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المكتب الإقليمي
لشرق البحر الأبيض المتوسط

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THIRD TECHNICAL ADVISORY GROUP
MEETING ON DIARRHOEAL DISEASE CONTROL

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Diarrhoeal Disease Control Programme
Status and Plans for the Eastern
Mediterranean Region

INTRODUCTION:

Diarrhoeal disease control has always received particular attention by Member States and by the WHO Regional Office for the Eastern Mediterranean Region. Since its establishment, EMRO has collaborated with countries of the Region in investigating outbreaks, in epidemiological studies, in the development of facilities (such as laboratory services), in research, and in the actual control measures.

Although interest and activities in diarrhoeal disease control have been continuously developing, in the Eastern Mediterranean Region, yet following WHA31.44, and the launching of the Global Diarrhoeal Disease Control Programme, Regional activities in diarrhoeal disease control have been augmented.

This report summarizes the activities that took place in the Eastern Mediterranean Region since the second Technical Advisory Group Meeting on Diarrhoeal Disease Control in January 1980, in the two major components of the Programme, namely health services and operational research.

A. HEALTH SERVICES COMPONENT

A.1 Planning

EMRO continues to collaborate with national health authorities with respect to national programme formulation. WHO staff at the Regional Office and in the field, and also short-term consultants are working closely with national health authorities in this respect. Active national commitments and participation were secured in the majority of the countries. It is satisfying to note that these are the countries where diarrhoeal diseases morbidity and mortality are highest in the Region. By the end of 1981, at least six countries representing more than half the population of the Region will have national programmes with plans of operation and a beginning of field activities. This number is expected to increase to twelve countries during the biennium 1982/1983.

An intercountry seminar on diarrhoeal diseases for policy making senior public health administrators and paediatricians from some countries of the Region is planned for late 1981, or early 1982, as a preliminary step for getting more countries committed to

diarrhoeal disease control and for boosting activities in already committed countries.

The opportunity of the inter-regional managers course, held in Bangkok in 1980, was taken to train potential national programme managers from four countries of the Region and as well the SEARO Managers Course held at Calcutta this year accommodated an additional participant from one of the countries of EMR. The French course will be utilized to train managers from two other countries. As well, it is planned to translate the final forms of the training material for the managers into Arabic, and to run a regional course for Arabic speaking countries during 1982.

EMRO is also joining in bilateral and other activities between Member States and agencies such as USAID with respect to diarrhoeal disease control programmes development.

A.2 Operations

A.2.1 EMRO recognizes the need for a multidisciplinary approach for diarrhoeal disease control. In its efforts for the development of national diarrhoeal disease control programmes, special stress is made on proper linkage with various sectors involved in the implementation of the diarrhoeal disease control strategies. Although the main thrust of diarrhoeal disease control programmes is on widespread implementation of oral rehydration yet the other three strategies are given due attention. Linkage is being established between diarrhoeal disease control activities and water supply and sanitation activities which are gaining momentum during the present international drinking water decade.

Although the diarrhoeal disease control programme may have a special entity at central level, yet serious efforts are made to achieve implementation of activities at the peripheral level, through primary health care delivery systems. WHO staff responsible for epidemiological surveillance, MCH, primary health care and also laboratories, both at the Regional Office and in the field are closely collaborating in diarrhoeal disease control activities in the countries of the Region. As well, wherever possible, primary health care services are used as an entry point for treatment of diarrhoea, and for the delivery of health education messages related to the prevention of diarrhoeal diseases.

A.2.2 EMRO is collaborating with national authorities and other agencies especially UNICEF in achieving adequacy of ORS supplies.

National production of oral rehydration packets through production lines supplied by UNICEF is now functioning in four countries of the Region, and is expected to develop in another four countries by 1983.

In addition, WHO has succeeded in encouraging some national drug and pharmaceutical companies in countries of the Eastern Mediterranean Region to produce oral rehydration packets. Although such packets are sold through pharmacies, yet they help in satisfying some of the demands for ORS created by increasing interest in oral rehydration.

UNICEF has provided approximately six million packets (each packet to be diluted in 1 litre of water) to thirteen countries of the Region, during 1980, and is continuing this support during 1981. As well, USAID is planning to provide several million packets of ORS to support national programmes in some countries of the Region.

It is to be noted that ORS provided from the above sources are far below reaching actual needs or demands. EMRO realizes the fact that the increasing national interest and plans so far formulated will not achieve their objectives and lose momentum if the essential needs for ORS are not met. There is therefore a pressing need to develop regional production plants in one or more countries of the Region to satisfy the need of countries where national production is not sufficient, not possible or not cost beneficial. As well, the need to support cottage industry in packing ORS and to further stimulate national drug and pharmaceutical companies is emphasized.

A.2.3 The Regional Office will endeavour to obtain periodic information on ORS access and coverage, on mortality and morbidity from diarrhoeal diseases, and on public knowledge, attitude and practice in cases of diarrhoea, in countries where diarrhoeal diseases programmes are being implemented.

This is tied up to a large extent with the development of epidemiological surveillance in general, and with information systems in Member States.

Various approaches are being studied in the light of previous experience in other programmes in the Region, such as the Expanded Programme of Immunization, for possible adaptation and implementation in the diarrhoeal disease control programme.

A.3 Training

Although promoting regional training activities which have the additional benefit of exchanging experience between countries of the Region, EMRO believes that national training, where trainees are trained under the same conditions as those they would meet in their future career, is the most useful approach.

Several national seminars and training courses were organized and are planned within the WHO supported epidemiological surveillance and MCH projects in Member States of the Eastern Mediterranean Region. Various levels of health workers have been trained in these courses.

EMRO is collaborating with national authorities in the development of training centres for diarrhoeal disease control especially at teaching institutes (medical and nursing) where both undergraduate and postgraduate students are trained. This is thought to be a good investment for the future. Two such centres were developed during 1980. These centres are functioning and offering courses and by the end of 1981, it is expected that they both would have completed twenty courses between 1 - 2 weeks each for an average of 10 - 15 doctors and nurses per course. It is planned to continue support to these two centres during 1982 and 1983, and develop two other centres every year.

These centres are preparing training materials including self-instructional modules which are very useful in the training, as well as educational materials suitable for the populations. However, training is essentially practical in the management of cases of acute diarrhoea and in educating mothers on proper child care practice in cases of diarrhoea.

In the area of technical training, EMRO is active in the development and dissemination of educational material. Several documents were and are being translated into Arabic such as:

- Guidelines for Cholera control
- Guidelines for the trainers of Community Health Workers on the treatment and prevention of acute diarrhoea

- A Manual for the Treatment of Acute Diarrhoea
- Breastfeeding
- Diseases transmitted by food

A.4 Evaluation

Regional activities with respect to assisting countries in evaluating control programmes are mostly geared through WHO collaborative activities for the development of surveillance of communicable diseases since without proper surveillance, the impact of diarrhoeal disease control programmes on mortality and morbidity from diarrhoeal diseases cannot be assessed. Efforts are being made to develop national routine surveillance of diarrhoeal diseases within the existing communicable diseases control programmes coupled wherever possible, with the microbiological aspects.

In all plans of operations of national diarrhoeal disease control programmes, evaluation is being included as an integral part, and indicators for assessment and evaluation are developed.

B. OPERATIONAL RESEARCH

A multidisciplinary Regional Scientific Working Group on Diarrhoeal Diseases Research was established by EMRO for two main objectives:

1. To establish priorities for applied research in the light of the experience and knowledge of the situation of diarrhoeal diseases in the Region. This would be complementary to the action oriented implementation component of the regional diarrhoeal disease control programme; it also responds to operational needs of the national programmes.
2. To set up a mechanism both for reviewing research proposals and making recommendations on WHO financial support to these proposals as well as for periodically evaluating on-going research.
3. The group met for the first time in 1980 and recommended areas for research in diarrhoeal diseases in the Region. Their recommendations are being used as guidelines for the support of research proposals.

In principle it is planned to convene the Regional Scientific Working Group once every year.

The Regional Office is active in disseminating information about the research priorities in diarrhoeal diseases to potential institutes and research workers in the Region. As well, WHO staff at the Regional Office and in the field, in addition to the consultants visiting countries of the Region, are stimulating potential investigators to submit research proposals. However, the stimulation of research activities has to be tied up with the availability of funds, which are below actual needs.

The present system for reviewing proposals begins by a preliminary review from within WHO (both the Regional Office and Geneva) for advising the investigator with regard to the protocol design and submission to the appropriate Scientific Working Group. The protocol is then reviewed by at least two experts from outside WHO to study the quality and integrity of the research programme. If in principle, it is felt to be suitable for funding, the reviewers' proposals for any modifications or clarifications in the protocol are conveyed to the applicant and the Regional Office ensures that a revised protocol is prepared, taking into consideration the reviewers' comments. All revised protocols are then discussed in a meeting involving some members of the Regional scientific Working Group, which makes recommendations for WHO financial support of projects within available budgets. The recommendations of the group are then submitted to the Regional Programme Committee and final approval is given by the Regional Director.

Monitoring research projects is done through reviewing the six monthly reports submitted by the investigators, in addition to on-the-spot visits to these projects by Regional Office staff.

The following research projects (not covered in Form A) are currently receiving Regional Office support:

1. The Role of Rota Viruses and Other Bacterial Pathogens in the Aetiology of Infantile Diarrhoea in Alexandria, Egypt

The purpose of the study is to determine the role of various pathogens, including rota viruses in the aetiology of gastroenteritis among children under 36 months of age

attending out-patient clinics in Alexandria, and in controls. These cases are being investigated both epidemiologically, clinically, as well as microbiologically, during the period of one year.

2. Aetiological Studies of Diarrhoeal Diseases

The purpose of the study was to determine the prevalence of viral gastroenteritis in young children and infants seen at the clinics of the American University of Beirut and of other health institutions, and more specifically to determine the role of rota viruses in the aetiology and pathogenesis of these infections.

The investigation also aims at studying the clinical and laboratory aspects of viral gastroenteritis and those due to *E. coli*, and other bacterial pathogens. A control group is included in the study.

3. The Effect of Antibiotics on the Duration of Diarrhoea and Speed of Rehydration

The purpose of the research is to study the role of antibiotics commonly prescribed to cases of diarrhoea on the duration of illness and speed of rehydration.

A representative sample of cases of acute diarrhoea among children under three years of age is randomly allocated to four groups, three of which will receive an antibiotic with rehydration and the fourth group is a control (rehydration only). They are followed up to assess the duration of diarrhoea and speed of rehydration.

4. Assessment of the Feeding Practice in Cases of Diarrhoea

This project is aimed to assess mothers' knowledge and practice about feeding of children during diarrhoea and to examine samples of food used for their nutritional value. The study will be carried out on 1000 cases of diarrhoea under three years of age seeking medical care at the Government centres. Data are collected through a questionnaire interview to assess mothers' knowledge and practice with regard to feeding of children during diarrhoea. From a sample of these cases, samples of food used during diarrhoea will be assayed for their contents of nutritional elements and electrolytes.

5. ORS Formulation based on Currently used Home Remedies

This project aims at identifying the most popular and appropriate home-made remedies traditionally used in Lebanon for the treatment of diarrhoea. A survey will be conducted in the greater Beirut area, and few rural communities, to assess the traditional methods employed at home for the management of diarrhoeal diseases.

The kind and composition of home remedies used will be assessed and samples of foods will be assayed for their contents of nutrients and electrolytes. An attempt will be made in the laboratory to formulate oral rehydration mixtures using household materials.

6. Comparison of Prepackaged Sucrose Salt Rehydration Mixture with the Prepackaged Oralyte

This study is essentially a controlled study to compare the effectiveness of simple salt/sugar mixtures with the complete formula for oral rehydration "Oralyte", on hospital referrals and deaths from diarrhoea among children under five years. As well, it intends to measure safe preparation of mixtures at home, acceptability to mothers and babies and cost effectiveness of each method.

7. Evaluation of the Impact of Mass Implementation of Oral Rehydration on Diarrhoeal Diseases of early Childhood in the Gaza Strip

A project for the application of oral rehydration therapy in the management of cases of acute diarrhoea in children 1 - 36 months of age at all health centres throughout the Gaza strip was initiated since 1979.

The present study is meant to assess the impact of mass oral rehydration use on the number of hospitalizations from acute diarrhoea and on diarrhoea-related malnutrition and mortality in the Gaza strip area during a period of two years 1980 and 1981.