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SYMPOSIUM ON MEDICAL AUXILIARIES

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ABSTRACTS  
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## SYMPOSIUM ON MEDICAL AUXILIARIES

### AUXILIARIES IN THE HEALTH TEAM

Dr. N. R. E. Fendall\*

The team approach to developing health services, though not a panacea, offers a more realistic approach to providing adequate coverage to those most in need. Given the limitations of common factors that identify underdeveloped countries, a sharp distinction needs to be kept in mind between primary medical care and referral care in organizing and planning for services.

Primary care requires a quantitative approach, referral care demands a qualitative one. Comprehensive medicine, in terms of both qualitative and quantitative results, has not yet been achieved in any country. What is achievable, by careful managing of slender financial and manpower resources and their appropriate deployment, is an integrated approach. The guiding rule is "to each according to his medical need", just that and no more.

The composition and activities of constituent members of the health team need to be defined to reflect overall felt wants and scientific needs of the society, with the learning and skills of each member accurately reflecting job requirements.

Research in developing countries has tended to reflect research objectives and desires of western culture. It is a search to push forward the boundaries of knowledge into more and more esoteric areas, and into more minutiae for our long-term gains in knowledge. But underprivileged nations are in desperate need of action programs now.

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Underdeveloped countries have been subject to innumerable studies-- economic, demographic, anthropologic, and educational--until a mass of data has been accumulated. But so much interest has been engendered in the actual process of research and study itself that little of the data has found its way into action-oriented programs.

Pure research, that which is directed to no immediate utilitarian result, must give way to operational research that has as its objective the solving of the real practical problems of today, rather than a contribution to tomorrow's knowledge. We need to have rather more confidence in the application of what we already know, than doubts and hesitations because of what we do not know. Above all, we need studies that have action as their fundamental purpose - we need 'fire brigade' research to put out our existing fires.

The development of the potential capital of human resources does not lie solely in the arena of highly skilled manpower, but in the process of matching skills with functional requirements at all levels. The health team concept involves both lateral and vertical coordination of effort: it is not a one tier structure. But to be successful, there must be mutual recognition, acceptance, understanding, respect, and trust in each other's roles, responsibilities, and limitations. There is as much responsibility devolving upon the professional as upon the auxiliary to ensure success of the whole team.

SYMPOSIUM ON MEDICAL AUXILIARIES

REVIEW OF CURRENT UTILIZATION OF MEDICAL AUXILIARIES  
BY NATIONAL OR REGIONAL HEALTH AGENCIES

Dr. Daniel Flahault\*

Medical auxiliaries are health personnel whose duties may range from simple curative procedures to wider care, including a variety of diagnostic, curative, preventive, and rehabilitative practices. Two levels of medical auxiliaries are identified: a basic level, reached after a few months' training, and a technically high level, the example of which is given by the Russian "feldsher". This review is mainly focused on the latter level of auxiliaries, the "medical assistant".

In Europe, the Soviet Union has been using medical auxiliaries for a very long time. The functions of the feldshers have evolved from substitute, to assistant, to doctors, with a tendency to specialization. It is noted that feldshers are not employed because of a shortage of doctors but to complement an impressive medical force.

In Asia, in the Fiji Islands, assistant medical officers have been trained since 1886. Papua New Guinea, Nepal, Malaysia, Laos, Vietnam, and both Yemens are using medical assistants of various types. Iran trained "bedhars" from 1950 to 1960, then discontinued their training, but is again reconsidering the matter on new grounds. Some of the bedhars have become physicians, and others are still in practice. From what we know in China, feldsher-type of assistant doctors were trained from 1949 to the cultural revolution, but the most interesting

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experiments since then seem to be those related to low-level medical auxiliaries, barefoot doctors, and the like.

In Africa, the three colonial powers, Belgium, England, and France, initiated the training of medical assistants after World War I. When independence of the African countries came in the late 1950s, medical assistants were still very much associated with colonialism. Many medical assistants were upgraded to doctor level and as a consequence many rural areas were deprived of their competent personnel. The present situation regarding medical assistants is sometimes unclear, as for instance in Nigeria, Mali, and Madagascar. A strong opposition to the concept can still be found in several regions, but about 15 African countries are nevertheless training and using medical assistants.

In the Americas, the Venezuelan program of "medicina simplificada" is described as an important and worthwhile achievement. Guatemala is, in fact, the first Latin American country to attempt to introduce medical assistants into its health services. The experience carried out by the United States is of tremendous importance in showing other countries that medical assistants who are adapted to local conditions, can indeed contribute to the improvement of the delivery of health services in most developed, and developing countries.

A few comments follow the review of current utilization of medical auxiliaries in more than 30 countries. The position of medical assistants is emphasized and it remains the responsibility of each government to improve both the coverage and the nature of its health services. In order to do so, governments have to find the best solution compatible with their means and resources.

There is no universal model for a medical auxiliary valid everywhere. A number of principles, however, must be applied if failure in both training and utilization of this type of personnel is to be avoided.

Finally, some obstacles which prevent the general acceptance of medical auxiliaries are briefly commented upon and it is considered that a well planned, well trained and well utilized corps of medical auxiliaries could be a crucial factor in development.

SYMPOSIUM ON MEDICAL AUXILIARIES

TECHNIQUES OF UTILIZATION OF MEDICAL AUXILIARIES AND ANALYSIS  
OF BENEFITS ACHIEVED IN THE DELIVERY OF PRIMARY MEDICAL  
CARE IN A RURAL INDIAN VILLAGE IN GUATEMALA

Dr. Jean-Pierre Habicht\*

Over the past decade, medical auxiliaries have been used to deliver primary medical care in rural Guatemala. We present the comparative characteristics of organization, training, community acceptance and involvement, cost and funding, process quality control, and evaluation of benefits, and compare them to systems giving primary medical care through physicians.

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SYMPOSIUM ON MEDICAL AUXILIARIES

THE CONTROL OF NEONATAL TETANUS IN RURAL HAITI  
THROUGH THE UTILIZATION OF MEDICAL AUXILIARIES

Dr. Warren L. Berggren\*

Neonatal tetanus is a serious problem for the Albert Schweitzer Hospital, which has operated since 1956 in a rural area of Haiti. Mothers from the area served by the hospital give birth to their babies at home. Unsterile materials are customarily put on the infant's umbilical stump. The incidence of neonatal tetanus was, therefore, extremely high, and this one disease consumed a large share of the services provided by the hospital.

The hospital instituted preventive measures utilizing professionally trained personnel in its clinical facilities. The progress made by these measures was inadequate to slow a rapidly increasing annual rate of admission of patients with neonatal tetanus.

It was then decided to increase the population's accessibility to tetanus toxoid immunization, a procedure shown to prevent tetanus neonatally as well as at all other ages. The implementation of this decision required taking the immunization services to the market places of the area but sufficient, professionally trained personnel were not available to realize such a project.

The few health professionals available for the project gave on-the-job instruction to untrained but literate persons recruited on a day-work basis. These auxiliary medical workers functioned so efficiently that over 250,000 people were immunized and hospital

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admissions for neonatal tetanus declined in 5 years to a fraction of their previous annual rate. This effect was achieved at a cost estimated to be less than one-seventh that of treating the neonatal tetanus patients who would have been admitted to the hospital if the program had not been carried out. The ratio is greatly increased if the decline in admissions for tetanus at other ages is considered.

The locally recruited auxiliaries served as a manpower pool that enabled the hospital to realize other projects for the control of tuberculosis and malnutrition. The supervision of the project by professionally trained personnel and the simplification of each of its component task permitted this effective use of auxiliary personnel and substantially redistributed the hospital's services from the treatment of tetanus to that of other diseases.

SYMPOSIUM ON MEDICAL AUXILIARIES

METHODOLOGY AND RESULTS ACHIEVED THROUGH USE  
OF MEDICAL AUXILIARIES IN A CHILD HEALTH  
PROGRAM IN AN URBAN COMMUNITY IN COLOMBIA

Dr. Alfredo Aguirre\*

(Will be distributed later)

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SYMPOSIUM ON MEDICAL AUXILIARIES

TRAINING AND UTILIZATION OF  
DENTAL AUXILIARIES IN JAMAICA

Dr. George Gillespie\*

The need for improved dental care and the Jamaican Government's concern in the provision of dental services have in recent years directed more attention to the training of dental auxiliaries. In the Americas, this concern has been illustrated most noticeably in the English-speaking Caribbean region, an area with a population of approximately 5 million persons, where no institution currently exists for the training of professional dental personnel. The supply of professional dental manpower is limited and the dentist-population ratio is as high as 1:50,500. In Jamaica, the dentist-population ratio is 1:18,700 and, despite a fellowship training program, no significant increase in the number of dentists practicing in that country has been achieved over the past decade.

In the early 1960s, interest was expressed in establishing a dental training institution in Jamaica. Following a visit of the PAHO regional dental advisor, it was determined that because of the needs of the country and in view of the experience of New Zealand over the past 40 years in the provision of dental services to school children, this institution should be devoted to the training of dental auxiliaries. It was recommended that a Dental Auxiliary Training School be established, similar to those in New Zealand and to the New Cross Auxiliary School in London, England.

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The Minister of Health, following visits to the United Kingdom, decided to proceed with the idea of training dental nurse auxiliaries for the implementation of a school dental program. In 1967, the Jamaican Department of Public Works, with the collaboration of the Pan American Health Organization (PAHO) and the United Nations Children's Fund (UNICEF), under a tripartite agreement, designed and constructed a building nearby the children's hospital in Kingston, Jamaica. The Government of Jamaica financed the project and UNICEF provided the equipment. The essential teaching staff, such as the director and dental nurse tutors were recruited through development assistance from the United Kingdom. The school was completed in 1970 and the first class started in May of that year.

The new school aimed at training approximately 20 dental auxiliaries per year, in functions similar to those carried out in the United Kingdom: simple dental restorations, dental prophylaxis, and extractions. The two-year curriculum, prepared on a similar basis to those in New Zealand and the United Kingdom, called for one preclinical and one clinical year. To be accepted in the program, applicants had to be young women between 18 and 25 years with a minimum educational qualification of three subjects in General Certificate of Education. The "O" level included English, the Third Jamaica Local Examination, or the Jamaica School Certificate with a minimum of six subjects. The applicants placed on a short list were required to take an aptitude test.

Modifications have already occurred in the initial curriculum. Students are now exposed to clinical experiences in the first year of their training. In addition, they spend time in outside clinics and in the dental department of the Children's Hospital.

In June 1972 the first group of 20 dental nurse auxiliaries graduated. All those who took the final examination passed. The examination was given in Jamaica by a board of examiners from the Dental Nurse Auxiliary School in London. In the six months following graduation, the impact of the dental nurse has already been noted on

the trend of conservative treatment provided to school children. In the school program using dental auxiliaries, the ratio of restored-to extracted teeth is now 1.5:1, as compared to 1:4, in establishments not involving school dental nurses. The program is continuing with a full complement of 40 trainees. In September 1972, two trainees from Barbados were accepted as the first students from other countries in the English-speaking Caribbean.

The Dental Auxiliary Training School has also undertaken the first formal training programs for dental assistants; two pilot programs were initiated in 1972, offering students in this field a 7-month course.

The 1972 Dental Act was passed by the Jamaican Parliament in June of that year, thereby permitting the participation of dental nurse auxiliaries in the provision of dental care services for children.