CHAPTER 25

THE NUTRITION PROFESSION IN AFRICA

Meeting Current and Future Challenges
Tola Atinmo and Oyediran Oyewole

Outline
• Situation with regard to the training and number of nutrition professionals in Africa
• Strategies to increase the number of well-trained nutrition professionals in Africa
• Difference between dietitians and other nutrition professionals

Objectives
At the completion of this chapter you should be able to:
• Describe the general situation in Africa with respect to the training and number of nutrition professionals
• Suggest ways to increase the numbers of well-trained nutrition professionals in Africa through undergraduate education, advanced training, and research training
• Explain the difference between dietitians and other nutrition professionals

doi:10.15215/aupress/9781927356111.01
CHAPTER 25

1. INTRODUCTION
Many sub-Saharan African countries face serious nutritional challenges. The importance of adequate nutrition to the development of these nations is hard to exaggerate. Unfortunately, though, these challenges are compounded by both the quantity and the quality of nutrition professionals in the region. Because many of these countries do not have active organizations of nutrition professionals that register their members, reliable information regarding the number of people working as nutrition professionals in sub-Saharan countries is not easy to find. It is more difficult again when the quality of such professionals is in question. All the same, it is evident that sub-Saharan countries lack a sufficient supply of well-qualified nutrition professionals. The relative scarcity of such professionals is evident in the outcome of nutrition programmes, which are too often poorly planned and implemented.

In some cases, nutrition intervention programmes have been almost wholly unsuccessful. It is now becoming obvious that urgent consideration should be given to capacity building among nutrition professionals in developing countries, especially in those countries in which the problem of malnutrition has remained unabated for many years. The UNICEF (1990) Conceptual Framework on the Causes of Malnutrition may accordingly need to place more emphasis on such capacity building as part of tackling the underlying causes of malnutrition in developing countries.

2. CHALLENGES CONFRONTING NUTRITION PROFESSIONALS
Despite the importance of the field of nutrition to virtually all aspects of national development, nutrition professionals have a poor image in many African countries (Martorell, 1999). The multi-disciplinary nature of nutrition as a profession – which, at first glance, might seem an advantage – in fact does much to explain its relatively lowly status. Everybody feels associated with nutrition, but few want to give greater recognition to the profession and contribute to its development. Those working in nutrition thus find their position usurped by professionals who specialize in one of the disciplines on which the field of nutrition draws.

At the national level, an inaccurate or incomplete understanding of what nutrition entails has contributed to some of the challenges confronting the profession. Many national governments seem unable to distinguish between food supply and nutrition. As a result, much support is given to increasing agricultural productivity but little or none to nutrition programmes. The notion is that once sufficient food is produced, people will no longer be malnourished. However, food production is not synonymous with good nutritional status (Oyewole, 2007).

The issue of the brain drain is another serious challenge affecting the nutrition profession. Top-quality nutrition graduates from Africa typically apply to universities or institutions outside Africa for graduate studies. Many of them do not return to their home countries.

In sub-Saharan Africa itself, existing educational institutions have only a limited capacity for training people in the field of nutrition. Moreover, the quality of training is often deficient. The curriculum followed in various schools of nutrition varies widely, with the result that graduates from different institutions, all of whom have the same qualification (at least on paper), do not necessarily possess the same command of the subject. For example, some nutrition schools focus mainly on the biomedical aspects of nutrition and do not include the social science components in their curriculum. Graduates from such institutions will therefore find it very difficult to bring the methods and insights of the social sciences to bear on programme planning, implementation, and evaluation. The deficiencies in training that result from the lack of a reasonably standard curriculum have the effect of making the field of nutrition less professional. This in turn contributes to the problem of inadequate remuneration for some nutrition professionals.

Another consequence of uneven curriculum development is that nutrition professionals are often poorly qualified for leadership positions. Perhaps for this reason, very few nutritionists have occupied government positions in African countries of the sort that would allow them to be actively involved with policy development. Indeed, political leaders seem somewhat uncertain about where nutrition departments fit into the structure of government. In Nigeria, for instance, nutrition has been transferred from one ministry to another, most recently to the Ministry of National Planning – although the latest proposal is to place nutrition directly under the office of the president.

doi:10.15215/aupress/9781927356111.01
The fundamental question is: To what extent are we preparing a cadre of professionals able to meet the challenges that sub-Saharan countries face in the area of nutrition and to provide the services required at the national level? Some established institutions in Africa are beginning to acknowledge the problems associated with the shortage of qualified nutritionists and are therefore embarking on programmes intended to address this shortage.

3. HISTORICAL EXPERIENCE IN INSTITUTIONAL CAPACITY BUILDING

It is important to mention some experiences in Africa and some other developing countries with regard to institutional capacity building in the field of nutrition. Information obtained from the International Union of Nutritional Sciences (IUNS), United Nations University (UNU), and the African Nutrition Leadership Initiative Report of 1999 provides a pertinent in-depth historical perspective. For the last few decades, several national, regional, and international initiatives have drawn attention to the need for institutional capacity building in the area of food and nutrition, with a specific focus on developing countries. Since the UNU’s establishment in 1975, it has given highest priority to capacity building, especially south of the Sahara.

A joint UNU and working group of the Administrative Committee on Coordination / Sub-Committee on Nutrition (ACC/SCN; later the Standing Committee on Nutrition) convened in 1984 to address the strengthening of institutions concerned with food and nutrition. The working group recommended that high priority be given to the development of capacity of institutions that have the potential to become centres of excellence. The issue was further discussed at the IUNS meeting held in 1989, in Seoul, South Korea. The subject of institutional capacity building was the title of a workshop held by the IUNS and UNU in 1996. By 1997, it was reported that more than 600 researchers and young scientists, more than 40% of the UNU fellowships awarded, had received post-graduate training in the area of food and nutrition.

The results of institutional building in Africa are a cause of great concern, as generally the initiatives have not been successful. Despite the reported fact that almost 27% of the UNU nutrition fellowships were awarded to people from African countries, only 1.5% of the fellowships were implemented at UNU-associated institutions in Africa. In 1988, a joint UNU and African Association of Universities (AAU) collaboration was initiated involving seven African countries, aimed at strengthening national capacity in food and nutrition. However, the initiative was terminated in 1994 because an evaluation indicated limited impact on strengthening capacity for research and advanced training.

The Swedish International Development Agency (SIDA) has been involved in the strengthening of a number of food and nutrition institutions in Africa; for example, the Ethiopian Health and Nutrition Institute, the Zambian National Food and Nutrition Commission, the Tanzanian Food and Nutrition Centre, and the National Nutrition Unit of the Zimbabwe Ministry of Health and Child Welfare. The outcome of the experiences of Zimbabwe and Tanzania has been considered generally positive in some aspects of the capacity-building process.

The Applied Nutrition Programme (ANP) of the University of Nairobi was launched in 1985 with the support of the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), the German agency for technical cooperation. Nearly 100 students from Eastern, Central, and Southern Africa have gone through the MSc Applied Nutrition programmes, trained by highly qualified faculty. The ANP serves as a good example of how to build institutional capacity.

The East, Central, and Southern Africa Food and Nutrition (ECSAFAN) Cooperation, established in 1979 at a conference of health ministers from the Commonwealth Regional Health Community Secretariat for East, Central, and Southern Africa (CRHCS/ECSA), is the oldest networking institution aimed at addressing food and nutrition problems in the ECSA region. It was only in the mid-1990s that the CRHCS/ECSA intensified the effort of institutional capacity building in collaboration with other institutions within the region. These included the University of Zimbabwe, the Pan African Institute for Development, East and Southern Africa (PAID-ESA, based in Zambia), and the international universities of Wageningen Agricultural University (the Netherlands), Emory (USA), and Southampton (UK).
CHAPTER 25

NATURA-NECTAR is a programme that was carried out by three European universities and coordinated by the Wageningen Agricultural University. It has five modules, each lasting two to four weeks, on different nutrition subjects. These have been developed in partnership with universities in Benin, Ghana, Kenya, South Africa, Tanzania, and Zimbabwe, and the Ethiopian Health and Nutrition Research Institute.

While the efforts of institutional capacity building in Africa have generally not been successful, the initiatives in Latin America and Asia have been relatively successful. In these regions a number of key regional and national institutions have been established. Examples include the Institute of Nutrition of Central America and Panama in Guatemala, the Institute of Nutrition and Food Technology in Chile, and the Institute of Nutrition at Mahidol University in Thailand.

A number of lessons can be distilled from the experience of building or strengthening institutions. The fundamental lesson learned has been that political will must exist. Government support is indispensable for any capacity building to be successful. The other ingredients are

- the development of a core group of professionals who are well trained, have multiple skills, and are highly motivated; and
- a critical mass of well-trained people, with a strong and visionary leader, and long-term budgeting commitment from both the member countries and external financial contributors.

There is much variation in successful institution capacity building initiatives. However, it appears that in Africa, success is more likely when the initiative is implemented at academic institutions than at government institutions (Kuzwayo, 1999).

4. THE NEED FOR CAPACITY BUILDING IN THE NUTRITION PROFESSION IN AFRICA

Nutritional problems around the world are rapidly evolving alongside changes in global socio-economic conditions and the interconnected nature of national economies, demographic transitions, and continued population growth. These rapid changes pose many challenges to human health. This creates much need for involvement by nutrition professionals. These professionals must be well equipped to meet the needs of our fast-changing world. In the face of these developments, investment in human and institutional capacity in the field of nutrition should be a priority (UNU/IUNS, 1999). Unfortunately, such investment has been inadequate and uneven in many regions.

Several critically important issues must be considered regarding capacity building of nutrition professionals. One is to ensure that the training is organized such that it makes a tangible difference to nutrition problems. In addition, there is a need to build or strengthen institutions; in particular, it is vital that institutions are sustainable. A variety of approaches have been suggested for advanced training leading to degree programmes in nutrition. In order to achieve successful outcomes when planning nutrition programmes, it is important to set clear and achievable goals. The same applies with respect to institutional capacity building.

Research is the cornerstone of scientific and scholarly work. Therefore, research is an essential component of any strategy that aims to improve a nutrition situation. However, the capacity of research institutions is generally quite weak across Africa (UNU/IUNS, 1999). One of the reasons for this is because many young nutritionists find it extremely difficult to publish their research findings in well-respected journals. Other barriers include limited access to scientific journals and the cost of Internet service.

An effective means of building capacity is to develop partnerships with institutions in developed countries. Unfortunately, relatively few nutrition institutions in Africa have been successful in doing this. Even where this has been accomplished, there is still a negative side, as some of the trainees may stay in the host country, which obviously does little to help with capacity building in Africa.

South Africa is the major exception to many of the above problems. That country has numerous high-quality universities and many highly respected nutrition professionals. Relatedly, South Africa also has a large amount of interaction between its universities and other institutions and partners in developed countries.
5. STRATEGIES TO ADDRESS CURRENT AND FUTURE CHALLENGES IN THE FIELD OF NUTRITION

5.1 An Overview of the Problem

Meeting the challenges faced by the nutrition profession in Africa will require a great deal of work. In particular:

- institutions of learning need to collaborate with more developed institutions, and
- regional bodies can enter partnerships with established international bodies.

In addition, there is much need for self-development efforts by people on an individual basis.

The following should be viewed as the key strategies in building the field of nutrition:

- Harmonization of the basic nutrition curriculum in schools and colleges that run nutrition programmes
- Creation of minimum standards for qualification as a nutritionist
- Development of a strong advocacy for nutrition, combined with political will
- Defining the main role of nutritionists within the context of the national civil service

It should be noted that in facing current and future challenges, adequate training is needed in the following key areas: nutrition advocacy; development of communication skills; and nutrition programme planning and implementation, as well as the evaluation of all practitioners. In order to advance this agenda and advocate for nutrition promotion a systematic approach to policy development and capacity building is needed. This can be achieved through formal and informal meetings between concerned professionals and other stakeholders.

5.2 Nutrition Education

The introduction of similar curricula for nutrition programmes in schools will set the pace for similar examinations for graduating students. This may ultimately usher in registration of successful students with the national nutrition board or some other agency mandated to register professionals in a given country.

The suggested uniform curriculum should include courses in the various areas listed below:

- Categories and characteristics of foods
- Food science and technology
- Food safety and environmental health
- Ecology of food and nutrition
- Feeding practices of different age groups (lifecycle nutrition)
- Food and agricultural systems
- Ecology of health and disease
- Nutritional physiology and biochemistry
- Nutritional behaviour and the social aspects of nutrition
- Nutrition-related disorders
- Nutrition assessment
- Nutritional epidemiology – population-level description of the distribution of nutrition problems
- Clinical nutrition
- Ethical issues in research
- Research design, methods, and interpretation, including epidemiological methods and nutrition surveys
- Basic statistics
- Health education approaches
- Programme planning, management, and evaluation
Leadership attitudes and skills
Communication, negotiation, motivation, and collaborative problem solving
Principles of reflective practice
Information technology (including the relevant computer software)

In addition, students should be expected to take background courses in disciplines such as economics, political science, anthropology, and psychology, all of which bear on the work that nutrition professionals do. Such coursework will help students understand the systems that contribute to the development of food shortages and nutrition-related health problems and that often complicate efforts to address these problems.

5.3 Capacity Building in Nutrition in Africa

The African Nutrition Leadership Forum (ANLP) has been doing a yeoman’s job in developing young professionals in the field of nutrition. Good leadership quality is very important in promoting nutrition, especially in Africa, where leaders need more exposure to the subject in order to be able to take well-informed steps in the development of policy. Other national and international bodies with a nutrition orientation and agenda need to be co-opted and sensitized to providing more support that will improve the training of nutrition professionals. Apart from the ANLP, the Federation of African Nutrition Societies (FANUS) may need to do more in terms of playing a leadership role in the promotion and development of nutrition in Africa. A relatively new organization is the African Nutrition Society (http://www.answeb.org), which was formed in 2008.

Other regional bodies are presently preoccupied with mainstreaming nutrition in the development agenda. These include the Africa Nutritional Epidemiology Conference (ANEC), Information Technology in the Advancement of Nutrition in Africa (ITANA), Food Science Network for Africa (FOSNA), and the Economic Commission for West African States (ECOWAS) Nutrition Forum. These bodies may need to look at providing assistance to young graduates in acquiring training in certain vital areas, namely nutrition advocacy, communication skills, and governance.

Nutrition challenges vary from country to country in Africa. Therefore, any approach to institutional building must be based on reliable and timely information. This requires a situation analysis that provides information on institutional capacities and identifies areas that require strengthening, and determines the level of knowledge and skills, financial support, and physical assets in a given country.

5.4 Building Research Capacity

As stated earlier, a need exists for increasing research capacity. The principal objectives for building such capacity are as follows:

- Strengthen the ability to respond to national and regional research needs.
- Increase the proportion of nutrition research conducted by national or regional institutions.
- Identify, focus on, and find solutions for the nutritional problems of most national and regional significance.

These objectives can be achieved through the development of research centres of excellence in institutions that closely link the research mission to educational and training missions. Realization of these objectives should lead to the development of self-sustaining departments, institutes, and/or schools of nutrition capable of conducting research and training future researchers in the region. With a strong commitment, building an academic department where none exists can be done in less than ten years. For institutions where established departments need strengthening in limited areas, the time frame is much shorter.

Limitations of available resources and the requirement for a critical mass of professionals make it imperative that resources be concentrated in a small number of carefully selected academic/research institutions in each region. Appropriate criteria for the selection of regional centres of excellence should include: a demonstrated institutional commitment to focus on priority areas for research in human nutrition; a demonstrated willingness and ability to serve regional needs; and political and economic stability.
The selected research centres must have a multi-disciplinary orientation, in keeping with the breadth of disciplines required to address most nutrition problems. But at the same time, each unit in the nutrition department should develop its own area of specialization. This expertise should be linked closely to the areas of education and training targeted by the institution. Thus, collaboration within and between regions is essential because no single institution can have the requisite research capacity in all fields that contribute to the solution of nutrition problems.

Developing research capacity may be accomplished in various ways. Whatever approaches are taken to develop this capacity, careful consideration should be given to the disciplinary and interdisciplinary breadth and complementary specialization required for dealing with food and nutrition issues. The most common approach for the formation of future faculty and researchers is through graduate and post-graduate training in universities or other institutions where the desired expertise and multi-disciplinary breadth exists. An additional, highly desirable component of advanced training is the preferential support of newly trained researchers as an important follow-up of doctoral and post-doctoral training. This may take the form of peer-reviewed programmes specially designed for new graduates. It is recommended that training programmes be research based, and that the research be conducted in the country to which the trainee is returning.

The development of mentoring relationships and faculty exchanges is a valuable part of capacity building. Enhancing research capacity through the improvement of highly specific skills may be accomplished through less formal approaches or by adopting short-term training methods.

Another essential component to building research capacity is the development of relevant research agendas. For this discussion it is useful to differentiate between basic and applied research. Basic research is research undertaken for its own sake; in other words, it is not directed at any specific problem. Applied research is directed at a specific problem of interest for one or more stakeholder groups. Applied research agendas should set priorities on the basis of the significance of present and projected problems specific to countries and/or regions. Thus researchers, planners, policy makers, and representatives of those that are affected by the problems of interest and projected solutions must participate in priority-setting.

6. DIETITIANS AND NUTRITIONISTS

In this chapter we have mainly focused on nutrition professionals in the broad meaning of the term. It is important to state that the challenges facing Africa with regard to nutrition professionals are more acute with respect to dietitians than for nutritionists in general.

Nutritionists do not necessarily have a formal qualification in nutrition. They may come from a variety of different professions, including medical doctors, home economists, nurses, biochemists, and physiologists working in specialized areas of nutrition. Dietitians, by contrast, normally have a degree in nutrition and specialized training in an area of nutrition practice, such as clinical nutrition or public health nutrition.

Nutritionists within a country typically form a nutrition society that then affiliates with the IUNS. The mission of the IUNS is to promote nutrition research and development through international cooperation globally (http://www.iuns.org). The main scientific activity of the IUNS is to organize the scientific programme of the World Congress of Nutrition, which is held every four years.

Many countries also have a national dietetic association. The most well-known one is the Academy of Nutrition and Dietetics (http://www.eatright.org, formerly the American Dietetic Association). Numerous low- and middle-income countries are members of the International Confederation of Dietetic Associations (ICDA) (http://www.internationaldietetics.org). Nigeria and South Africa are the only two countries from Africa that are members. By contrast, roughly twenty African countries have an active nutrition society. This speaks to the lower level of national organization of dietitians compared with nutritionists.

We feel it necessary to end this chapter by re-emphasizing that survival of nutrition in Africa depends on sound capacity building of nutrition organizations and professionals.

REFERENCES


doi:10.15215/aupress/9781927356111.01


UNICEF. 1990. *Strategies for Improving the Nutritional Status of Women and Children in Developing Countries*. New York, UNICEF.