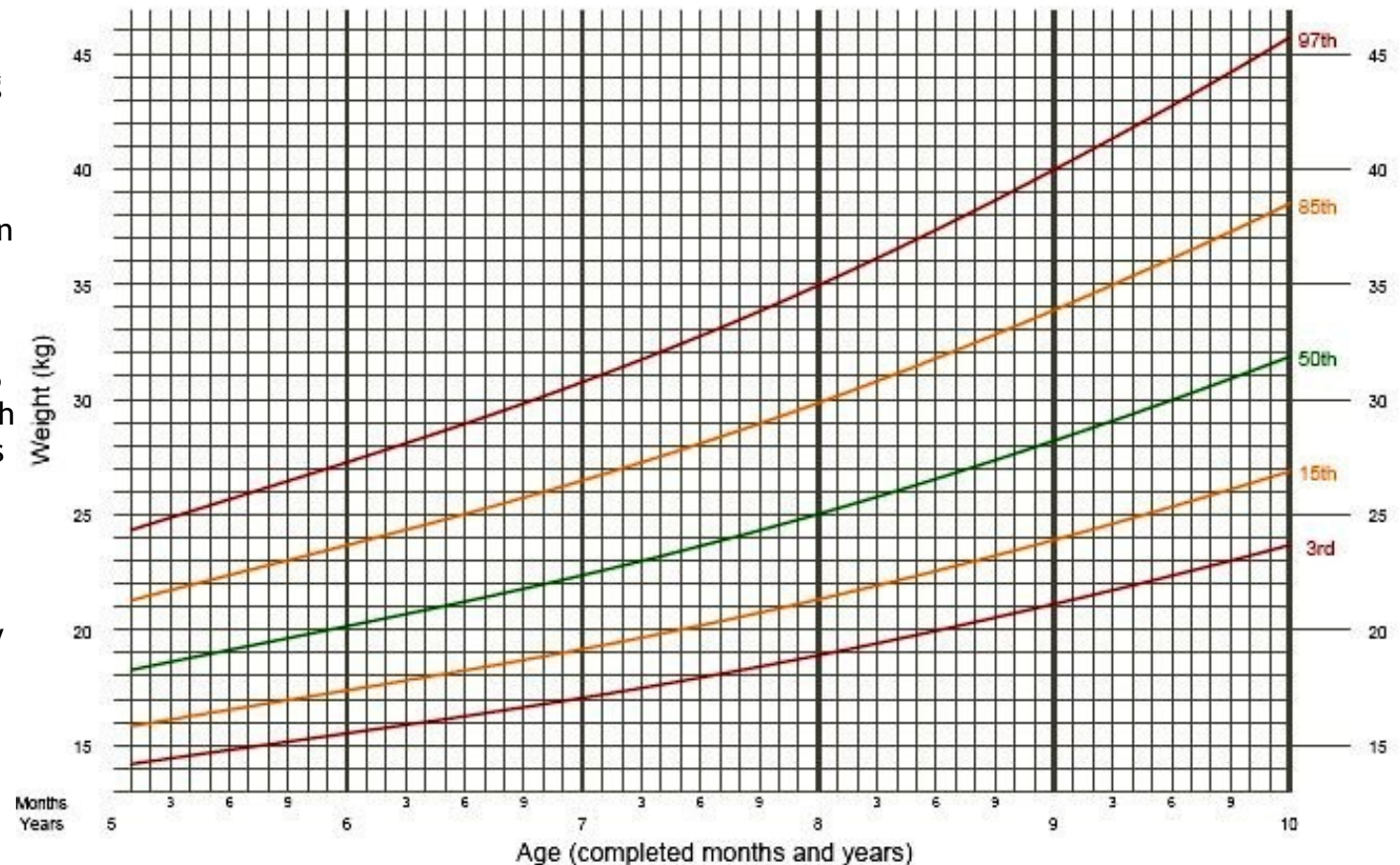


Graphing is a really useful tool for spotting trends and sudden changes in behaviour and is very useful in medicine.

In the MathsApps show we saw one use of graphs in medicine. A graph of weight 'centiles' is often used for children and babies to make sure that they are growing at the normal rate.

A centile chart shows how a measurement taken fits within the statistical distribution of the population as a whole. So, if a child is on the 30th centile, 30% of the population weigh less, and 70% weigh more. If a child is on the 70th centile, 70% of the population weigh less and 30% weigh more. Centiles do not tell us whether this measurement is normal or abnormal but are useful for comparison. More importantly, they are used to spot if the person investigated has moved from one centile to another. For example, if a baby is on the 10th centile when born but then falls to the 3rd centile doctors are likely to want to investigate further as this could suggest that there may be a problem.

Weight for age Girls - 5-10 years (percentiles)



Reference World Health Organisation 2007