

A growth chart for the 21^{st}

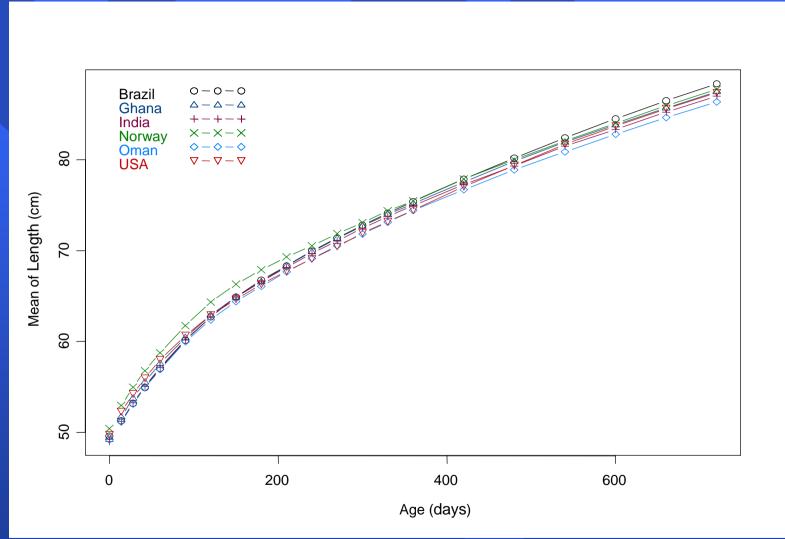
century



WHO Multicentre Growth Reference Study (MGRS)



Mean length from birth to 24 months for the six MGRS sites



WHO Multicentre Growth Reference Study Group. Assessment of linear growth differences among populations in the WHO Multicentre Growth Reference Study. Acta Paediatr Suppl 2006;450:56-65.



Attained growth

- Weight-for-age
- Length/height-for-age
- Weight-for-length/height
- Body mass index-for-age
- Mid-upper arm circumference-for-age
- Triceps skinfold-for-age
- Subscapular skinfold-for-age
- Head circumference-for-age

Growth velocity

- Weight
- Length/height
- Head circumference
- Arm circumference
- Body mass index



WHO Child Growth Standards Innovative aspects

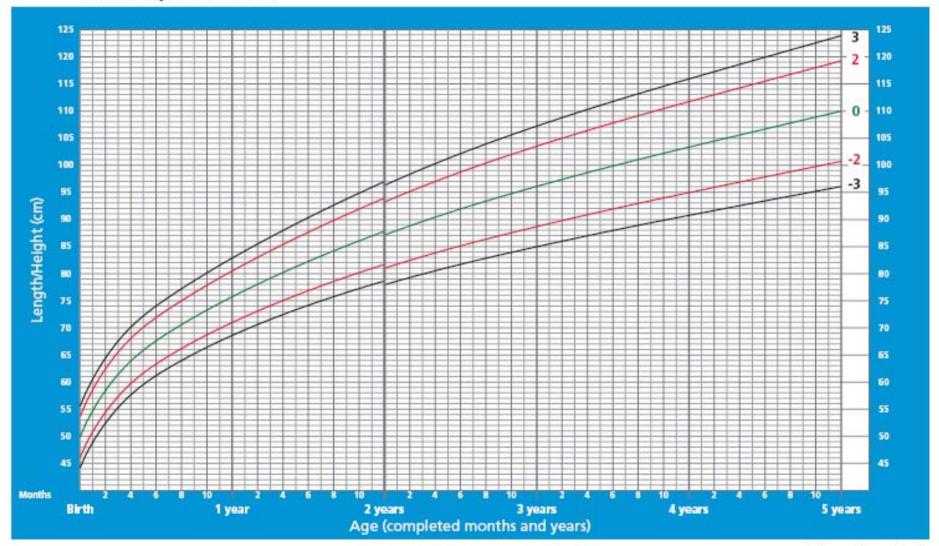
- Prescriptive approach recognizing need for standards
- Breastfed infant as normative model
- International sample
- Reference data for assessing childhood obesity
- Velocity reference data
- Link between physical growth and motor development



Length/height-for-age BOYS

World Health Organization

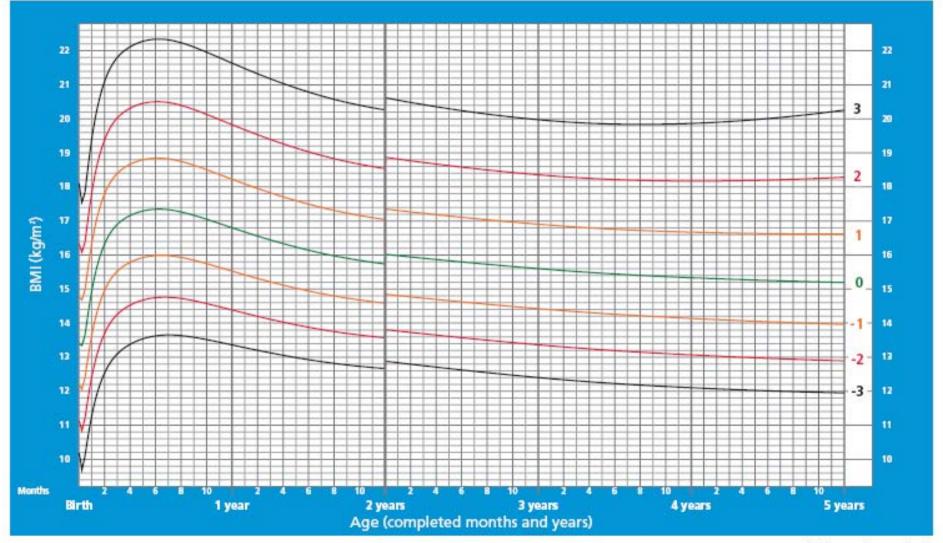
Birth to 5 years (z-scores)



BMI-for-age BOYS

Birth to 5 years (z-scores)

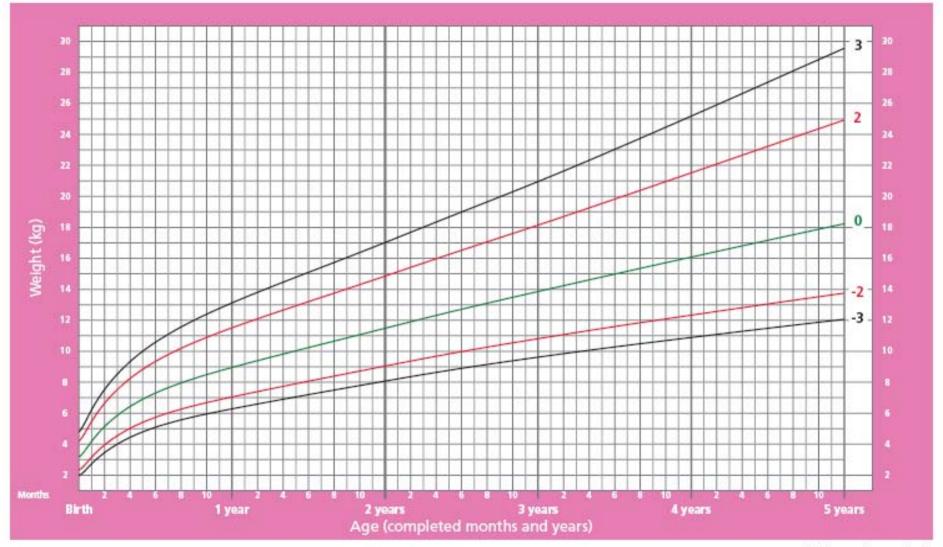




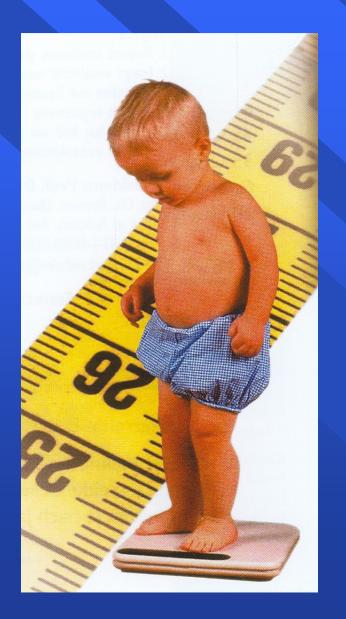
Weight-for-age GIRLS

Birth to 5 years (z-scores)









The new standards will play a key role in the prevention and early recognition of childhood obesity



Implementation phase

- **■** About 100 countries use NCHS reference
- Regional consultations to inform Member States
- Training of trainers workshops
- Application tools:
 - Training materials
 - PC and PPC software for clinical and population uses
 - Child Growth Record
 - Growth chart catalogue
 - Field tables
 - Website: www.who.int/childgrowth





Child survival

Physical growth

Child development

www.who.int/nutrition

