

Workshop Purpose and Skills to Learn

To train participants to take accurate anthropometric measurements in a survey.

Skills to Learn

1. We will learn how to measure weight of children under 5 years.
2. We will learn to measure children's length.
3. We will learn to measure children's height.
4. We will learn to find a child's date of birth for calculating age.
5. We will learn how to record information clearly on forms.
6. We will learn to measure mid-upper arm circumference.

Training Schedule

	Day 1	Day 2
Early Morning	Lesson 1 – Welcome and Introduction (20 min) Lesson 2 – What is Anthropometry? (20 min) Lesson 3 – Information About Sex and Age of Children Under 5 (45 min)	Lesson 7 – Measuring Mid-Upper Arm Circumference (1 hour) Lesson 8 – Standardisation Exercise (3 hours)
Break		
Late Morning	Lesson 4 – Measuring Weight - Hanging Scales (2 hours)	Lesson 8 – Standardisation Exercise continued Closing
Lunch		
Early Afternoon	Lesson 5 – Measuring Weight - Standing Scales (2 hours)	
Break		
Late Afternoon	Lesson 6 – Measuring Length and Height (2 hours)	

Steps For Anthropometric Surveys

1. Define survey objectives
2. Budget for the survey
3. Choose the survey design
4. Plan for personnel, facilities and equipment
5. Select the sample
6. Develop the questionnaire
7. Pre-test the questionnaire
8. **Train personnel**
9. **Standardise the anthropometric technique**
10. Interview
11. Supervise the data collection
12. Edit and code the interviews
13. Tabulate the data
14. Analyse and report the survey results

Procurement List

- Equipment bag
- List of assigned households and their addresses (or location)
- Map of the area
- Log book
- Pre-numbered questionnaires for assigned households
- Spare questionnaires
- Waterproof envelopes for blank and completed questionnaires
- Weighing scale
- Scale hooks
- Piece of rope for scales
- Storage box for scales
- Height/length measuring board
- Sliding head/foot pieces
- Clipboard
- Stapler and box of staples
- Pencils and pencil sharpener
- Eraser
- Pens
- Spare paper
- Spare alkaline AA Batteries

How Can We Use Anthropometric Information?

Assessment – to identify the presence and severity of a nutrition problem in a community; to know whether there is current or potential risk of malnutrition in an individual child.

Targeting – to identify need, prioritise resources and screen individuals for programme services.

Monitoring – to track individual growth patterns and programme performance.

Evaluation – to evaluate and measure changes in nutrition over time and to demonstrate programme impact on the community and individuals.

Advocacy – to advocate for increased programmes and services to address child malnutrition (such as increased funding for salaries, supplies and primary health and nutrition services).

Four Key Measurements for Calculating Anthropometric Indices



Three Indices Used to Assess the Nutritional Status of Children

1. Weight-for-age
2. Height-for-age or length-for-age
3. Weight-for-height.

Wasting, Stunting and Underweight

Wasting

- Low weight-for-height/length
- Identifies children who are wasted, or too thin.
- Reflects recent, short term, acute malnutrition

Stunting

- Low height/length-for-age
- Identifies children who are stunted, or too short for their age
- Reflects on long term, or chronic malnutrition

Underweight

- Low weight-for-age
- Identifies children who weigh less compared to other children their age
- Can reflect stunting, wasting, or a combination of both

When Do We Conduct Anthropometric Surveys?

1. Baseline assessment
2. Annually/semi-annually throughout the project implementation
3. Midterm evaluation
4. End of project/Final evaluation

Data Collection Form

Children 0 - 59 months

Remember to:

1. Record the Date of Birth (dd/mm/yy) and the sex (M or F) of the child.
2. Record the child's height/length to nearest 0.1 cm, weight to 0.1 kg and MUAC to 0.1 cm or colour.
3. Record the date of measurement.

ADP/Programme:

Date of Measurement (dd/mm/yy):

Cluster #:

Community:

Name of Data Collector:

Team #:

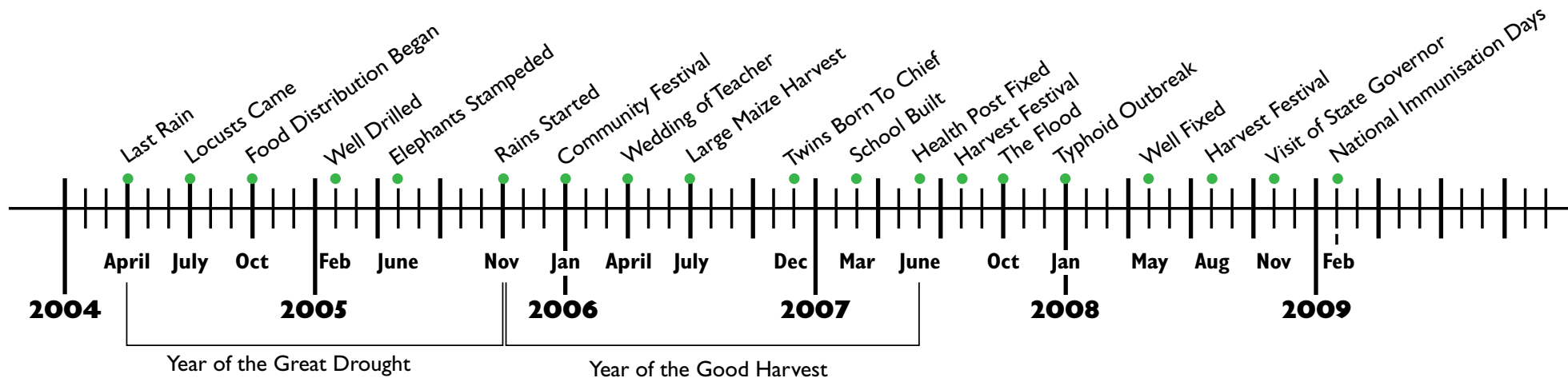
Child ID Number	Child's First Name	Child's Last Name	Check Sex Male or Female		Date of Birth dd/mm/yy	Check Only if Date is Approx Or Unknown		Weight in KG to One Decimal	Length/ Height in CM to One Decimal	Check Length or Height		MUAC in Millimeters or Color	Oedema Presence Yes "Y" No "N"	
			M	F		A	U			L	H		Y	N
			M	F		A	U			L	H		Y	N
			M	F		A	U			L	H		Y	N
			M	F		A	U			L	H		Y	N
			M	F		A	U			L	H		Y	N
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			M	F		A	U			L	H		Y	N
			M	F		A	U			L	H		Y	N
			M	F		A	U			L	H		Y	N
			M	F		A	U			L	H		Y	N
			M	F		A	U			L	H		Y	N

Is The Child a Boy or a Girl?



Always ask the mother!
Always record whether a child is
M (male) or **F** (female)

Community Events Timeline



Months In Five Years

May 04	Jun 04	Jul 04	Aug 04	Sep 04	Oct 04
Nov 04	Dec 04	Jan 05	Feb 05	Mar 05	Apr 05
May 05	Jun 05	Jul 05	Aug 05	Sep 05	Oct 05
Nov 05	Dec 05	Jan 06	Feb 06	Mar 06	Apr 06
May 06	Jun 06	Jul 06	Aug 06	Sep 06	Oct 06
Nov 06	Dec 06	Jan 07	Feb 07	Mar 07	Apr 07
May 07	Jun 07	Jul 07	Aug 07	Sep 07	Oct 07
Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08
May 08	Jun 08	Jul 08	Aug 08	Sep 08	Oct 08
Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09

Put a small tick (✓) in the birth month.

Put a small x in current month.

Count the number of full months starting with the month after the tick (✓)

Recording Numbers Clearly

1. Make sure you place the numbers within the grid squares on the records.
2. Be careful to write the numbers clearly and always in the same way.

Write the numbers this way:

CORRECT	INCORRECT	
1	1	1 – Draw the number 1 as a single vertical line.
2	2	2,3 – Write the numbers 2 and 3 without extra loops.
3	2	
4	4	4 – Leave the number 4 open. A closed 4 can look like a 9.
5	5	5 – Don't close the 5 as this can cause it to look like a 6.
6	6	6 – Be careful that the circle on the 6 does not look like a 0.
7	7	7 – Make a small horizontal line to cross the 7. This will distinguish it from a 1.
8	8	8 – Draw two circles touching to make the number 8 so that it does not look like a 0.
9	4	9 – Make sure to close the circle on the number 9 so that it does not look like a 4.
0	6	0 – Put a diagonal line through the 0 so that it is easy to identify and does not look like a 6.

Record Numbers Clearly on Sample Recording Form

Children 0 - 59 months

Remember to:

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2. Record the child's height/length to nearest 0.1 cm, weight to 0.1 kg and MUAC to 0.1 cm or colour.
3. Record the date of measurement.

Data Collection Form

ADP/Program:

Central

Date of Measurement (dd/mm/yy):

2009/03/15

Cluster #:

4

Community:

Dawn

Name of Data Collector:

Julia

Team #:

9

Child ID Number	Child's First Name	Child's Last Name	Check Sex Male or Female	Date of Birth dd/mm/yy	Check Only if Date is Approx Or Unknown	Weight in KG to One Decimal	Length/ Height in CM to One Decimal	Check Length or Height	MUAC in Millimeters or Color	Oedema Presence Yes "Y" No "N"
	Cristy	Dawn	M	2/03/08	A U	6.9		L H		Y N
	Ryan	Amagan	M	26/7/16	A U	12.9		L H		Y N
	Maria	Benstruto	M	88/14/29	A U	11.6		L H		Y N
	Jemer	Pangani	M	26/18/05	A U	9.7		L H		Y N
	Kiera	Byles	M	86/10/19	A U	10.2		L H		Y N
			M		A U	10.12		L H		Y N
			M		A U			L H		Y N
			M		A U			L H		Y N
			M		A U			L H		Y N
			M		A U			L H		Y N
			M		A U			L H		Y N
			M		A U			L H		Y N

What's Your Experience Weighing Children?

*Measuring children
is not for the faint
of heart.*



Measuring Weight With Hanging Scales



Data Collection Form

Children 0 - 59 months

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[illegible]

Data Collection Form

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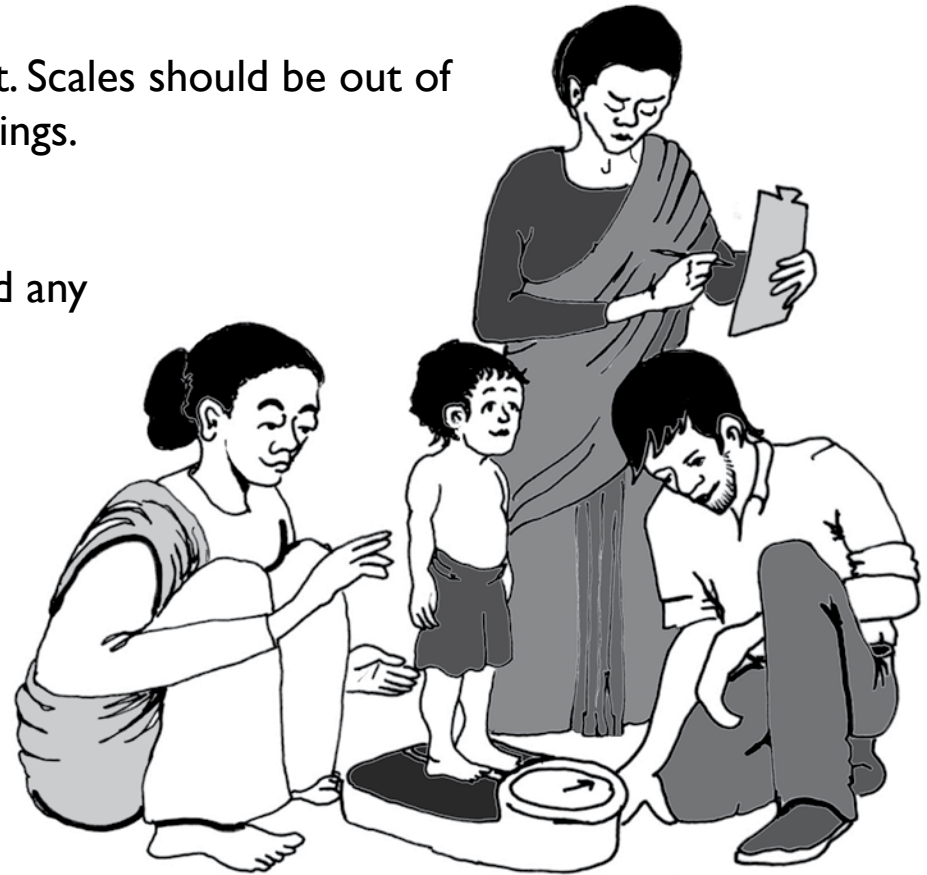
Name of Data Collector:

Team #:

[illegible]

Measuring Weight of Children 2 Years and Older (Standing Scales)

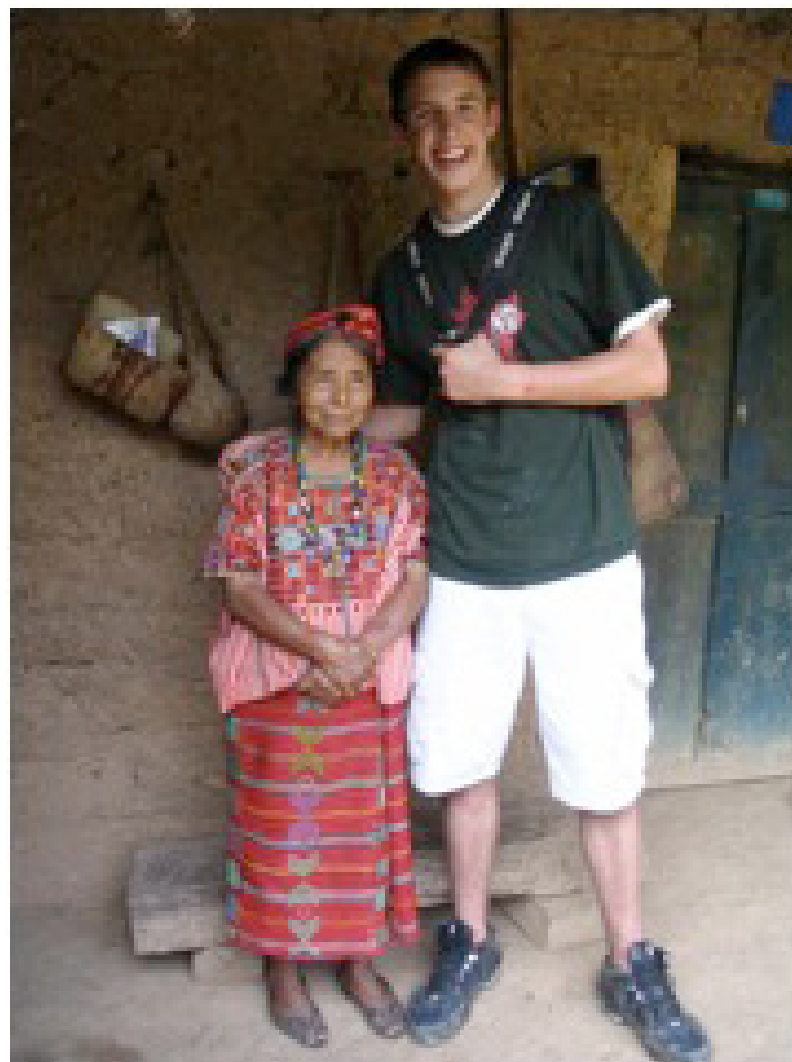
1. Set scales on smooth, hard surface, in good light. Scales should be out of direct sunlight because heat may affect the readings.
2. Measurer zeros the scales.
3. Ask the mother to remove the child's shoes and any outer clothing.
4. Child stands with feet at centre of scales.
5. Measurer kneels by the scales and, when the needle or digital display is no longer moving, reads aloud the weight of the child to the nearest 0.1 kg.
6. The measurer checks that the measurement is recorded correctly and then the assistant takes a second reading from the scale after checking for correct positioning. If the second reading is different from the first, only the average of the two readings is recorded on the form, unless the difference is greater than 0.3 kg. In this case, take a third reading.



Measuring Weight of Children Under 2 Years (Standing Scales)

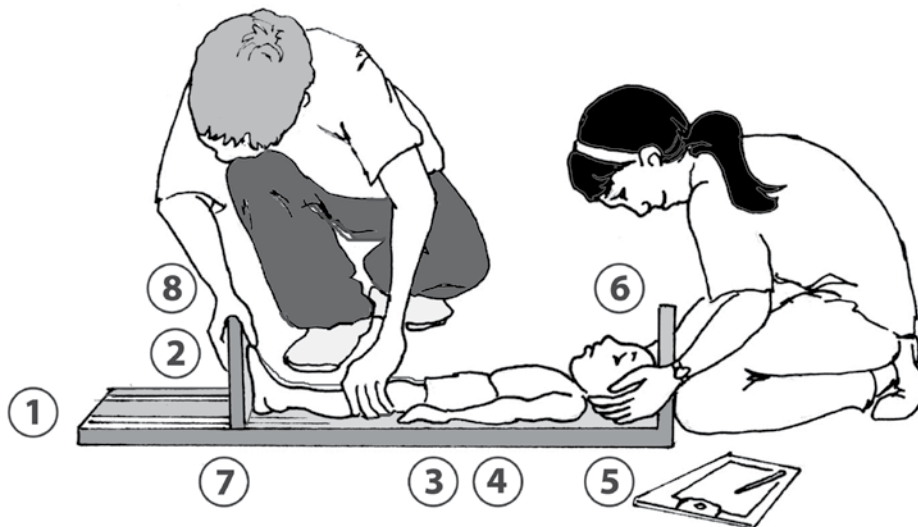


Height Differences



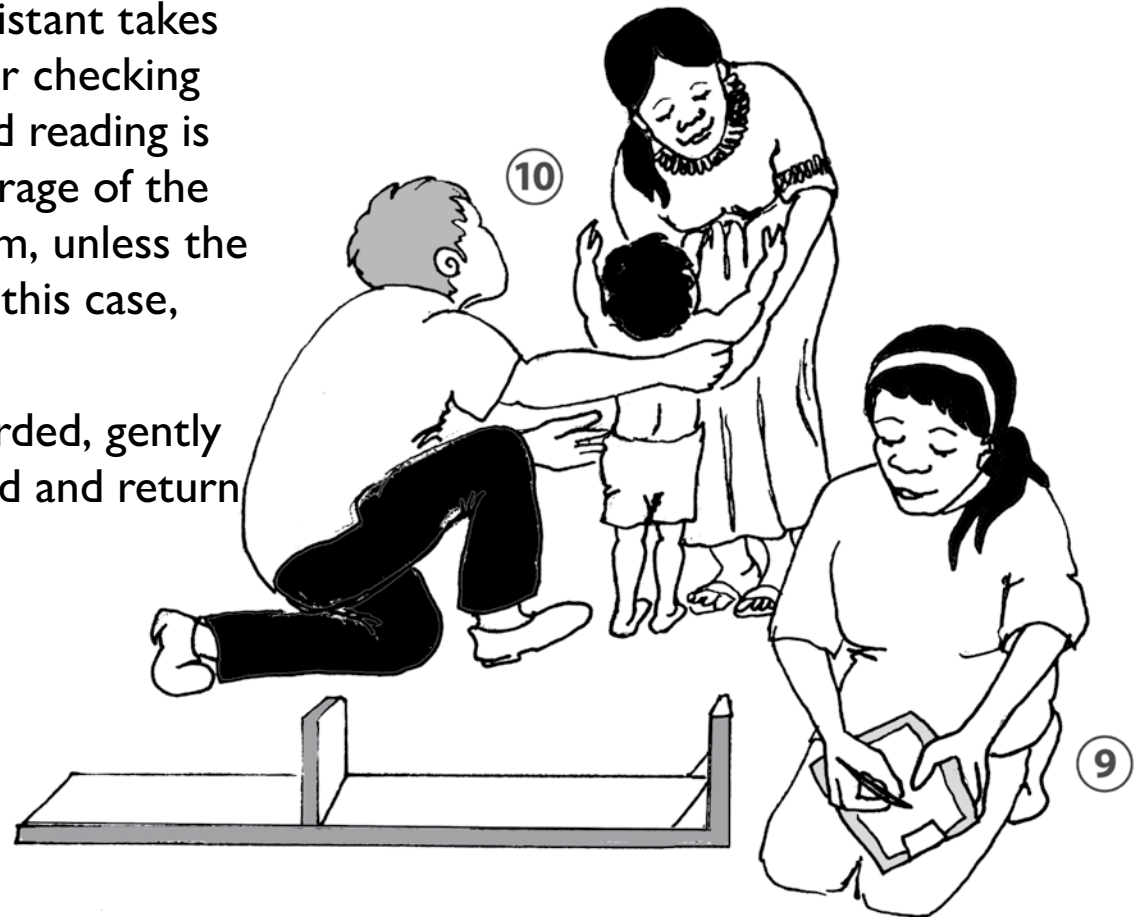
Measuring Length of Children Under 2 Years

1. Place the length board on flat ground or a low, flat surface. Be sure it is secure so the child will not fall off.
2. Ask the mother to remove the child's shoes and any hat or hair ornament.
3. Ask the mother to lay the child down on their back, on top of the length board.
4. Ensure that the child's head, shoulders, back, buttocks and heels are flat against the length board.
5. The top of the child's head should be against the end of the length board that does not move.
6. The assistant will hold the head of the child so that the child's eyes look up. The assistant's head should be directly over the child's head, and he or she should look directly into the child's eyes.
7. The measurer presses gently with one hand on the child's knees to straighten them. At the same time, the measurer quickly moves the moveable footpiece with his or her other hand so that the child's feet are pressed flat against it.
8. Quickly read the measurement aloud without moving the child or the moveable foot piece. This is the length of the child.



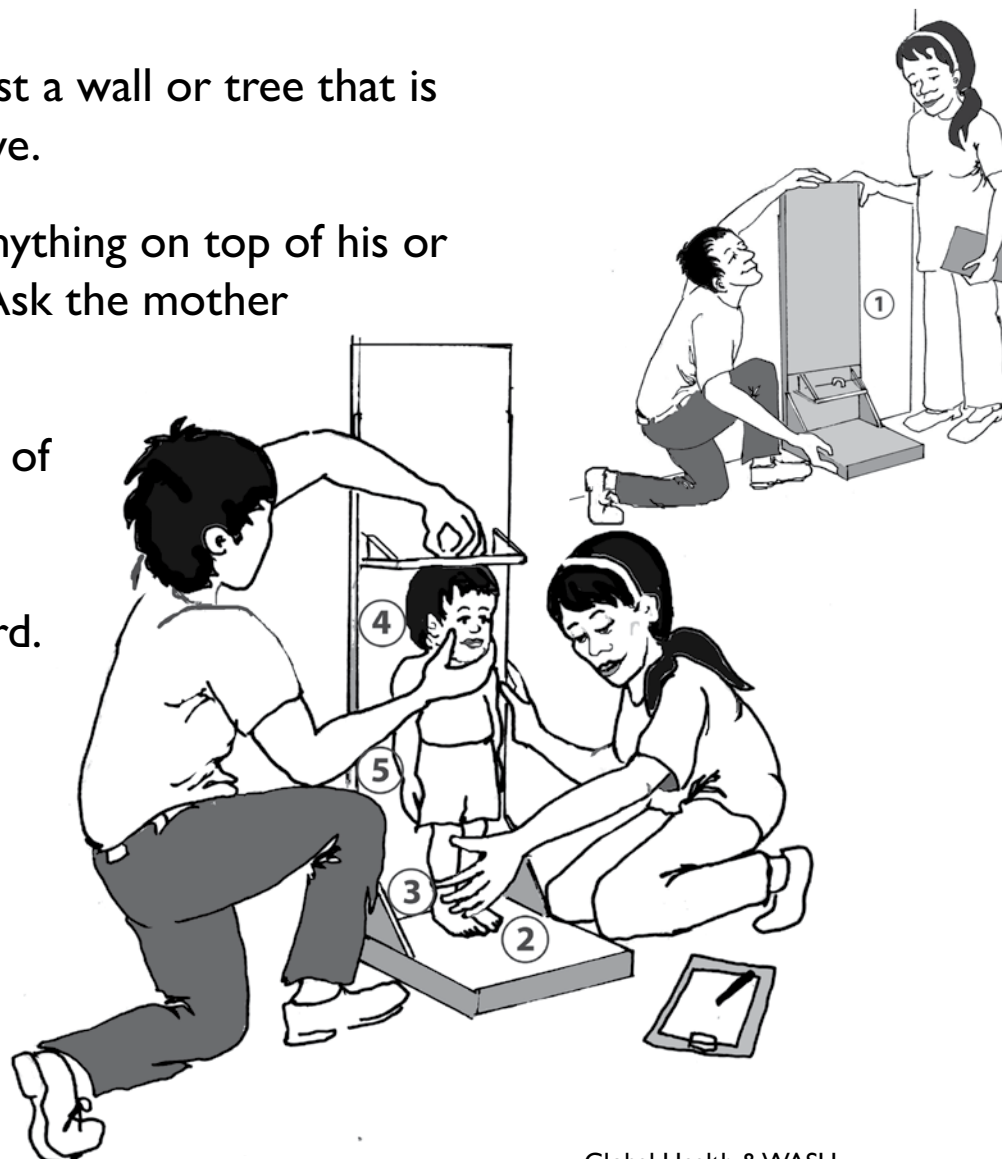
Measuring Length of Children Under 2 Years

9. The measurer checks that the measurement is recorded correctly and then the assistant takes a second reading from the scale after checking for correct positioning. If the second reading is different from the first, only the average of the two readings is recorded on the form, unless the difference is greater than 1.0 cm. In this case, take a third reading.
10. When the numbers have been recorded, gently help the child to get up off the board and return to his or her mother.



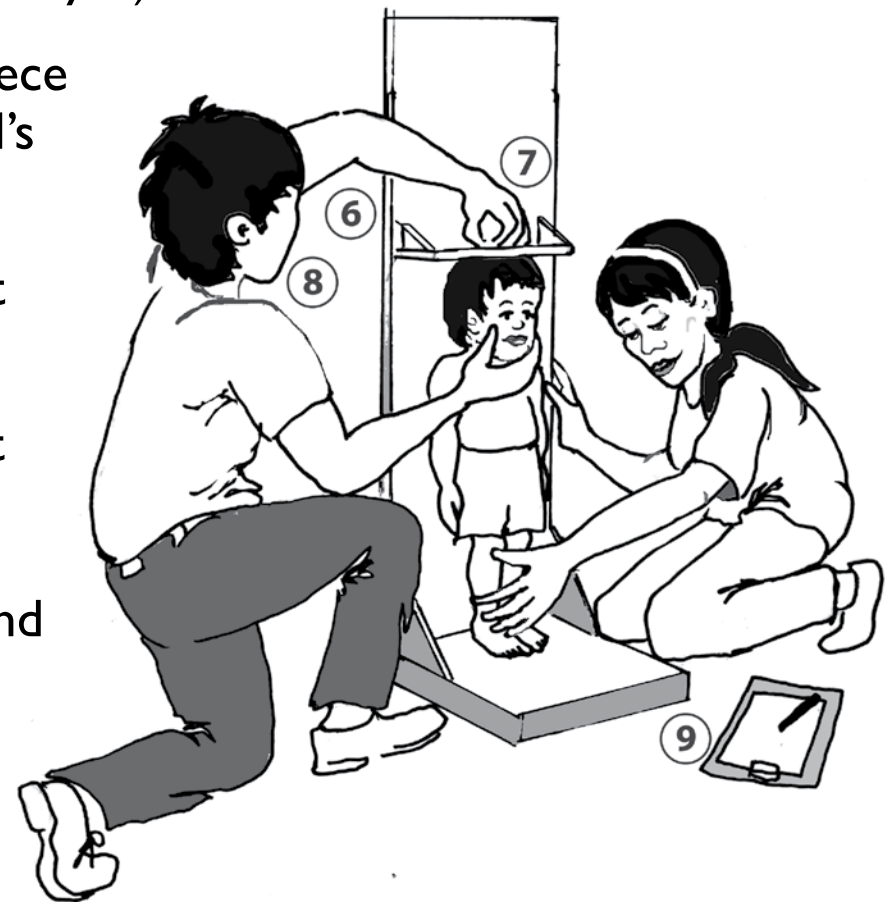
Measuring Height of Children 2 Years and Older (Steps 1–5)

1. Place the height board on flat ground against a wall or tree that is upright. Ensure that the board will not move.
2. The child must be barefoot and not have anything on top of his or her head (such as a hat or hair ornament). Ask the mother to remove these items.
3. Stand the child on the platform at the base of the height board, heels together and knees straight. Heels, calves, thighs, trunk and buttocks should touch the back of the board.
4. Lift the child's chin so the child's eyes are looking straight ahead.
5. The arms should be hanging down at the child's side. The child's weight should be distributed evenly on both feet.



Measuring Height of Children 2 Years and Older (Steps 1-6)

6. The measurer squats down right in front of and at eye level with the child (that is, looking into the child's eyes).
7. Gently and firmly slide the moveable headpiece down until it touches the crown of the child's head. Hold it firmly there.
8. The measurer reads aloud the measurement indicated by the headpiece.
9. The measurer checks that the measurement is recorded correctly and then the assistant takes a second reading from the scale after checking for correct positioning. If the second reading is different from the first, only the average of the two readings is recorded on the form, unless the difference is greater than 1.0 cm. In this case, take a third reading.



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			M	F		A	U			L	H		Y	N
			M	F		A	U			L	H		Y	N
			M	F		A	U			L	H		Y	N

Review – Correct or Incorrect?



What is correct? Incorrect?



What is correct? Incorrect?