OVERVIEW OF HOW HEALTH SERVICES TACKLE PROMOTIONAL ACTIVITIES FOR GROWTH AND DEVELOPMENT

Ivan Beghin[1]

Introduction

The question the organizers of the Colloquium asked me to deal with was: **"How do health services tackle the promotion of growth and development?"**

The answer, I am afraid, is "poorly". Or, at least, that was true in the mid-nineties, as we shall see. After 40 years or more of growth monitoring all over the world, health services still don't know for sure how to genuinely and effectively promote the healthy growth and development of young children, while in contrast they very well know how to immunize successfully, or to use oral therapy, or to promote family planning. The paradox is that growth monitoring is very old, even in developing countries!

In this brief overview I shall take a few highly selected historical moments, and draw on my personal experience, as I was explicitly invited to.

The early days

Growth monitoring seems to have a double origin. In the first place it clearly was an extension of the periodical weighing of children, which was practiced in the North since at least the beginning of last century. In the late 50's, for example, when I arrived as a rural doctor in the Congo, weight monitoring was routinely practiced, and where available UNICEF dried skimmed milk was given for a few weeks to the children who didn't thrive. Weights were noted down on an individual card, but no graph was used yet, and no promotion of growth was performed.

This brings us to the second origin: the need to screen malnourished children once a reasonable effective treatment had become available. In Haiti, for example, in the mid sixties, with Fougère and King we designed a growth chart based on Gomez classification of degrees of malnutrition, to select children for referral to nutritional rehabilitation centres *(1)*. In Colombia, Rueda

[1] Professor Emeritus, Institute of Tropical Medicine, Antwerp, Belgium

Williamson adapted a chart developed earlier by Tony, which combined weight **and height**. As the Director of National Institute of Nutrition, he actively promoted his "auxogramme" which, interestingly enough, was also used for counselling the child's mother. Rueda's chart did not spread out: it was too complicated, and experience showed that repeated measurements of height by low level health workers was time consuming and unreliable. Yet this chart was a pioneering tool in two aspects: its use for educating the mother, and its consideration of height.

Anyhow, during all those years, in most health services in developing countries, growth monitoring was synonymous of " using growth charts". There was little or no real promotion of growth, and no explicit interest in child development.

Progress during the seventies

Things started to change around 1970 and growth monitoring became more than just filling charts:

A number of field experiences were conducted, often by NGO's, to take advantage of periodical contacts with the child and the mother, for providing preventive care, treatment when needed, and some amount of nutrition education. A few of these interventions succeeded in reducing mortality and improving nutrition, and have become famous: the "promotores" programme in Guatemala led by Jean-Pierre Habicht *(2)*, the Jamkhed project *(3,4)*, or the Narangwal experiment of Carl Taylor in India *(5,6)*. Reviews of the lessons from such innovative attempts – at the time can be found in Sahn & Pestronk *(7)* or Beghin & Vanderveken *(8)*.

A common feature of such experiments was that they were staffed with highly motivated personnel and endowed with substantial resources: they were therefore hard to replicate. Their main lesson, maybe, was to demonstrate the importance of comprehensiveness in approaching child health care.

A major contribution to growth **promotion** was that of David Morley in the early seventies, based on an extended experience in Nigeria. In the first place, in his "underfive clinics", he was interested not only in growth, but also explicitly, in the child's health. He also was one of the first to use the **dynamics** of growth to promote it (through counselling the mother and providing care). The evolution of the child weight was more of interest than his position in relation to a standard or to that of other children. The child had to follow his **"Road to Health"**. Health was the target! *(9-14)*. Morley's influence was considerable. Growth charts of all kinds (and colours) proliferated, reference data were passionately

discussed until a reasonably good agreement was reached under the auspices of WHO, and an international standard for universal use was adopted *(15)*.

That same year *(16)* WHO and UNICEF called the Alma Ata Conference – a landmark in the history of public health. Nutrition was one of the eight priorities, and growth monitoring was explicitly recommended.

Yet the health services, in general, were not very responsive, for a number of reasons:

- Inadequate organization of care
- Poor training and supervision of first line health workers
- Lack of clear guidelines for such workers
- Difficulty of treating malnourished children and scarcity of places where to refer them for treatment.

The problem was aggravated by the "selective health care" controversy and its vertical approach *(17)*, and by the promotion of GOBI by UNICEF *(18,19)*. Growth monitoring, as the G in GOBI (the other components being oral rehydration, breastfeeding and immunization) was actually understood as growth promotion. But this interpretation was not applied in the routine of the health services. Using the chart remained mostly a ritual, serving basically as a tool for screening and diagnosis. Both selective health care and GOBI were the opposite of a comprehensive approach.

Anyhow, a positive aspect was that growth monitoring became a widespread practice, the world over.

A time of questioning

The late 80's were a period of putting the practice of growth monitoring into question. A number of articles raised serious doubts. For example Gopalan & Chatterjee *(20)* and Gopalan *(21)*, or various authors in a special supplement of the Indian Journal of Paediatrics *(22)*, and foremost, Nancy Gerein in a by now classical paper, also in 1988 *(23)*. Nancy Gerein was severely criticizing current growth monitoring practices, showing that their underlying assumptions were not sufficiently founded, and she was pointing to operational weaknesses which explained why growth monitoring couldn't possibly meet the goal of improving growth and development. Pre-eminent issues of organization, planning, etc. were to be addressed first. Many of her criticisms and concerns are still valid today.

Yet, during approximately the same period, a few intervention studies were being conducted, such as the Iringa Project in

Tanzania, with UNICEF, or the Tamil Nadu Project in India, with the World Bank. They somehow repeated earlier projects, but they did so in the light of new concepts and experiences – which had been presented in quite a few original articles and reviews published in that period *(24,25,26)*.

I am not going any further inside this more recent period, which no doubt is familiar to all of you, and I rather have a look at where we stand.

Lessons learned

What we have learned up to the mid-nineties, approximately, points in three directions that deserve to be further explored in the field:

1. The advantages of a **comprehensive approach**.

Comprehensiveness (in promoting growth and development) means:

- That the child is taken as a whole (his growth, his development and his health) and that the full range of preventive and curative care is provided, regardless of the category of problem the child is suffering or exposed to;
- That the child's growth characteristics are seen in their context, which basically is the family – hence the importance of involving the parents and caretakers, of knowing their perceptions and representations, of supporting them, and of strengthening their caring capacity.

David Morley was already saying that in 1973!

2. The usefulness and feasibility of **participation**.

Participation, as understood here, means much more than the mere involvement of the parents or the community in detecting growth faltering (or obesity) in the child, and then calling upon the health service. It implies what Dixon *(27)* called the "devolvement" of health knowledge and skills from the health personnel towards the community. More deeply, it reflects a philosophical attitude of trusting the parents' capacity and it turns away from the too common elitist attitude of the health workers – itself inherited from the doctors. Participation is therefore not only a means, but it is a goal in itself, contributing to the new development ethics of local democracy and self-determination or "empowerment" *(28,29)*.

These are not just theoretical assertions: in the first place participation is feasible *(30,31)*. Secondly those projects where

child mortality was reduced and/or nutrition improved as a consequence of the intervention, had either a comprehensive approach to child health and development, or active participation or both. Some of these projects were mentioned above: what is said here may be their major contribution to our present knowledge.

Yet, for participation to be effective in contributing to better growth and health, parents and community need to be motivated and to learn certain skills. This is where social communication enters

3. The third direction is the potential – insufficiently explored in this area – of social communication.

Any promotional activity, in the field of public health, requires a strong educational component. Nutrition education – in this case education for growth and development – seems to have received little attention from the Colloquium organizers, and maybe we should regret it. The reason, perhaps, is that nutrition education has been, and too often still is, rather ineffective. Yet, new approaches were being developed during the last decade or so, in which conventional nutrition education gives way to the management of social communication *(32)*.

Social communication, as defined by Andrien, is "a set of communication activities (conscious or not) between the members of a given society, which reflect the codes and rules within this society. Such codes and rules are not only powerful determinants of individual behaviour. They also determine that individuals belong to the group, and play a key role in society's cohesion. To intervene in social communication means therefore to change such codes and rules, and change individual behaviours at the population's scale." Nutrition education then is more an intervention integrated into pre-existing social communication, than an external intervention using its own channels and networks. This in turn requires a thorough understanding of values, attitudes and perceptions of the people (This last point, fortunately, is indeed well taken by the Colloquium!).

The overall issue, then, for the health services, is to organize and **manage** such social communication, as Andrien and I were showing in our book *(32)*.

Recent applications of the social communication approach by Andrien and his co-workers from Liège University, and by the Academy of Educational Development in Washington, in areas such as family planning, AIDS prevention, nutrition, etc., strongly suggest that it can be successfully applied to the promotion of growth and development

- To create or strengthen awareness,
- To improve the caring capacity and the self-confidence of the parents,
- More generally, to empower them.

Two personal remarks

Besides the three lessons learned from recent experience, it seems to me that two issues need considerably more consideration. One is an old problem: that of longitudinal growth. Years ago, John Waterlow already insisted on the importance of measuring height *(33,34)*. The second is the emergence of obesity world-wide, and of concern to us here: obesity in the young child.

The implications of these two points for the health services' operations need to be debated and more probably be the topic of future research.

Conclusion

As a result of this overview, I would put seven questions related to the health services on my personal agenda:

1. Is growth monitoring important? Indeed, in too many places, even today, it remains a ritual, and the information it provides is not, or poorly used for the real promotion of growth and development, or the detection and management of child obesity.
   If it is important, why? What should we be measuring: weight? height? both?
   In spite of earlier work by Rueda-Williamson or Waterlow, we still tend to focus on weight and overlook longitudinal growth.
2. How should the health services approach the individual child comprehensively? What are the operational implications of the requisite of comprehensiveness?
3. What should the health services do to stimulate genuine participation and make it real, useful and liberating?
4. Is the management of social communication, understood as a dynamic, participatory process, a better answer than conventional nutrition education for empowering the parents and strengthening their caring capacity?
5. Hasn't the time come to early detect – and prevent – child over-weight and obesity?
   Obesity – when we think of its long-term consequences – is now a major problem in an increasing number of countries.

6. What is child development? How do the different actors perceive it? What does that mean for the health services' operations?
7. How do we reach all (or almost all) the children in a community or district?

This essential issue of coverage is necessarily dependent from the existing health system, and raises questions of organization (as Nancy Gerein already showed in 1988).

Answering such questions should allow the health services to count on satisfactory guidelines for the promotion of growth and development, and would assist them in reaching the goal of good health practically, effectively, at an affordable cost, in a sustainable manner – in a wide variety of situations. Most of those questions are operational, and since the mid-nineties they have been the subject of good quality research and experimentation. Quite a few of these researchers are participating in this Symposium. This is why this meeting is relevant and timely. The Colloquium's programme suggests that from our discussions a few answers might well emerge. New questions certainly will! And facing new questions is making progress indeed.

Acknowledgements

The author wishes to thank Dr. Patrick Kolsteren for guidance, insights and references for an earlier version of this paper.

References

1. Beghin I, Fougère W, King KW. L'alimentation et la nutrition en Haïti. *Paris: Presses Universitaires de France*, 1970. 248 pages.
2. Habicht JP et al. Delivery of primary care by medical auxiliaries: techniques of use and analysis of benefits achieved in some rural villages in Guatemala. Scientific publication no. 278. *Washington DC: PAHO*, 1973.
3. Arole M, Arole R. A comprehensive rural health project in Jamkhed (India). In Newell K: "Health by the People". *Geneva: WHO*, 1975.
4. Arole M. A comprehensive approach to community welfare: Growth monitoring and the role of women in Jamkhed. *Ind J Pediatr.* 1988;**55** (Suppl.):S100-105.
5. Taylor CE, Kielman AA, de Sweemer C et al. Malnutrition, infection, growth and development: the Narangwal experience. *Washington DC: The World Bank*, 1981.
6. Gwatkin DB, Wilcox JR, Wray JD. Can health and nutrition interventions make a difference? Monograph no. 13. *Washington DC: Oversees Development Council,* 1980.
7. Sahn DE, Pestronk RU. Experiences and methodologies in nutrition evaluation: a literature review. *Michigan: Community Systems Foundation, Ann Arbor*, 1979.

8. Beghin I, Vanderveken M. Nutritional programmes Chapter 4. In Vallin J, Lopez A (Eds.): "Health Policy, Social Policy and Portality Prospects". *Paris: INED/INSSP*, 1985;81-102.
9. Morley D. A medical service for children under five years of age in West Africa. *Trans Roy Soc Trop Med Hyg.* 1963;**57**:79-94.
10. Morley D. The spread of comprehensive care through under-fives' clinics. *Trans Roy Soc Trop Med Hyg.* 1973;**67**(2):155-170.
11. Morley DC. Paediatric priorities in developing world. *London: Butterworths*, 1973.
12. Morley D. The design and use of weight charts in surveillance of the individual. In: Beaton GH and Bengoa JM (Eds.): "Nutrition in preventive medecine". *Geneva: WHO*, 1976;520-529.
13. Cunningham N. The under-fives clinic: what difference does it make? *J Trop Pediatr Environ Ch Health.* 1978;**24**:239-334.
14. Morley D, Woodland M. See how they grow: monitoring child growth for appropriate health care in developing countries. *London: Mc. Millan*, 1979.
15. World Health Organization. A growth chart for international use in maternal and child health care. *Geneva: WHO,* 1978.
16. World Health Organization. Primary Health Care. Report of the International conference of Primary Health Care. Health for All Series no.1. *Geneva: Alma Ata,* 1978.
17. Walsh JA, Warren FS. Selective primary health care: an interim strategy for disease control in developing countries. *New Eng J Med.* 1979;**18**:967-974.
18. Grant JP. Une révolution en profit de la suivie et du développement des enfants. *Carnets de l'Enfant.* 1983;**61/62**:21-33.
19. Grant JP. Going for growth. In: "State of the world's children". *Oxford: UNICEF and Oxford University Press*, 1987;64-80.
20. Gopalan C, Chatterjee M. Use of growth charts for promoting child nutrition: a review of global experience. Special Publication Series no.2. *New Delhi: Nutrition Foundation of India,* 1985.
21. Gopalan C. Growth monitoring – some basic issues. *NFI Bulletin.* 1987;**8**(2):1-4.
22. *Indian Journal of Pediatrics.* 1988;**55**(Suppl.).
23. Gerein N. Is growth monitoring worthwile? *Health Pol Plann.* 1988;**3**(3):181-194.
24. Maire B. Suivi et promotion de la croissance. In: Marek T (Ed.): "Comment améliorer la contribution du secteur de la santé dans la lutte contre la malnutrition". Note technique no. 11. *Washington DC: Banque Mondiale, AFTHR*, 1993.
25. Tonglet R. Surveillance de la croissance et prévention de la morbidité du jeune enfant en milieu rural africain: éléments d'évaluation épidémiologique. Thesis. *Université Libre de Bruxelles*, 1994.
26. World Health Organization. A critical link: interventions for physical growth and psychological development. A review. Doc. WHO/CHS/CAH/99.3. *Geneva*, 1999.
27. Dixon RA. Monitoring the growth of the World's children. *Ann Trop Paediatr.* 1991;**11**:3-9.
28. Drèze J, Sen A. Hunger and Public Action. *Oxford: Oxford University Press,* 1989.
29. UNDP. Human development report. *Oxford: Oxford University Press*, 1991.

30. Lefèvre P, Kolsteren P, De Wael MP, Byekwaso F, Beghin I. CPPE: Comprehensive Participatory Planning and Evaluation. *Rome: Institute of Tropical Medicine and Belgian Survival Fund Joint Programme. IFAD*, 2001. 54 pages.
31. Andrien M. Les interventions dans la communication sociale en nutrition. *Rome: Food, Nutrition and Agriculture, FAO*, 1994;**10**.
32. Andrien M, Beghin I. Nutrition et communication. De l'éducation nutritionnelle conventionnelle à la communication sociale en nutrition. *Paris: L'harmattan*, 1993.
33. Waterlow JC. Classification and definition of protein–energy malnutrition. In: Beaton GH & Bengoa JM. "Nutrition in preventive medicine". *Geneva: WHO*, 1976.
34. Waterlow JC. Prevention of protein–energy malnutrition. In: Waterlow JC, Tomkins AM, Grantham McGregor SM, Edward A (Eds.): "Protein energy malnutrition". *London*, 1992.