

ANTHROPOMETRIC ASSESSMENT OF NUTRITIONAL STATUS

MEASURING LENGTH IN INFANTS USING INFANTOMETER

MEASURING LINEAR GROWTH IN INFANTS

Linear growth in infants is measured using infantometer

Infantometers can be made from wood or plastic

Plastic infantometers are preferred because there is no risk of warping of instrument during monsoon

Specifications

Length: 45 cm base and 45 cm sliding central panel

Breadth: 30 cm

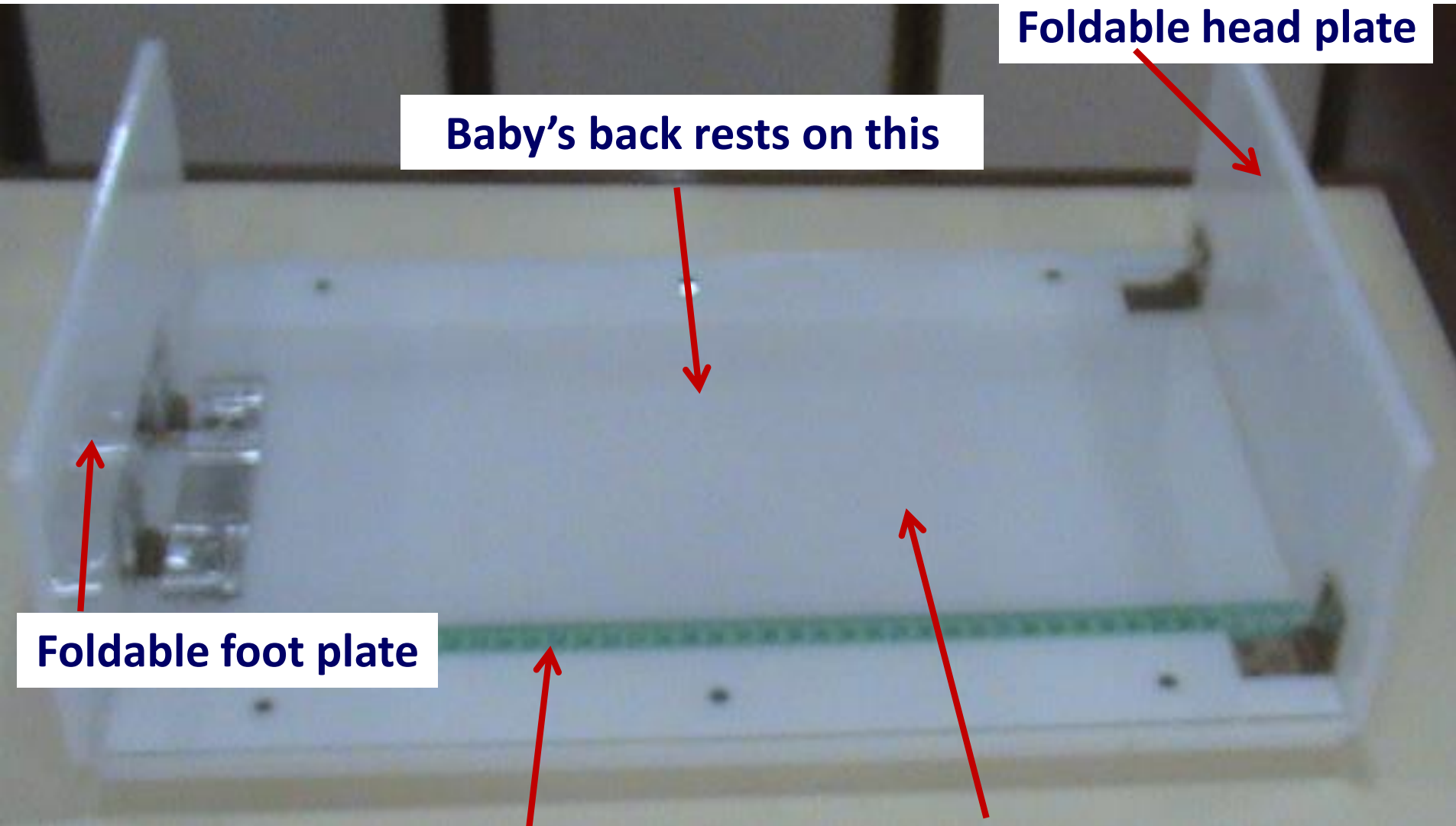
Foldable foot and head plates

Instrument Accuracy 0.1 cm

Measurable length 45 - 90cm

Accuracy to be tested against standard infantometer

INFANTOMETER



Foldable head plate

Baby's back rests on this

Foldable foot plate

Tape for measuring baby's length

Central sliding panel attached to the foot plate

INFANTOMETER CENTRAL PANEL FULLY EXTENDED

Foldable head plate on which top of baby's head rests

Sliding panel on which baby's leg rests

Tape for measuring baby's length

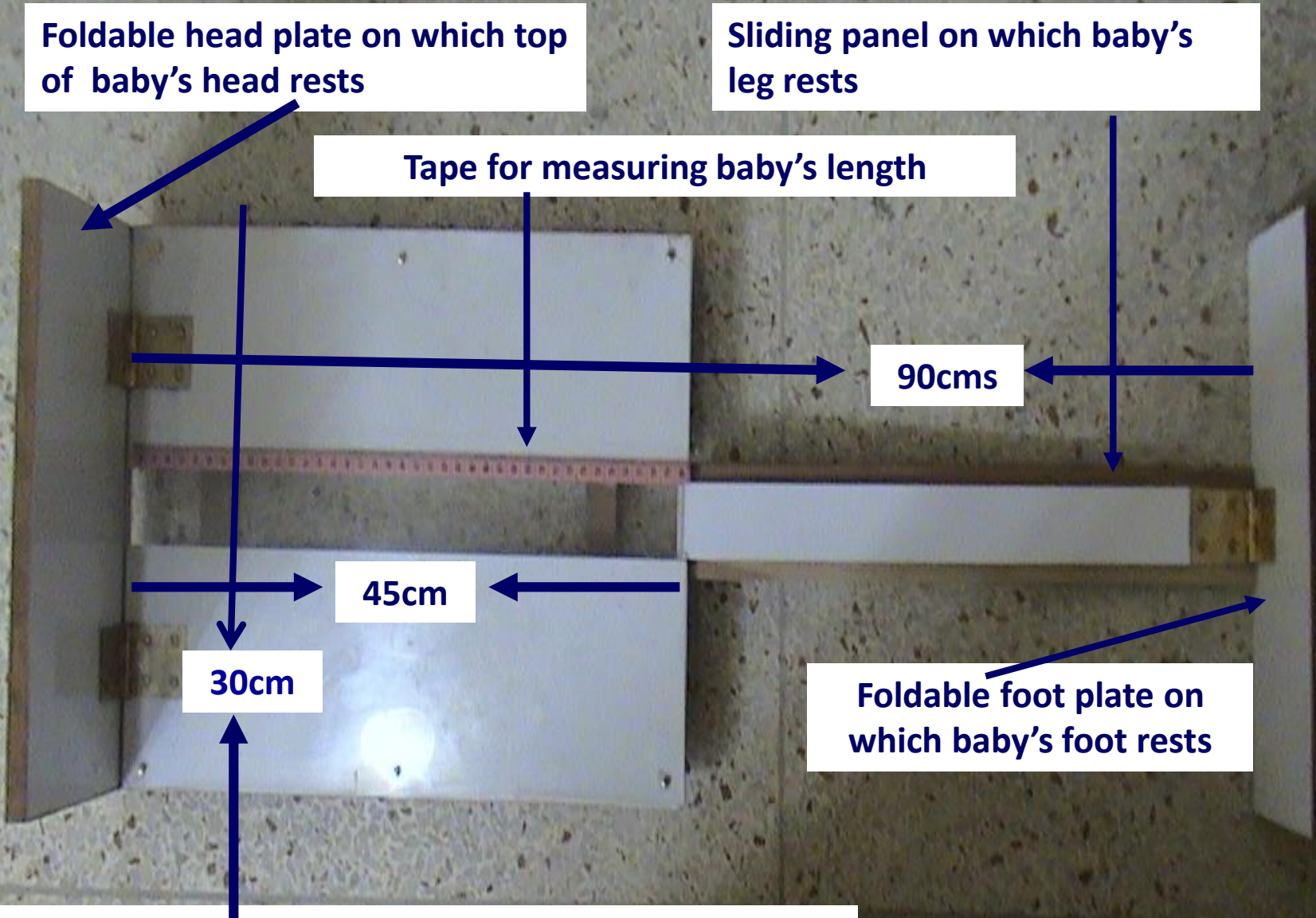
90cms

45cm

30cm

Foldable foot plate on which baby's foot rests

Broad central portion covered with thick plastic plate on which baby lies on its back breadth 30cms



TESTING ACCURACY OF INFANTOMETERS

Accuracy of the test infantometer is checked by using a segment of the anthropometry rod of known length, five times in five locations on the infantometer

Those which are not showing accurate length in all locations are inaccurate

If an infantometer is accurate as assessed by anthropometry rod then testing with infants is done

Measure two infants once in the test and once in the standard infantometer and compare the length.

This testing can be done both in clinic and community settings.



Anthropometry rod at one edge of the Infantometer

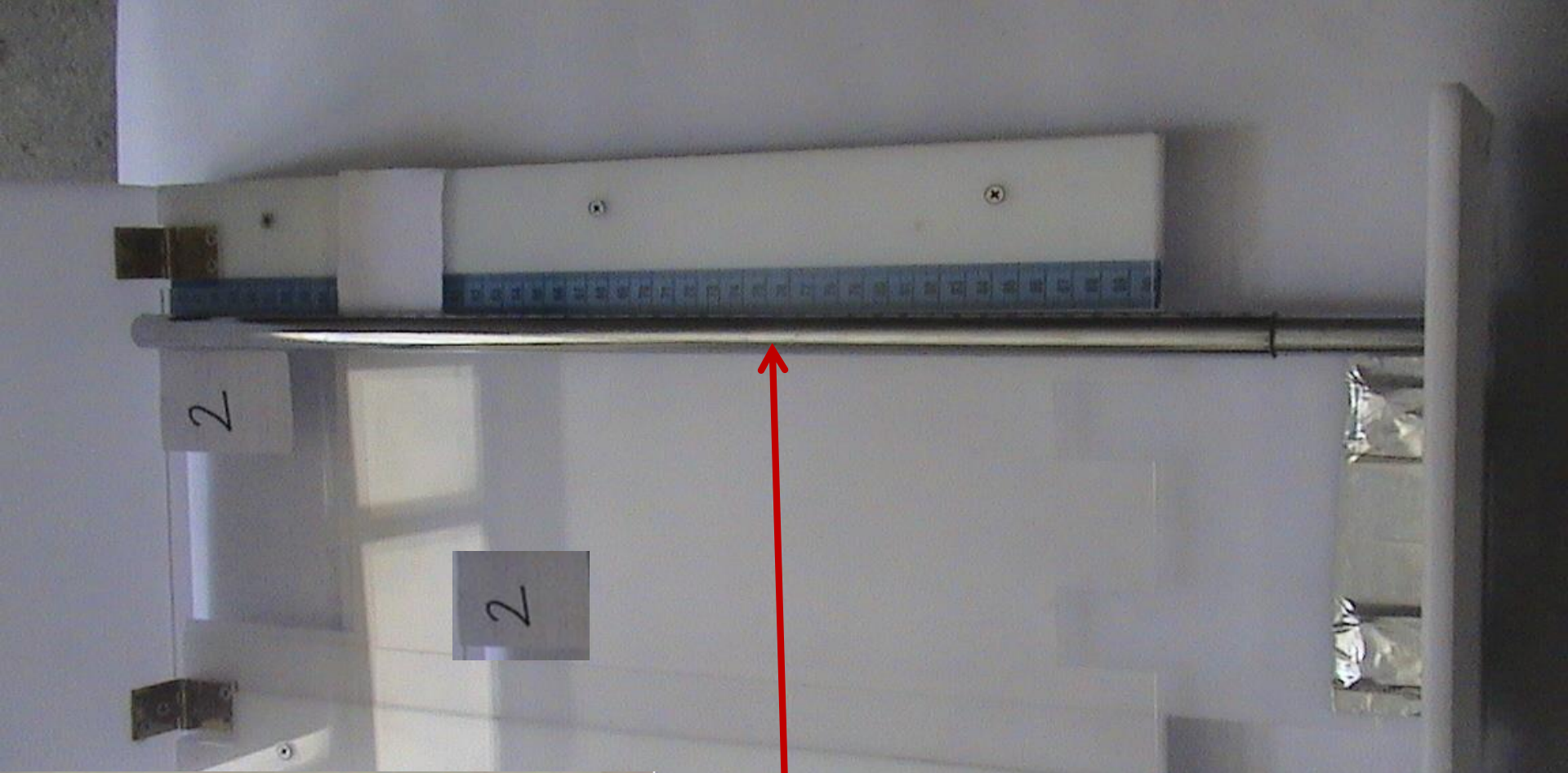


**Reading on the
tape is 55cm**

TESTING ACCURACY OF INFANTOMETERS USING ANTHROPOMETRY ROD

A segment of the anthropometry rod measuring 55 cms was used to test the accuracy of the infantometer.

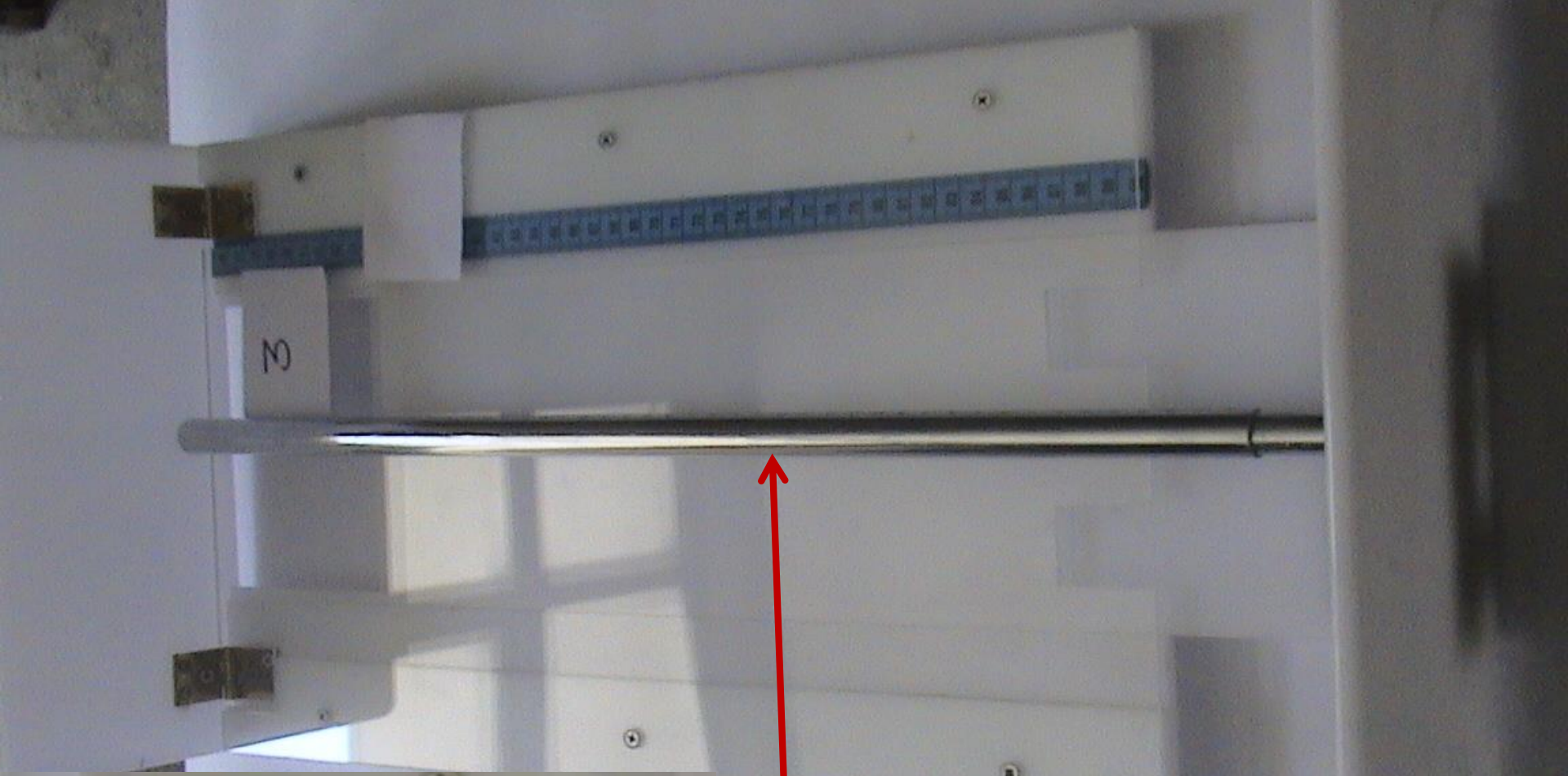
The anthropometry rod was placed on two edges of the infantometer, on either side of the central sliding panel and at the centre of the sliding panel and the length measured on the tape in the infantometer.



Anthropometry rod at one side of the central sliding panel of the infantometer



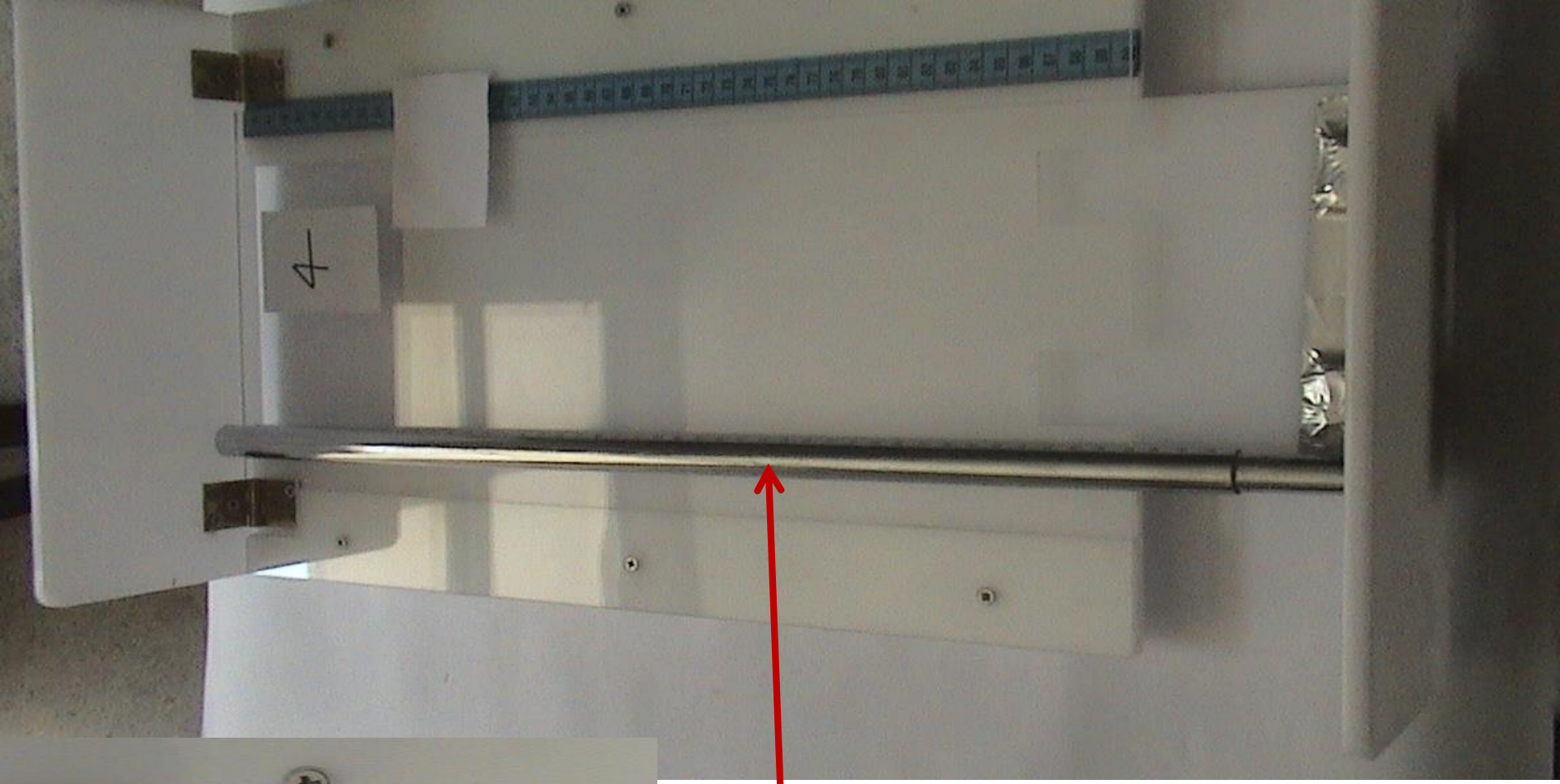
Reading on the tape is 55cm



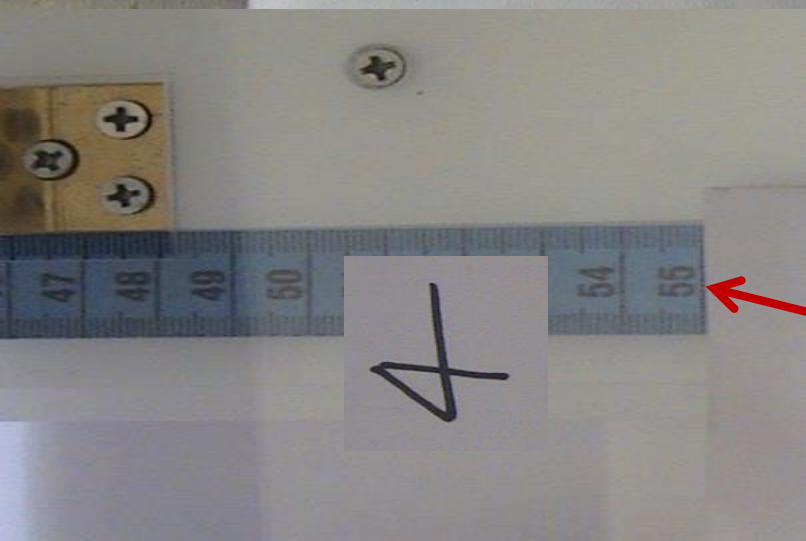
Anthropometry rod at centre of the central sliding panel of the infantometer



Reading on the tape is 55cm

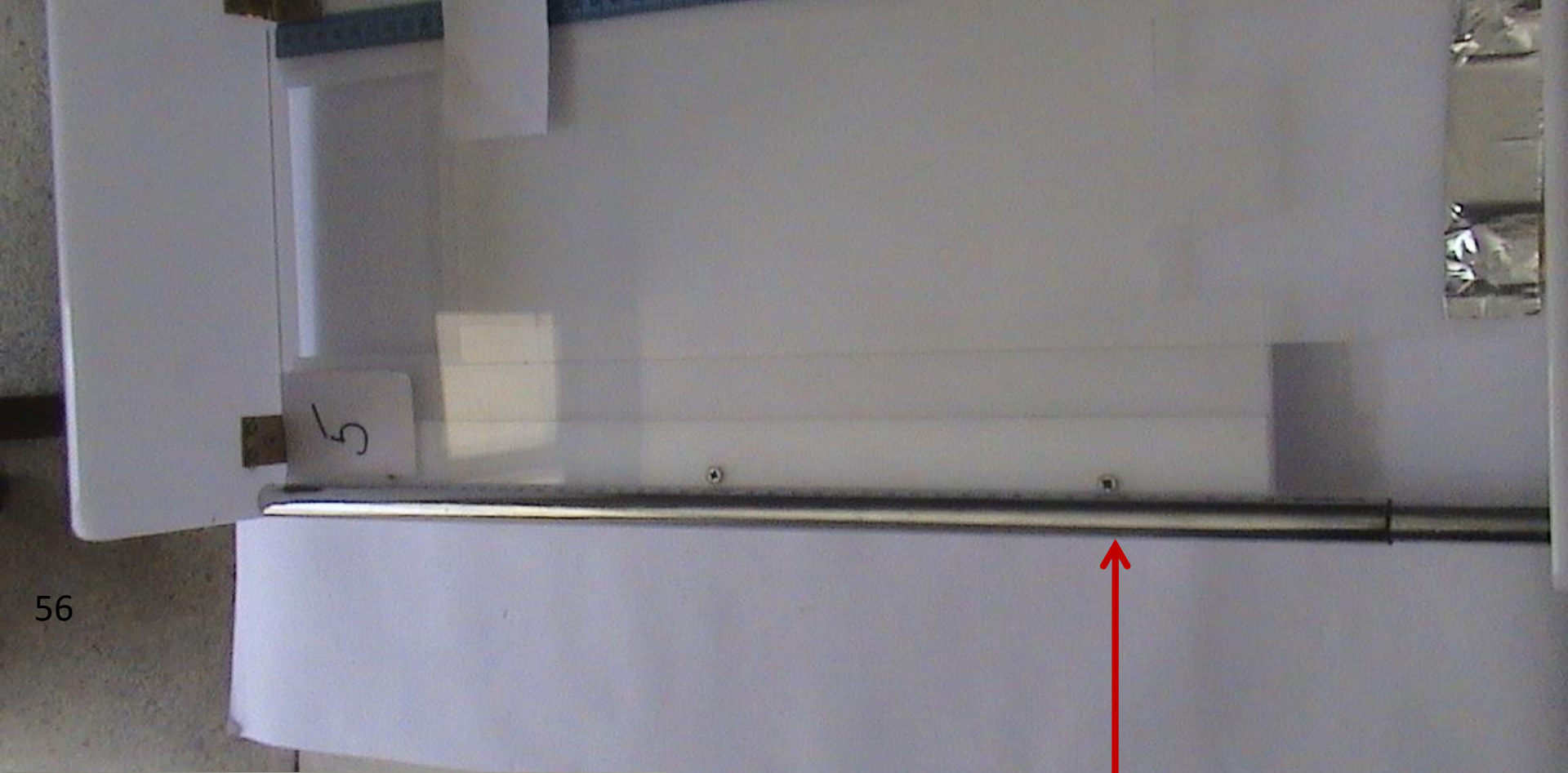


Anthropometry rod at other side of the central sliding panel of the infantometer

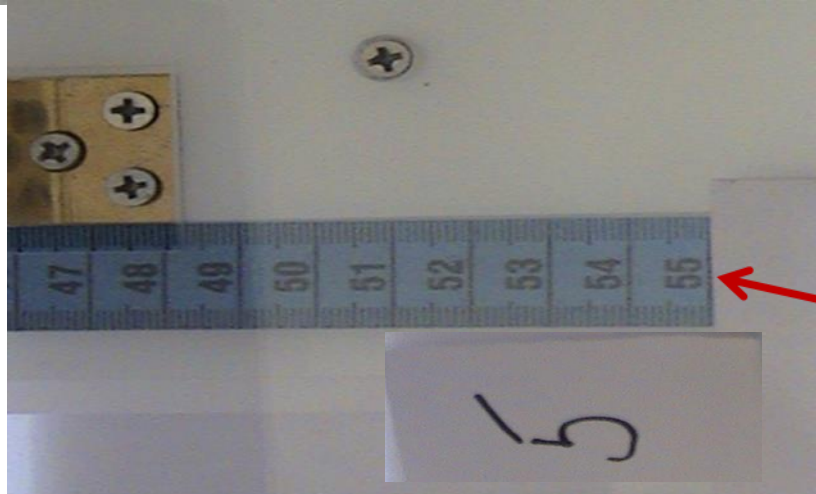


Reading on the tape is 55cm

56



Anthropometry rod at other edge of the infantometer



Reading on the tape is 55 cm



Infant being measured - head held vertical against the head plate by the mother; back straight on the infantometer; knees straightened and foot positioned by the nutritionist vertically against the foot plate. Length of the baby is 63 cm both in the test and standard infantometer.

MEASUREMENT PROCEDURE

Infants always want to be carried by the mother and do not like to lie on the infantometer.

Request the mother to put the infant on the infantometer with head abutting on the head plate.

Request her to play with the infant until he/she settles down and lies comfortably on the infantometer.

Request the mother to move near the head plate.

Adjust the infant's head against the head plate so that the lower orbital margin and tragus lie on the same plane.

Request mother to hold the head in this position gently and keep talking to the infant so that the infant does not move the head away.

MEASUREMENT PROCEDURE

Infants will always keep their knees bent while lying on their back.

With your left hand gently press the bent knee on to the central board; the knee will straighten and the foot will push the foot plate out.

Infant's foot should not be pulled to straighten the leg.

Press the dorsum of the foot on to the foot plate so that there is no gap between the foot and the foot plate.

Request the mother to bend the knees of the baby and then pick the baby from the infantometer. This will prevent the baby from accidentally kicking the foot plate while being picked up.

Place a white sheet of paper on the infantometer at the level of the top of the central sliding panel (to prevent parallax errors in taking the reading) and read the measurement on the tape.



Baby's head is correctly positioned and held by mother

Inspite of baby's legs being slightly bowed, the foot is correctly resting on the foot plate and held by nutritionist.



Head has been positioned and knees are straightened. The baby has slightly bowed legs (indicated by arrow). This is normal in young babies and cannot be straightened.

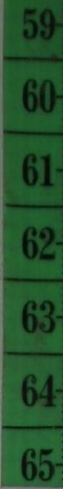




Error - foot not resting on foot plate



Foot correctly resting on the foot plate



59
60
61
62
63
64
65

Baby's length is 64.8cms