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**Symposium on
'Chronic undernutrition: how can nutritionists help?'**

Aid programmes for malnutrition and the role of the nutritionist

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The preface to the 6th edition of *Human Nutrition and Dietetics* (Davidson & Passmore, 1975) begins with the statement that 'At the present time a knowledge of nutrition is of growing importance because of the increase in world population. In 1974 the World Food Conference in Rome (United Nations, 1975) and the World Population Conference in Bucharest (United Nations, 1974) reflected the concern of all people in all countries that we can no longer take our food supplies for granted. In many underdeveloped areas as large a proportion of the population as ever does not receive enough food of the right kinds for full physical development and good health'.

After 17 years, a time during which the world population has grown by about one billion and on the threshold of a second International Conference on Nutrition, the same introduction might apply, changed only perhaps to the extent that public concern has increased still further. In the interim, what have international nutrition programmes and the nutritionist contributed to maintaining or improving the nutrition of the poor?

The title of the present paper offered two possible themes. The first would be a review of the world's nutrition problems and the various technical approaches being taken to address them. The second, which I have chosen, is to examine more critically the current role of the nutritionist in development. As a non-nutritionist who has over several years been drawn into international nutrition activities, I am struck that in recent years the contribution of 'nutrition' to the food and nutrition problems of poor countries has been slight; and that 'nutrition' is becoming increasingly irrelevant to the problems of development. This marginalization, which is not wholly unique to nutrition (to a degree it affects much 'subject' science in development) is in my view due to a combination of institutional and historical factors. But because of its particular nature, nutrition is affected by these to a disproportionate degree.

The elements of this view are hardly original. They had been clearly identified as early as the 1930s (Burnet & Akroyd, 1935), and have been restated regularly since. In summary they are that nutrition is fundamentally an area of biological science, which involves some narrow specialist field skills; it is not a subject organized to put knowledge into practice. The usefulness of nutritional knowledge is to be measured by the degree to which it is relevant to, and is employed by, other more practical disciplines. By contrast,

and for complex reasons, much international aid demands practical skills of the nutritionist and has forced nutrition work into a 'vertical' and often ineffective role. To this might be added the doubtful relevance of much current nutritional knowledge to effective policy and practice. The scope of the present paper is limited to the problems of chronic undernutrition in the poorer developing countries.

WHAT IS A NUTRITIONIST?

The definition of nutrition is an old conundrum, and one which I am unlikely to resolve here. But difficult as definitions are, the role of the nutritionist cannot be discussed without one. It might be agreed that, at its core, nutrition is an area of biological science concerned, to use the phrase in a very general way, with human food requirements. As I have observed them, the areas of dispute are the degree to which nutritionists as scientists should feel obliged to see nutritional knowledge used to the practical benefit of people; in this context the world's poor, and the distance to which nutrition extends into those areas, broadly social and economic, which affect peoples' access to food.

The connection which nutritionists feel with human nutritional problems is natural enough. After all, nutrition is the only subject wholly concerned with human food needs. Logically there are no 'value-free' nutritional research questions. All nutrition research and, therefore, nutrition research priorities are inevitably connected, at a more or less fundamental level, to human welfare. How those priorities are, or might be defined, particularly in international nutrition, is another matter.

In terms of the scope of the subject, the situation also seems clear. The biological definition of nutrition seems a perfectly adequate one, reflecting both the history of the subject and its current reality. Beyond biology, the areas which fall naturally to nutrition, i.e. are not claimed by other disciplines, are two: (1) aspects of the household survey, including most specifically that related to the investigation of household food consumption and including the composition of foods and (2) nutritional anthropometry. Beyond these two research techniques nutrition is not (to exclude the many skills involved in the biological aspect of the subject, and its one formal practical extension, dietetics) particularly competent in social or economic enquiry or a practical skill.

This is not offered as a criticism, but merely to isolate one aspect of a problem. Nutritionists are not, for example, trained to be good at feeding people, are not trained to look at clinical signs, or particularly equipped to do, for example, surveys of deficiency disease. They are generally ill-equipped to study social relationships and economy.

BIG DONOR INTERNATIONAL NUTRITION PROGRAMMES AND PROJECTS

The current position of nutrition in development arises from two main forces: (1) the increasing, and devastating poverty of much of the developing world; a serious problem of chronic undernutrition is a problem of economic development; few wealthy countries have a sizeable problem of chronic undernutrition, whether or not they have an active nutrition sector; (2) the over-riding policy interests of the larger aid agencies, and post-Glasnost, the shift to the imposition of a broadly capitalist model of development on the poorer developing countries.

International aid agencies split roughly into three groups. First, the so-called bilateral Government-to-Government agencies, to include now the European Community.

Second, the multilateral United Nations (UN); and last the International Non-Government (NGO) organizations. All three categories vary within themselves, for example, in the UN between World Health Organization (WHO) and Food and Agriculture Organization (FAO), although the last, the NGO, is a very mixed lot indeed, ranging from very small voluntary agencies to organizations with budgets of the order of £100 million or more, and covering a wide range of abilities and motives. Notwithstanding the differences there are basic similarities within each group.

There is no complete catalogue of international nutrition programmes and projects. Indeed, as most development activities bear, directly or indirectly, on nutrition there is the obvious question as to why projects and programmes should be categorized in this way at all? Big aid nutrition programmes broadly categorized, are now discussed.

1. Medical nutrition

Essentially these involve the clinical treatment of severe malnutrition and micronutrient deficiencies. The techniques of nutritional rehabilitation are of course well developed, resting largely on work by the MRC Dunn Nutrition Laboratories in the 1960s. But their usefulness in development work is severely limited by the poor state of medical services in most of the poorer developing countries. Many countries, for a variety of reasons including low commodity prices, debt and war, now face unprecedented levels of personal and state poverty. In consequence, services have tended to decline or collapse. Health service expenditure in the range <1–5 US dollars/person per year is now common and effectively disallows wide access to nutritional rehabilitation. The proportion of all malnourished children in the poorer countries who benefit from such interventions is not known, but must be almost infinitesimally small. Projects which seek to identify malnourished children at a population level have been organized, e.g. the World Bank project in Tamil Nadu, but these are, relative to local budgets, prohibitively expensive and they cannot realistically be 'sustained' beyond the period of external finance. Growth monitoring, i.e. the charting of the growth of individual children by weight-for-age has also been extensively tried. It has not been widely adopted, chiefly because of the poverty of services.

2. Micronutrient distribution programmes

The increasing knowledge of the more subtle effects of micronutrient deficiency and the widespread occurrence of deficiency disease has led to the mass distribution of micronutrients by WHO and other organizations either in medicinal form or through food fortification. Whatever the ethics of this (there is clearly a case against using pills to alleviate poverty) there are also manifest practical limitations. These include the lack of delivery systems in many areas which could make such programmes sustainable. In specific cases, e.g. in parts of the Himalayas where rates of cretinism are in whole percentage points, there is a case for intervention on humanitarian grounds, but the problem of sustainability remains. Food fortification, most notably the iodine fortification of salt, has made progress but has many problems. For many nutrients the biggest problem is the lack of a suitable vehicle which is accessible to, or regularly consumed by those who need them most, mainly the poor. It is no surprise that micronutrient deficiency is associated with poverty and isolation from trade.

3. Nutrition education

Enthusiasm for nutrition education has diminished in recent years. In part this is perhaps because of the increasing realization that malnutrition might have more to do with medical and social accidents, personal economic fortune and the wider economic context than with the lack of knowledge *per se*. In part it may arise from a realization that the educational issue might be access to education as such rather than to a highly selected set of facts. At best there is a lack of a convincing empirical evidence that nutrition education is effective.

4. Food distribution

The agricultural surpluses in Europe and North America available in recent years as aid has led to much ingenuity in finding ways in which it could be used. In terms of nutrition a variety of nutritional food distribution programmes, e.g. school feeding projects, have been employed. The limitations of this approach and its dangers where, for example, dried skimmed milk has been used, are obvious. Nutritional food aid is now likely to decline in step with the surpluses.

5. Self-help programmes

A past and emerging phase of what might be categorized as self-help projects, based on the belief that participatory approaches at some level, with the use of a locally accessible technology, e.g. amylase-rich 'power flour', can fundamentally improve nutrition status within the prevailing context of poverty. At one extreme, there has been the 'Hunger project'; on more middle ground the current UNICEF programme which has a targeted aim to bring down rates of malnutrition substantially within the decade. On this the jury is still out.

6. Information systems

The idea of nutritional surveillance arose from the 1974 World Food Conference (United Nations 1975) which proposed the need for FAO/WHO/UNICEF 'to monitor the food and nutrition conditions of the disadvantaged groups of the population at risk, and to provide a method of rapid and permanent assessment of all factors which influence food consumption patterns and nutritional status'. Since 1974, nutrition surveillance has been very partially implemented and rarely used for its intended purpose (Ismail, 1991). At one level this is due simply to the high cost. Routine coverage with even a basic current data set is expensive. For example, approximately £0.5 million/year for partial anthropometric coverage of Ethiopia is far beyond the means of the country. At another level, there has been '... the need for multi-sector collaboration, the low priority accorded to nutrition, the need for the nutritionist to assume the role of advocate', which have limited the possibilities. Less remarked is the doubtful methodological basis of surveillance, which assumes a connection between economic, social and other indicators which often does not exist. In Ethiopia, for example, where comparatively complete data-sets exist, it has been the case that poor production indicators can coexist with good nutritional status, and comparatively low market prices with open famine. This is no more than to say that the poor tend to be economically cautious, and to see good

nutrition more in terms of the security of long-term low food intakes than in short-run high ones.

The scale of international expenditure on nutrition programmes is difficult to estimate. The nearest to this is a listing by the UN Administration and Coordination Committee/Subcommittee on Nutrition of the resource flows associated with the development projects supported by the larger multilateral agencies, the World Bank and the OECD countries (Yoon & Mason, 1990). This shows that of all multi- and bilateral expenditure identified, direct nutrition expenditure, excluding emergencies, was approximately 0.19 US dollars/person per year against total aid flows of 12.2 US dollars/person per year, or 0.15%.

In summary, therefore, overt nutrition projects take up a very small share of all development assistance. Nutrition projects in the poorest countries now essentially fall into two groups. (1) Those which provide food or a nutrient supplement directly to people are often doubtfully sustainable, i.e. they simply cease to occur when external resources are withdrawn, and can by no stretch of the imagination be described as development. They might be more realistically described as an extension of emergency relief. (2) Those which are concerned with the collection of nutrition information, whose success has been very limited and where there remain doubts even about their basic assumptions. A defence might easily be mounted for the statement that the chances of the average citizen of the average developing country being touched by the theories of nutrition are now statistically very small. By contrast, the chances of being touched, for good or ill, by the theories of health or economics might be argued to be rather large.

WHY DOES INTERNATIONAL NUTRITION ASSISTANCE TAKE THIS FORM?

Nutrition projects take this form for a variety of reasons. Practical considerations play a large part. Large bureaucracies tend to isolate subjects in order to manage them, and the sheer volume of work in a large office may make it practically impossible to co-ordinate different subject areas. Unless an aid donor were to make a huge investment in nutrition advice there is no practical way that, for example, every relevant project proposal could be appraised by a nutritionist. This tendency to sectorize subjects is reinforced by the need to identify expenditure and achievement in specific areas. Western bilateral aid is answerable to a legislative constituency, not to the recipient of aid. The measure of success is often the volume of expenditure rather than development effectiveness; nutrition, unlike for example, family planning, has no Western lobby. For the multilateral agencies, the reverse is often the case, with annual income received from bilateral donors tending to short-term high profile activity with results measured in improved human nutrition. In both the bilateral and multilateral agencies there is a general disinclination to address matters of fundamental cause. For example, it is clearly politically less provocative to regard blindness as arising from, for example, a shortage of vitamin A, than to insufficient access by the poor to vitamin A-containing foods because they are landless.

Last, and in my view at least as important as the other factors, is the question of what nutrition has to offer. Is it possible that its low status in development, and its difficulty in being heard by other subjects, is in fact currently correct? Decision makers in development tend overwhelmingly to be non-specialists who are looking for firm practical advice. It is often evident that nutrition cannot provide clear or practically

useful answers to many questions of immediate practical relevance. By way of illustration one might take the question of refugee rations, i.e. how much should a refugee, if wholly dependent on food assistance, receive? Nutritionists have dithered for a decade without producing clear recommendations. In the interim millions of refugees have had to be fed.

More broadly, as a technician in an aid agency, I see a range of questions relevant to policy and action and to which nutrition does not have answers. Why for example are many children stunted? One assumes that this is for different reasons in different places, but the explanation of chronic low food intake which is still current in nutrition is clearly at best a part-truth. What are the relationships between undernutrition and function?

What indeed of the almost unresearched problems of adult undernutrition in the developing countries? What are the risks of malnutrition? We currently hold only some rather crude prospective studies of mortality with a doubtful relationship to cause. Why is it that we, which is to say the economists, know almost nothing of the nutritional effects of the enormous economic changes due to structural adjustment, which are being imposed in poor countries and of which an integral part of theory is that in the short to medium term at least the poor, who were very poor to start with, will get poorer?

With the exception of perhaps two rather recent advances, i.e. the increased knowledge of the effects of some micronutrient deficiencies and the shift away from the use of 'normative' energy requirements, most nutritional knowledge in current practical use is dated. Other professions often feel, even if possibly in error, that they already have a complete knowledge of the important nutritional facts. Of course, a few research entrepreneurs persist in their interest of poverty and good relevant nutrition research continues, e.g. in The Gambia, but there is a sense that the rate of activity is now progressively declining.

The cross-cutting themes for the International Conference on Nutrition to be held this year also give little cause for optimism. These are, assessing, analysing and monitoring nutrition situations; improving household food security; protecting the consumer through improved food quality and safety; caring for the socio-economically deprived and nutritionally vulnerable; promoting healthy diets and life-styles; preventing and managing infectious diseases; preventing specific micronutrient deficiencies; incorporating nutrition objectives into development programmes and policies. All are of course important but there is no clue given concerning how most of these objectives could possibly be approached in practice. Virtually all these could have been drawn from the Colonial documents of the 1930s and the agenda for the 1974 World Food Conference (United Nations, 1975).

At the end of a period which has seen a progressive shift in academic funding away from core-funded academic institutions with some soft money, the position of international nutrition research is of course not easy. It is impossible to quantify, but I have the sense that academics in international development are now chiefly in the position of servicing the wants of 'big aid', rather than determining their own research directions.

ATTEMPTS TO DEVELOP MULTISECTORAL NUTRITION

The observation that nutrition must engage 'across sector' activity is of course not new, and there have been many attempts to find ways in which it might be done. Some bilateral agencies have attempted to find ways of incorporating nutritional considerations in non-nutritional areas of activity, although to the best of my knowledge none has really

succeeded. In the margin nutritionists are sometimes included as part of multisectoral appraisals. The move in the 1970s to nutrition planning and policy attempted to include nutrition objectives within, or even instead of, the more conventional economic objectives. At various times and to the same end, the UN has attempted to set up national interministerial committees.

That these efforts were largely unsuccessful is perhaps not surprising. The reasons might include the attempts by nutritionists to cross disciplines themselves, i.e. the nutritionist as an economist, which were not always convincing. To an extent it was due to the contradiction between the implicit economics of nutrition planning and policy whose objective was directed to short-run human welfare, and the more widely held neo-classical economic view.

NGO are much less constrained by definitions and sectoral divisions and it may be here that nutrition currently finds its most effective multisectoral role. The diversity of the NGO sector does not allow easy generalization. To take the example of Save the Children Fund, excluding some very minor nutritional rehabilitation projects in association with health, one health/nutritional rehabilitation unit in Bangladesh which is primarily concerned with teaching, and an involvement in nutritional surveillance in Ethiopia, there is no support for explicit nutrition projects outside of emergencies. That said, its interest in and actual and potential employment of nutritional information and techniques within other activities is considerable. Currently this includes an exercise in risk mapping with the FAO, survey work and other economic analysis, and a range of emergency work ranging from a food fortification project in Malawi, to an attempt with others, to set standards for what may become a European emergency food. None of these are wholly 'nutrition' but all employ nutritional knowledge or techniques. Where it finds comparatively little use for nutrition, for the reasons already outlined, i.e. that poverty is not a nutritional problem, is in its long-term work.

THE FUTURE

After more than half a century of unsuccessful attempts to formally integrate nutrition and to put nutrition information to use in the developing countries, I hesitate to be prescriptive. Also, the conditions for this are possibly less inviting than at any previous time. It seems to me that there is a need:

(1) for a much stronger professional commitment to the nutrition of poverty. This may be more easily said than done, at a time when the UK is withdrawing from engagement within the world and independent funding is difficult to obtain. But a strong interest has been maintained by health, education and other subject areas in the face of similar changes;

(2) to accept that nutrition is a 'bit-player'. Its role is to provide information relevant to wider policy and planning, not to run projects or to make policy. Investment in training across subject lines is clearly a very powerful route to this. The fact that there is only one really multisectoral postgraduate training course available in the northern hemisphere, the MSc at the London School of Hygiene and Tropical Medicine, and that the means for systematic multisector overseas research is now hardly more than a declining Medical Research Council investment and a little more-or-less *ad hoc* collaborative work financed by other UK institutions, is a statement in itself;

(3) to reconsider what are the relevant nutrition questions. To the extent that

undernutrition is poverty, and that current nutritional aid approaches have been ineffective, to consider other routes to change. This might include a more systematic effort to obtain the information which is the basis of advocating and influencing policy in ways other than through conventional professional routes.

Nutrition professionals with relevant skills and privileged access to information may feel that they have an obligation to be involved.

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