

## **Child health and wellbeing**

*M de Onis et al. Acta Paediatrica (2006) Vol. 95 supplement 450*  
**WHO Child Growth Standard**

The normal healthy development of infants is defined by this standard. Deviation could instigate investigations of maltreatment but the validity of such a trigger is likely to be low.

WHO have produced an analysis of child growth. The statistics apply to children who are healthy and have been brought up in ways consistent with best health practices. Such children are expected to reach their full genetic growth potential. The new statistics are different from in previous publications which simply reported child growth and development in practice.

Deviation from best will be used by paediatricians, amongst others, to help identify failings in child care or the presence of disease.

### Comment

Children in care are likely to have extensive records of growth and development. By comparing with healthy standards there should be an incentive to ensure best practice in these institutions.

Variance from expectations would provide some evidence of neglect. The likelihood of natural variance from ideal is available from these statistics. Different organisations would have different views of the degree of variance required to trigger concern.

The data show that one standard deviation (not always a valid statistic) in physical dimensions, within a given country, is approximately 3% to 5%. Deviation from ideal by 5% could be said to be less than 50% likely to be due to natural variation. In our view this would be an oversimplification. Deviation in either direction from ideal would be of interest.

Developmental steps (e.g. sitting unaided) were much more variable. Number of days before sitting without support had a mean of 183 days and a standard deviation of 33 days (18%).

The report does not make explicit reference to prospective individual consistency of deviation from the mean. It is a strongly held view that a child which is say big or capable for its age should always be so, up to the point where there is natural convergence. It would make little sense to take action on a developmental milestone without confirmatory observations within 3months.

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