

EDITORIAL

Going For Growth

Monitoring growth, as it is now practised in most health systems in developing countries, is widely misunderstood and largely ineffective (1-5). So, it is no surprise that the process itself has been controversial, leading some academicians and practitioners to urge its elimination from community-based programmes (6-9). And still, monitoring growth is universally found in paediatric offices and academic centres throughout the world, seen as an integral part of good paediatric practice. As introduced by Morley in clinics that treated children aged under five years in Nigeria in the 1960s (10), monthly monitoring of growth has provided the foundation of good promotive child healthcare in large projects in India (11), Bangladesh (12), and Honduras (13), and in thousands of village of Indonesia (14). How did growth monitoring and promotion (GMP), once seen as the essential foundation of the United Nations Children's Fund (UNICEF)-promoted GOBI strategy for young children (growth monitoring, oral rehydration, breastfeeding, and immunization) fall into such disrepute, while the other GOBI components have proven highly robust?

Part of the answer indeed lies in the poor understanding of its purposes and procedures by medical officers and health and nutrition workers as reported by Roberfroid *et al.* in this issue of the Journal (15). First, as well-documented in that paper, the primary purpose of GMP is rarely understood even by its implementers and much less by participating mothers. The emphasis is on the measuring—the 'monitoring' rather than the 'promotion' of growth. The growth card, all too often, is seen as a diagnostic tool for use by the health worker to detect existing malnutrition rather than a communication aid to encourage early action by the mother before malnutrition supervenes. The card, designed to draw a mother's attention to the pattern of growth of her own child, is instead used by workers as an anthropometric stan-

dard for measuring nutritional status. Thus, from the start, the primary purpose of GMP is diverted.

This leads automatically to the second major error: GMP activities focus on the wrong age-group—the already-malnourished older child becomes the object of the greatest attention rather than the infant and one-year old child where most unseen and significant growth faltering is encountered (16). The opportunity for early preventive intervention to reverse growth faltering is lost in exchange for late and often ineffective, difficult, and costly therapy for established under-nutrition. There has been, in fact, anecdotal evidence in some programmes of desperately poor mothers hoping for poor growth or 'bad nutrition' with the expectation of then receiving free food for their children and families.

Growth 'promotion' should begin at or even before birth, helping mothers understand that the overall well-being of her child depends on her own behaviour, even during pregnancy: how she exerts herself or rests, her personal hygiene and healthcare, exposure to smoke and other toxins, and what she eats. Early and exclusive breastfeeding has been shown to be the single most effective intervention to improve child survival and nutrition, requiring support and promotion from the moment of delivery (17). Timely introduction of adequate complementary foods is another critical intervention in mid-infancy. These opportunities to establish healthy growth too often are lost in the attention given to the older, more obviously failing child whose weight is "below the line."

GMP was designed as a communication strategy to alert mothers and workers to early signs of inadequate attention to childcare, to underlying illness or social pathology. Faltering growth, once visualized through the 'monitoring' and charting, would lead, as early GMP advocates expected, to a careful investigation of the child-rearing practices and home environment, with practical actions identified to resume growth, and to appropriate positive reinforcement of those measures when successful, as seen with improved growth the following month. The 'monitoring' part is done simply to make growth visible to the worker and mother alike. By contrast, in current practice, the mother, all too often, is

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merely a passive observer of the weighing and charting of her child. Little attention is given to her essential role in remedial actions, and thus, little attention is given to facilitating her understanding. GMP, accordingly, has become, in most settings, a nuisance to endure to receive desired health services that come after. Small wonder a few come when no other service is sought.

This is not the case in some large and successful projects. In Indonesia, the village weighing post was run by mothers themselves, a monthly activity of social and educational value following the traditional practice of monthly *arisan*. At its peak in the late 1980s, some quarter million community posts functioned regularly. When the activity was taken over by the Health Department, interest and participation of mothers declined as their role became only a passive one (14). In Honduras, the Atención Integral a la Niñez focuses on the youngest babies, providing mothers with monthly encouragement to good growth and help in achieving it. Community volunteers keep a simple score each month that shows what portion of children has not gained adequate weight. The score, in bar chart form, is shared with the community once a quarter and becomes a talking point for community men (13).

There are, of course, plenty of challenges facing those seeking to use GMP as originally designed. Problems with faulty scales, with accurate weighing, plotting on charts, interpreting growth to mothers of varied cultures and literacy, identifying affordable effective home actions to improve growth, communicating those actions convincingly, deciding on the appropriate use of food supplements, providing positive reinforcement for success, and other interventions are all potential challenges facing the GMP practitioner. For some critics, these challenges, in and of themselves, are reason to abandon GMP. However, a review of the history of other important health interventions should give us reason to pause.

In the early days of immunization in poor communities, many problems were encountered: vaccines were occasionally not effective because of lack of proper refrigeration; abscesses formed at injection sites due to lack of sterility; lack of records and registers left many partially immunized; cultural misunderstanding led to alienation and opposition to immunization. No-one suggested dropping immunization—those believing in its potential fixed the coldchain, ensured sterility, developed cards and registers, explained and cajoled until everyone

understood. Similarly, oral rehydration therapy has received tremendous support from the research community, overcoming a wide array of technical, cultural and implementation problems. GMP today needs a comparable operations-research effort to sort out systematically and address the challenges it faces.

Has such an operations-research initiative been started? A recent effort to review the objective efficacy of GMP programmes could find only two carefully-controlled studies from a search of over 1,000 journals, electronic databases, and unpublished literature (18). Careful documentation and publication has simply not been undertaken, despite millions of dollars spent on GMP activities. There have been, however, several efforts, largely unnoticed, which are moving us in the right direction. These research efforts have found the following for example:

- The Morley self-marking scale enables mothers to do the weighing and plotting themselves, leading to more meaningful involvement of mothers in the GMP process (19).
- The Manoff Group's work to make detection of adequate growth easier for community workers has included the bubble growth chart making plotting more accurate (20,21), narrow growth 'paths' on the chart portraying a 'series' of normal growth trajectories to readily display early faltering and, more recently, introducing minimum expected weight gain tables that allow a worker to make a rapid yes/no decision about adequate weight gain, making plotting on a chart of secondary importance, or abandoning it altogether.
- Food alone, even when supplied free and in adequate quantity, does not substantially reduce growth faltering in the absence of other interventions affecting childcare and health (21), substantiating the concept of UNICEF that adequate growth emerges only from a complex series of environmental, psychosocial, health and food security conditions.
- The cost of effective GMP programmes in the community, leading to improved growth and better child health, can be measured in a few dollars per beneficiary per year (22).

Many of these findings are not widely known and rarely used in the GMP programmes. An entire issue of

Indian Journal of Pediatrics, dedicated to describing practical aspects of GMP (23), went largely ignored and a detailed manual—the Promoting Growth Toolkit—appears free on the World Bank website (24). This underscores the important conclusion by Roberfroid *et al.* (15), calling for improved communication of research findings and their rapid integration into training at all levels, to provide a clear understanding of both technology of GMP and its use as a communication strategy.

Can we seriously believe that a procedure deemed critical in private paediatric practice for decades and used so successfully at the community level in several very large programmes cannot continue to be an important component of community-based health and nutrition services? Can we reasonably expect to reach the Millennium Development Goals without assuring the healthy growth and survival of each child? It is time to make a renewed effort to identify systematically the priority operations-research questions, to carry out the research, and to adequately disseminate the findings so that they rapidly can be applied. Since child-rearing is so culturally variable, there is no doubt that local investigation and adaptation will be critical. All the successful programmes have evolved through numerous studies continuing to explore better ways to visualize and promote healthy growth. This is indeed a more appropriate appeal than discarding the bathwater, baby, and all!

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