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HEALTH MANPOWER IN THE AFRICAN REGION

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1. INTRODUCTION

The assistance of the World Health Organization to the governments in planning, training and utilization of health manpower in such a way that the benefits of modern medicine could be made available to those who may need it, is one of the Organization's main tasks. Manpower - the most critical of health resources - is now a priority concern, especially in Africa.

The assessment of future needs of main categories of health personnel in Africa has been incorporated in the organizational study of the WHO Executive Board entitled "Measures for providing effective assistance in medical education and training to meet the priority needs of the newly independent and emerging countries" 1/, which was adopted by the Sixteenth World Health Assembly 2/.

It was not expected that the problem of health manpower will be solved easily and in a short time, bearing in mind its magnitude, complexity and interrelationship with historical, economic and social factors. It is alarming that, in spite of all efforts made by the governments together with international assistance in most countries of the WHO African Region, the minimum estimates of number of graduates in the various categories required to fill all posts in 1970 (1) are far from being reached.

2. CRITICAL PROBLEMS CONCERNING HEALTH MANPOWER IN AFRICA (SOUTH OF SAHARA)

2.1. Quantitative aspects

Although scarcity of health personnel is also experienced in other parts of the world, there are some features which can be considered specific for Africa.

2.1.1. Alarming decreasing tendencies

Despite the fact that the absolute number of health personnel in most countries reveals a tendency to increase, the coverage of citizens with their services due to the rapid and high population growth shows slower rates of improvement, remains static, or in some countries, is actually falling.

In a study made in respect of a group of thirteen French-speaking countries it was observed that in comparison with 1962 when one doctor was available for approximately 21,000 inhabitants, in 1965 the figure was one for 22,500. In a group of thirteen English-speaking countries comparable figures were in 1962: one doctor for 15,000 and in 1965 one for 18,000

1/ Doc. A16/P&B/10-19 April 1963
2/ Res. WHA16.29 ...

population. These figures comprise both national and non-national medical doctors practicing in the respective countries, but the ratio of nationals was much lower. In 1965 in the above-mentioned 26 countries there were only three countries with one national doctor for less than 20,000 inhabitants, nine with one to 20,000 - 50,000, eleven with one to 100,000 and more and two countries with no national doctor at all.

Only in eight of the 26 countries did national doctors constitute the majority of practitioners. This is particular to Africa, that in the majority of countries the leading category of health personnel was formed mostly by non-nationals.

The number of pharmacists (nationals and non-nationals) remained practically unchanged in the period 1962-1965 and in the majority of the countries the ratio was one for more than 100,000 inhabitants.

Similarly in a great majority of countries there was one dentist for much more than 100,000 population.

In sixteen (seven French and nine English-speaking) countries the ratio of fully qualified nurse and midwife in 1962 was one for approximately 6,000 inhabitants, but by 1965 this had fallen to one for 8,000.

The above figures, however, do not show the real situation, for it is well known that professional personnel tend to concentrate in the capital. In eleven French-speaking countries in 1965 about 60 per cent of national, 50 per cent of non-national medical doctors, about one third of national and non-national qualified nurses and about one fourth of national and non-national qualified midwives were in capitals.

As over 80 per cent of the African population lives in rural areas, the present trends deprive them more and more from the services offered by professionals, so that they are dependent mostly on auxiliaries.

2.1.2. Limiting factors

In addition to the population explosion there are other comprehensive reasons causing the above described precarious situation.

There was and still exists a lack of teaching institutions, in spite of the fact that many new facilities have been established and existing ones expanded.

Fourteen new medical schools were established in the African region (South Africa not included) from 1961 to 1968 and with those previously existing the total number has now reached 20. There are, however, still five countries with more than three million inhabitants where there is no medical school. There are only 5 schools of pharmacy in the region, 6 dental schools. There is no school for sanitary engineers.

On the other hand practically every country has one or more school for training of professional and auxiliary personnel.

One of the main problems is the scarcity of teachers and particularly of national teachers. In five leading medical schools in Middle Africa with instruction in English there were in the scholastic year 1966/67 approximately 50 per cent of national teachers; in four other schools in the same area, using French as the language of instruction, only 20 per cent of teachers were nationals.

In medical schools the lack of teachers is most apparent in the basic sciences and public health subjects.

The number of students was also still very low. In the academic year 1966/67 in eleven medical schools (Portuguese territories and Rhodesia not included) there were some 1,600 students out of whom 1,250 were nationals, 200 were from other African countries and 128 from non-African countries.

It is necessary also to note that in 1967 only eight schools out of 20 were able to produce graduates.

The number of graduates was still very low and in 1967 only 145 nationals 25 other African and 19 non-African students completed their studies in medical schools within the region.

A certain number of graduates, however, will be returning to Africa after completing their studies abroad; but complete figures are not available for the time being.

The figures concerning students and graduates of other schools for training of professional and auxiliary personnel are also not yet fully known.

It is very well known that the brain-drain, especially of African medical doctors, is steadily worsening the manpower situation, but thus far it has taken a slightly different form from that in other continents. In the latter, usually, doctors trained in their home country emigrate after graduation; in this region, students sent for undergraduate studies outside Africa do not return after termination of studies. Figures concerning the students who have not returned are not fully available; but even the incomplete information provided by some countries indicates that the number is by no means negligible (estimation about 50 per cent of graduates). There are some countries where only a minor part of their national medical doctors are practising at home, while the majority of them are living outside.

In addition to the loss of nationals the situation in some countries is characterized by a continuing loss of non-nationals. A study carried out for instance in 1965 in Uganda 1/revealed that the intention of non-

1/ F.J. Bennet, S.A. Hall, S.S. LUTWAMA and E.R. RADO. Medical Manpower in East Africa - Prospects and Problems. East Afr. Med. Journal, Vol. 42, No. 4, 1965.

national doctors - who formed 78 per cent of the total presently in practice - was as follows: 35.7 per cent would have emigrated by 1965; 70.7 per cent by 1970 and 86.7 per cent by 1980.

There are also economic limitations preventing the governments from training and absorbing more health personnel in order to meet the increasing needs. The rate of growth of national income in the African countries, in recent years, was considerably lower than that of other developing countries. In addition, it is to be borne in mind that the real rate of economic growth has been normally reduced by the tempo of population increase and in some instances by a heavy burden of debts repayments. Even if the importance of the health of the community as a basis for economic prosperty and social development is widely recognized in the future, a revolutionary break-through as regards increase in national budgets for public health can hardly be expected. Further increases in health personnel, already now with relatively low salaries, will be specially subject to budgetary limitations. Analysis of the recurrent costs in health service budgets has shown that expenditure for personnel presently amounts to 70-80 per cent of the total leaving only 20-30 per cent for drugs, supplies and equipment.

On the other hand - paradoxically - due to small numbers of students especially in schools for professional personnel the cost of studies is in some cases excessive. For instance the cost of undergraduate medical studies per student in some medical schools is more than 200 times the per capita gross national product of the country concerned.

2.2. Qualitative aspects

There is little doubt that especially in a situation where there are limitations in numbers of personnel, the quality and effectiveness of their utilization plays a most important role.

The effectiveness of service of any group of health workers will depend largely on the pattern and organization of the health services in which they are supposed to operate. The prevailing public health problems in the African region such as communicable and parasitic diseases, malnutrition, deficiencies in environmental health, health illiteracy and their consequences, call for health services with orientation to an emphasis on prevention and treatment. It can certainly be said, however, that the existing health services are still more orientated to curative medicine and there is therefore room for increased efficiency in both organization and equipment.

It is already widely recognized in the region that team work rather than independent individuals can solve more problems with better results. There exist many categories of health personnel, professionals and auxiliaries. With an increasing number of health professionals, the relationship between various members of the health team, who should share responsibilities, has become critical. With changing needs and tasks various

categories of health personnel who often follow an implanted orthodox pattern, find it sometimes difficult to act as an interrelated group; they act merely as an agglomeration of different categories of personnel. Gaps in and overlapping of activities can hardly be avoided, especially if supervision and guidance are not at the highest level.

On the other hand there are some categories especially of auxiliary health personnel the efficiency of whose work can be increased by means of a down-ward transfer of duties and responsibilities. It is here that it should be emphasized that each service should be given the level of knowledge and skill it needs, no more no less. A category of auxiliary workers capable of ample diagonosis, treatment of preventive measures in rural areas is an example.

With regards to the above facts no wonder that most of the efforts undertaken to adapt the education and training of health personnel to African needs and conditions and to orientate them to modern world trends were until now not very successful. In order to achieve better results the systems of health service should be defined before roles are delineated; scope of activities and responsibilities should be clearly stated, before suitable teaching programmes are prepared and teaching methods adopted.

Inadequate teaching programmes not only lower the productivity of future graduates, but in addition they contribute to their frustrations. There exist a real danger that in the near future especially the medical doctors and other professionals will find it easier from the technical point of view to practice medicine in Europe or elsewhere than at home.

The continuing education and further in-service training have to be taken into account in this connexion. It was observed that there was often a considerable delay in spreading out a system worked out and used in demonstration areas and in establishing a country-wide system. Sometimes it appeared that a training programme operated on a limited experimental basis was too costly and unrealistic with regard to manpower availability and absorbability on a country-wide basis. There were also considerable losses in productivity of prospective monovalent auxiliaries by neglecting their further training in order to make them useful in other fields where there was a scarcity of personnel.

3. WHO ASSISTANCE AND ACTION

WHO action has been directed to assisting the governments to solve the above-mentioned critical problems and give them the advice on which they could define their own policies and take their own decisions.

First of all assistance was directed to national health planning, both in preparing and drafting the plans and in the training of staff in this field. It is felt that this is the only basis on which any further steps can be taken to solve gradually the health manpower problems in Africa.

Health manpower studies were undertaken by the Regional Office in this connexion. Similarly extended assistance was given to countries on planning and establishing of new teaching institutions (medical schools, basic and post-basic schools for paramedical personnel, etc.).

The emphasis has been laid on the training of national personnel. Two-thirds of all the projects in the region aimed to train national counterparts and many were devoted only to the training of national professional and auxiliary staff.

Personnel, financial aid and equipment were granted to individual schools or their departments, in order to develop or to strengthen undergraduate or postgraduate training. Priority has been given to the fields of preventive medicine, epidemiology, health statistics, mental health, nursing and environmental health.

A conference on Medical Education and a meeting of professors of public health was held in order to define the needs and to adopt the training programmes to needs and conditions. In order to provide more information, co-ordination and personal contacts as well as to assist in overcoming the linguistic barrier, funds were allocated to assist in exchange of teaching staff of medical schools and exchange of students.

In the fellowships programme, which has been extended in the last years, flexibility was applied to meet the priority needs. Fellowships were granted not only for postgraduate or postbasic studies, but also for undergraduate studies especially in medicine, pharmacy, dentistry, engineering (leading to sanitary engineering). Whenever there were suitable places for training, fellows were placed in Africa. For those who finished their undergraduate or postgraduate training outside Africa, practical training and orientation courses were arranged in the region to facilitate their adaptation to local conditions.

Priority was given in the fellowship programme to postgraduate training and preparations of future teachers for medical and other schools, as well as national staff in the fields of public health, public health administration, environmental health, laboratory services, maternal and child health and nutrition.

The investments in educational programmes are costly and long-term. It is clear that only concentration and co-ordination of national bilateral and international resources can solve the main problems. The idea of regional or sub-regional teaching centres was therefore adopted. Possible assistance from UNDP Special Fund in regional educational programmes adapted to the local conditions and needs can be considered decisive in covering both investments and long-term recurrent expenditures.

During the implementation of the above outlined activities, an increased number of demands were received from governments concerning the possibility of awarding local WHO fellowships for nationals studying in their own country.

A new policy has been therefore adopted by the XXIst World Health Assembly this year 1/, which will enable the governments to utilize more fully national teaching institutions for the training of national health personnel, who otherwise could not be admitted because of lack of funds.

4. ORIENTATION FOR THE FUTURE

The minimum requirements in health manpower cannot be supplied in a short time. If these requirements should be achieved in the African Region in 1980, it would be necessary to increase yearly by a minimum of 14 per cent the total number of existing national doctors to reach a ratio of one national doctor to 10,000 population; the respective figures for pharmacists will be 7 per cent for a ratio 1:50,000 inhabitants, 11 per cent for dentists for a ratio 1:30,000 and 5 per cent for qualified nurses and midwifes for a ratio 1:5,000 population. Such an increase has not been observed up to now and it will be a great task if it has to be reached.

This on the other hand means that the development of health services could be hindered at least for the next ten years and the necessary actions concerning the control or eradication of most prevalent infectious and parasitic diseases could be seriously jeopardized.

It would be essential to review and reconsider short and long-term plans for the development of health services in the region and this should be a common aim of national planning bodies and public health administration to see that plans for health services will be given an adequate place among other fields of national economy.

Due to the scarcity of resources the highest effectiveness in training and utilization of health personnel has therefore to be assured. More attention and further efforts will be necessary in the field of national health planning, with emphasis on manpower and educational planning.

Much more attention has to be paid to the adaptation of teaching programmes to the African needs and conditions and to modern, efficient teaching methods. Research and experimentation in education will be needed in the field of training health personnel.

This calls for a new approach from both international assistance and especially national authorities, who are responsible for their health manpower. The implementation or copying of foreign so called "internationally recognized" systems can create a considerable delay and economic losses.

Dr. M. G. Candau, Director-General, World Health Organization, in his address to the Fourth Rehovoth Conference in 1967, dealing with Health Problems in Developing States 2/ remarked: " When one thinks of the enormous

1/ Res. WHA 21 47.
2/ G.M. Candau, Knowledge, the Bridge to Achievement, WHO Chronicle, Vol. 21, No. 12, December 1967, pp. 505-509.

efforts that the newly independent countries have made to liberate themselves, it is perhaps surprising that they have not realized that they need to free themselves from what might be called a technological colonialism as well. Technology may be international in substance, but its method of application must be adapted to the situation in which it is to be applied. The universities in the developing countries, the subjects taught, and the methods of teaching are still modelled on the 'old country'. This should not be so. They should be divising new methods, new subjects, and new ideas relevant to their new problems. If they do this, they will perhaps design the university of the future, which may eventually be copied in the 'old country'.

Innovation is what we need in all countries. Innovation depends on knowledge. Knowledge is the bridge to achievement but education is the bridge to knowledge".

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