



UNIVERSITY OF KARACHI
National Growth and Developmental Standards
for the Pakistani Children
The NGDS Pilot Project



Authenticity: No handwritten notes except original signatures. This report becomes official only after bearing signatures of Project Director.

NATIONAL GROWTH AND DEVELOPMENTAL STANDARDS (NGDS) FOR THE PAKISTANI CHILDREN

THE SIBLING GROWTH PILOT PROJECT (SGPP)

GROWTH PROFILE OF A. M. A.

The SGPP Case Number: SGPP-SSS-00 (SSS: School Initials; 00: Case Number)

Date of Report: January 6, 2003

Date Format: All dates are in the format (Year-Month-Day)

You are welcome to discuss these results with the Project Director on: MONDAY, January 6, 2003 at 1800h (6 p. m.)

BASIC INFORMATION

- a) Father's Name: W/H (W/H: Withheld to protect the privacy of family members)
- b) Father's Education: B. E.
- c) Father's Occupation: Government Service
- d) Mother's Name: W/H
- e) Mother's Education: B. A.
- f) Mother's Occupation: Housewife
- g) Paper Mail (Mailing Address): W/H
- h) e-mail: W/H
- i) Telephone Number: W/H
- j) Best Time-Slot to Call: 1700h-2000h
- k) Class: II
- l) School: W/H
- m) Gender: Female
- n) Date of Birth: 1994-05-19
- o) Father's NIC: W/H
- p) Mother's NIC: W/H

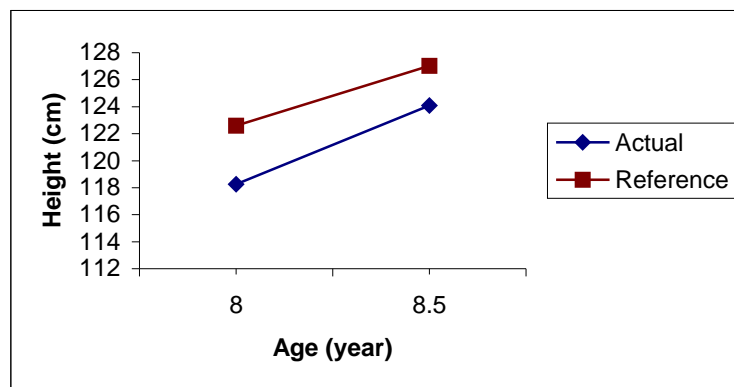


Fig. 1. Height Profile (Graphical)

Table 1: Actual Growth Parameters
(Interpolated at the Reference Ages)

Age	8 years	8 years 6 months
Height [cm]	118.25	122.60
Height [feet-inches]	3 feet 10.6 inches	4 feet 0.3 inches
Percentile-for-height	4.75	9.32
Mass [kg]	18.31	19.57
Weight [lb-oz]	40 lb 5.9 oz	43 lb 2.3 oz
Percentile-for-weight	<3	<3

GROWTH PARAMETERS

Adult-MP (Target) height [MP stands for 'mid-parental']

Your child's adult-MP (target) height is 159.6 cm, which is equivalent to 5 feet 2.8 inches.

Adult-MP mass (weight) [corresponding to adult-MP height]

Your child's adult-MP mass is 53.58 kg, which corresponds to a adult-MP weight of 118 lb 2.1 oz.

CDC-growth-curve percentile [corresponding to MP height]

28.75

GROWTH PROFILE BETWEEN THE FIRST AND THE SECOND CHECKUP

Height-for-age profile

Your child is 5.85 cm SHORT for age, which is equivalent to 2.30 inches.
Your child is STUNTED, in technical terms.

Height velocity-for-age profile

Your child's height velocity is 1.95 cm/year MORE than the reference value, which is equivalent to 0.77 inch/year. Your child is growing FAST.

Height prediction

121.94 cm, which is equivalent to 4 feet 0.008 inches at 8 years 6 months.

Mass-for-age (Weight-for-age) profile

Your child has 5.06 kg LESSER mass for age.
Your child is UNDERWEIGHT for age by 11 lb 2.8 oz.

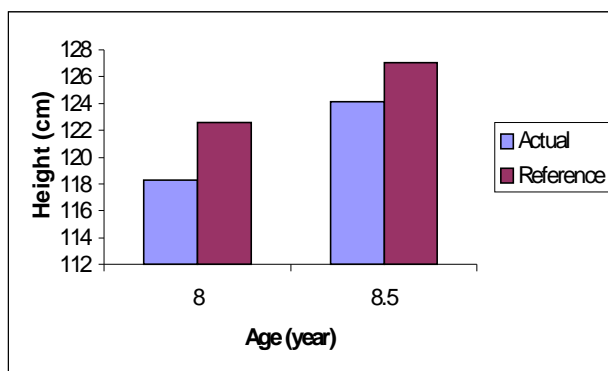


Fig. 2. Height Profile (Bar Chart)



Growth Profile of A. M. A. (Contd.)

Table 2: Reference Growth Parameters

Age	8 years	8 years 6 months
Height [cm]	124.1	127.03
Mass [kg]	23.38	24.45

Rate-of-mass-gain-for-age (weight-gain-for-age) profile

Rate of mass gain is 2.24 kg/year MORE than the reference value, which is equivalent to a rate of weight gain of 4.95 lb/year. Rates of mass and weight gain are HIGH.

Mass (Weight) prediction

21.04 kg, which is equivalent to a weight of 46 lb 6.2 oz at 8 years 6 months.

Obesity profile

Your child's body-mass index (BMI) is 1.17 kg/m² LESSER than the reference value. Your child tends to be LEAN.

Mass-for-height (Weight-for-height) profile

Your child has 1.63 kg LESSER mass for height. Your child is UNDERWEIGHT for height by 3 lb 9.5 oz. Your child is WASTED, in technical terms. DO NOT confuse with everyday meaning of 'waste'.

GROWTH PROFILE BETWEEN THE SECOND AND THE THIRD CHECKUP

Height-for-age profile

Your child is 4.43 cm SHORT for age, which is equivalent to 1.74 inches. Your child is STUNTED.

Height velocity-for-age profile

Your child's height velocity is 3.67 cm/year MORE than the reference value, which is equivalent to 1.44 inches/year. Your child is growing FAST.

Height prediction

127.22 cm, which is equivalent to 4 feet 2.1 inches at 9 years.

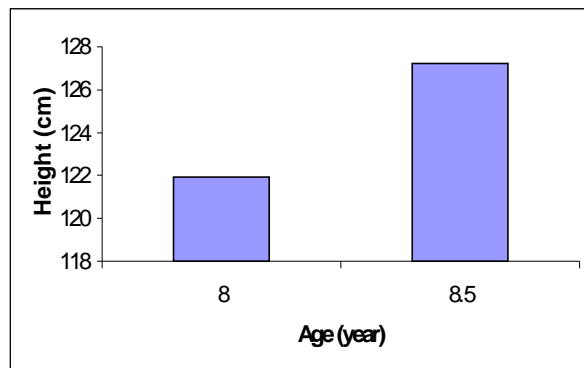


Fig. 3. Height Prediction

Table 3: Growth Profile

<i>D (Growth Parameter)</i> <i>= Reference Value - Actual Value</i>	<i>Between 1st & 2nd Checkup</i>	<i>Between 2nd & 3rd Checkup</i>
Δ Height-for-age [cm]	- 5.85	- 4.43
Δ Height-for-age [inch]	- 2.30	- 1.74
Status	STUNTED	STUNTED
Δ Height-velocity-for-Age [cm/year]	+ 1.95	+ 3.67
Δ Height-Velocity-for-Age [inch/year]	+ 0.77	+ 1.44
Status	Growing FAST	Growing FAST
Δ Mass-for-age [kg]	- 5.07	- 4.88
Δ Weight-for-age [lb-oz]	- 11 lb 2.8 oz	- 10 lb 12.3 oz
Status	UNDERWEIGHT	UNDERWEIGHT
Δ Rate-of-mass-gain-for-age [kg/year]	+ 2.24	- 2.05
Δ Rate-of-weight-gain-for-age [lb/year]	+ 4.95	- 4.52
Status	Rates HIGH	Rates LOW
Δ Body-mass index [kg/m ²]	- 1.17	- 1.45
Status	LEAN	LEAN
Δ Mass-for-height [kg]	- 1.63	- 2.30
Δ Weight-for-height [lb-oz]	- 3 lb 9.5 oz	- 5 lb 1.2 oz
Status	WASTED	WASTED

Mass-for-age (Weight-for-age) profile

Your child has 4.88 kg LESSER mass for age. Your child is UNDERWEIGHT for age by 10 lb 12.3 oz.

Rate-of-mass-gain-for-age (weight-gain-for-age) profile

Rate of mass gain is 2.05 kg/year LESS than the reference value, which is equivalent to a rate of weight gain of 4.52 lb/year. Rates of mass and weight gain are LOW.

Mass (Weight) Prediction

20.24 kg, which is equivalent to a weight of 44 lb 10.1 oz at 9 years.

Obesity profile

Your child's body-mass index (BMI) is 1.45 kg/m² LESSER than the reference value. Your child tends to be LEAN.

Mass-for-height (Weight-for-height) profile

Your child has 2.30 kg LESSER mass for height. Your child is UNDERWEIGHT for height by 5 lb 1.2 oz. Your child is WASTED.

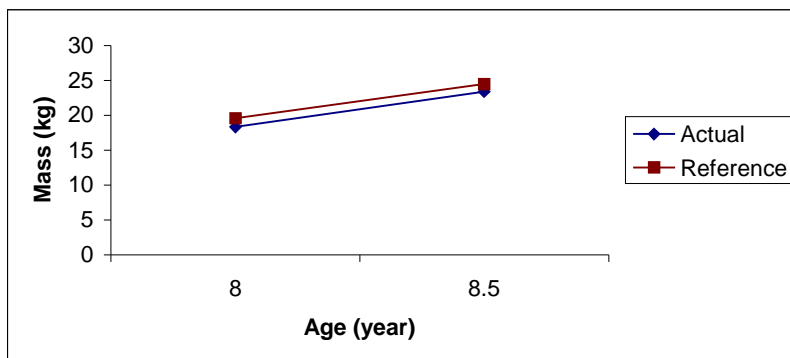


Fig. 4. Mass Profile (Graphical)



Growth Profile of A. M. A. (Contd.)

Table 4: Growth Prediction
(Extrapolated at the Reference Ages)

Age	8 years 6 months	9 years
Height [cm]	121.94	127.22
Height [feet-inches]	4 feet 0.008 inches	4 feet 2.1 inches
Percentile-for-height	8.24	17.38
Mass [kg]	21.04	20.24
Weight [lb-oz]	46 lb 6.2 oz	44 lb 10.1 oz
Percentile-for-weight	5.18	<3

SUMMARY OF FINDINGS

- Gap between the reference and the actual heights is DECREASING.
- The child is growing FASTER and the height velocity has further INCREASED.
- The child, however, remains EXTREMELY UNDERWEIGHT. Her weight is BELOW the 3rd percentile, and the prediction at age 9 years remains the same.
- The rate of weight gain has decreased from HIGH to LOW.
- The child is wasted, the situation WORSENERD from the previous checkup.
- BMI is lesser, the situation WORSENERD from the previous checkup.
- The child is showing signs of TRUNK DEFORMITY.

IMPLICATIONS

A constant low weight may:

- Affect vital organs
- Cause diabetes
- Hamper to achieve the desired final height

The child is, already, showing signs of trunk deformity.

RECOMMENDATIONS

The child should be put under the care of pediatrician/nutritionist. A program must be chalked out to increase weight of the child.

Notes

- Please refer to the SGPP Case Number in all future correspondence.

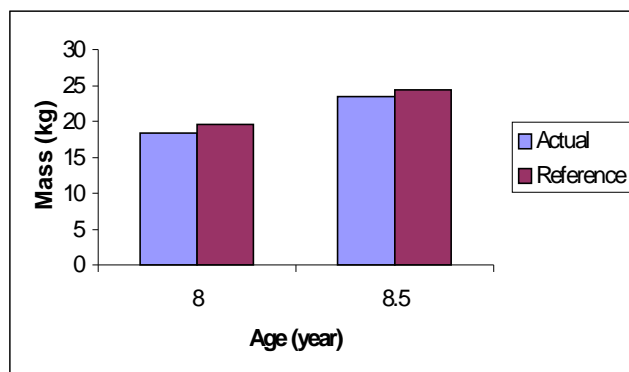


Fig. 5. Mass Profile (Bar Chart)

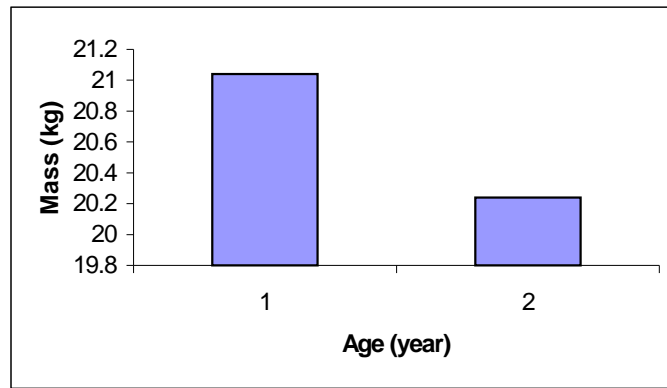


Fig. 6. Mass Prediction

- b) For appointments/rescheduling/discussion of results:
e-mail: [appointment\(at the rate of\)ngds-ku.org](mailto:appointment@ngds-ku.org)
- c) Please e-mail during the last week of March 2003 for the next appointment.
- d) Please check the accuracy and the completeness of your child's data and e-mail us back any corrections/omissions.
- e) These results were processed manually.

Thanks for your interest and your coöperation.

Professor Dr. Syed Arif Kamal
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 (this phone number entry updated on May 1, 2010)

End of Report

Web address of this document: http://www.ngds-ku.org/ngds_folder/Growth_AMA.pdf