Are we achieving the Millennium Development Goals?

In the current issue of the Journal, Maseta el al[1] report on the influence of the Tanzanian Child Survival, Protection and Development programme (CSPD) on the nutritional status of children less than three years of age and childcare practices in two wards in the Morogoro Municipality, one of which had been exposed to the programme for a prolonged period (nine years) and the other for a short period (one year).

The objective of the study was to assess whether or not the effects of the programme improved with the duration of implementation. In general, the results were disappointing as far as the observed effects of the duration of the programme were concerned, with only minor differences being noted between the two communities – in the community exposed to the programme for a prolonged period, there were slight improvements in exclusive breastfeeding rates and better attendance at growth monitoring clinics. Yet despite these differences, stunting was more prevalent in this community (39.7% compared to 27.5% in the community exposed to the programme for a short duration). Despite the existence of the programme in both communities, prelacteal fluids were given to nearly 50% of the babies prior to initiating breastfeeding, and almost all infants had been introduced to complementary foods before four months of age. What did appear to make a difference to both weight-for-age and height-for-age Z scores in the two communities was the financial support given by the father to the mother and baby. We are not provided with information on infant or under-five mortality rates, nor do we have any information on child health and nutrition variables in a control community or in the communities prior to the introduction of the programme. Thus it is difficult to draw any conclusions from the study – one could say that the programme does not work at all or that it only improves key indicators to a very limited extent. However, there are some positive aspects that might be attributed to the programme, namely that almost 100% of mothers attended antenatal clinics and that over 93% of mothers in both communities had a health professional present at the birth of their neonates. Furthermore, attendance at growth monitoring and child health clinics was reported to be very good, and piped water was available to a large majority of the households. These may well be the result of CSPD, since the overall objective of this integrated programme is to alleviate malnutrition and improve the livelihood of people by means of the provision of Village Health Workers, who conduct growth monitoring and provide health and nutrition education, and the provision of institutionalised day care centres and preschools, water and environmental sanitation, health services, maternal and child health, household food security and project supervision and management.[2]

Over the past eight years, it appears that Tanzania has made great strides in reducing infant mortality rate (IMR) and under-five mortality rate. In 1999, the IMR was reported to be 104/1 000 live births, while the under-five mortality was 165/1 000 live births.[3] The most recent figures are 71.7/1 000 (estimate for 2007) and 122/1 000 (2005 figure) respectively.[4] Despite these impressive declines in Tanzania, a recent United Nations report has highlighted that a number of the Millennium Development Goals (MDGs) are unlikely to be met in many countries, particularly in sub-Saharan Africa.[5] The eight MDGs are directed towards improving development, alleviating poverty, reducing HIV, TB and malaria, improving access to education and empowering women – all of which should have direct and indirect effects on the health, wellbeing and nutrition of children. Programmes such as the CSPD in Tanzania, the Integrated Nutrition Programme, the Primary-School Feeding Scheme and the provision of social grants in South Africa are helping South Africa and other sub-Saharan countries to reach their targets.

Although sub-Saharan Africa in general comes out poorly in the midterm assessment of progress towards achieving the MDGs,[6] South Africa in its report published in 2007 suggests that it has already achieved the targets for a number of Goals and is making progress in achieving the others.[7] However, particularly relevant as far as child health in South Africa is concerned has been the slow progress made in reducing the IMR (42.6/1 000 live births in 2003) and under-five mortality rate (57.6/1 000 live births in 2003)[7] – more recent figures are not available. Even more disturbing are the findings in a well-documented longitudinal study at a demographic surveillance site in Mpumalanga, where the under-five mortality rate has increased progressively from 1996/7 to 2002/3.[8] A reduction in the IMR and under-five mortality rate is very dependent on a reduction in the neonatal mortality rate and an increase in the effectiveness of Prevention of Mother-to-Child Transmission of HIV programmes, which have seen little progress in the past five years and will need major efforts and renewed political will to produce the results required. Furthermore, although it is reported that severe malnutrition in South Africa has decreased by almost two-thirds over the five years between 2001 and 2005, stunting figures remain largely resistant to improvement, especially in some rural

areas where the prevalence has been reported to be as high as 40–50%. Not only does undernutrition, represented by stunting in young children, have short-term adverse effects on child survival and morbidity, but there is a growing body of evidence that suggests that stunting is associated with long-term poor cognitive and educational performance with resultant poor work opportunities, continued poverty and diminished child care potential as adults,[9] thus continuing the vicious cycle.

Reading between the lines, the Tanzania study suggests that many of the conventional programmes that have been used to address malnutrition and infection in communities, such as growth monitoring, the Extended Programme of Immunisation, and the Integrated Management of Childhood Illness, may have little effect on stunting although they are likely to be effective in reducing the prevalence of severe malnutrition and under-five mortality rates, if adequate population coverage is achieved.[10] Of interest therefore is the data from the same study which showed that the degree of financial support of the child by the father is directly related to the weight-for-age and height-for-age Z scores of the child. Whether this reflects the direct effect of increased disposable income and therefore increased food security in the family, or the likelihood that the family is more secure and less disrupted than those families who do not receive paternal support, is unclear. If financial support is so important, the availability of the child-support grant in South Africa should be expected to have far-reaching effects on the prevalence of stunting in under-five-year-old children; however, the uptake of the grant by the poorest families in rural communities has not been optimal[11] and major efforts need to be made to ensure universal uptake of this social benefit. A recent report from Jamaica has found interesting effects of two years of psychosocial stimulation in stunted children (9–24 months of age at entry into the study) on psychosocial functioning in late adolescence.[12] The authors found that dietary supplementation had no psychosocial effect, but that early psychosocial stimulation had a long-lasting effect, resulting in less anxiety and depression and higher self-esteem in the participants when they were adolescents.

Even though South Africa in general appears to be on track to meet most of its MDGs,[7] nutritionists should not be complacent. What is clear is that, as the prevalence of severe malnutrition in South Africa declines, considerable attention needs to be placed on developing innovative programmes to address the challenges of low birth weight and stunting in the country if we are to break the cycle of poverty, malnutrition, poor educational and work potential, and continued stunting.

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