at least 10 times a day.”
- “It might help if you feed Amy more often.”

Plotting points for growth indicators

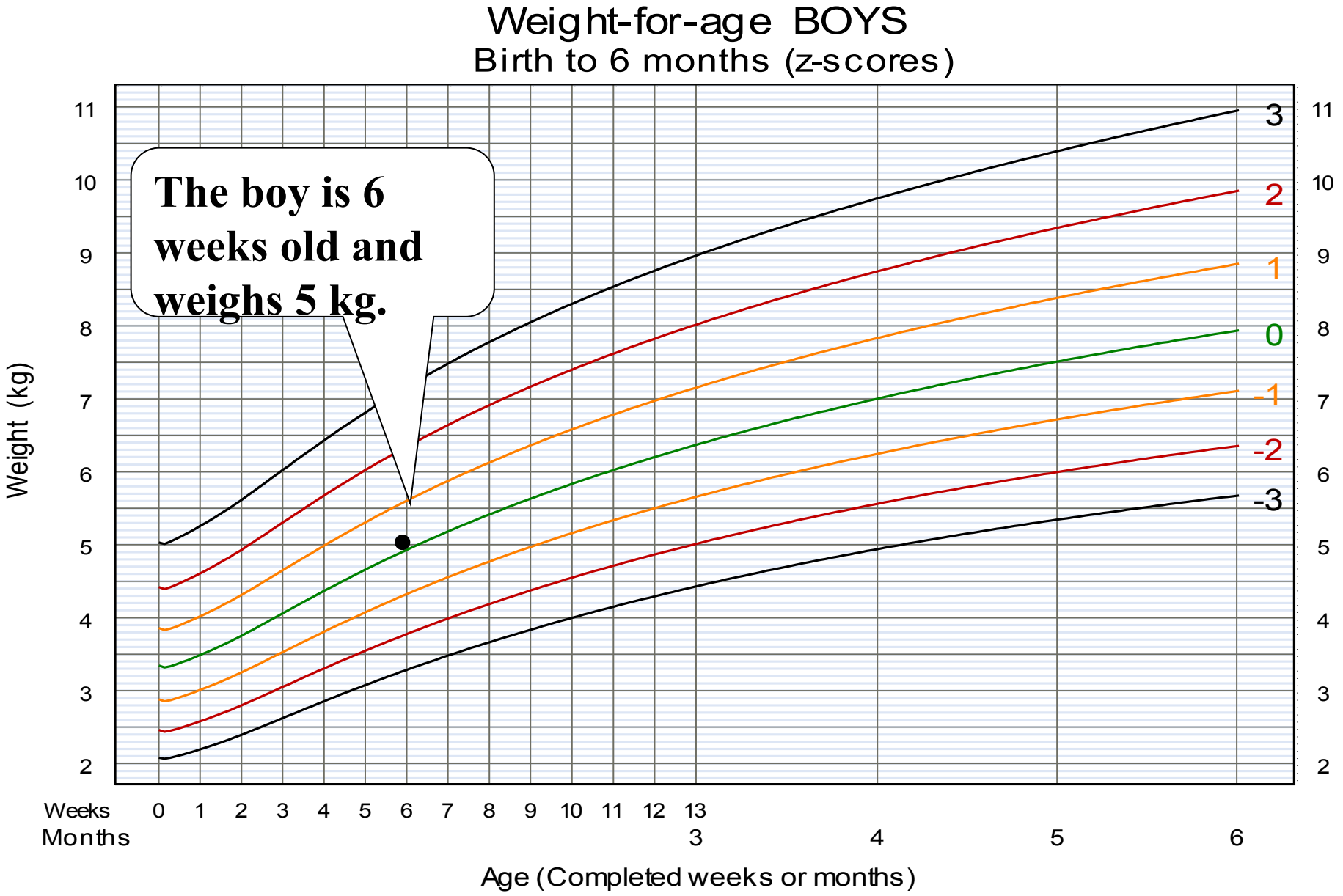
After completing this session participants will be able to:

- Identify axes on growth indicator charts
- Plot single points on height-for-age, weight-for-age and weight-for-height charts

Plot points for growth indicators

- Select charts in the Growth Record based on the child's age at this visit
- Is the child growing normally?
- Note plotting convention in this course
- The x-axis (horizontal)
- The y-axis (vertical)
- Plotted point

Example: plotted weight-for-age point



Plot length/height-for-age

- Indicator of stunting or excess height
- Length from 0 to 23 mo and height from 2 y
- Age on x-axis and length/height on y-axis
- Plot age **on** vertical line showing completed wk, mo, yr & mo, not in the middle
- Plot length/height **on or between** horizontal lines to closest estimated measurement
- Connect points from several visits to see trend
- Do the plotted points make sense?

Plot weight-for-age

- Indicator of underweight due to thinness or shortness
- Not used to classify overweight
- Not valid in case of oedema
- Age on x-axis and weight on y-axis
- Plot age on vertical line showing completed wk, mo, yr & mo, not in the middle
- Plot weight on or between horizontal lines to closest estimated measurement
- Connect points from several visits to see trend

Plot weight-for-length/height

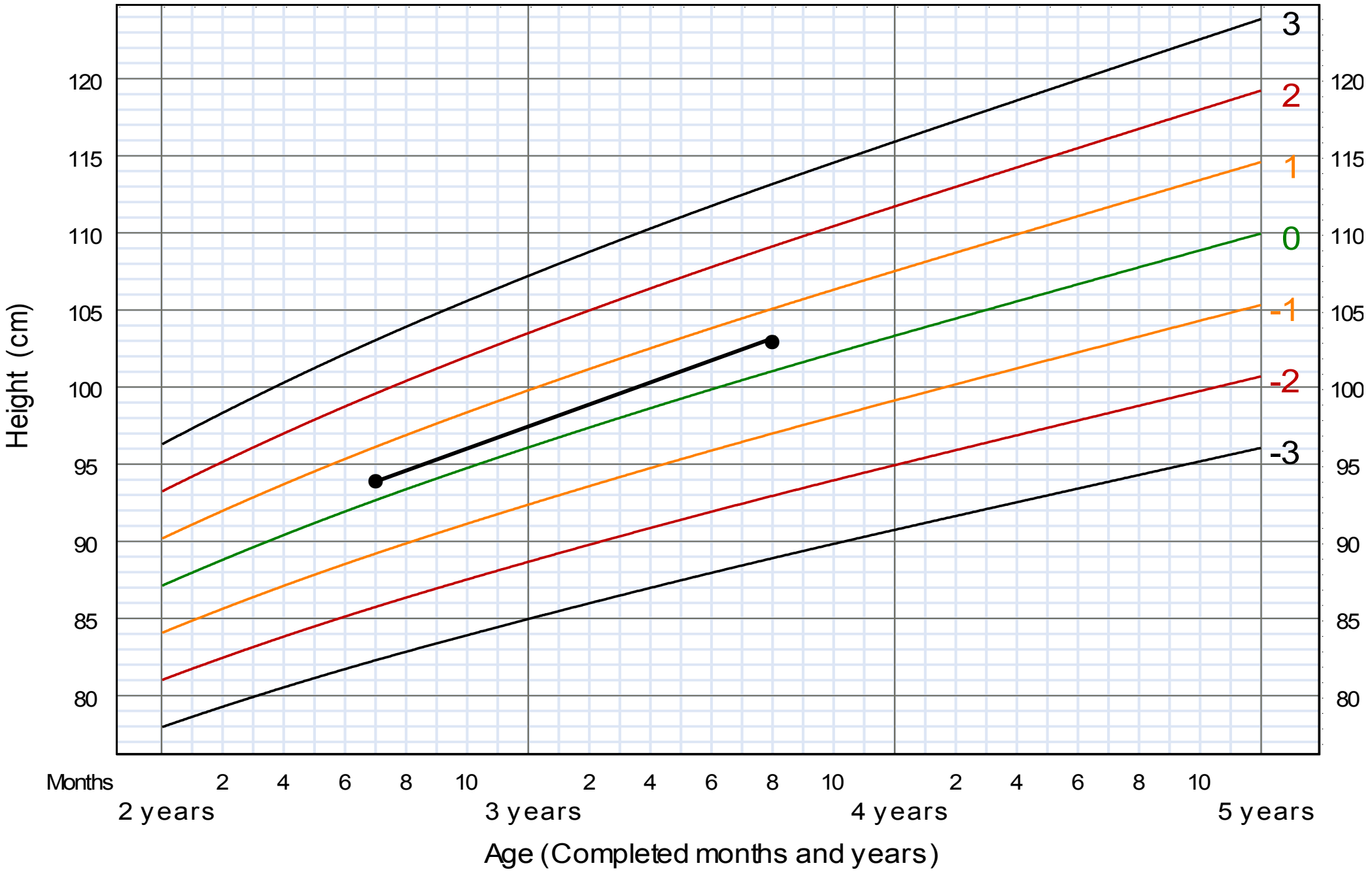
- Measure of weight in proportion to length/height
- Wasting – result of acute illness or food shortage that leads to severe weight loss
- WL/H also indicator of overweight/obesity
- Not valid in case of oedema
- Length/height on x-axis and weight on y-axis
- Plot L/H **on** a vertical line rounded up or down to the nearest whole cm
- Plot weight **on or between** horizontal lines to closest estimated measurement
- Connect points from several visits to see trend


Weight-for-age BOYS
6 months to 2 years (z-scores)
Overhead 1
Weight (kg)
17
16
15
14
13
12
11
10
9
8
7
6
3
2
1
0
-1
-2
-3
Months
6 7 8 9 10 11 1 2 3 4 5 6 7 8 9 10 11
1 year
2 years
Age (Completed months and years)

Height-for-age BOYS

2 to 5 years (z-scores)

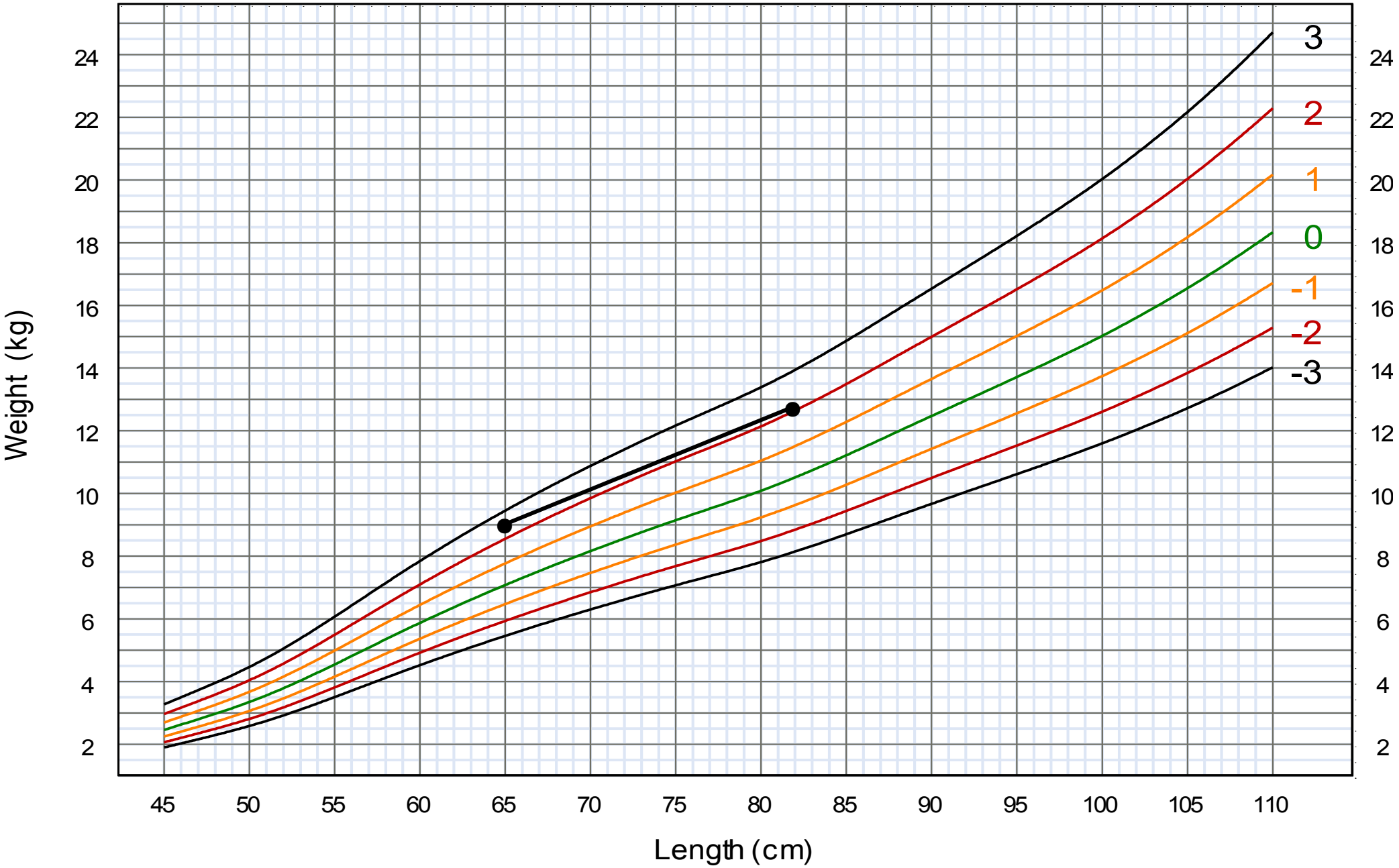
Overhead 2



Weight-for-length GIRLS

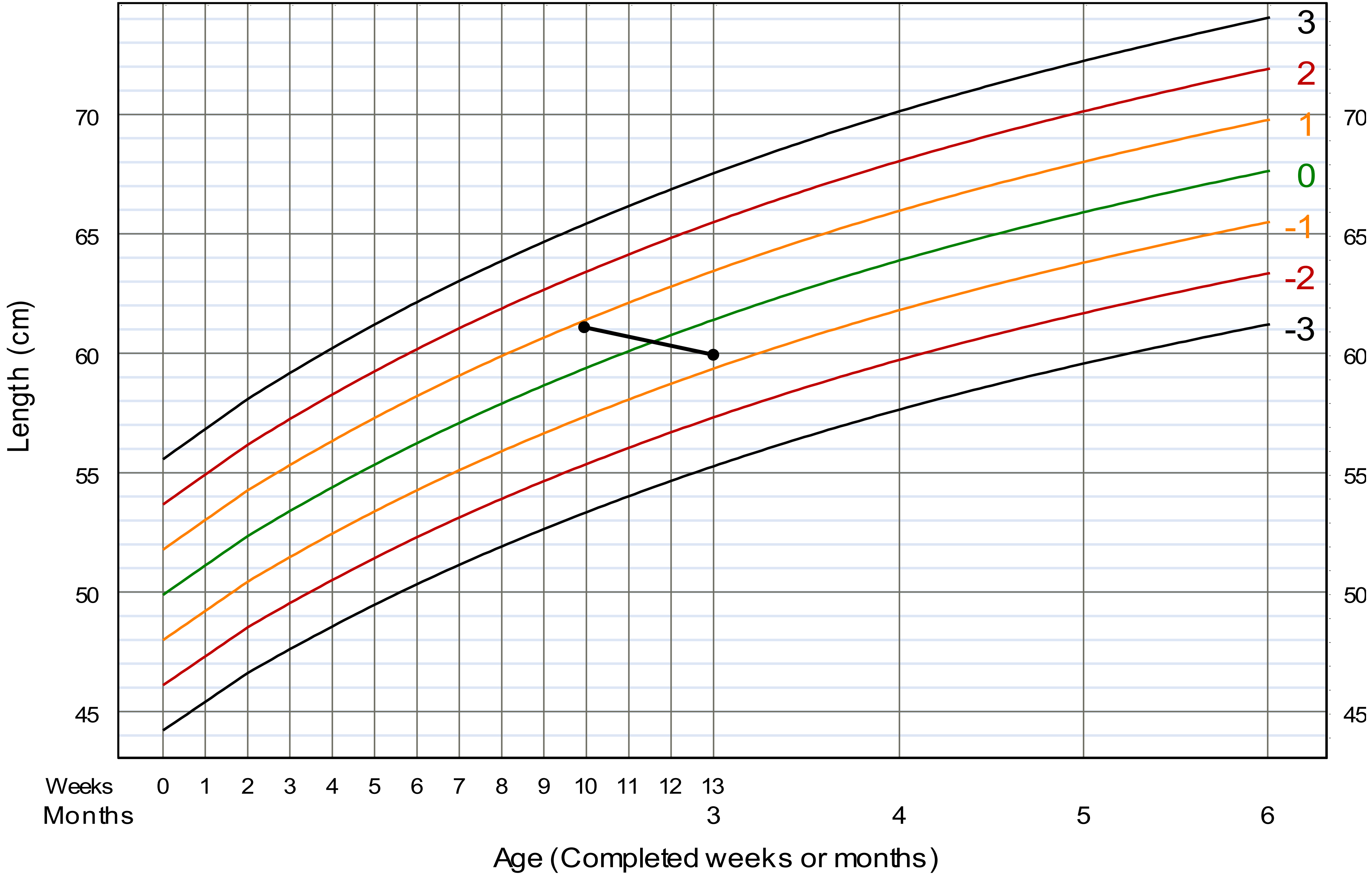
Birth to 2 years (z-scores)

Overhead 3



Length-for-age BOYS

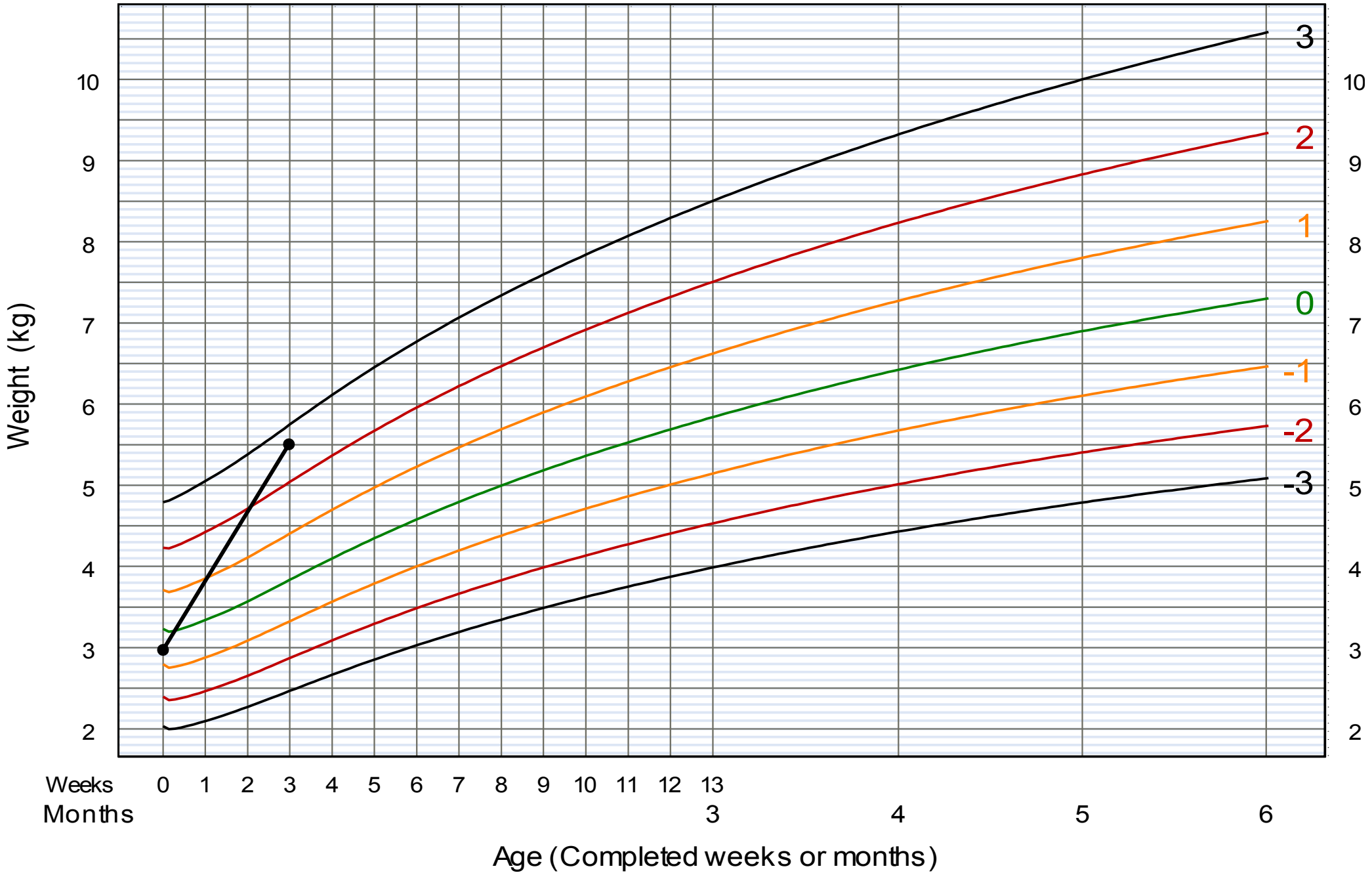
Birth to 6 months (z-scores)



Weight-for-age GIRLS

Birth to 6 months (z-scores)

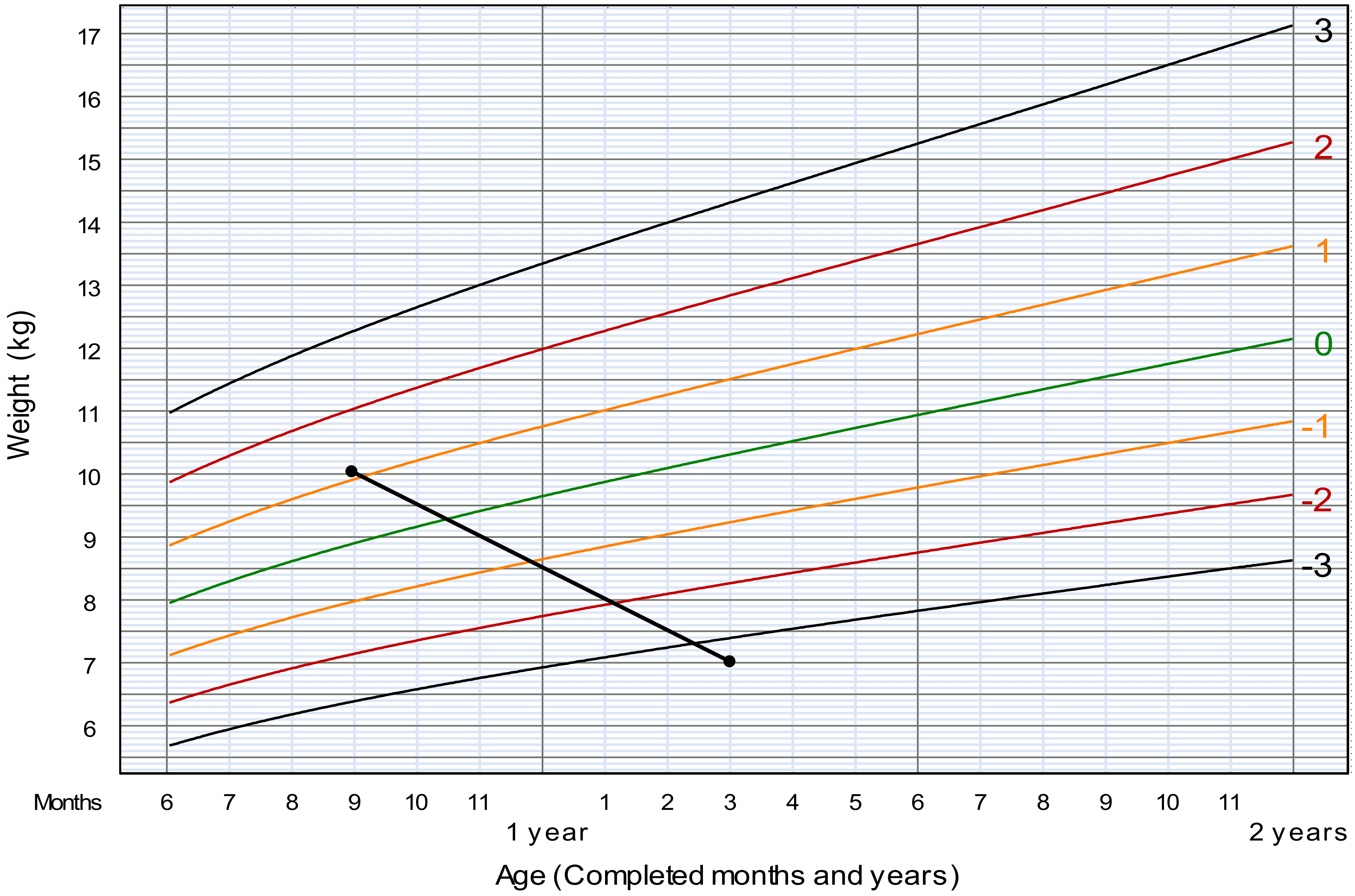
Overhead 6



Weight-for-age BOYS

6 months to 2 years (z-scores)

Overhead 7



Interpreting plotted points for growth indicators

After completing this session participants will be able to:

- Identify growth problems from plotted points on a single indicator chart
- Define a growth problem using several indicator charts and observations

Interpret plotted points for growth indicators

- Growth curves to help you interpret plotted points
- Median and z-score (standard deviation = SD) lines
- Positive and negative z-scores
- The farther from the median, the more likely that there is a growth problem
- Consider other facts when interpreting points (health condition, parent size, etc)

Identify growth problems from plotted points

- Review list of problems in each indicator chart
- stunted, severely stunted (length/height-for-age) - pp 29, 33, 37
- underweight, severely underweight (weight-for-age) - pp 30, 34, 38
- wasted, severely wasted (weight-for-length/height) - pp 31, 35, 39
- possible risk of overweight, overweight, obese (weight-for-length/height) - pp 31, 35, 39

Consider all growth charts and observations

- Consider all growth charts together: there may be a problem with one but not the others
- Low weight-for-age could be due to wasting or shortness: look at WL/H and LA when there is a problem with WA
- A stunted child may have a normal weight-for-height, but have low weight-for-age
- Weight-for-length/height is usable even when age is not known
- Looking at the growth charts all together is useful to determine nature of growth problems

Measurements for two girls

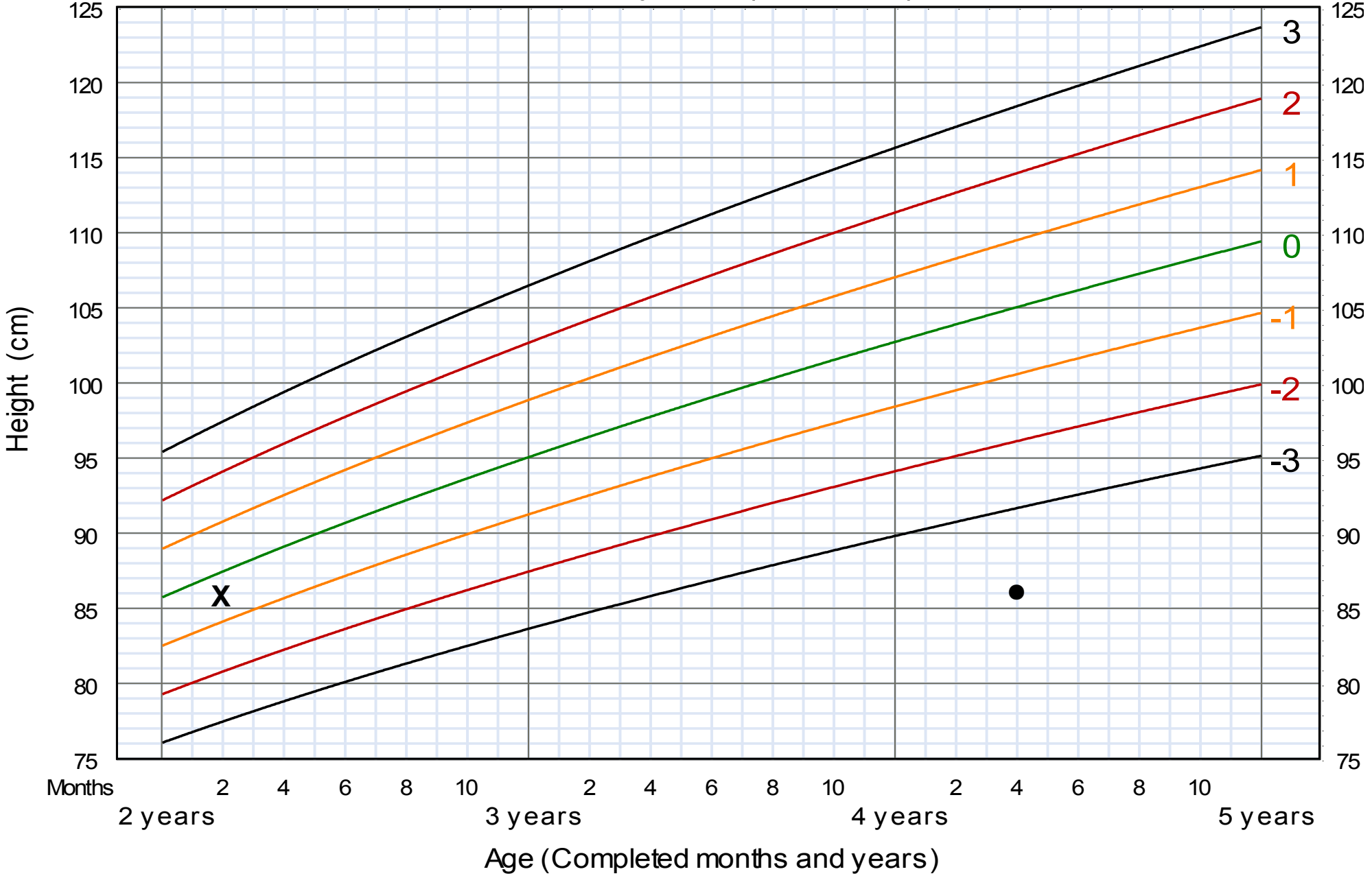
	Age	Height	Weight	BMI
Girl X	2 yr 2 mo	86 cm	12 kg	16.2
Girl ●	4 yr 4 mo	86 cm	12 kg	16.2

Overhead 9

15/6

Height-for-age GIRLS

2 to 5 years (z-scores)

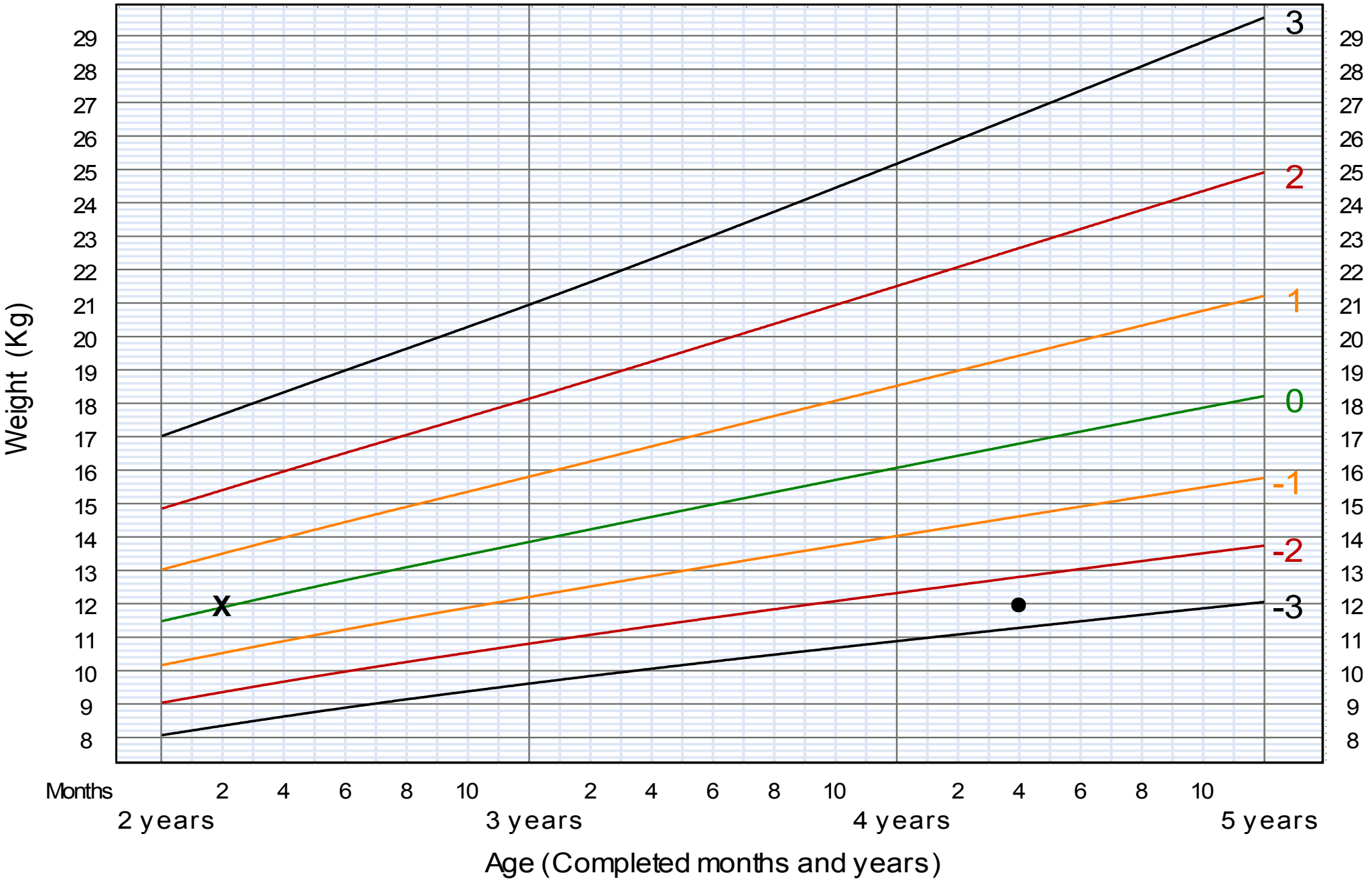


Overhead 10

Weight-for-age GIRLS

2 to 5 years (z-scores)

15/7

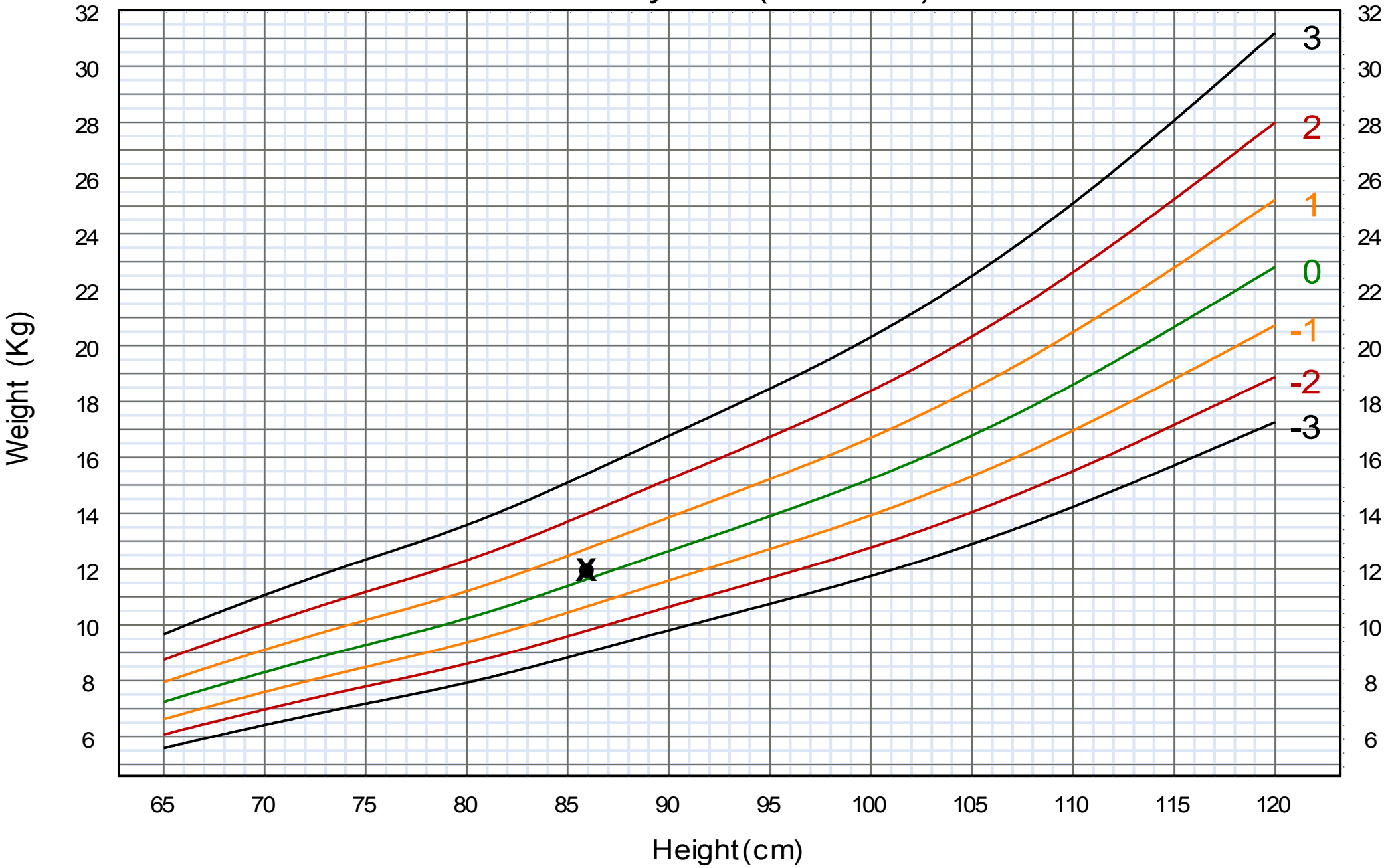


Overhead 11

Weight-for-height GIRLS

2 to 5 years (z-scores)

15/8



Interpreting trends on growth charts

After completing this session participants will be able to:

- Interpret trends on growth charts
- Determine whether a child is growing normally, has a growth problem or is at risk of a growth problem

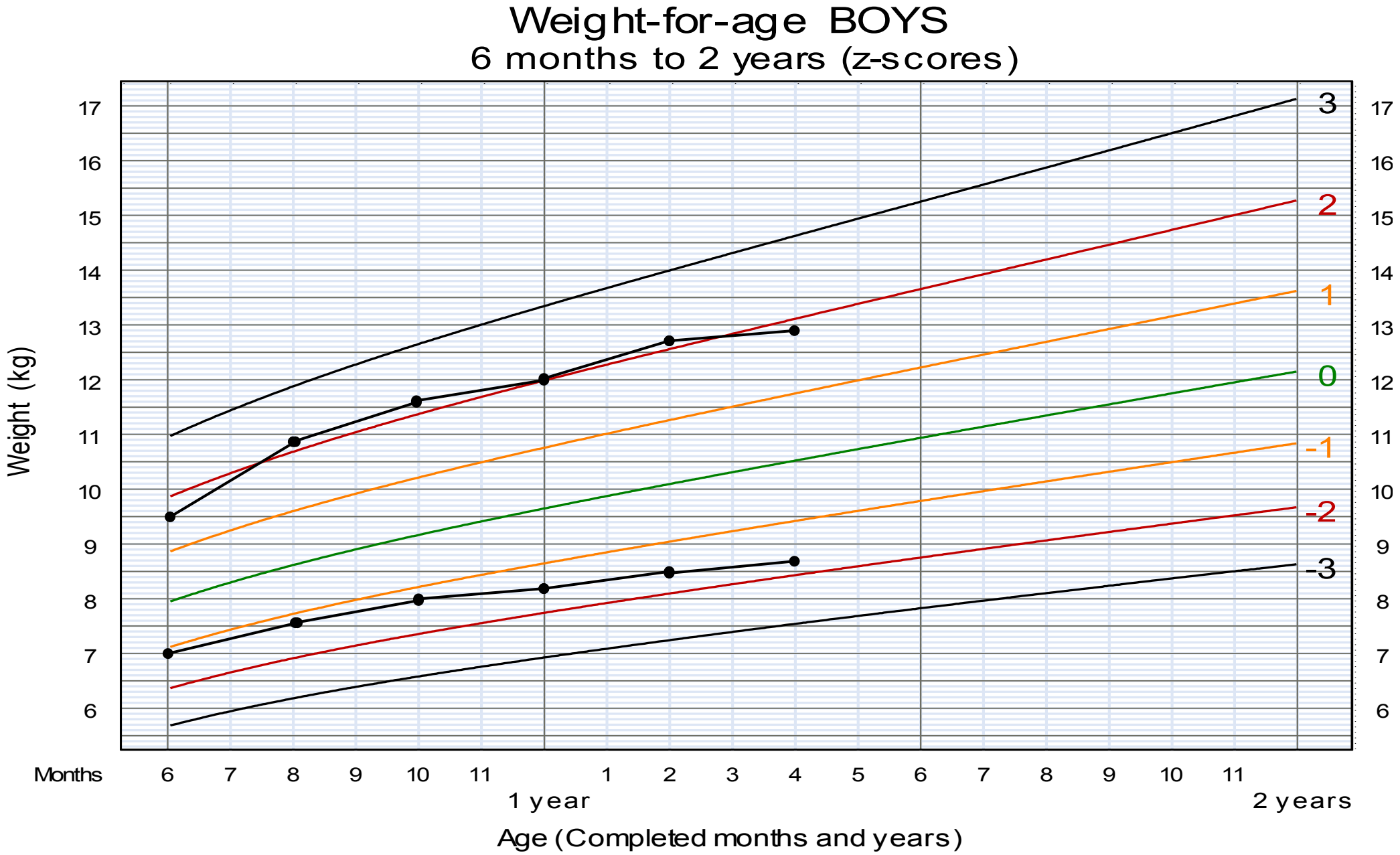
Interpret trends on growth charts

- Points from several visits show trends of normal growth, an existing problem or risk of a problem
- "Normal" growth generally runs parallel to the z-score lines (tracking)
- Look out when a growth lines crosses z-score lines, inclines/declines sharply or remains flat
- Risk depends on where the line originates
- Consider the child's whole situation when interpreting trends

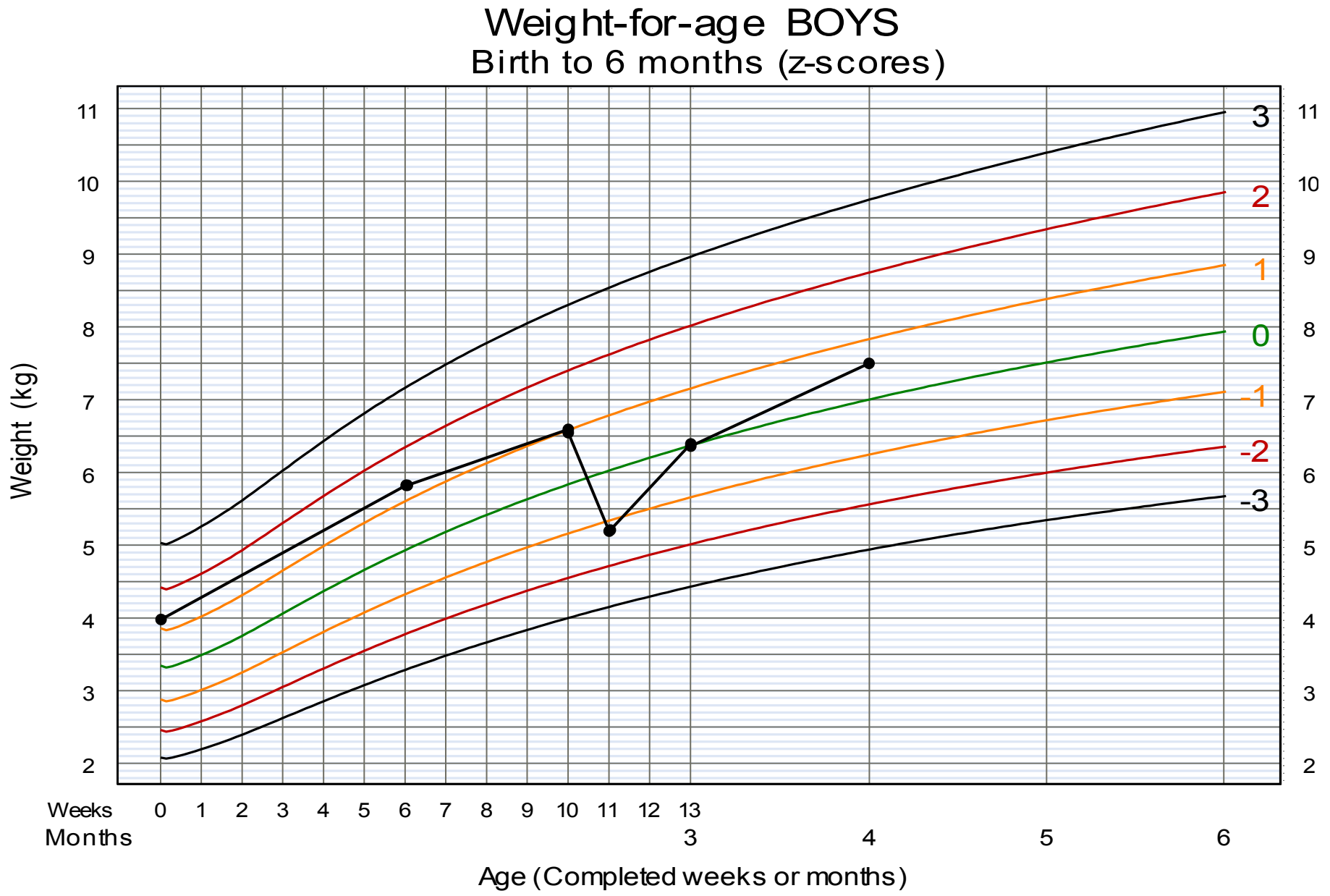
Crossing z-score lines

- Growth lines that cross z-score lines (not just those that are labelled on the chart) indicate possible risk.
- Children who are growing and developing normally will generally be on or between -2 and 2 z-scores of a given indicator.
- The growth of an individual child plotted over time is expected to track fairly close to the same z-score

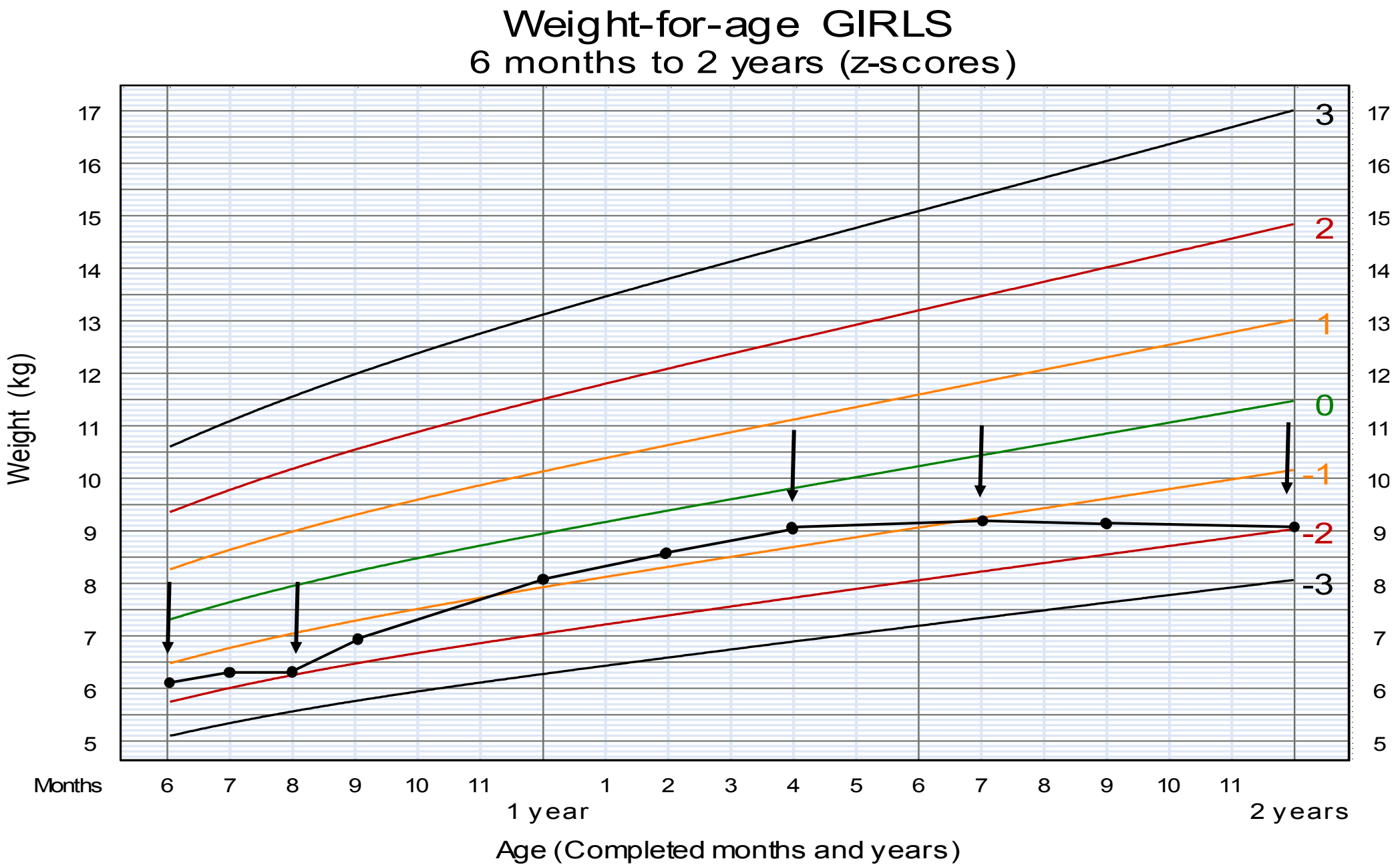
Example: crossing z-score lines



Sharp incline or decline - Farhan



Flat growth line (stagnation) - Malini

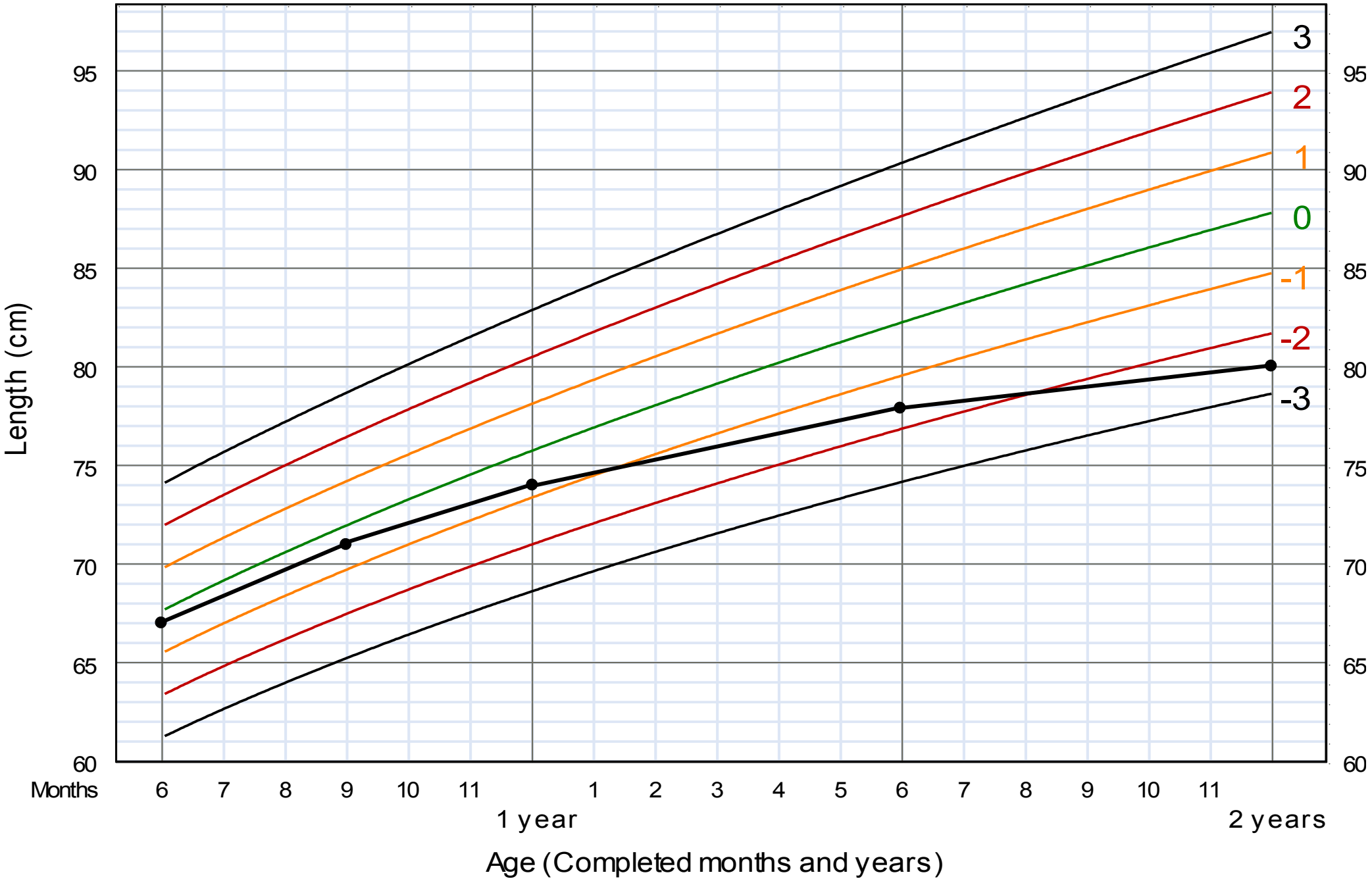


Flat growth line (catch-down) - Kadira

Overhead 13
Ben

Length-for-age BOYS

6 months to 2 years (z-scores)

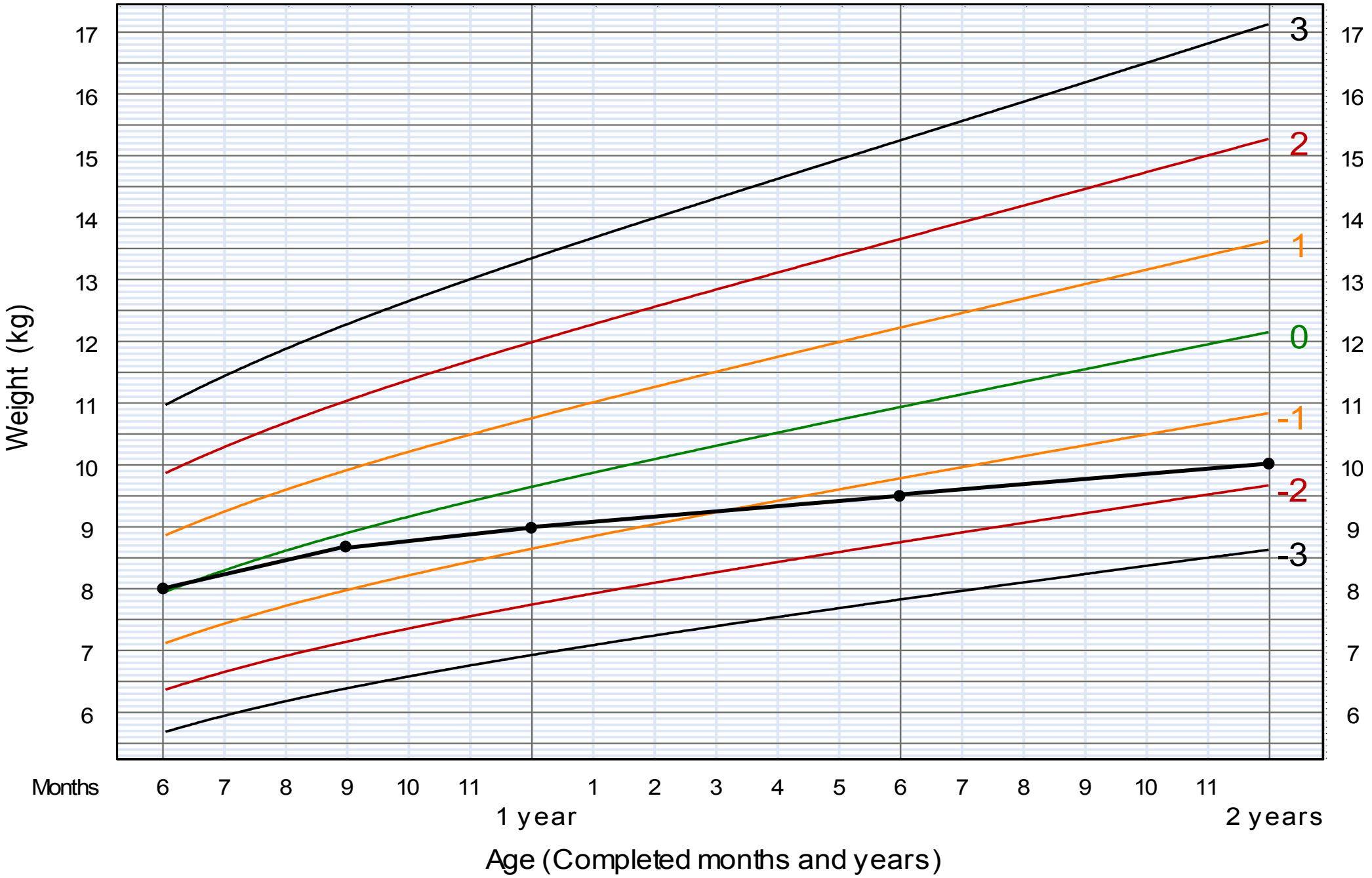


Overhead 14
Ben

Weight-for-age BOYS

6 months to 2 years (z-scores)

17/9

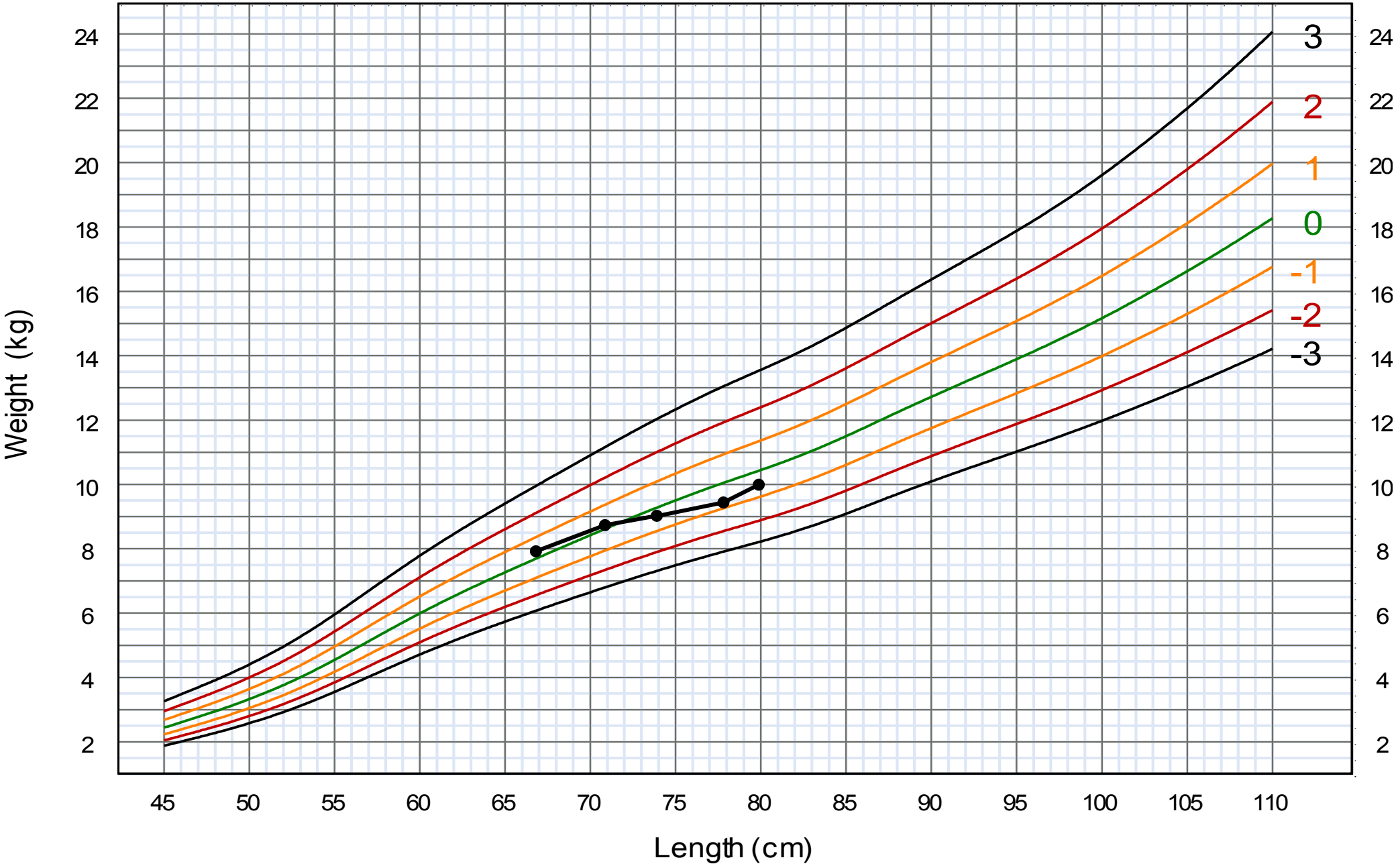


Overhead 15
Ben

Weight-for-length BOYS

Birth to 2 years (z-scores)

17/10

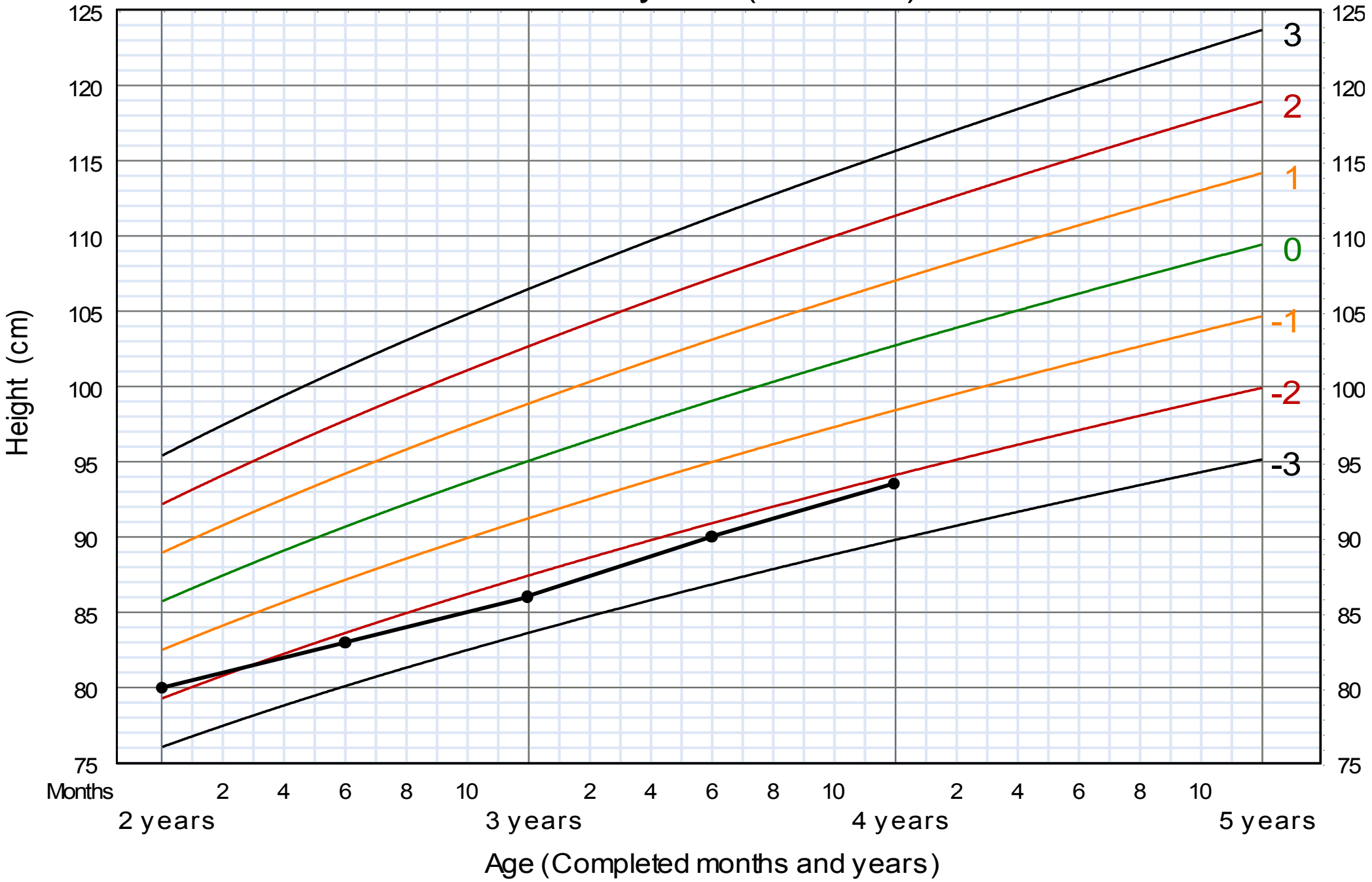


Overhead 17
Delia

Height-for-age GIRLS

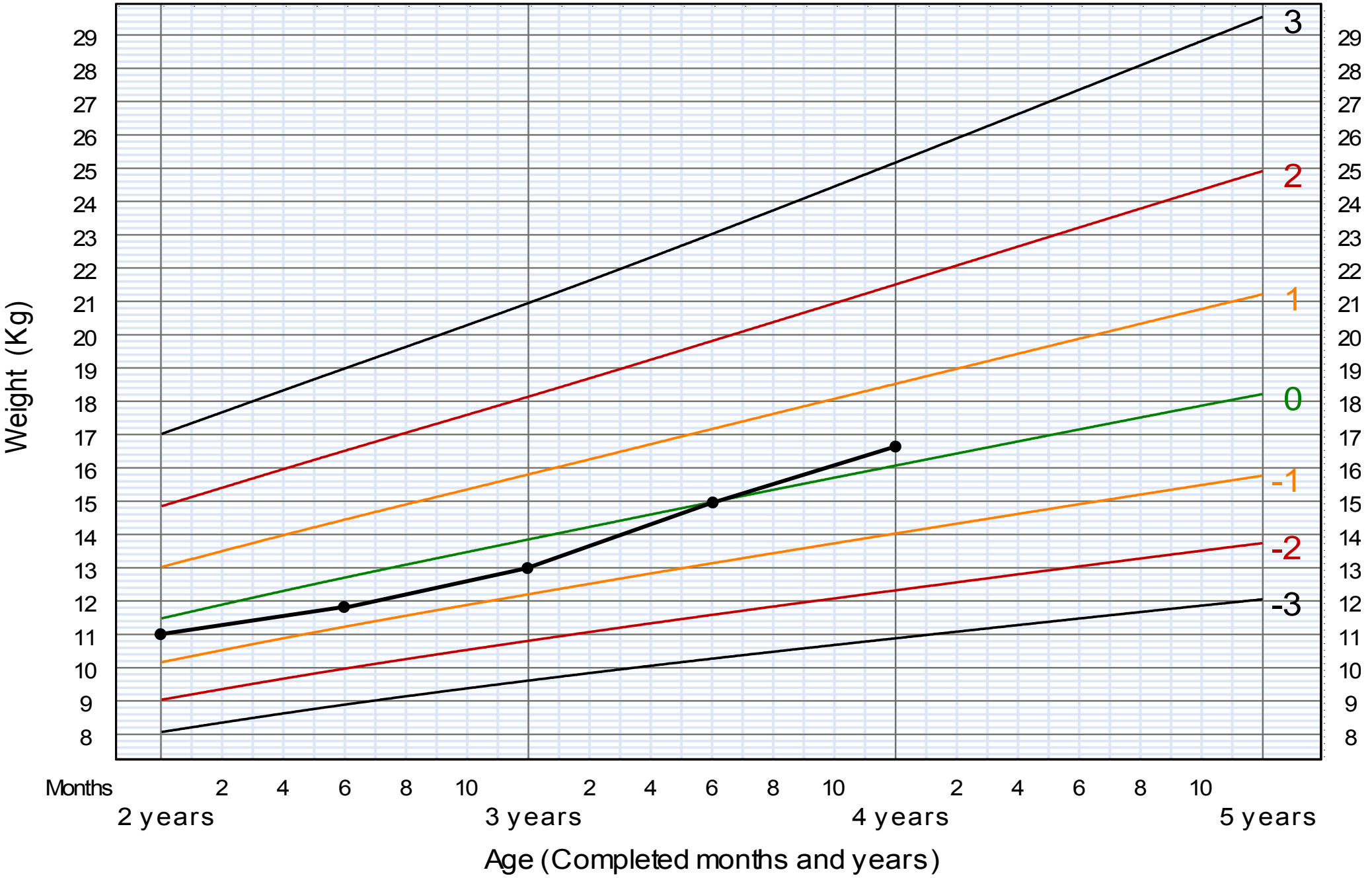
2 to 5 years (z-scores)

17/11



Weight-for-age GIRLS

2 to 5 years (z-scores)

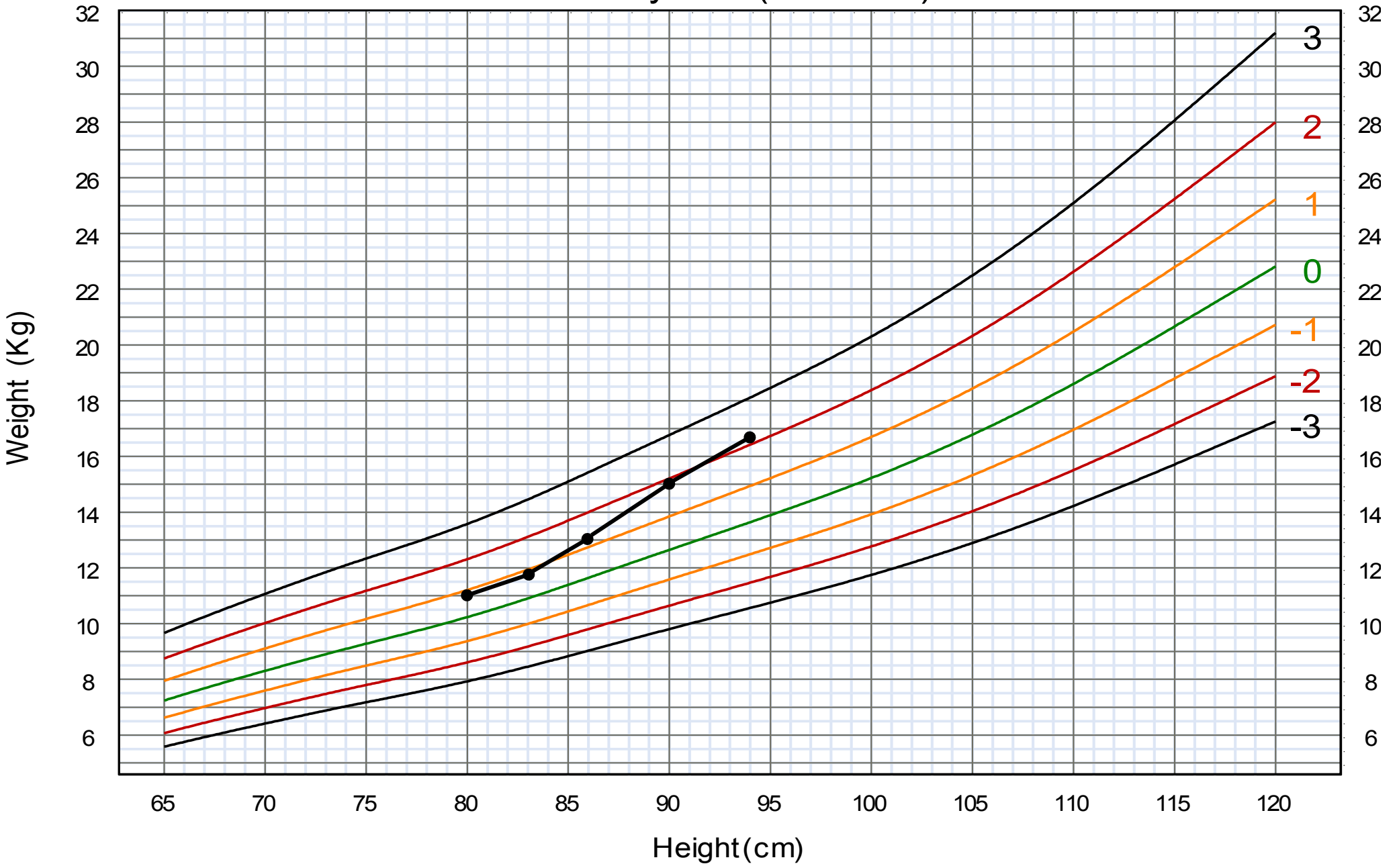


Overhead 19
Delia

Weight-for-height GIRLS

2 to 5 years (z-scores)

17/13



Taking a feeding history

After completing this session participants will be able to:

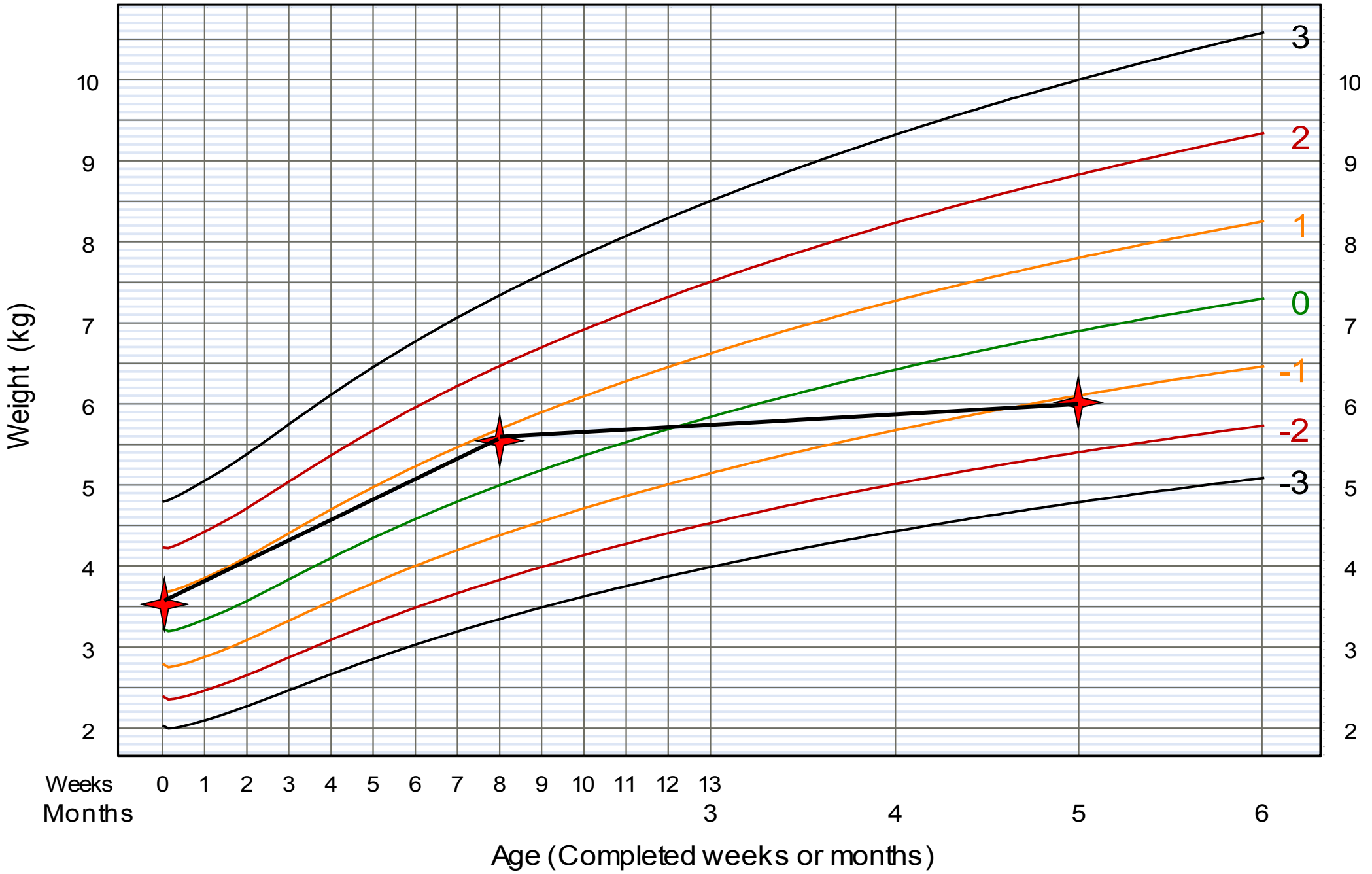
- take a feeding history of an infant 0-6 months

- demonstrate appropriate use of the FEEDING HISTORY JOB AID, 0-6 MONTHS

Demonstration 18.A
Lucy

Weight-for-age GIRLS

Birth to 6 months (z-scores)



Common breastfeeding difficulties

After completing this session participants will be able to identify causes of, and help mothers with, the following difficulties:

- ‘not enough milk’
- a crying baby
- breast refusal

‘Not enough milk’

- This is one of commonest reasons for stopping breastfeeding
- Usually when a mother **thinks** she does not have enough breast milk, her baby is getting all he needs
- Sometimes a baby does **not** get enough breast milk. But this is usually because of ineffective suckling. It is rarely because his mother cannot produce enough

Reliable signs that a baby is not getting enough milk

Poor weight gain

Small amount of concentrated urine

- less than 6 times per day

Possible signs that a baby is not getting enough breast milk

- Baby not satisfied after breastfeeds
- Baby cries often
- Very frequent breastfeeds
- Very long breastfeeds
- Baby refuses to breastfeed
- Baby has hard, dry, or green stools
- Baby has infrequent small stools
- No milk comes out when mother expresses
- Breasts did not enlarge (during pregnancy)
- Milk did not ‘come in’ (after delivery)

Reasons why babies refuse to breastfeed

- Baby ill, sedated or in pain
- Difficulty with breastfeeding technique
- Change which upsets the baby
- Apparent, not real, refusal

Expressing breast milk and cup feeding

After completing this session participants will be able to:

- list the situations when expressing breast milk is useful
- explain how to stimulate the oxytocin reflex
- demonstrate how to select and prepare a container for expressed breast milk
- describe how to store breast milk
- explain to a mother the steps of expressing breast milk by hand
- list the advantages of cup-feeding
- demonstrate how to cup-feed safely

Breast conditions

After completing this session participants will be able to recognize and manage these common breast conditions:

- flat and inverted nipples
- engorgement
- blocked duct and mastitis
- sore nipples and nipple fissure


1
2

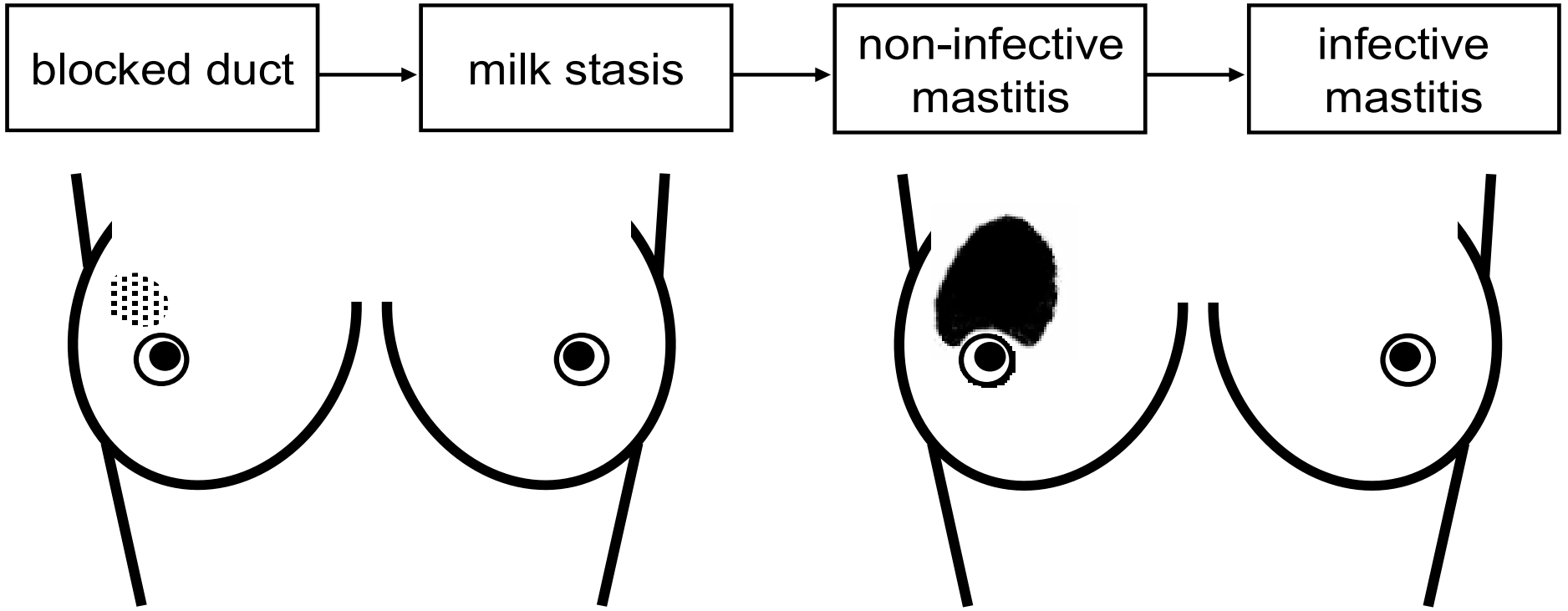
Management of flat and inverted nipples

- Antenatal treatment is not helpful
- Build the mother’s confidence
- Help the mother to position her baby
- If a baby cannot suckle effectively in the first week or two help his mother to feed with expressed milk


1


21/6
2

Symptoms of blocked duct and mastitis



- Lump
- Tender
- Localised redness
- No fever
- Feels well

Progresses to

- Hard area
- Feels pain
- Red area
- Fever
- Feels ill

Causes of blocked duct and mastitis

Poor drainage of whole breast:

- infrequent feeds
- short feeds

Poor drainage of part of breast:

- ineffective suckling
- pressure from clothes
- pressure from fingers during feeds

Treatment of blocked duct and mastitis

- Most important – improve drainage of milk
- Look for cause and correct
- Suggest:
    - frequent feeds
    - gentle massage towards nipple
    - warm compresses
    - Start feed on unaffected side; vary position
- Antibiotics, analgesics, rest


1


2

Importance of complementary feeding

After completing this session participants will be able to:

- explain the importance of continuing breastfeeding
- define complementary feeding
- explain why there is an optimal age for children to start complementary feeding
- list the Key Messages from this session
- list their current complementary feeding activities

Key Message 1

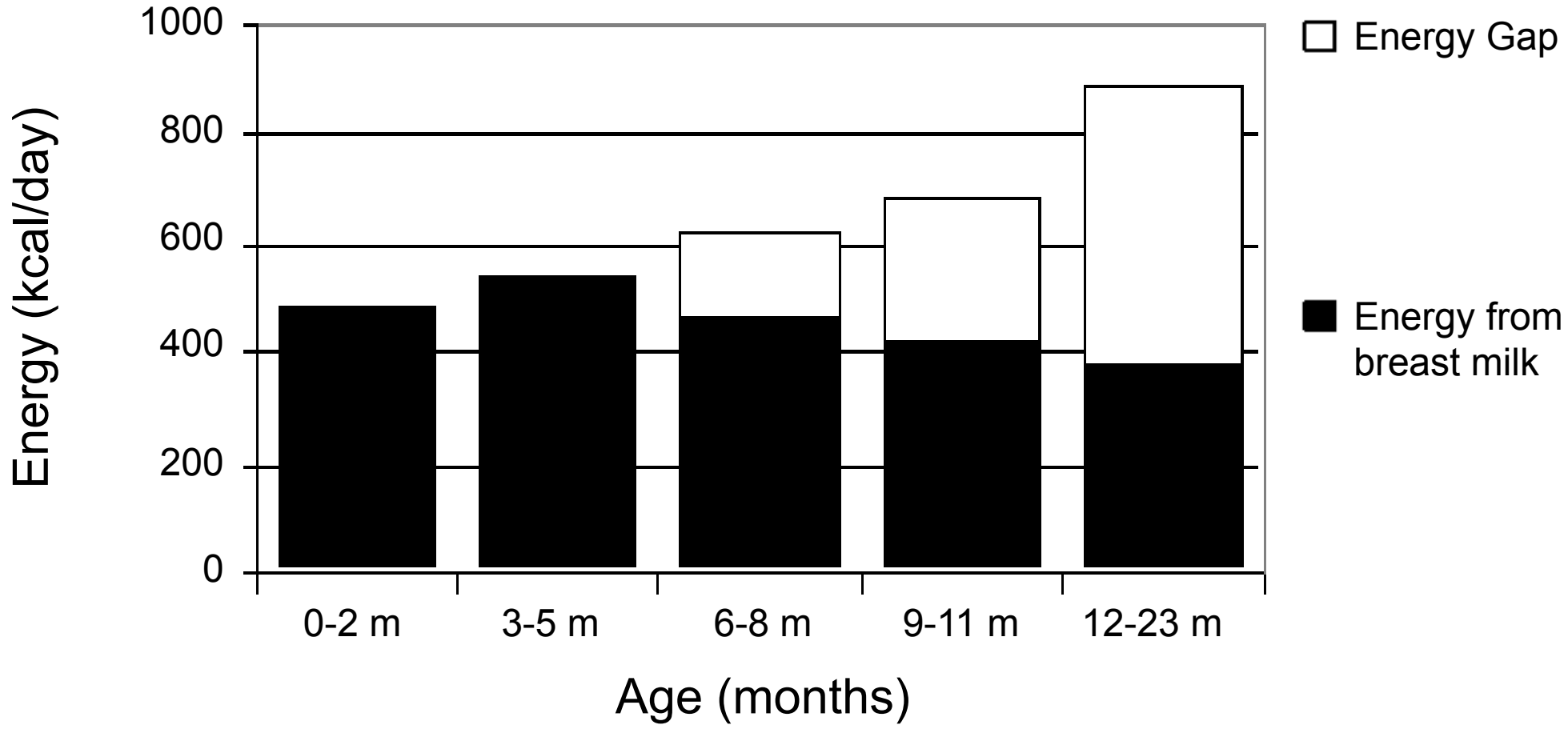
Breastfeeding for two years or longer helps a child to develop and grow strong and healthy

Definition of complementary feeding

- Complementary feeding means giving other foods in addition to breast milk

- These other foods are called complementary foods

Energy required by age and the amount supplied from breast milk



Key Message 2

Starting other foods in addition to breast milk at 6 completed months helps a child to grow well

Key Message 2

Starting other foods in addition to breast milk at 6 completed months helps a child to grow well

Starting other foods too soon

Adding foods too soon may

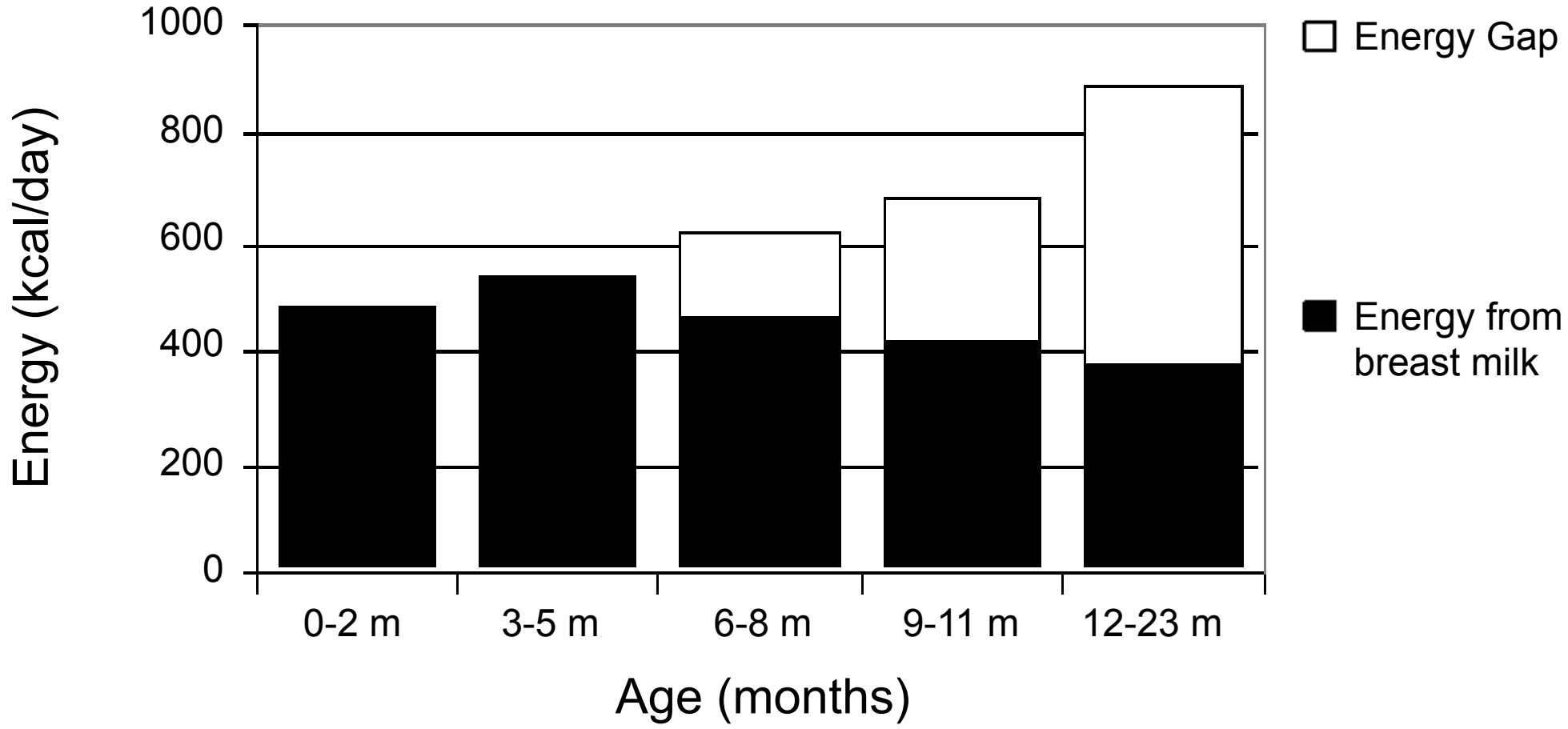
- take the place of breast milk
- result in a low nutrient diet
- increase risk of illness
  - less protective factors
  - other foods not as clean
  - difficult to digest foods
- increase mother’s risk of pregnancy

Starting other foods too late

Adding foods too late may

- result in child not receiving required nutrients
- slow child’s growth and development
- risk causing deficiencies and malnutrition

Energy required by age and the amount supplied from breast milk



Foods to fill the energy gap

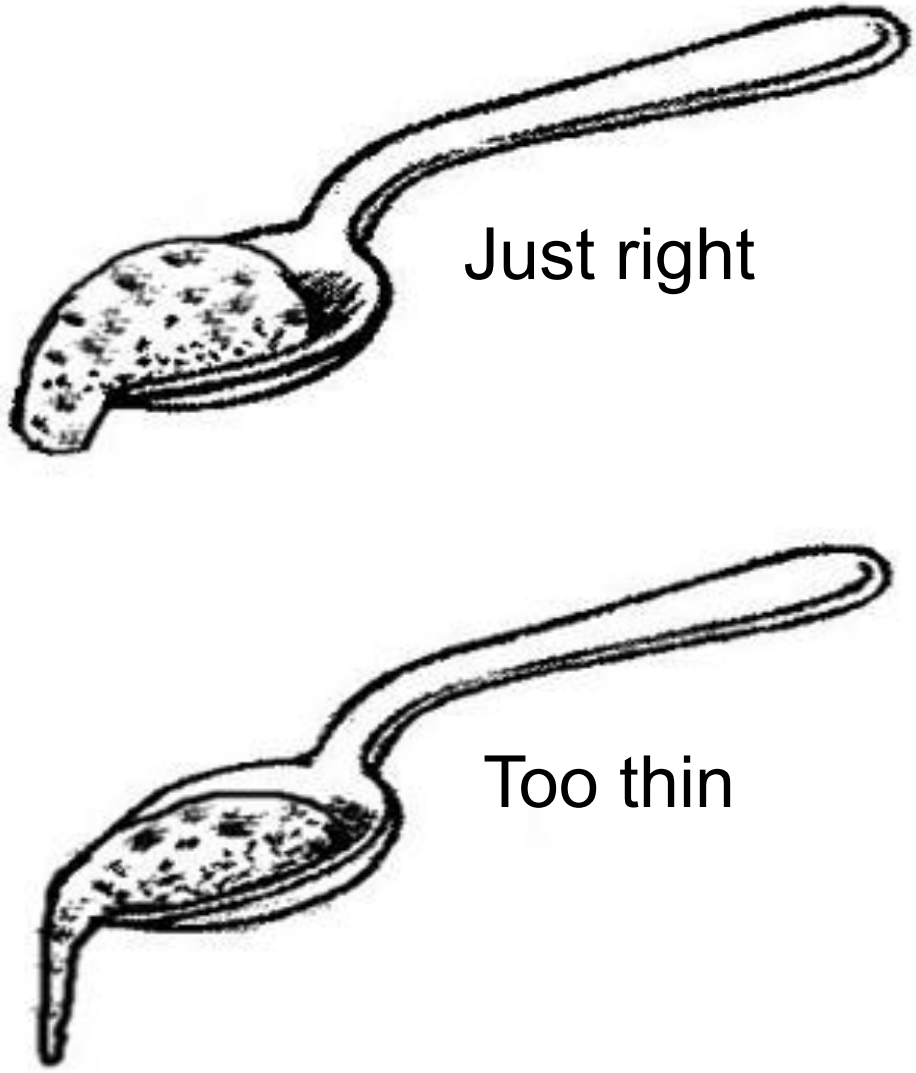
After completing this session participants will be able to:

- list the local foods that can help fill the energy gap
- explain the reasons for recommending using foods of a thick consistency
- describe ways to enrich foods
- list the Key Message from this session

Stomach size

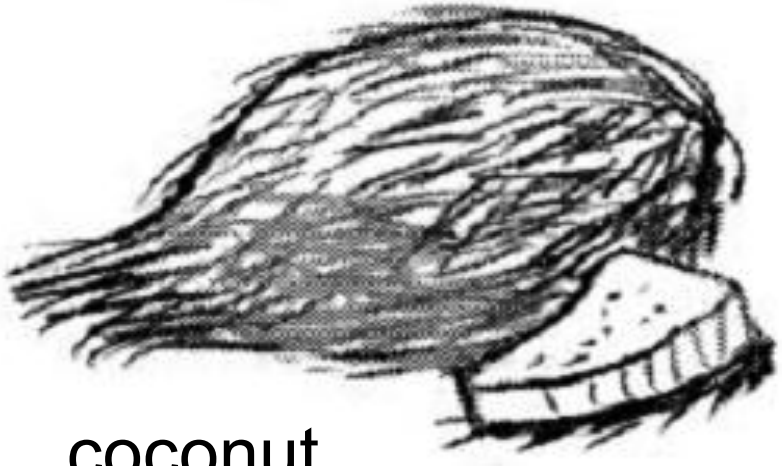
Key Message 3

Foods that are thick enough to stay in the spoon give more energy to the child



Fats and oils

butter / margarine / ghee



coconut

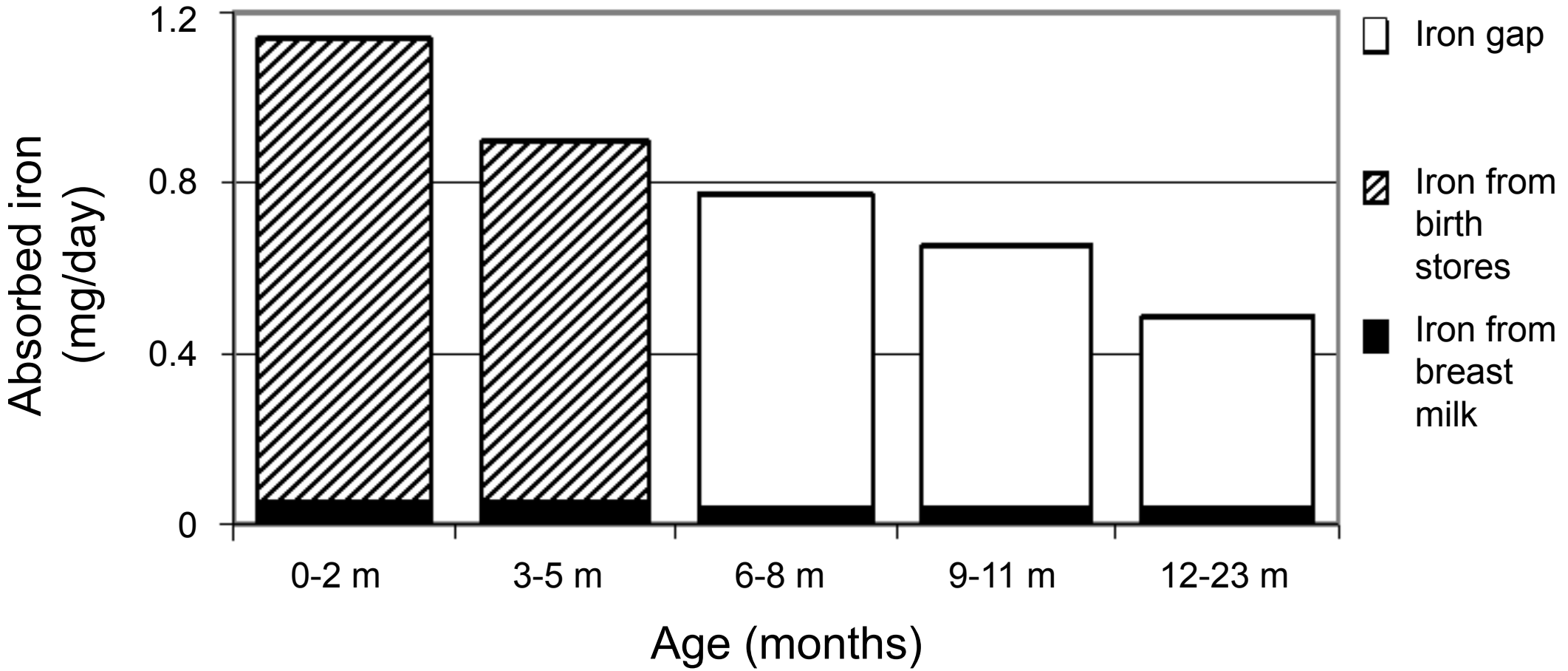
Foods to fill the iron and vitamin A gaps

After completing this session participants will be able to:

- list the local foods that can fill the nutrient gaps for iron and vitamin A
- explain the importance of animal-source foods
- explain the importance of legumes
- explain the use of processed complementary foods
- explain the fluid needs of the young child
- list the Key Messages from this session

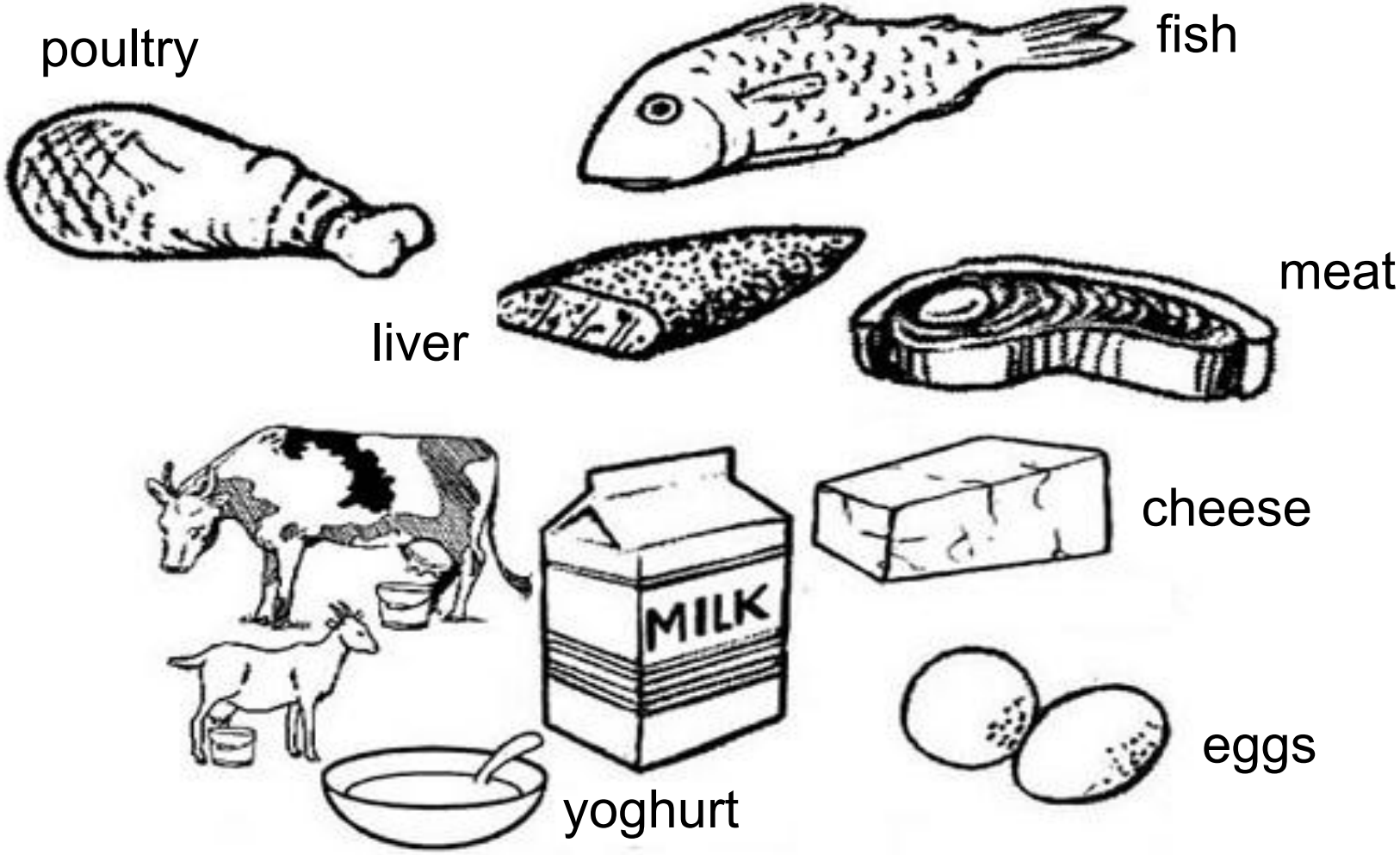
Gap for iron

Absorbed iron needed and amount provided



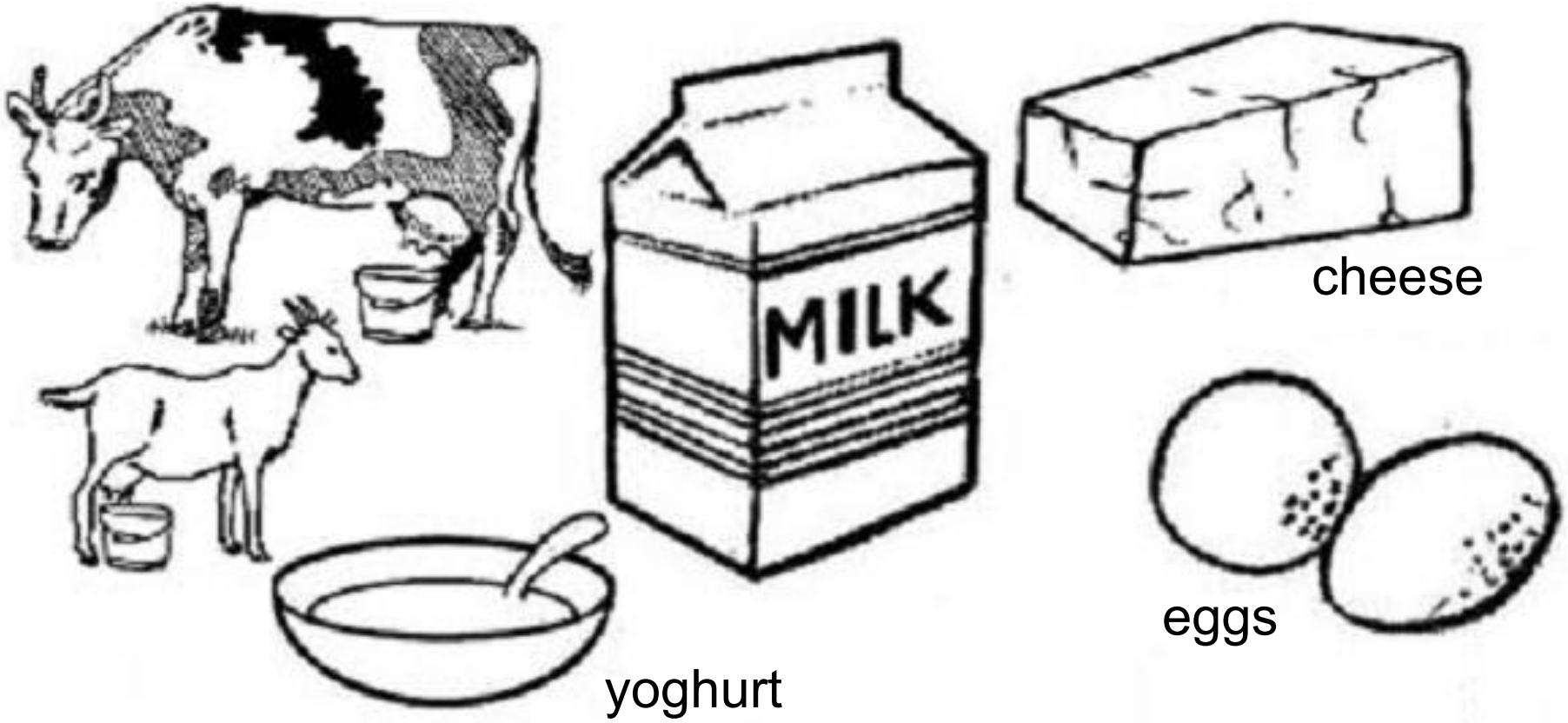
Key Message 4

Animal-source foods are especially good for children, to help them grow strong and lively



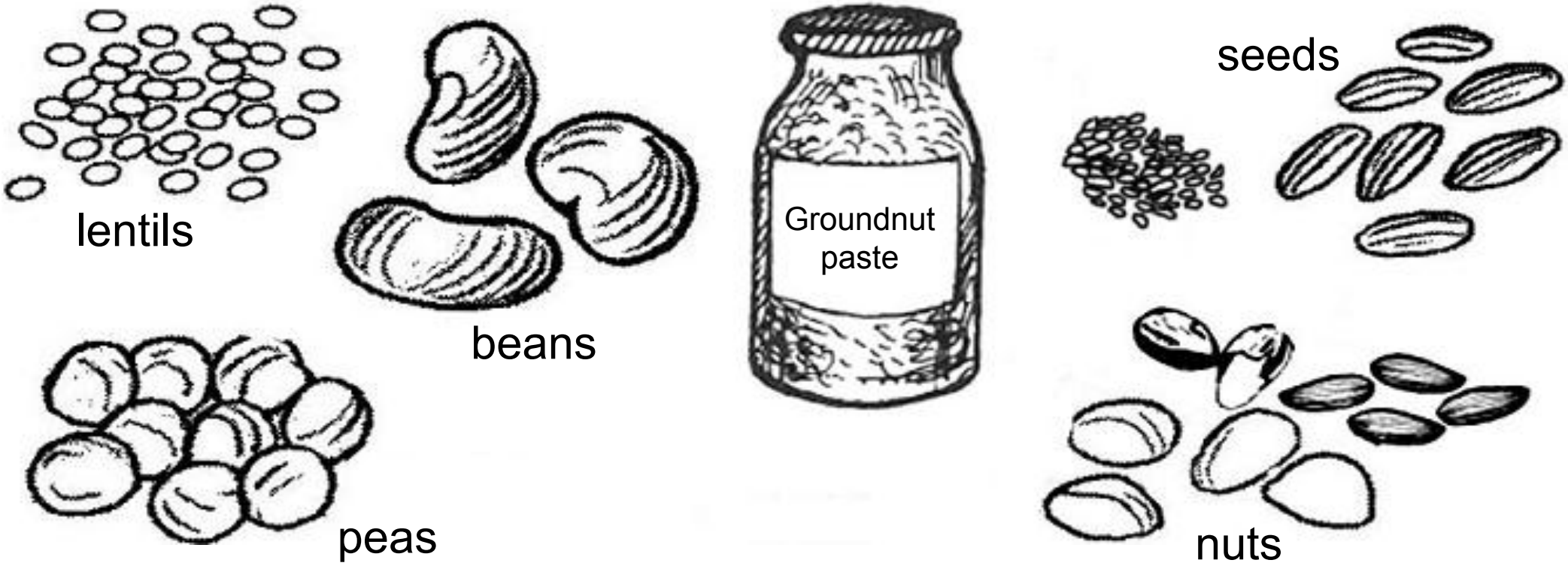
Key Message 4

Animal-source foods are especially good for children, to help them grow strong and lively



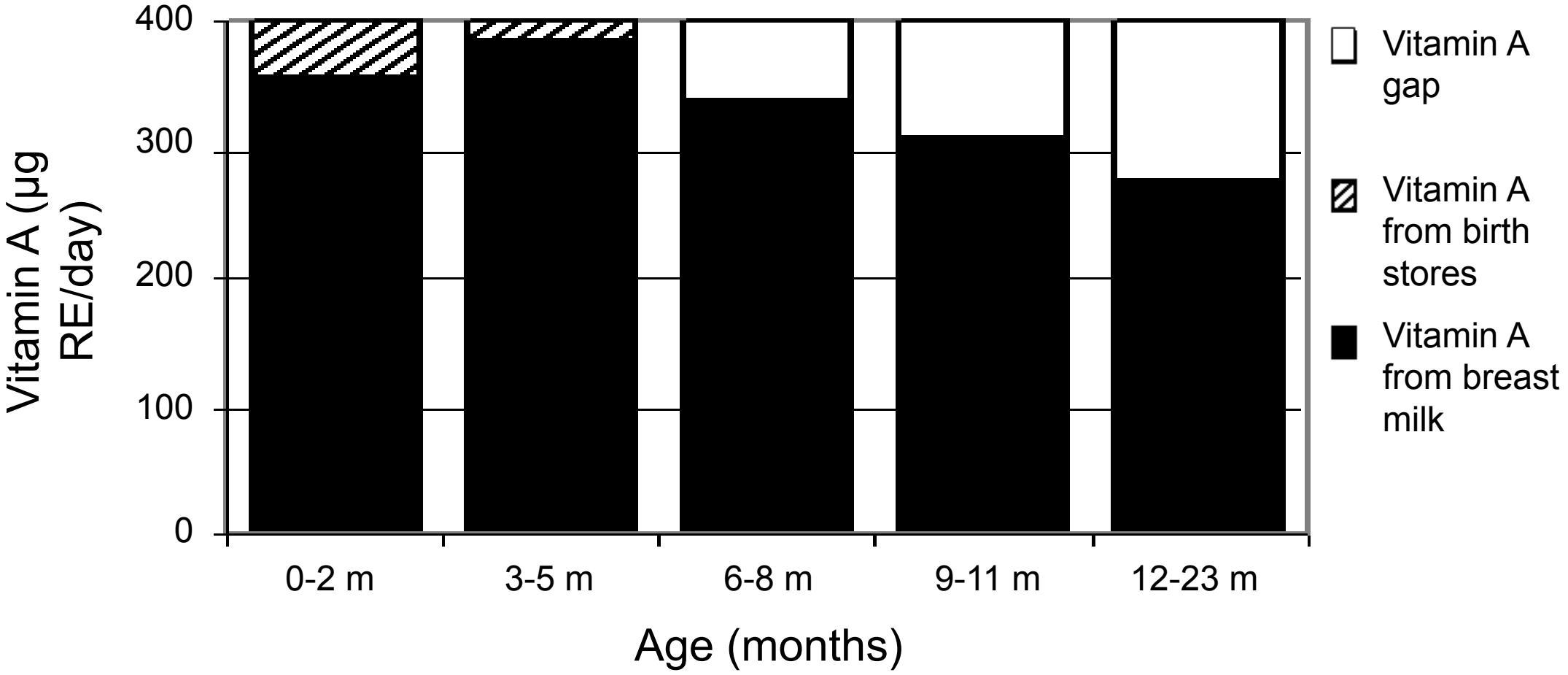
Key Message 5

Peas, beans, lentils, nuts and seeds are also good for children



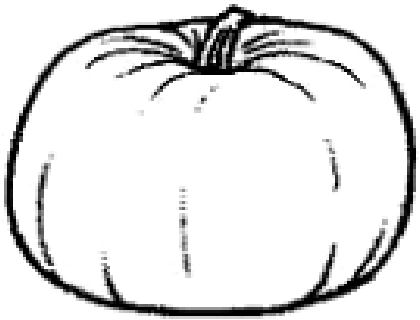
Gap for vitamin A

Vitamin A needed and amount provided



Key Message 6

Dark-green leaves and yellow-coloured fruits and vegetables help a child to have healthy eyes and fewer infections

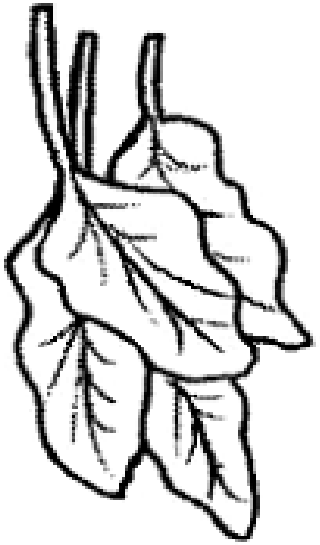


pumpkin

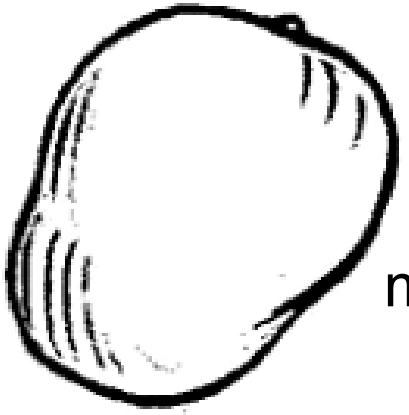
carrot

yellow sweet potato

papaya



spinach



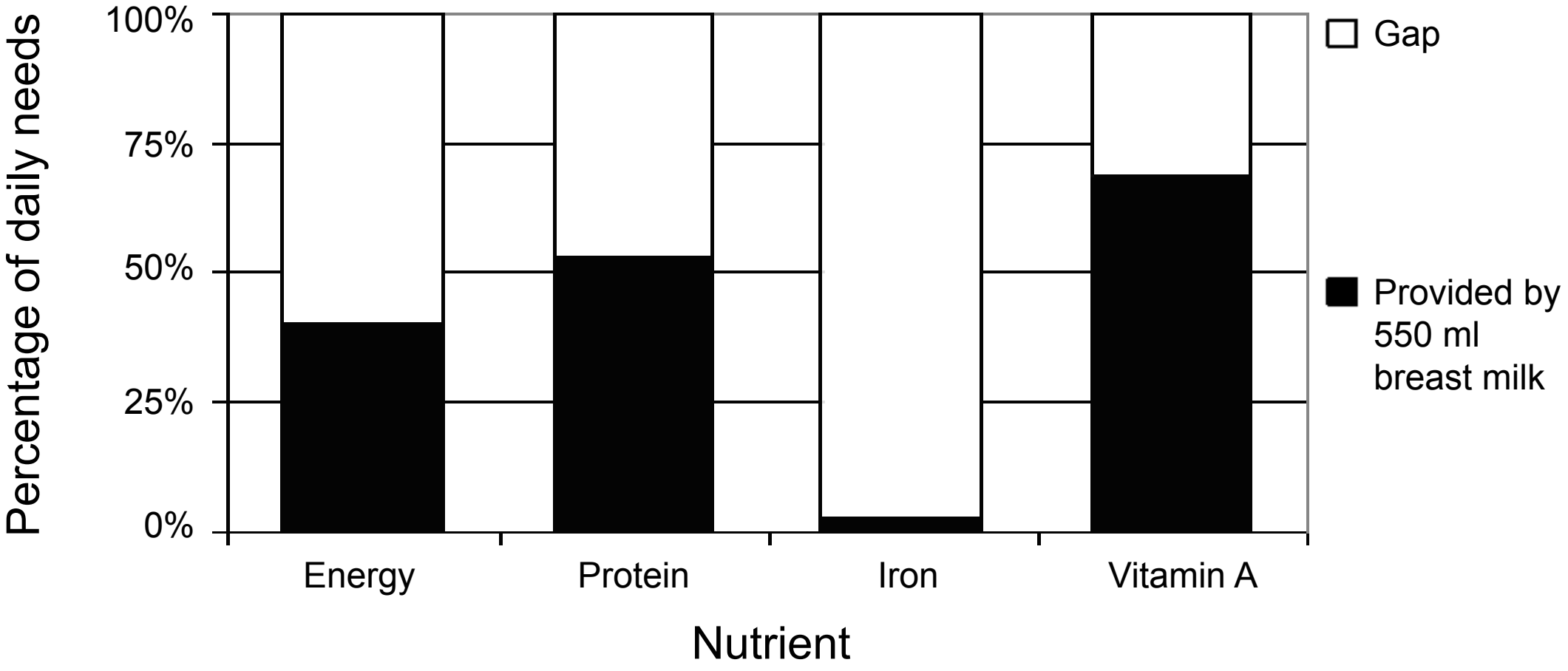
mango

Quantity, variety and frequency of feeding

After completing this session participants will be able to:

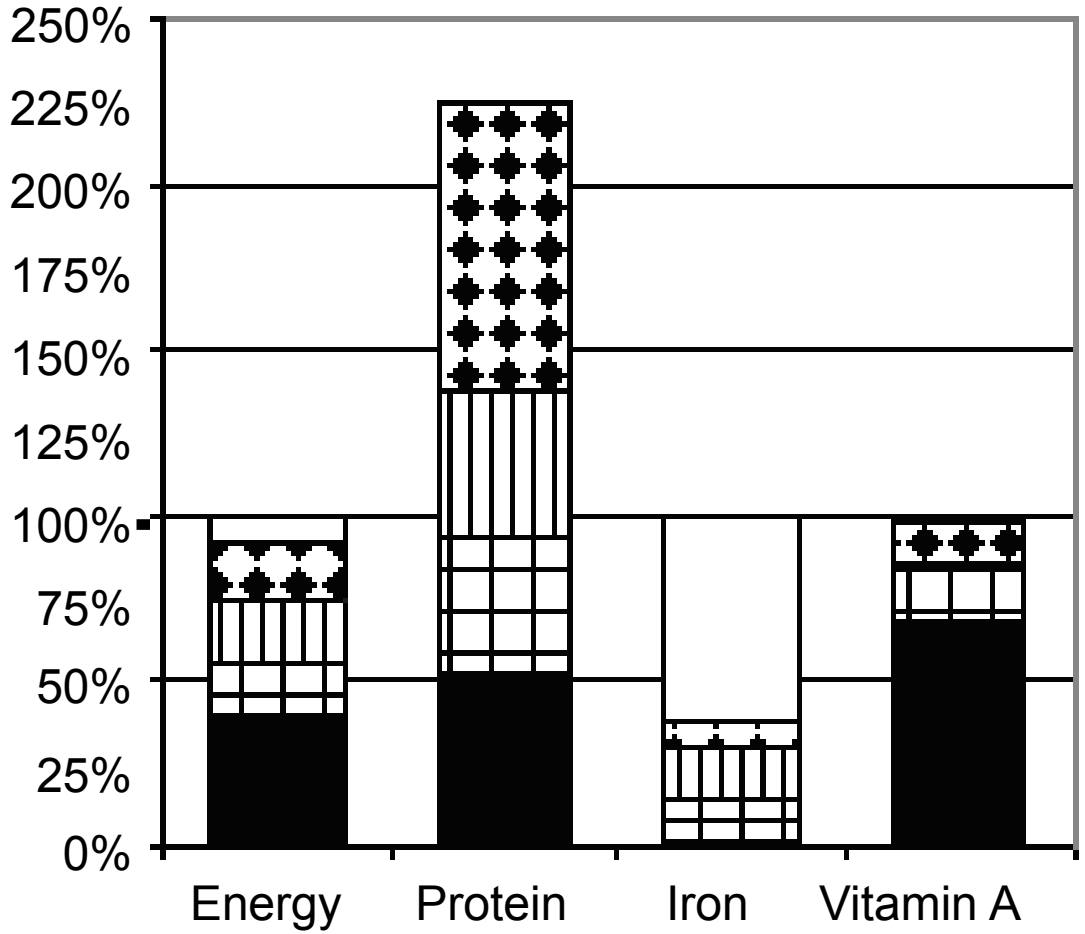
- explain the importance of using a variety of foods
- describe the frequency of feeding complementary foods
- outline the quantity of complementary food to be offered
- list the recommendations for feeding a non-breastfed child
- list the Key Messages from this session

Gaps to be filled by complementary foods for a 12-23 months old child



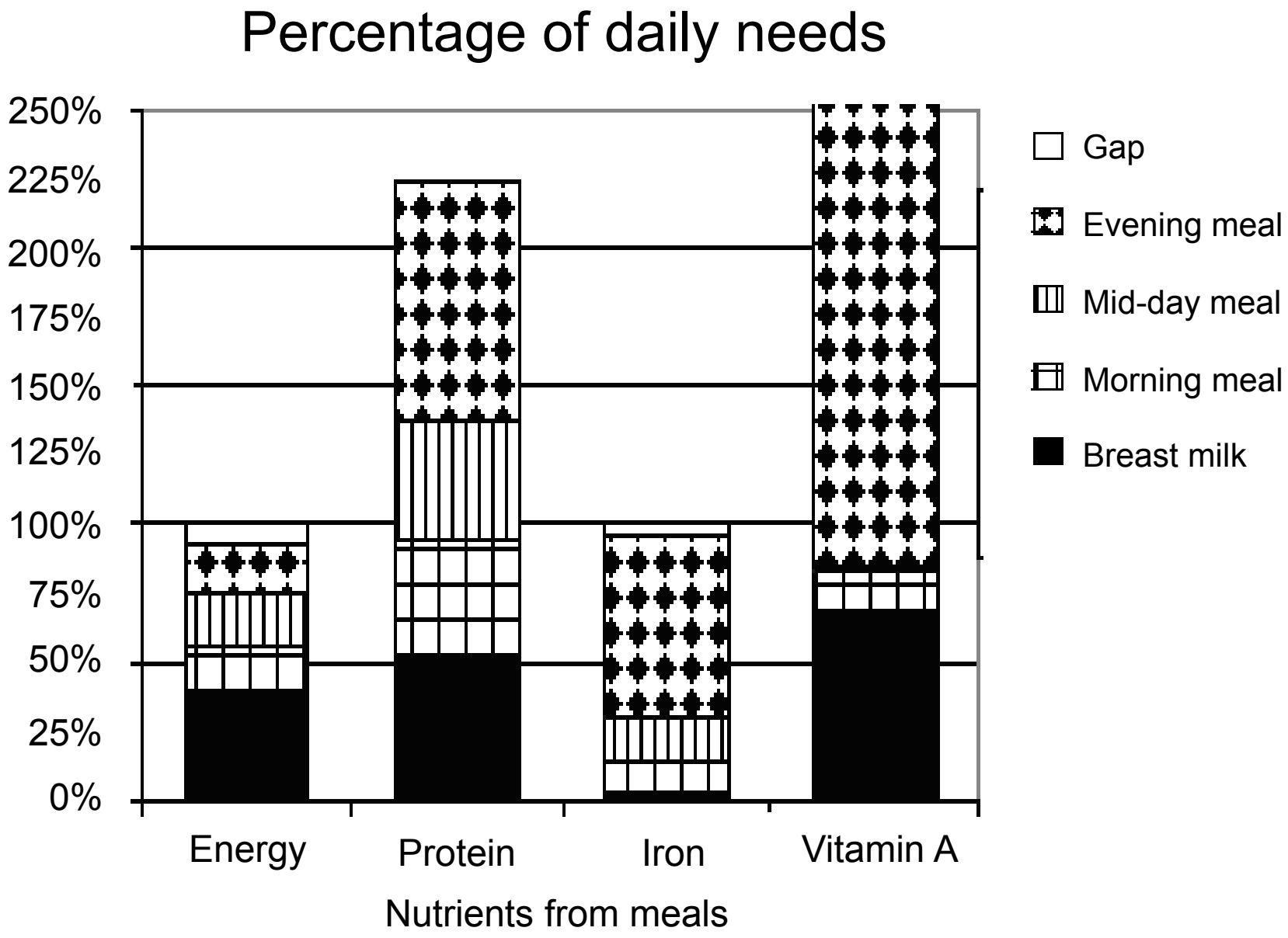
Three meals

Percentage of daily needs

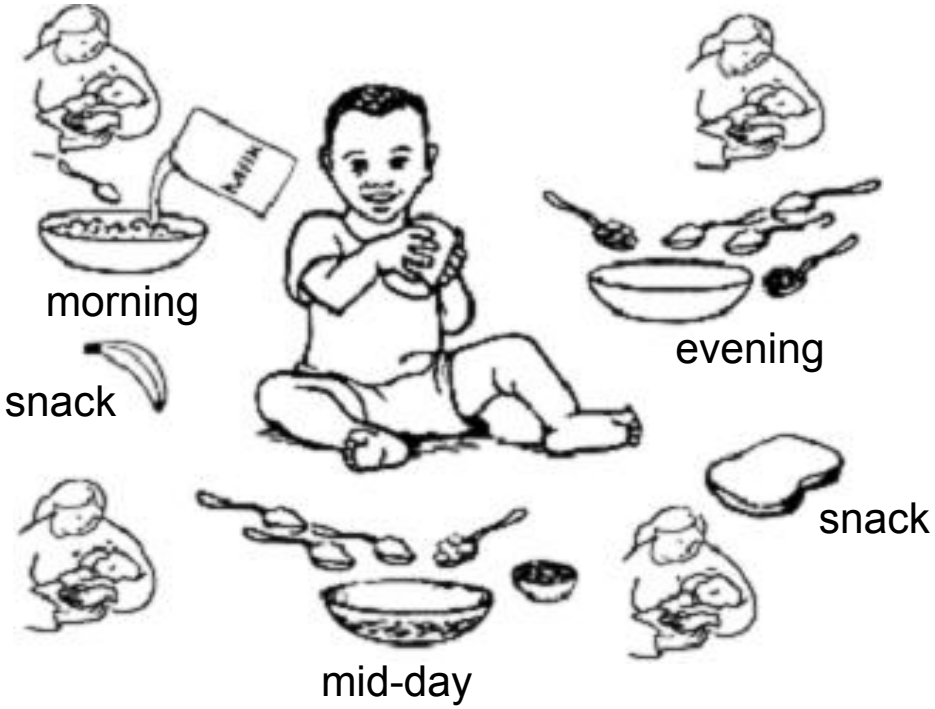


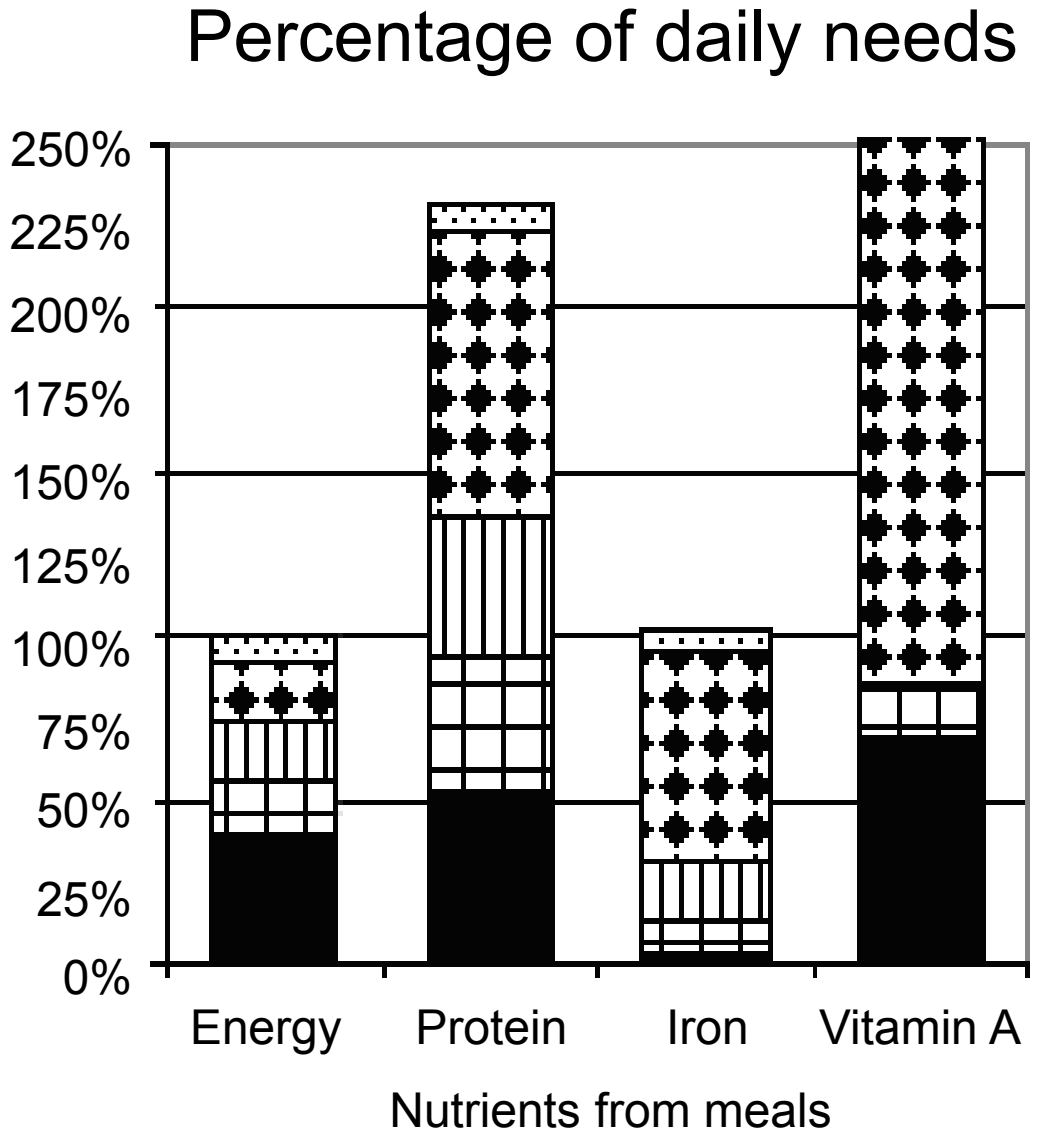
Gap
Evening meal
Mid-day meal
Morning meal
Breast milk

Iron rich food added



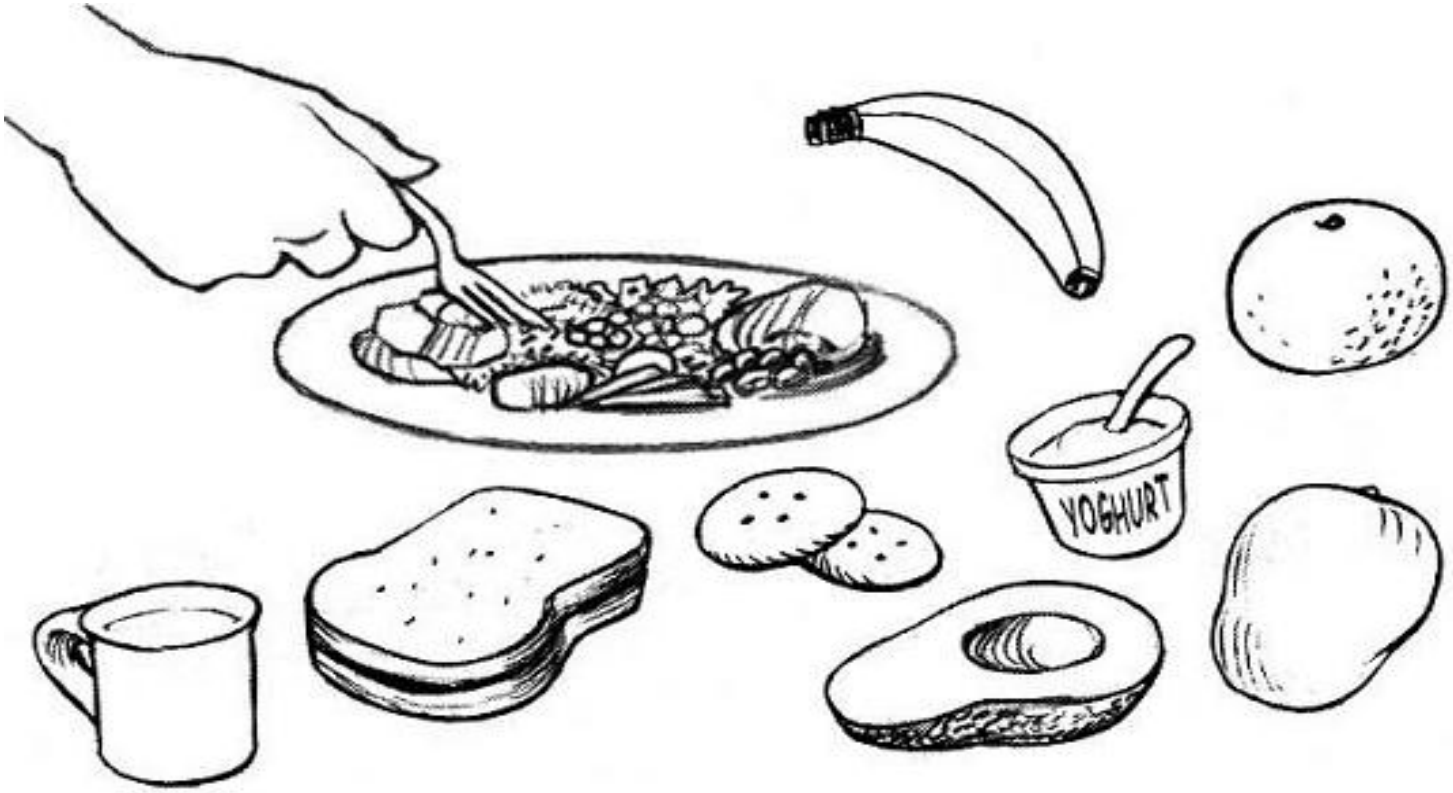
Three meals and two snacks



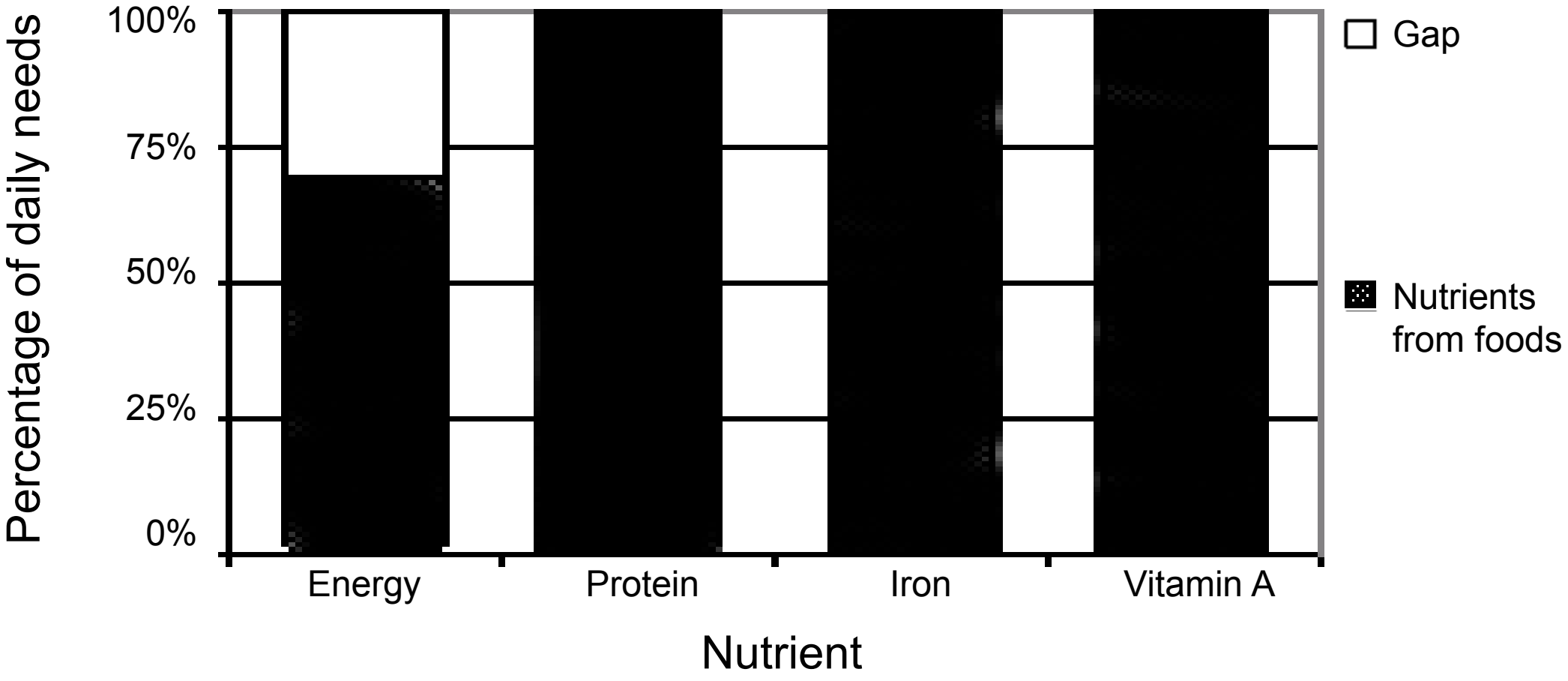


Key Message 7

A growing child needs 2-4 meals a day plus 1-2 snacks if hungry: give a variety of foods



Snacks and liver, but no breast milk



Recommendations for feeding the non-breastfed child

The non-breastfed child should receive:

- extra water each day (2-3 cups in temperate climate and 4-6 cups in hot climate)
- essential fatty acids (animal-source foods, fish, avocado, vegetable oil, nut pastes)
- adequate iron (animal-source foods, fortified foods or supplements)
- milk (1-2 cups per day)
- extra meals (1-2 meals per day)

Key Message 8

A growing child needs increasing amounts of food

Key Message 8

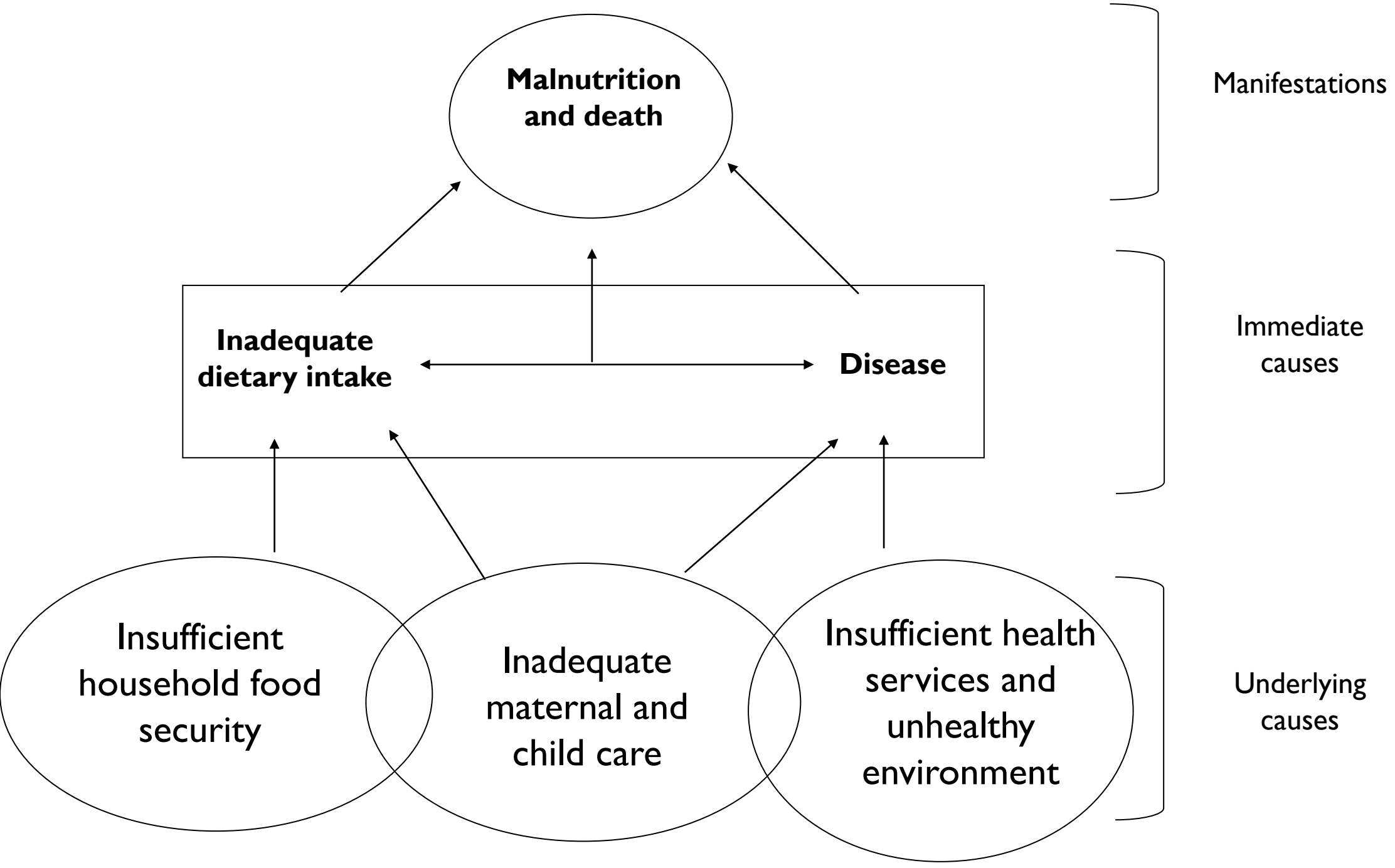
A growing child needs increasing amounts of food

Growth assessment results and feeding counselling when the child is growing well

After completing this session participants will be able to:

- explain to a mother the results of her child's growth assessment
- explain how to deal with a child who has severe growth problems
- gather information on feeding practices using the FOOD INTAKE JOB AID, 6-23 MONTHS

Causes of undernutrition



Refer children with severe growth problems

- Children with any of the following **severe undernutrition** problems should be referred **urgently for specialized care:**
  - severely wasted (below −3 z-score for weight-for-length/height)
  - clinical signs of marasmus (e.g. appears severely wasted, like “skin and bones”)
  - clinical signs of kwashiorkor (e.g. generalized oedema; thin, sparse hair; dark or cracking/peeling patches of skin)
  - oedema of both feet

Investigating causes of undernutrition

After completing this session participants will be able to:

- Explain when to investigate causes of undernutrition
- Identify the key sections of the job-aid for investigating undernutrition causes
- Explain how to use the job aid
- Identify the 8 steps involved in investigating causes and counselling for undernutrition

Investigate undernutrition if a child is …

- Wasted
- Underweight
- Stunted but not overweight or at risk of overweight
- Has a growth trend towards one of these problems

Job aid: investigating causes of undernutrition

- 2 columns – questions and feeding recommendations
- Take note of age-specific questions
- Complete investigation of causes before giving any advice
- How:
  - Ask all relevant questions for child's age
  - Listen carefully to what the mother says
  - Ask follow-up questions to obtain complete info
  - Note all likely causes
  - With mother, identify important causes

Investigating causes of undernutrition

- **Illness**: speak about how to feed a child during illness
- **Trauma**: consider if interview should be done at another time
- **Scope**: BF, appetite, CF, food types, frequency, quantities, family meal habits
- What possible causes does the mother recognize?
- Take time with the mother (dedicated staff for counselling in busy facilities)

Job aid: steps in investigating causes of undernutrition

- **Step 1:** Find out if the child is currently ill
- **Step 2:** If not ill, initiate investigation of causes
- **Step 3:** Ask about any recent changes in eating and/or breastfeeding
- **Step 4:** Discuss age-specific questions about the child's feeding
- **Step 5:** Ask about recurrent illnesses
- **Step 6:** Assess possible underlying social and environmental causes
- **Step 7:** Jointly with the caregiver, identify causes
- **Step 8:** Counsel

Possible causes of undernutrition

- Make note of possible causes as mother speaks with you
- Poor sanitation, >2 children under-five, mother/father absent (separation/death) or in poor health, family does not have enough to eat
- Note what you think are most important likely causes **but** find out what causes mother recognizes
- Example: interview with Nalah's mother

Counsel a mother whose child has undernutrition

After completing this session participants will be able to:

- involve the mother in identifying possible causes of undernutrition
- find age-appropriate advice for the problem identified
- set goals for improving growth of an undernourished child
- provide examples of checking questions to use when counselling

Provide counselling related to causes of undernutrition

- What does the mother think she can do to help her child?
- Discuss what is feasible, encourage mother to take action, praise her efforts,
- Find feeding advice appropriate for the child's age in the right column of the job aid
- Stunted child: improve linear growth without excessive weight gain (increase amount and bioavailability of micronutrients, -- consumption of animal source foods, fortified foods, sprinkles or supplements)

Set a goal for improving growth of an undernourished child

- Propose doable actions (2 or 3 , no more) for mother to try, write them down in Growth Record
- Possible goals:
  - Return to normal growth following illness
  - Stop trend towards undernutrition and reverse it
  - No specific weight gain targets esp. if stunted
- Express goals in terms of improving growth so that length and weight increase proportionally
- Set appointment for follow-up visit

Investigate causes and counsel mother whose child is overweight

After completing this session participants will be able to:

- explain when to investigate causes of overweight
- identify the key sections of the job-aid for investigating overweight causes
- identify the 5 steps involved in investigating causes and counselling for overweight
- involve the mother in identifying possible causes of overweight
- set goals for improving growth of an overweight child

Investigate causes of overweight if a child …

- is overweight (above 2 z-score WL/H)
- has a growth trend towards overweight
- is stunted and overweight or at risk of overweight
- is obese (where there is no referral system for the specialized management of obesity)

Investigating causes of overweight

- 2 columns – questions and feeding recommendations
- Take note of age-specific questions
- Complete investigation of causes before advice
- For older children ask about physical activity
- If one or both parents are overweight, this increases child's risk
- Focus on child's eating/activity patterns, not parents'
  - Ask all relevant questions for child's age
  - Listen carefully to what the mother says
  - Ask follow-up questions to obtain complete info
  - Note all likely causes
  - With mother, identify important causes

Job aid: steps in investigating causes of overweight

- **Step 1:** Initiate investigation of causes
- **Step 2:** Discuss age-specific questions about the child's feeding
- **Step 3:** Ask about physical activity (children over age 6 months)
- **Step 4:** Jointly with the caregiver, identify causes
- **Step 5:** Counsel

Counselling related to causes of overweight

- What does the mother think she can do to help her child?
- Discuss what is feasible, encourage mother to take action, praise her efforts,
- Find feeding advice appropriate for the child's age in the right column of the job aid
- If a feeding practice differs from what is recommended, explain what is recommended
- Mention local examples of high-energy snacks/foods to be avoided and nutritious foods to offer
- Describe how to reduce energy density of food (less fat and added sugar)

Set a goal for improving growth of an overweight child

- Propose doable actions (2 or 3 , no more) for mother to try, write them down in Growth Record
- Do not recommend weight loss
- Goal is to slow down weight gain with continued growth in height to normalize weight-for-height
- Express goals in terms of improving growth so that length and weight increase proportionally
- Set appointment for follow-up visit
- Example: Counselling Toman's mother

Checking understanding and arranging follow-up

After completing this session participants will be able to:

- demonstrate how to ensure that a mother understands information provided by using checking questions
- arrange referral or follow-up of a child

Give your child only breast milk from birth to 6 months of age

Breastfeed as often as your child wants, at least 8 times in 24 hours

Breastfeed whenever your child shows signs of hunger, such as fussing, sucking fingers, or moving his lips

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.

Feed your child a staple food such as rice or wheat cereal

You need to give your child some animal-source foods such as meat, chicken, fish, eggs, milk, cheese, yogurt, and curds

Peas and beans are another good source of protein

Also give a variety of other foods such as leafy green and yellow-coloured vegetables and fruits

At 9-11 months of age, give your baby 3-4 meals per day plus 1-2 snacks

At each meal your baby (age 9 months) needs about ½ cup of finely chopped or mashed foods

Feed your child from her own plate or bowl so you will know when she has eaten her entire serving

Patiently help your baby eat. Talk to her, look into her eyes, and encourage her

Now that your child is 2 years old, he should eat family foods at 3 meals each day

Twice daily between meals, give nutritious snacks such as yogurt or fruit

Constructing Checking Questions

Identify the key words or phrases in the recommendation that the mother should know

Construct the checking question using some key words/phrases; start the question with the words:

- How - What
- Why - Please show me . . . ?
- When

Checking questions . . .

Avoid questions that can be answered by Yes/No such as those starting with:

- Do you?
- Will you? (e.g., Will you breastfeed you child until 6 months?)
- Are you?

Gathering information and counselling on feeding and growth – role plays

After completing this session participants will be able to:

- demonstrate appropriate use of counselling skills
- investigate causes of growth problems
- provide appropriate counselling on the identified problem
- set a target for growth to be reviewed at a follow-up visit
- use the job aid for investigating causes of undernutrition and overweight
- use the FOOD INTAKE JOB AID, 6-23 MONTHS

Hygienic preparation of feeds

After completing this session participants will be able to:

- explain the requirements for clean and safe feeding of young children
- demonstrate how to prepare a cup hygienically for feeding
- prepare a plate of food suitable for a young child
- explain why they have chosen these foods
- conduct a food demonstration with a mother

Clean hands

- After using toilet
- After cleaning baby's bottom
- Before preparing or serving food
- Before feeding children or eating

Clean utensils

- Clean surface
  (table, mat or cloth)
- Wash utensils immediately after use
- Keep clean utensils covered
- Use clean utensils for baby

Safe water and food

- Treat water for drinking and baby's feeds
- Keep water in clean covered container
- Boil milk before use
- Give freshly prepared complementary foods

Safe storage

- Keep foods in tightly covered containers
- Store foods dry if possible (e.g. milk powder, sugar)
- Use milk within one day if refrigerated
- Use prepared feeds within one hour

Disadvantages of feeding bottles

Difficult to clean and sterilize

May cause illness

Less adult attention

Feeding techniques

After completing this session participants will be able to:

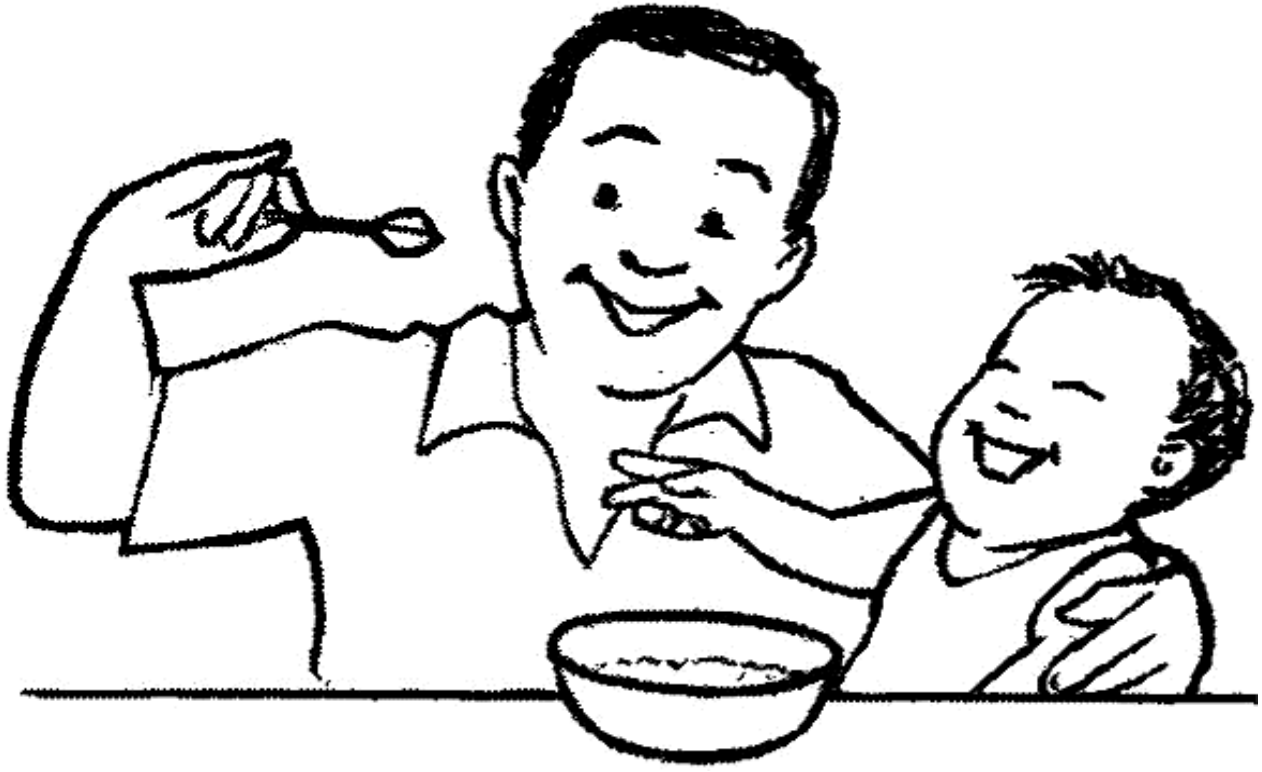
- describe feeding practices and their effect on the child's intake
- explain to families specific techniques to encourage young children to eat
- list the Key Message from this session

Feeding situation

Feeding situation

Key Message 9

A young child needs to learn to eat:
encourage and give help
… with lots of patience



Gathering information and counselling on feeding practices and growth (Practical 3)

After completing this session participants will be able to:

- measure a child and correctly determine if they are growing normally or have a problem
- inform the mother about growth assessment results and identify possible causes of growth problems
- provide counselling to a mother whose child has malnutrition (undernutrition or overweight)
- demonstrate how to gather information about complementary feeding using counselling skills and the FOOD INTAKE JOB AID, 6-23 MONTHS
- provide information about complementary feeding and continuing breastfeeding to a mother of a 6-23 month old child

Overview of HIV and infant feeding

After completing this session participants will be able to:

- explain the risk of mother-to-child transmission of HIV
- describe factors which influence mother-to-child transmission
- explain HIV-free survival
- describe the key principles and recommendations for infant feeding in the context of HIV
- Describe the importance of antiretroviral drugs in reducing mother-to-child transmission of HIV and in increasing HIV free survival in infants

HIV and infant feeding: What is new?

Significant programmatic experience and research evidence regarding HIV and infant feeding have accumulated since 2006. In particular:

Evidence has been reported that antiretroviral (ARV) interventions to either the HIV-infected mother or HIV-exposed infant can significantly reduce the risk of postnatal transmission of HIV through *breastfeeding*

Defining HIV and AIDS

HIV

- *Human immunodeficiency virus* is the virus that causes AIDS

AIDS

- *Acquired immune deficiency syndrome* is the active pathological condition that follows the earlier, non-symptomatic state of being HIV-positive

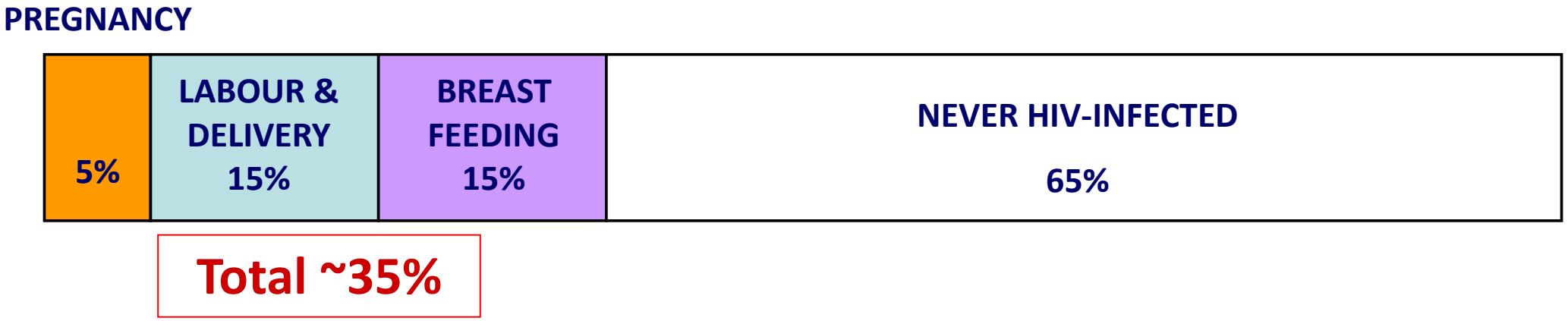
Mother-to-child transmission of HIV

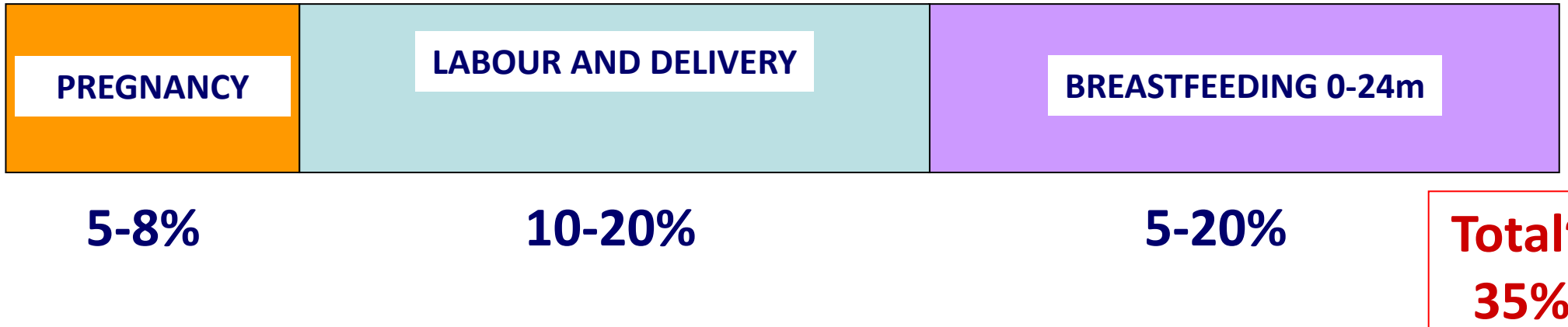
Young children who get HIV are usually infected through their mother

- during pregnancy across the placenta
- at the time of labour and birth through blood and secretions
- through breastfeeding

This is called mother-to-child transmission of HIV or MTCT

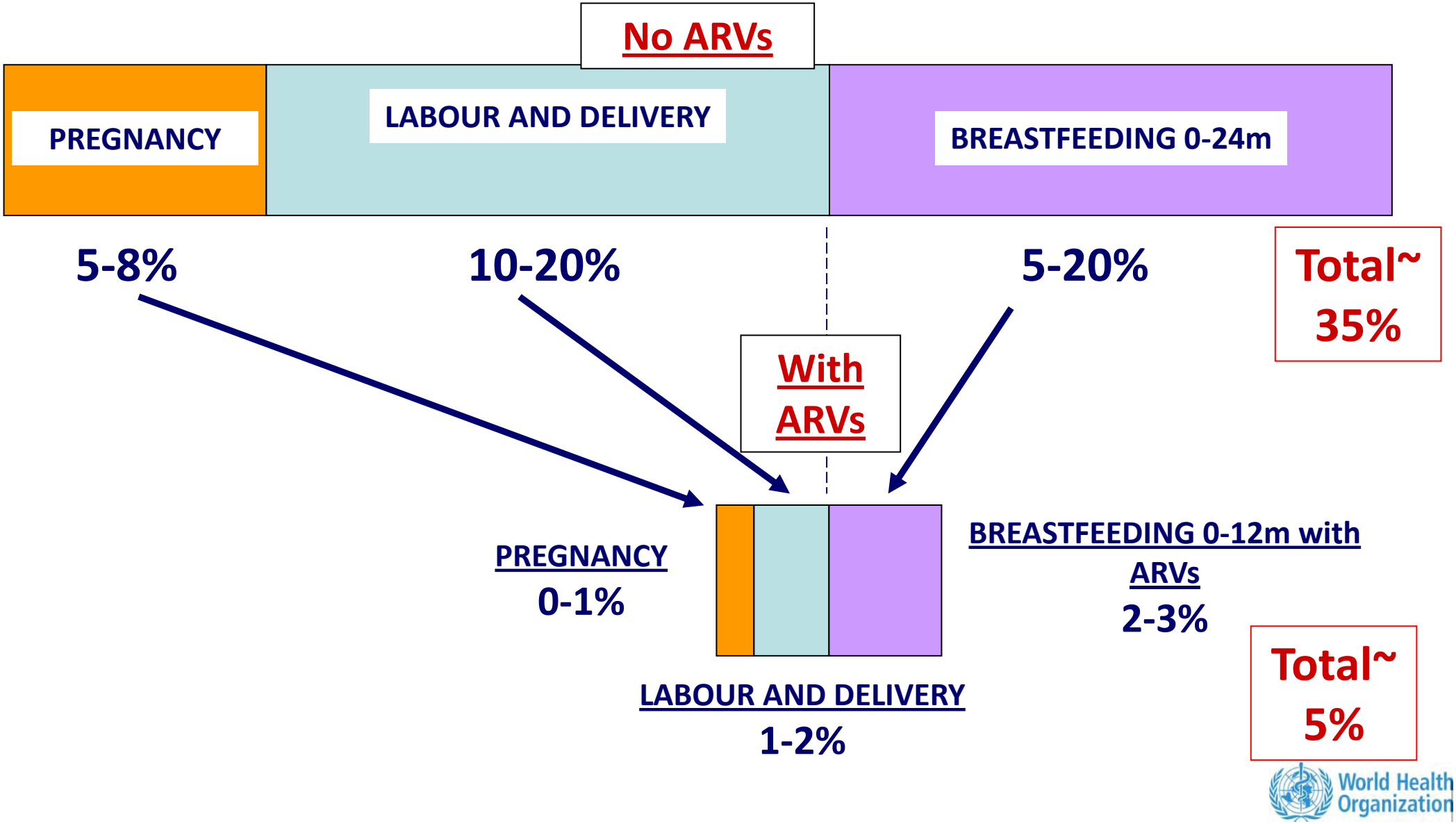
Risk of Mother-to-Child Transmission in pregnancy, labour and delivery, and breastfeeding for 2 years: without ARV interventions





World Health Organization

Risk of Mother-to-Child Transmission in pregnancy, labour and delivery, and breastfeeding for 2 years: without and with ARV interventions



Factors which affect mother-to-child transmission of HIV

- Recent infection with HIV
- Severity of disease
- Sexually transmitted infections
- Obstetric procedures
- Duration of breastfeeding
- Exclusive breastfeeding or mixed feeding
- Condition of the breasts
- ARV treatment or prophylaxis to the mother
- ARV prophylaxis to the baby

HIV- free survival: avoiding HIV transmission and remaining alive

BREASTFEEDING

Risk of:

HIV transmission through breastfeeding

REPLACEMENT FEEDING

Risk of:

Death from diarrhoea and pneumonia

Risk of:

Malnutrition from not breastfeeding

Source: WHO slide 2007

The Key Principles

- National authorities should make strong recommendations about infant feeding
  - Breastfeeding and ARV interventions, OR
  - Avoid all breastfeeding
- Balance HIV prevention with protection from other causes of child mortality
- When antiretroviral drugs are not immediately available breastfeeding may still provide infants born in HIV-infected mothers with a greater chance of HIV-free survival
- Inform mothers known to be HIV-infected about infant feeding alternatives
- Provide services to specifically support mothers to appropriately feed their infants

Main infant feeding recommendations (1) for HIV positive women

Mothers known to be HIV-infected should be provided with **lifelong ARV treatment** or **ARV prophylaxis** to reduce HIV transmission through breastfeeding (recommendation 1)

- ARVs reduce the risk of HIV transmission in the first 6 months when infants breastfeed (either EBF or mixed feeding) and after 6 months when infants continue to breastfeed while taking complementary feeds
- ARVs are given either as lifelong treatment (ART) or as ARV prophylaxis i.e. for prevention during the period of breastfeeding only
- When given as prophylaxis, ARVs should be given until one week after all breastfeeding stops

Main infant feeding recommendations (2+3) for HIV positive women

HIV positive mothers should **exclusively breastfeed their infants for the first 6 months of life**, introduce appropriate complementary foods thereafter and **continue breastfeeding for the first 12 months of life (recommendation 2)**

- exclusive breastfeeding reduces the risk of death from diarrhoea, pneumonia and malnutrition among babies born to HIV positive mothers in the same way that it protects babies of HIV negative mothers against infections

When deciding **to stop BF**, HIV positive mothers should do so **gradually within one month (recommendation 3)**

Conditions needed to safely formula feed (Recommendation 5)

HIV-infected mothers **should only give commercial infant formula milk as a replacement feed** to their HIV-negative infants or infants who are of unknown HIV status, when specific conditions are met:

- Safe water and sanitation are assured at household level and In the community
- The mother or other care giver can reliably provide sufficient infant formula milk to support normal growth and development
- The mother or care giver can prepare it cleanly and frequently enough so that it is safe and carries a low risk of diarrhoea and malnutrition
- The mother or care giver can in the first 6 months, exclusively give infant formula milk
- The family is supportive of this practice
- The mother or caregiver can access health care that offers comprehensive child health services.

When the infant is HIV-infected (Recommendation 7)

If Infants and young children are known to be HIV-infected, **mothers are strongly encouraged to exclusively breastfeed for the first six months of life** and continue breastfeeding as per the recommendations for the general population that is up to two years or beyond

Policy of supporting breastfeeding

"As a general principle, in all populations, irrespective of HIV infection rates, breastfeeding should continue to be protected, promoted and supported."

HIV and Infant Feeding: a policy statement, developed collaboratively by UNAIDS, WHO and UNICEF, 1997.

The 2010 WHO guidelines on PMTCT and infant feeding

include new evidence on:

- the best time to start lifelong antiretroviral treatment (ART) in women who need treatment for the disease
- the **use of antiretroviral (ARV) for prevention (prophylaxis)** to prevent mother-to-child transmission of HIV, including during breastfeeding
- safe feeding practices for HIV-exposed babies

New PMTCT ARV recommendations are based on these two key areas

Lifelong ART for HIV-positive women in need of treatment for their own health, which is also safe and effective in reducing MTCT

ARV prophylaxis (short term) to prevent MTCT during pregnancy, delivery and breastfeeding for HIV-infected women who do not need treatment for their own health

ARV Prophylaxis to Prevent MTCT

For HIV+ women not eligible for ART

- Two possibilities
  - Option A: Maternal AZT
  - Option B: Maternal triple ARV prophylaxis
- Begin as early as 14 weeks gestation (2nd trimester) or as soon as possible thereafter
- **With Option B+, all HIV positive pregnant women are immediately started on lifelong treatment**

Three options for PMTCT Programmes

	Woman receives		Infant receives
	Treatment (for CD4 count ≤350 cells/mm^3)	Prophylaxis (for CD4 count >350 cells/mm^3)	
Option A	Triple ARVs starting as soon as diagnosed *continued for life*	Antepartum: AZT from 14 wk Intrapartum: at onset labour sdNVP and 1st dose AZT/3TC Postpartum: daily AZT/3TC through 7 days postpartum	Daily NVP from birth through 1 wk beyond complete cessation of BF (if not BF or mother on treatment through ages 4-6 wk)
	Same initial ARVs for both		
Option B	Triple ARVs starting as soon as diagnosed *continued for life*	Triple ARVs from 14 wk continued intrapartum and trough childbirth if not BF (or until 1 wk after cessation of BF)	Daily NVP or AZT through 4-6 wk regardless feeding method
	Same for treatment and prophylaxis		
Option B+	Regardless of CD4 count, triple ARVs starting as soon as diagnosed *continued for life*		Daily NVP or AZT through 4-6 wk regardless feeding method

Source: Programmatic Update ARVs for treating pregnant women and preventing HIV in infants. Executive Summary, WHO Geneva April 2012

Feeding during illness and low-birth-weight babies

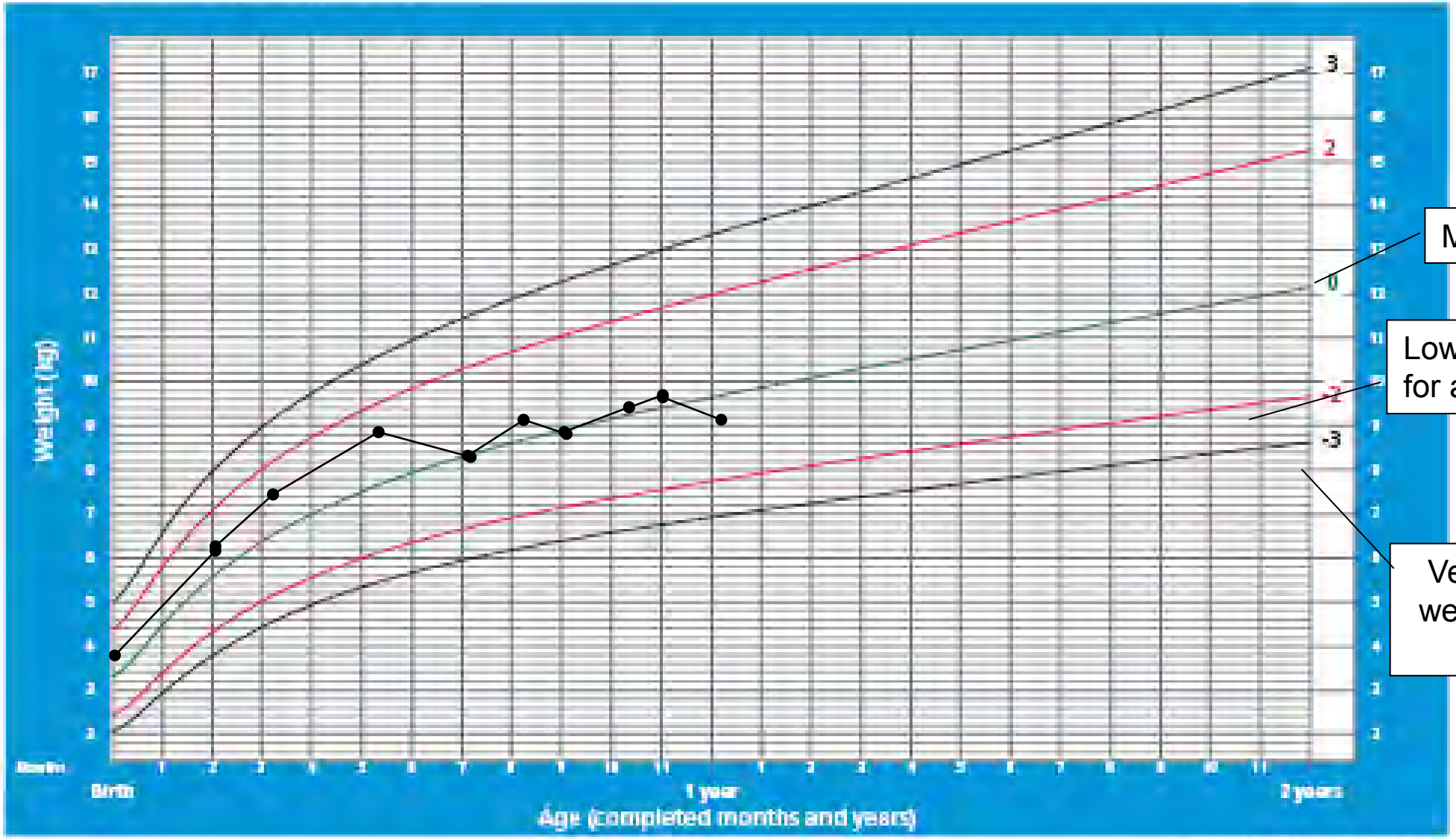
After completing this session participants will be able to:

- explain why children need to continue to eat during illness
- describe appropriate feeding during illness and recovery
- describe feeding of low-birth-weight babies
- estimate the volume of milk to offer to a low-birth-weight baby
- list the Key Message from this session

Weight-for-age BOYS

Birth to 2 years (z-scores)

World Health Organization



Median

Low weight for age

Very low weight for age

WHO Child Growth Standards

Key Message 10

Encourage children to drink and eat during illness and provide extra food after illness to help them recover quickly

Feeding the child who is ill

- Encourage the child to drink and to eat – with lots of patience
- Feed small amounts frequently
- Give foods that the child likes
- Give a variety of nutrient-rich foods
- Continue to breastfeed – often ill children breastfeed more frequently

Feeding during recovery

- Give **extra** breastfeeds
- Feed an **extra** meal
- Give an **extra** amount
- Use **extra** rich foods
- Feed with **extra** patience and love

Feeding low-birth-weight babies

- 32 weeks gestation
  – able to start suckling from the breast
- 30-32 weeks gestation
  – can take feeds from a small cup or spoon
- Below 30 weeks gestation
  – usually need to receive feeds by tube in hospital

Follow-up after training

After completing this session participants will be able to:

- describe the contents and arrangement of the table of competencies they are expected to acquire
- describe the components of the follow-up session
- list the tasks they should complete for the follow-up session

ISBN 978 92 4 150481 2