WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR THE EASTERN MEDITERRANEAN

الهيئة الصحية العالمية
المكتب الاقليمي لشرق البحر الابيض المتوسط

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SUB-COMMITTEE A

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MINUTES OF THE FIRST MEETING

Held at the Cyprus Hilton Hotel, Nicosia on Thursday, 22 August 1968, at 9.30 a.m.

CHAIRMAN: Dr Mardan Ali (Iraq)

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FRANCE	Dr J. Malaspina
IRAN	Dr H. Morshed
IRAQ	Dr Mardan Ali
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KUWAIT	Mr Yousef Jassim Hijji Dr Abdulrahman Al Awadi
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SYRIAN ARAB REPUBLIC	Dr Bahjat Rabbat
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UNITED ARAB REPUBLIC	Dr Hashem El Kadi
YEMEN	Mr Mohammed El Zofri

Representatives of Associate Member States

BAHRAIN	Dr Ibrahim Yacoub
QATAR	Dr M. Farid Ali

World Health Organization

Secretary to the Sub-Committee (ex-officio)	Dr A.H. Taba, Regional Director
Representative of the Director-General	Dr P. Dorolle, Deputy Director-General
Director of Health Services, EMRO	Dr M.O. Shoib
Chief, Administration and Finance, EMRO	Mr J.F. Carney
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LEAGUE OF ARAB STATES	Dr N. Nabulsi
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1. PROPOSED PROGRAMME AND BUDGET ESTIMATES FOR 1970 FOR THE EASTERN MEDITERRANEAN REGION: ITEM 8 of the Agenda (documents EM/RC18/3 and EM/RC18A/WP.1)

The REGIONAL DIRECTOR, introducing the proposed programme and budget estimates for 1970, said that the documents before the Sub-Committee also included the revised programme for 1969 and the estimates of expenditure in 1968. The form in which the programme and budget estimates were presented was the same as that in which WHO estimates were presented to the World Health Assembly, but they were given in greater detail. The United Nations Development Programme component shown for 1969 was based on the information available. The 1970 estimates were partly an anticipation of what governments would request. Various programmes including funds-in-trust were given, in which any money disbursed by WHO would have been deposited for WHO's account in advance by governments; programmes of that kind existed in Libya and in Saudi Arabia. The country programmes were prepared on the basis of discussions with delegates at meetings of the World Health Assembly and Executive Board and with the authorities of the countries themselves during visits by the Regional Director and his advisers, and the projects described were those WHO felt would be most useful in the countries concerned. He would welcome any comments on the various estimates and would be glad to discuss them with the Representatives.

The United Nations Development Programme projects covered not only country programmes, but also inter-country programmes. Any comments of the Representatives would be useful, not only to WHO, but also to those in charge of the Development Programme.

The estimates contained an introduction explaining how they were compiled and how the posting was set out. On pages XIV and XV appeared a summary of the programmes by main subjects. It was essential to take into account in the summary the fact that there was much overlap between the various subjects. The structure of the Regional Office and the postings were much the same as in previous years. One important point was that the allotment to supplies and equipment in most projects had been considerably increased, since it was

now felt that WHO should provide some essential supplies and not rely too much on other agencies to do so. Because of the increase in supplies and equipment in educational and training programmes, two extra posts were budgeted for in 1970. It was proposed to add another Regional Adviser who would be concerned with the organization of medical care. That addition was based on the request of various governments for assistance in this field, particularly as related to hospital administration, and was due to the increasing importance attached to the subject in many countries of the Region. The number of WHO Representatives remained the same, but one post had been suppressed and consideration was being given to the appointment of the Representative in another country.

The country programmes were given an alphabetical order, two new countries represented being Bahrain and Southern Yemen. The fact that the total in any one year of the funds alloted to a country was greater than the total in the following year did not mean that the programmes in that country were being reduced; it might well mean that certain emergency expenditures had to be made, as in the case of provision of more DDT to Syria in 1969. Much urgent aid was given to Southern Yemen in 1968 and would probably have to be continued for a few years, though possibly not to the same extent. The general trend was towards an increase in the allotment to countries needing help. In some cases countries had sufficient resources at their disposal and were better equipped; consequently they received less assistance from WHO.

Inter-country programmes were of great importance, as had often been stressed in meetings of the Regional Committee. As the countries in the Region developed the need for country projects decreased, but the need for inter-country collaboration increased. The programme estimates contained a considerable number of such inter-country projects. Much stress was placed on education and training, through seminars, training courses, and conferences. Important meetings of that kind covered a large variety of subjects: virology, smallpox eradication, the training of sanitarians and waterworks personnel, air pollution, urbanization, rodent control, hospital administration, the

training of dental auxiliaries and laboratory technicians, nutrition, and a large number of other topics suggested by governments or aiming at filling gaps within the Region. An attempt was made to distribute meetings and courses throughout the Region as much as possible, but some countries were better equipped than others and technical considerations came foremost.

Annex VI contained additional projects not included in the proposed programme and budget estimates. If the projects budgeted for were, for any reason, not carried out, projects from the annex could be used.

Mr HIJJI (Kuwait) said that although his country was small in size and had considerable funds at its disposal, nevertheless there were problems in health and sometimes the budget was inadequate. His country also did not limit its health services to its own territory but extended them to other countries in the vicinity.

Dr NABILSI (Jordan) said that inter-country courses and seminars were of extreme value to all the countries in the Region. He felt that the Regional Office should make an attempt to increase their number.

Dr OSMAN (Sudan) said that the programme and budget estimates formed a balanced whole. The only point he might make was that the allocations for fellowships might be increased. He noted that there was no substantial increase in United Nations Development Programme funds, but he knew from personal experience that governments gave the priority for such funds to money-making projects, not to health. It was difficult to persuade the Government that health was an investment.

The REGIONAL DIRECTOR said that United Nations Development Programme funds had not been themselves increasing. With regard to applications made by governments for such funds, it was most important, as he had often said, that the health authorities should be represented on national co-ordinating bodies and do their best to increase the allocation for health projects.

Dr YACOUB (Bahrain) agreed with other Representatives that inter-country projects were of the greatest importance. His country, along with Kuwait, Qatar

and others, were in the position that they needed to co-operate in their health programmes. He would welcome assistance from the Regional Office in such co-ordination.

Dr FARID ALI (Qatar) agreed with Dr Yacoub that co-ordination between the States along the Gulf was extremely desirable.

Dr ALI (Somalia), said that the programme and Budget estimates were very well balanced and reflected the views of the Member States of the Region. Like previous speakers, he found the inter-country programmes extremely useful and he would like to see them increased.

Dr TEKLE (Ethiopia) also approved of inter-country programmes. The idea of using the facilities of a country excelling in one special field for the advantage of other countries was one of immediate appeal.

Dr JALLOUL (Lebanon) said that the estimates covered many of the health problems of the Region. His country proposed to enact legislation on radiation and radioactive sources, and he hoped that it would receive support from WHO. It was also proposed to set up a cancer centre in Lebanon that would need help.

The CHAIRMAN, as there were no more comments, placed the following draft resolution before the meeting:

The Sub-Committee,

Having examined in detail the Proposed Programme and Budget Estimates submitted by the Regional Director for the year 1970 for the Eastern Mediterranean Region;

Appreciating that complete information on final government requests for activities in 1969 and 1970 under the Technical Assistance component of the United Nations Development Programme was not available for inclusion in the document, especially as concerns proposals for new projects;

1. RECOGNIZES the role and importance of health activities in overall national development, and taking into account the new programming procedures applicable to the Technical Assistance component of the United Nations Development Programme, URGES Member States to ensure that a reasonable share of available funds under this programme are devoted to new as well as continuing health projects;

2. REALIZES the value to the Region of health programmes involving more than one country or region, and expressly ENDORSES the inter-country programmes as shown in the regional budget document and the inter-regional programmes as contained in Working Paper No.1, proposed for submission for 1970, and their continuation up to 1973 where applicable, under the technical assistance component of the United Nations Development Programme;

3. NOTES with satisfaction the continued emphasis placed on programmes for education and training and the control and eradication of communicable diseases;

4. CONSIDERS that the programme has been well conceived and that a satisfactory balance has been maintained within major subject headings as well as between country and inter-country projects;

5. ENDORSES the Proposed Programme and Budget for 1970 to be implemented from the Regular Budget of the World Health Organization, and the various special accounts of the Voluntary Fund for Health Promotion;

6. EXTENDS thanks to UNICEF and other United Nations bodies for continued collaboration and support to health programmes in the Region.

Decision: the draft resolution was adopted.

2. TECHNICAL MATTERS: Item 9 of the Agenda

(a) Applications of Electronic Data Processing in Public Health and Medical Care Services (document EM/RC18/4)

Dr GRUNDY, Director/Consultant, EMRO, introducing this subject on behalf of the Regional Director, said that the paper contained in document EM/RC18/4 had been prepared in its original form for use in courses given to senior WHO Headquarters staff at the time when the introduction of EDP in Headquarters

was under consideration. The duration of each course was a working week of five days. It would be realized that in the short time available at the present meeting he could only make a few broad points and not develop the technicalities of the subject in any detail. Incidentally, it might be useful to suggest that the level and content of the Headquarters courses were about what was required in undergraduate medical studies. In that connection he felt he should stress the importance of ensuring, wherever it had not already been done, that the medical applications of electronic data processing should be included in all undergraduate and public health courses.

He realized that some members of the Committee were already well informed on the subject, while to others it was entirely new, and he hoped that the former group would bear with him if what he said seemed rather elementary.

He sympathized with the position of senior health administrators and clinicians who had for the first time to apply their minds to a new field of study of which even the basis had not existed when they had pursued their formal medical studies, but he would point out that it was essential for senior health personnel to understand the principles and applications of electronic data processing so that they could confer with experts, guide young colleagues and see clearly the staff training needed to man and use EDP installations.

A striking feature of the present age was the enormous increase in the volume of technical publications; only by new methods of information storage and retrieval was it possible to keep pace with it. Electronic data processing devices were often referred to as "computers", suggesting that their main function was to process numerical data. In fact, they were concerned with the storage, retrieval and processing of the printed text and other kinds of data. The film that would be shown immediately after his statement was not ideal for present purposes as it related to non-medical applications, but it did make clear the wide range of modern information storage and retrieval systems.

He had mentioned the fact that electronic data processing was an entirely new field of knowledge. Many others had developed in recent years, such as radiation medicine, sub-molecular biology and population genetics, but it differed from them in its scope. It provided a new and powerful tool with applications in every field of medicine.

How powerful in fact was that tool? A good indication was provided by an analogy with the enormous increase in mechanical power available to mankind through the replacement of muscle and horse power by steam, electricity, etc. Electronic data processing had increased man's capacity to manipulate the logic of thought perhaps a hundred or a thousand-fold in every field. But like the mechanical power which replaced muscle, it was relatively coarse and simple. The use of mechanical power was dependent basically on the simple to-and-fro movement of pistons and the rotation of wheels; movements which have to be combined in complex patterns to simulate the fine, continuous, coordinated operations of hand and eye. The operations of electronic data processing, were based on such single logical propositions as the fact that one plus nought equals one and one plus one equals two. He had tried in the paper to show how such simple representations in combination were sufficient to enable the most elaborate logical processes to be simulated.

The frequently asked question, "Can computers think?" was semantically meaningless. It was like asking whether an aircraft could fly; it could in a sense, but not in the same sense in which a bird could fly. What a computer could do was to simulate certain cognitive aspects of mind, on condition that it was programmed to do so. If no mathematician knew how to solve a complex equation, the computer could not be programmed to find a solution. Similarly, no machine could take decisions; it could only make decision-making easier by presenting the relevant issues clearly. A lot of hard work had to be done in preparing for computerization, for while a computer could be programmed to reject false data, it could not improve on the data fed into it. The position was summed up in the acronym: GIGO - "Garbage in, garbage out."

Logically, Part II of the paper before the Sub-Committee should precede Part I, but he had put it second because the technical aspects of EDP would be familiar to some members of the Sub-Committee and were of secondary importance to senior health administraors.

Regarding the uses of electronic data processing in medicine, he had already stressed that its applications were universal. Thus a computer could be used for patient monitoring, for the selective retrieval of data, for handling finances and payrolls, for designing data rotas in hospitals, for medical records systems, etc., and in almost every aspect of research. It was usually in that order that electronic data processing was introduced.

Part I of the Paper dealt with some of the problems to be taken into account when considering when and on what grounds electronic data processing should be introduced. As to when, the answer was now: the time lag between different countries was already too great, as it took three or four years to prepare records systems for computerization and to train the necessary staff. Also, as he had said at the outset, electronic data processing had to be introduced into the medical curriculum so that future doctors could make use of systems as they were installed.

An important question was whether a developing country should begin with a modest installation or think from the start in terms of a giant net-work that could be utilized by a large number of institutions. The best solution for most countries was probably, he thought, a combination. For educational purposes and for the processing of some statistics, for example, it was possible to use a small computer that could be bought for five or six thousand dollars. But for many purposes, the trend was in favour of large installations that could be used by a number of institutions on a time-sharing basis.

With regard to the cost of using a computer (whether hired or owned and fully used was much the same), $100 - $200 per hour might appear high, but such was the speed of computer operation that in terms of actual output it worked out at a modest sum per quarto page of output.

Rather than say any more he would refer representatives to the paper before the meeting, together with a book based on articles originally published in the periodical Scientific American. He also recommended a perusal of two reports from the WHO European Regional Office: "The Application of Automatic Data Processing Systems for Health Administration" (Copenhagen, 1964) and "Symposium on the Use of Electronic Computers in Health Statistics and Medical Research" (Stockholm, 1966).

The film announced by Dr Grundy was then shown.

Dr MENELAOU (Cyprus) wished to congratulate WHO, and especially Dr Grundy on the comprehensive and informative paper before the meeting. At the risk of repeating what Dr Grundy had already said, he wished to highlight some of the possible applications of electronic data processing in medicine.

Electronic computers were one of the great inventions, like telephones and aircraft, that were destined to have a profound influence on the life of mankind. Their use was developing very fast and some 50 000 were now in service throughout the world in every aspect of social and economic life. It had been rightly stressed that they resembled other appliances in producing and using energy, but an important difference was that electronic data processing was an extension to the capabilities of the human brain. It was gratifying to note that this powerful tool was now moving out of the purely commercial field and was being used by doctors to render them more efficient in their work.

An important bottleneck at the present time was in regard to programming i.e. translating information into the binary notation used by the computer, since it could, unfortunately, not yet understand the human voice or the written word. It had formerly been estimated that programming accounted for five per cent of the total cost of computer use, but the figure was now nearer to 80 percent. However, that was partly accounted for by the trend from simple programming to multi-programming, which meant that, like the human brain, the computer could now process data in an order indicated in advance.

One example of the speed of computer operation was the long-standing dispute amongst scholars as to whether the works of Homer had been written by one or six persons. By analysis of sentence structure and word sequence it had been possible to prove that both the Iliad and the Odyssey had been written by one and the same person, and the process of analysing a quarter of a million words for the purpose had taken thirty seconds. Again, there was the example of a cardiogram which had been prepared in a French hospital and transmitted by artificial satellite to the USA; an analysis had been received two minutes later.

The introduction of electronic data processing offered medicine its most powerful tool since the discovery of antibiotics. Soon a doctor in any hospital ward would be able to press a button and have visible before him an X-ray of any organ, data on blood pressure, respiration, etc. The three most obvious major uses he foresaw were: as a nursing aid; for diagnosis; and as an entirely new medical tool. Thus computers could take over the work of monitoring pulses, temperatures, etc. and free nurses for more urgent work. An example of the second application was a hospital in the USA where surgeons engaged in a major research project had computers continuously monitoring patients recovering from heart operations. All the data appeared simultaneously on a screen and if anything went wrong a klaxon sounded.

Doctors tended to be conservative and so far they had shown considerable suspicion of the new tool, which would certainly have far-reaching implications in the vital field of doctor-patient relationships, but he was glad to see that they were now showing greater readiness to use electronic data processing, which promised to revolutionize their work in three very important respects: patient waiting time, which would be greatly reduced; paper work, which would also be drastically cut; and hospital diagnosis and treatment.

Dr Grundy had rightly stressed the importance of the decision that had been taken in the developing countries as to which sector to computerize first, and he was glad he had said that it was best to start on a limited scale and expand installations as experience was acquired and according to needs.

But an important bottleneck in installing computer facilities was the training of staff. Thus in the United Kingdom it was estimated that in a few years time a hundred thousand computers would be in use, and the problem of finding the necessary staff for them would be a very big one, even for such a developed country, particularly with the present trend in higher education away from science to arts subjects.

In the developing countries, and with Cyprus particularly in mind, he thought that an area where computerization could be extremely useful was for storage and retrieval of information in out-patient departments. Another valuable application would be in X-ray departments, where much time was often lost in searching for patients' X-ray photographs. Again, computerization could be used on the administrative side for the establishment of nursing rotas

Small countries with limited resources would, of course, tend to be very cautious and might consider computerization a luxury. Personally, he considered that a small computer in a country's central hospital was indispensible.

In conclusion, he expressed the view that the United Nations and WHO should organize courses of lectures on electronic data processing for doctors and health administrators, with provision for visits to health centres using computers.

Dr AL AWADI (Kuwait) said that the paper before the meeting gave a clear image of what medical practice would become in the future. As Dr Grundy had said, it was never too early to start computerization. It was a difficult decision to take and the costs involved were heavy, but it must be kept in mind in planning future medical services.

The health administration of Kuwait was starting to introduce computerization for its medical stores data. It was also planning to computerize medical and vital statistics in the near future. Finally, it was planning one small project in which it was hoped that the Regional Office would be able to assist by sending an adviser: namely, a pilot project in an out-patient department serving a population of perhaps five thousand to see how the medical data

could be computerized and whether the system could be applied on a larger scale. Perhaps it could be developed into a demonstration project for the Region as a whole.

The REGIONAL DIRECTOR said that the Regional Office would be very glad to co-operate in the pilot project mentioned by the representative of Kuwait. The subject was a very important one and Kuwait was in good position to undertake such a programme. Perhaps the Kuwait delegation could first discuss the matter with Dr Grundy and an endeavour would then be made to formulate a simple plan.

Incidentally, Dr Grundy was, of course, at the disposal of all the delegations to discuss their problems or plans.

The CHAIRMAN, noting that there were no further comments, proposed the adoption of the following draft resolution:

> The Sub-Committee,
>
> Having reviewed the document on the above subject submitted by the Regional Director;
>
> Recognizing the fundamental importance of electronic data processing in administration of health services and health care, and in biomedical research, and no less its rapidly expanding use in all these realms;
>
> Being aware of the steps which WHO has taken in Headquarters and in the Regions to study the applications of automatic data processing systems in relation to health services;
>
> Believing it desirable to expedite the introduction and expansion of automatic data processing systems in appropriate circumstances in all the countries of the Region,
>
> 1. EXPRESSES its appreciation of the actions taken by the Regional Director in bringing this subject to the attention of Governments;
>
> 2. REQUESTS the Regional Director to include in future programmes and budget proposals provisions for seminars and other educational meetings on automatic data processing;

3. FURTHER REQUESTS the Regional Director to assist, as required, by providing specialist advice to Governments seeking to introduce or expand automatic data processing systems in their health services;

4. SUGGESTS that the educational implications of EDP and its future development is a suitable topic for discussion at appropriate meetings of medical educationalists.

Decision: the draft resolution was adopted.

The REGIONAL DIRECTOR observed that the discussion had been extremely interesting and beneficial. He wished to thank Dr Grundy for his introduction and the distinguished representatives for their valuable contributions.

(b) Health Examinations and Screening Procedures for Chronic Non-Communicable Diseases (document EM/RC18/5)

Dr GRUNDY, Director/Consultant, EMRO, speaking at the invitation of the Chairman, introduced document EM/RC18/5 on behalf of the Regional Director. He drew attention to the recent WHO publication entitled "Principles and Practice of Screening for Diseases"[1] by Wilson and Junger which, together with document EM/RC18/5, reviewed the question under discussion by the Sub-Division.

Screening tests in combination with physical examinations constituted a notable advance in medical care practice in that they carried health services to whole populations or large sections of population, focussing medical advice and attention on presymptomatic or undeclared disease in contrast to depending upon the manifestly sick to consult a physician. Screening procedures also constituted a promising way of drawing attention to specially valuable groups and individuals, i.e. those at special risk of contracting particular diseases, such as myocardial infarction.

Screening procedures for chronic, non-communicable diseases were usually conducted in association with medical consultations, since the latter normally decided what, if any, special investigations were needed. The document under consideration outlined the criteria that had to be fulfilled before screening procedures to detect diseases at an early stage were feasible, and it should

[1] WHO Public Health Paper No. 34

be borne in mind that, even when those criteria were satisfied, further criteria had to be satisfied to justify their introduction on a mass scale. Not only had national or local priorities to be considered, but as a rule screening was only worth while either for the more common diseases, or for diseases such as phenylketonurea, where consequences were grave if unremedied.

To the reference made in the document on the screening tests in common use, he would add only that questionnaires were of particular value in the detection of mental disorders. In that connection, however, the question of feasibility of providing advice and treatment for the large number of gross discords arose, since it was of little use to carry out screening procedures unless one could deal with the volume of cases that they revealed.

The section of the document summarizing the present status of certain screening procedures represented the consensus of informed opinion, but he emphasized that many procedures were still not sufficiently validated to justify their general adoption for case finding, although they might yield valuable epidemiological information and new knowledge about the natural history of diseases. The precise value of mass screening for ischaemic heart disease, breast cancer and cancer of the uterine cervix, and diabetes, for instance, was was still in some doubt; a stronger case for screening for chronic bronchitis had been established.

From the appendix table showing what screening tests were used according to the level of development in different countries it would be seen that the only screening procedures for non-communicable diseases widely used in developing countries were those for malnutrition and for anaemia. The latter disease provided an example of the difficulties involved in assessing the applicability and value of screening procedures in different countries; whereas in the developed countries haemoglobin levels in the higher subnormal range were often without pathological significance, in the developing countries severe anaemia was commonly found in association with, for instance, malnutrition and parasitic infestation.

It had been suggested that the trend in the future might well be towards the periodic medical examination of whole communities or of selected population groups or age groups. On the other hand it had been argued that the time involved in such screening was so great as to render that system impraticable. However, he suggested that a physician screening patients for one hour a day at the rate of six an hour could deal with some 1200 persons annually and that this might represent a saving of medical time on balance. Nevertheless, there was not yet sufficient evidence to be sure about the value of general medical surveillance, although it did seem that suitable screening tests combined with periodic medical examinations might prove to be a worthwhile personal preventive measure and provide the answer to the problem of the early detection of some diseases - of the chronic diseases in particular - and of the identification of groups at special risk. Multiple screening and health surveillance for whole populations was not, however, practicable at present in most countries, and in many instances much more research was needed on particular procedures and into the natural history of diseases.

Dr AL AWADI (Kuwait) thanked Dr Grundy for his excellent presentation of the document, which dealtwith very new and complicated techniques that might not be immediately applicable in those parts of the Region where communicable rather than chronic diseases constituted the most pressing problems. However, he thought that the application of screening techniques was by no means a matter for the distant future. In Kuwait, the health services were rather well developed and many facilities were available, but their work load was enormous; on average, people have five medical consultations per year. It was of difficult to identify those who needed medical care as distinct from reassurance, except by some sort of screening technique. However, he emphasized that before the adoption of highly organized screening procedures could be envisaged, it would be essential to train paramedical personnel in large numbers.

Dr FESSAS (Cyprus) emphasized that health was as much a social as a medical problem and that the successful development of medical care services demanded a high level of political, economic, social and educational development

in the community. He suggested that it was the duty of WHO to ensure that the means available to the developed countries for screening for cancer, for instance, should be made available to the poorer, developing nations; it would be of very limited advantage for the latter to be able to provide for the early detection of, say, cancer of the cervix if they could not do so for other malignant diseases.

Cardiovascular diseases could be detected by systematic examination of children in health centres and in schools, of persons enlisting for national service, of those in government employment, of persons applying for life insurance or for employment in private enterprise, and of persons attending medical centres. By these means the aetiology of cardiovascular diseases might be clarified, treatment instituted, and employees at special risk assigned to appropriate work. For ischaemic heart disease an epidemiological approach was essential and epidemiological, clinical and laboratory studies were needed.

The early detection of glaucoma could lead to the prevention of serious visual impairment or blindness, which were not usually discovered in Cyprus until a late stage, partly because those affected failed to recognize the early signs and partly because they considered the condition a frequent natural concommitant of old age. Useful screening procedures for glaucoma might be the checking of the intraocular pressure of all persons over 50 years old attending medical centres and of all members of the family of persons found to suffer from this ailment.

Assistance to persons suffering from mental illness should not be delayed until they began to show obvious signs of their condition, but should be a matter for action by teachers, policemen, ministers of religion, health visitors, social welfare workers and similar persons who might be in a position to suspect mental disturbance and to take appropriate measures with a view to the medical examination of the persons concerned.

Thalassaemia was a genetic defect of particular concern to Cyprus, although no statitistics of its incidence were available. As it also affected many other countries in the area, he suggested that WHO might well sponsor a research programme on thalassaemia, which should include a detailed survey of the condition in Cyprus and elsewhere with a view to the formulation of screening and preventive measures.

Dr OSMAN (Sudan) considered that the type of screening procedures that were outlined in the document under consideration required more highly developed health services than were available in many countries of the Region. However, in the national surveys that were conducted for a variety of diseases they already possessed a very useful tool serving much the same purpose. Quite simple tests could be used in surveys of, for example, goitre and dental caries.

Dr C.K. HASAN (Pakistan) said that one of the great advantages of periodic medical examinations and of screening procedures were that they detected disease before a patient became ill enough to consult a physician on his own. However, they necessitated a skilled staff and costly materials and it was, therefore, necessary for each country to apply them according to its own disease pattern. In Pakistan persons in government service were checked particularly for diabetes and hypertension on entrance and annually thereafter, and the school health and maternal and child health services were particularly alert to anaemia and malnutrition. In this way certain vulnerable groups received particular attention. It was hoped to extend similar services to other groups as the medical manpower situation improved.

He added that the hope had once been entertained of covering certain chronic diseases by using the facilities created for campaigns for the control or eradication of communicable diseases such as smallpox and malaria. It had been realized, however, that doing so might adversely affect the conduct of those campaigns and the idea had, therefore, been abandoned.

Dr BAHRI (Tunisia) thought that screening services might well be integrated, not so much with mass campaign facilities, as with regular health services, particularly those which already provided for systematic medical examinations, such as those on entering school or the armed forces and those conducted before marriage or on retirement. Similarly, advantage might be taken of the multidisciplinary facilities available in polyclinics.

The CHAIRMAN then proposed the adoption of the following draft resolution:

The Sub-Committee,

Having reviewed the document on the above subject presented by the Regional Director together with the accompanying WHO publication;

Being satisfied that screening procedures are an important recent development in preventive medicine whose usefulness is likely to increase;

Having regard, however, for the need for further research to establish conclusively the value of many screening procedures for chronic non-communicable diseases now in use or on trial in some countries and having regard also to the considerable practical difficulties in introducing mass screening procedures;

1. RECOMMENDS that WHO continue to study the value and feasibility of screening procedures and periodic medical examinations;

2. REQUESTS the Regional Director to make arrangements for appropriate technical advice to Governments wishing to introduce or extend screening procedures, and health surveillance in their respective health services.

Decision: the draft resolution was adopted.

The meeting rose at 1.35 p.m.