

Growth chart: passport to child health care in low-resource settings

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Dear Editor,

Under the United Nations Millennium Declaration, 189 countries had adopted the target to achieve Millennium Development Goals (MDG) by the year 2015.¹ The prevalence of underweight children under-five years of age is an indicator to measure progress towards MDG-1, which aims to halve the proportion of people who suffer from hunger between 1990 and 2015.¹ Globally, underweight prevalence has declined from 25% in 1990 to 16% today. The greatest reductions have been achieved in Central and Eastern Europe, however the situation still remains grim in developing nations and in low-resource settings.² In 2011, an estimated 101 million under-five children were underweight worldwide with the highest contributions from South Asia (59 million) and sub-Saharan Africa (30 million).²

The physical growth of infants and under-five children has been recognized as an important parameter to assess health and wellbeing.^{2,3} Multiple interventions – specific (such as use of growth charts, prevention and treatment of acute malnutrition/micronutrient deficiencies, safeguarding the maternal nutritional status, compliance with the infant and young child feeding practices - exclusive breastfeeding for six months followed by complementary feeding, *etc.*) as well as general (such as promotion of good sanitation practices and access to clean drinking water, promotion of utilization of healthcare services by community involvement, *etc.*) have been implemented to counter the problem of under-nutrition.^{4,5}

In low-resource settings, supervision and monitoring of growth of under-five children is

of immense significance, as it can aid in early detection of acute malnutrition. The growth chart or *road-to-health* chart is a visual display of the child's physical growth. It is designed primarily for the longitudinal follow-up of a child, so that changes over time can be interpreted.⁵ Growth chart has a unique role in rural and tribal areas where people do not have access to specialists/tertiary care centers/laboratory services readily.^{3,4} Growth charts help in detecting whether a child is receiving adequate nutrition required for the basic physiological need of growth and development.^{3,6} Different types of growth charts have been developed and utilized in varied settings for accurate monitoring of growth of children.^{3,6,7}

Apart from growth monitoring, the chart has many potential uses such as a diagnostic tool for identifying *high risk* children; for planning and designing of policies at the local and central level based on extent of malnutrition prevalent in an area; as an educational aid to illiterate mothers by encouraging her to participate actively in growth of her child; for assisting health worker to decide the type of intervention needed for specific children; and for evaluating the effectiveness of corrective measures / special interventions employed.^{3,5,6}

To conclude, growth chart is a scientifically sound, robust tool for monitoring health, well-being and nutritional status of infants and young children in different settings. It is an irreplaceable tool in low-resource settings where if used diligently, can significantly minimize the prevalence of malnutrition and associated complications.

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