In the last two issues, I have been discussing the discrepancies that some midwives and mothers have noticed wherein the WHO Child Growth Standards (2006) seem to be showing that the weight of breastfed babies is falling behind the average during the first few days after birth. This is not easily explicable by the existence of bias in the methods used to carry out the research that led to the development of the standards; the high quality of this project would seem to imply that the charts are accurately representative of the reality experienced by the babies in the study. I also asked a number of midwives to reflect on their real-life experiences in order to check whether perhaps our existing knowledges and experiences can be challenged, and - while there is always more that we can learn - I found nothing to suggest that there is a significant problem with our current understanding either. This article explores some of the deeper issues that underpin the notion of developing global standards, and considers whether the research that has tested these standards in the field can offer insight into this situation.

Standard Testing

The creation of a tool which is designed to be applied to children on a global scale is an essentially theoretical exercise; the testing of such a tool to see if it is actually useful is just as important. One of the first of the studies to test these standards in the field set out to evaluate the accuracy of the charts in four countries; Argentina, Italy, the Maldives and Pakistan (Onyango et al 2007). The researchers found high concordance between the WHO standards and the clinical assessments of those who care for each country's babies, which provides further support of the usefulness and effectiveness of these standards.

Researchers from a number of other countries had access to recent, comparable data on child growth and, while they did not all carry out prospective studies designed solely to test the WHO standards, they were able to compare recent existing data with these standards. By contrast to the field testing of Onyango et al (2007), researchers in Hong Kong (Hui et al 2008) and the UK (Wright et al 2008) both found there was not complete agreement between the WHO standards and their own locally-gathered data. Could their findings be the key to understanding the discrepancies that mothers and midwives have identified?

The UK Problem

In order to answer this question, we need to look more closely at the discrepancies that were discovered. Wright et al (2008) used data gathered from a population of UK babies and found that, when the birth weights of those babies were mapped onto the WHO standards, the babies appeared to be larger than the global average. Despite the fact that the WHO standards take the normal weight loss of breastfed infants into account, UK babies tended to fall behind the WHO average over the next 2-4 months, which resulted in "a complex pattern of weight centile changes over the first year for the average UK child" (569). The researchers offer some interesting speculation about whether this discrepancy might be due to the fact that antenatal growth is better in the UK than in other countries. As interesting as this theory is, however, it is perhaps secondary to the fact that the findings of this study essentially answer the question that midwives have been raising since the global standards were adopted into practice.

Standards vs Reality

Even the best research methods are only as good as the ideas which underpin a study and, in this case, the key idea involves the notion of standardisation. These charts are offered as a global standard and, while it can be useful on some levels to see how one nation's children are growing in relation to the rest of the world, this is not necessarily the kind of data that individual parents and practitioners need. Wright et al (2008) argue that the WHO standards are not appropriate for use in UK children until a few weeks after birth, not only because of the way they do not correlate with the UK data, but also because they do not include any data on pre-term babies. Whether this recommendation has any impact on the adoption (or otherwise) of these standards remains to be seen. But this does add more weight to the reassurances we can offer women who are worried about their baby's progress, and perhaps we can also take heart from knowing that our own and women's observations have been supported by the findings of a study which set out to discover the degree to which such standards actually relate to reality.

References

Hui, LL, Schooling, CM, Cowling BJ et al (2007) Are universal standards for optimal infant growth appropriate? Evidence from a Hong Kong Chinese birth cohort. Archives of Disease in Childhood; 93: 561–5

Onyango' AW, de Onis, M, Caroli, M et al (2008) Field-Testing the WHO Child Growth Standards in Four Countries. Journal of Nutrition 137: 149-152 WHO (2006) WHO Child Growth Standards based on length/height, weight and age. *Acta Paediatrica Supplement* **450**: 76–85. Also available online at: http://www.who.int/childgrowth/en/

Wright, C, Lakshman, R, Emmett, P and Ong, KK (2008) Implications of adopting the WHO 2006 Child Growth Standard in the UK: two prospective studies. Archives of Disease in Childhood 93: 566-569