



کراچی یونیورسٹی

University of Karachi

THE NGDS PILOT PROJECT
The NGDS School Awareness Program



Is Your Child Growing All Right?

Professor Dr. Syed Arif Kamal

*Professor and Chairman, Department of Mathematics and Project Director
The NGDS Pilot Project, University of Karachi*

Presentation at Beacon Light Academy, Gulshan-é-Iqbal, Karachi, February 20, 2006 at 1230h

URL: <http://ngds-ku.org>

DEAR TEACHERS!

e-mail: profdrakamal@gmail.com

Homepage of Project Director:
<http://www.ngds-ku.org/kamal>

A team of University of Karachi headed by Professor Dr. Syed Arif Kamal, Chairman, Department of Mathematics has undertaken a pilot project to establish "National Growth and Development Standards (NGDS)" for the Pakistani children under the directives of Governor Sindh/Chancellor, University of Karachi. The NGDS Pilot Project is goodwill, public-service endeavor conducted *Free of Charge* for the care and the development of young persons to prepare them mentally, physically and emotionally for rewarding careers in the civil and the military services. Design of this project is undertaken after extensive contacts with local and international experts.

Healthy 4-11 years old children, having no complaints before birth and during the weaning period, studying in schools run by the Armed Forces are measured and screened for anemia, cardiac problems and scoliosis (major causes for growth retardation). The NGDS Team has detected stunting (short height for age) as well as a number of cases involving scoliosis. Stunting, if detected in preteen years, could be treated by a combination of sleep habits, diet, exercise and, in extreme cases, by hormone therapy. Scoliosis, if left untreated, produces cosmetic deformities and effects vital organs (e. g., heart, lungs) during adolescence. If detected early it could be treated with a combination of braces and exercises. Most important of all, delicate surgery involving spinal nerves could be avoided in most cases.

On March 23, 2002, TAWANA PAKISTAN (Urdu version of "Strong Pakistan") was launched, a similar project for growth monitoring of rural girl child of Pakistan. The methods, the techniques, the instruments and the softwares developed by the NGDS Team have been demonstrated to the key officials of this project. The NGDS Height-Measurement System has been adopted for Tawana –Pakistan-anthropometry studies. The NGDS Team has, also, trained master anthropometrists of Tawana Pakistan.

Reference: Kamal SA, Firdous S, Alam SJ, "An investigation of Growth Profiles of the Pakistani Children", *International Journal of Biology and Biotechnology* 1 (4), 2004, 709-717 (abstract: <http://www.ngds-ku.org/pub/jourabst.htm#J26>; full text: <http://www.ngds-ku.org/Papers/J26.pdf>; also available from Mrs. Yasmeen Salman, Coördinator, Beacon Light Academy)

Do you know that:

Your child becomes as much as 2 centimeters taller in the morning as compared to bedtime.

Scoliosis (curvature of the spinal column) develops quietly without any pain and is often, accidentally, discovered.

Untreated scoliosis may require surgery involving delicate nerves (sometimes the patients get paralyzed).

Scoliosis may be detected at an early stage by moiré technique without using harmful X rays.

A child grows very slowly just before reaching puberty (most of the mothers bring their kids to doctors during this period).

Regular growth monitoring can result in saving lives of some children.

Observing the way your child walks can give clues to underlying health problems.

Since 1998, the NGDS Pilot Project is being successfully implemented at Army Public School, 'O' Levels, Karachi, Bahria College, MT Khan Road, Karachi and Fazaia (Former PAF) Degree College, Base 'Faisal', Karachi, representative institutions of each wing of the Armed Forces of Pakistan. The anthropometric measurements taken are sitting height, standing height, mid-upper-arm circumference (MUAC), shoulder width and weight. Data are collected on over 2500 children. The children in these institutions are in a better-than-average health and represent a national sample.

Copyright 2006. Professor Dr. Syed Arif Kamal

Web address of this page: <http://www.ngds-ku.org/BLA/Handout.pdf>

University of Karachi, Box 8406, Karachi 75270 • Tel: +92 21 9926 1300-15 ext. 2293

URL: <http://ngds-ku.org> • e-mail: profdrakamal@gmail.com