

**Faculty of medical laboratory science
public health MLS-PUBH-322
sem.6**

Growth and development



Growth & Development



Definition

- **Growth** is defined as the increase in the **size** of an individual due to increase in number and size of the cells.(size ,length ,weight) ; (physical)
- **Development** is the **maturation** of function and **acquisition** of variety of skills for functioning optimally in a society.(physical, mental, social , emotional...)

Principles of Growth and Development



- Growth is an **orderly** process, occurring in systematic way with wide individual differences.
- Development is continuous process, proceeds from the simple to the complex and from the general to the specific response
- There are critical periods for growth & development.

Factor influencing growth and development

1. Genetic
2. Nutritional
3. Socio-economic
4. Environmental
5. Chronic disease
6. Emotional and cultural
7. Intrauterine growth retardation & maternal infection



Stages of Growth & Development



- Infancy: Birth to 1 year
 - Neonate: Birth to 1 month

- Middle Childhood
 - School age; 6 to 12 years

- Early Childhood
 - Toddler: 1-3 years
 - Preschool: 3-6 years

- Late Childhood
 - Adolescent; 13 years to approximately 18 years

Surveillance of growth and development



Main purposes:

- To identify those children who are not growing normally
- It reflects effectiveness of other components of child care (nutrition, sanitation, control of infection)

It covers :

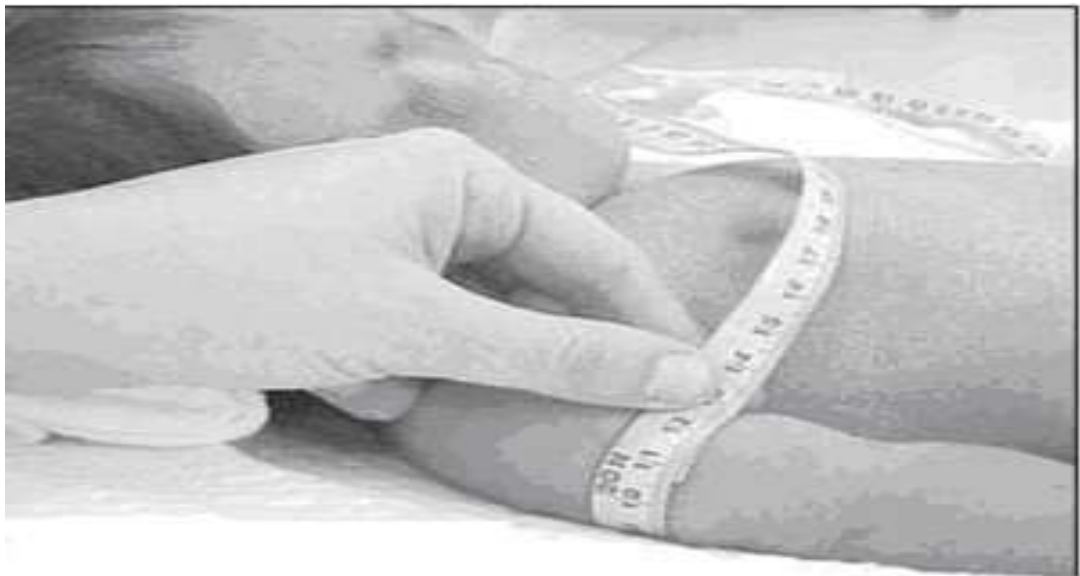
- Physical growth
- Behavioural development

Assessment of Physical growth

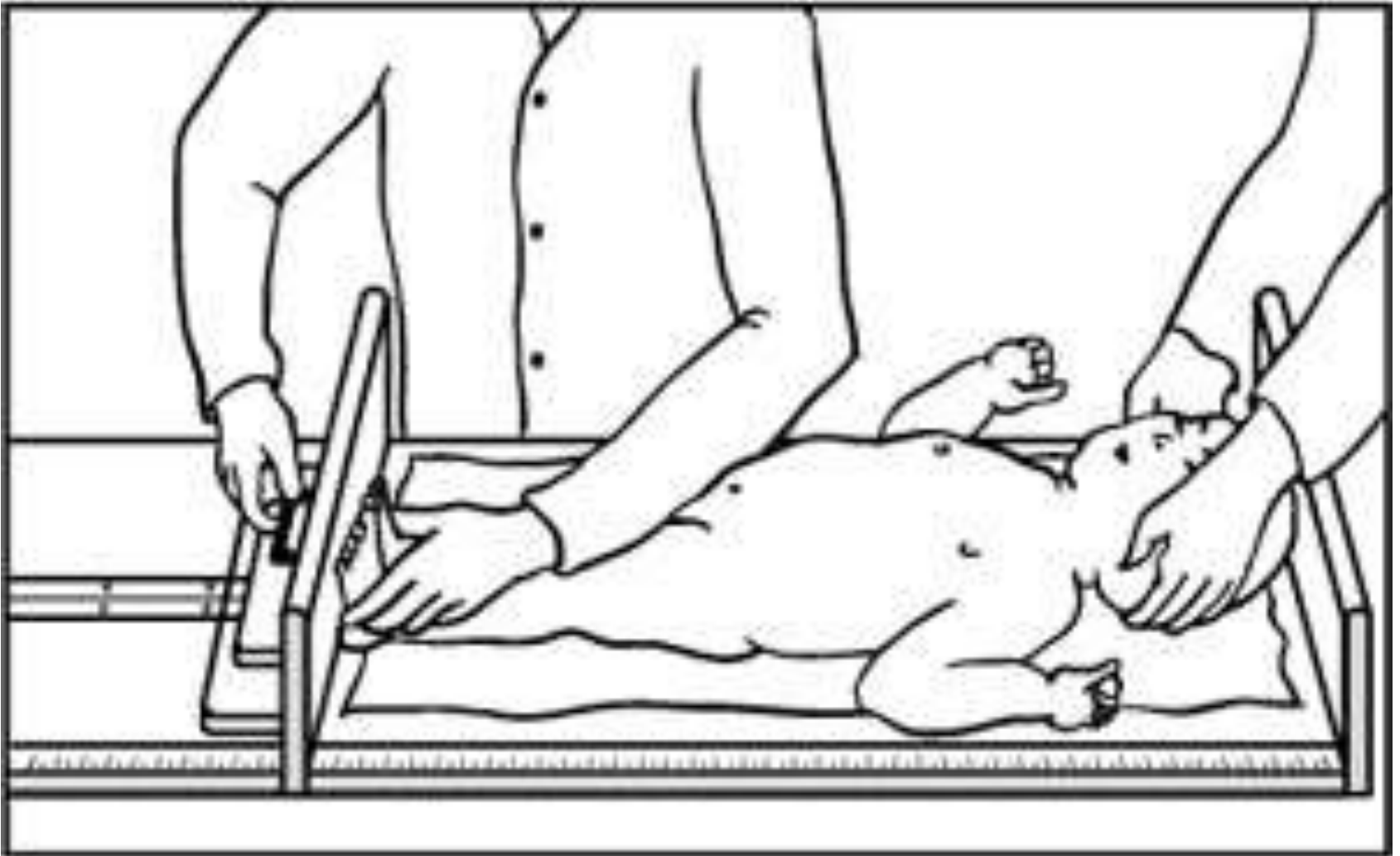


- Weight –for- age
- Height(length)-for- Age
- Weight –for-height
- Head and chest circumference
- Mid-arm circumference

Weighing Scales



Measuring length



Why developmental assessment?



1. Early detection of deviation in child's pattern of development
2. Simple and time efficient mechanism to ensure adequate surveillance of developmental progress
3. Domains assessed: cognitive, motor, language, social / behavioral

Behavioural development



- Milestones: developmental landmarks that provide an estimate of the time when the child can be expected to attain certain skills or points in development

Four field :

- Motor development
- Personal-social development
- Adaptive development
- Language development

Factors that promote Development:



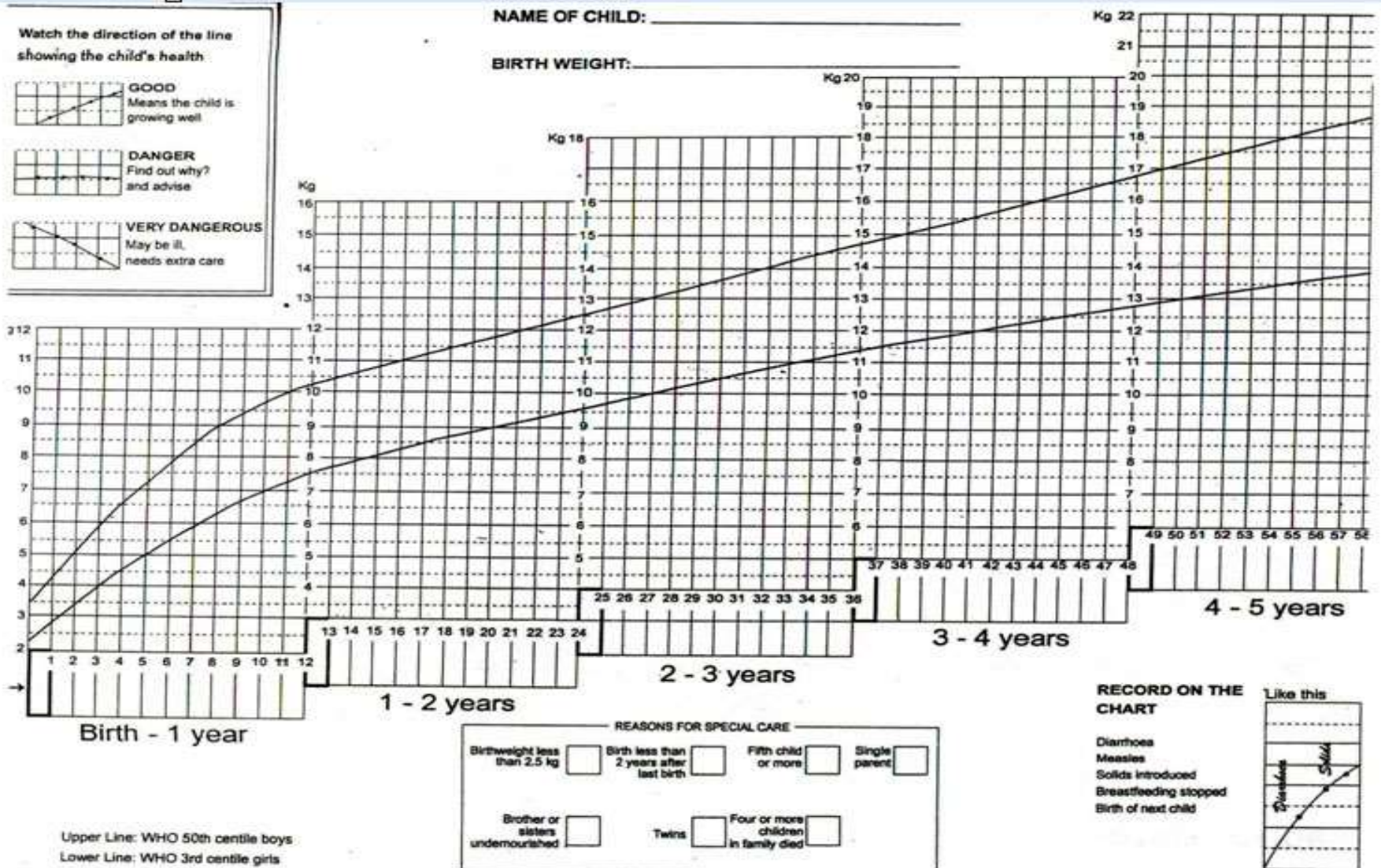
- Good nutrition
- Emotional support
- Play
- Language training

The growth chart

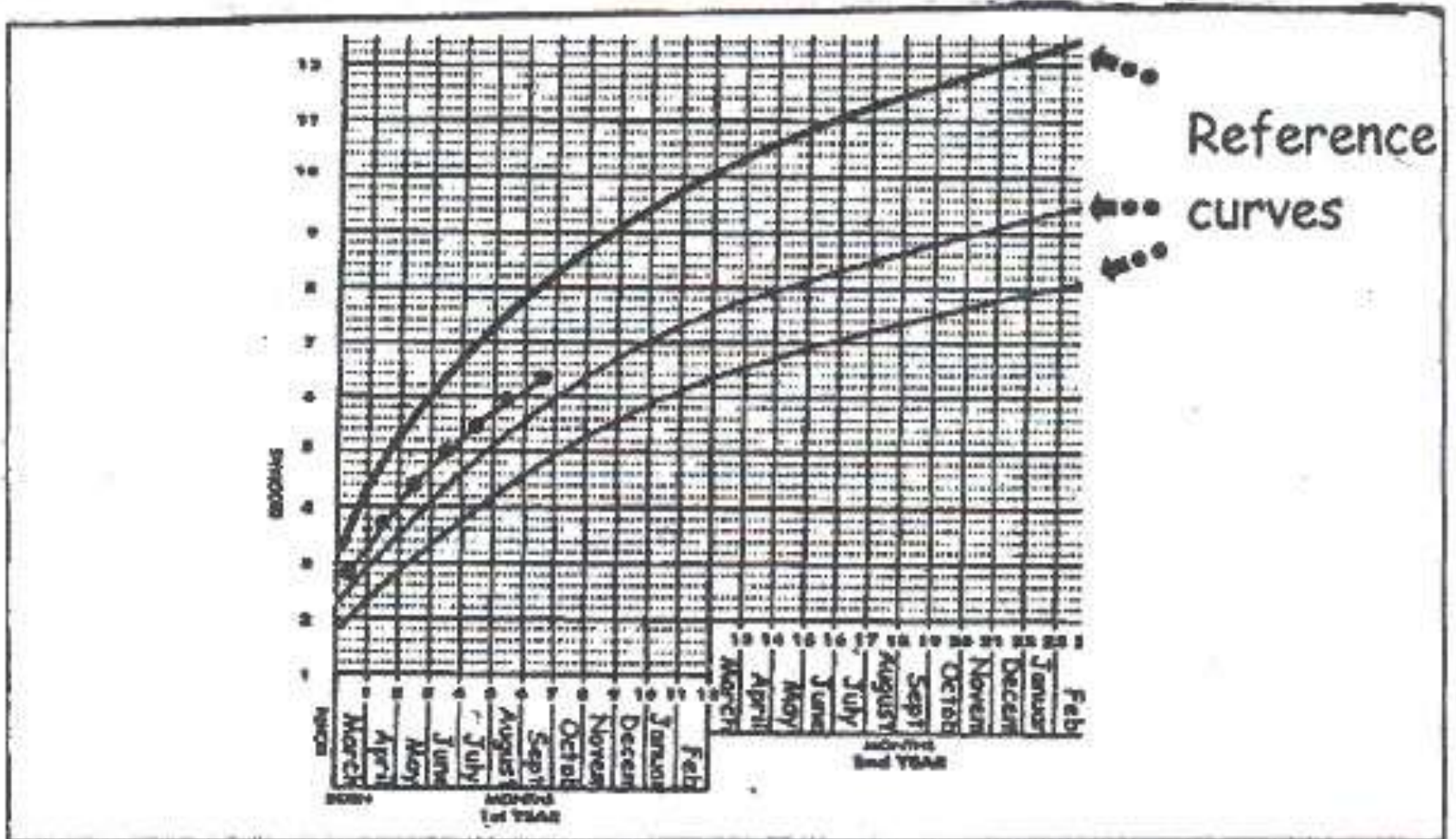


- Is a visible display of the child`s physical growth and development.
- It is designed primarily for the longitudinal follow-up (growth monitoring) of the child, so changes can be interpreted.

The growth chart



Upward growth curve



Uses of the growth chart:



- Growth monitoring diagnostic tool
- Planning and policy making
- Educational tool
- Tool for action
- Evaluation
- Tool for teaching.

Thank You