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Regional Office for the Eastern Mediterranean

ORGANISATION MONDIALE DE LA SANTÉ

Bureau régional pour la Méditerranée orientale

SCIENTIFIC WORKING GROUP MEETING
ON DIARRHOEAL DISEASE CONTROL
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TRAINING AND REORIENTATION NEEDS IN THE COUNTRIES OF THE REGION AT ALL LEVELS AND OF MEASURES TO SATISFY THESE NEEDS

by

Y. Watanabe*
WHO Consultant

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*Adviser for Laboratories, Ministry of Public Health, Kuwait, Kuwait

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TRAINING AND REORIENTATION NEEDS IN THE COUNTRIES OF THE REGION AT ALL LEVELS AND OF MEASURES TO SATISFY THESE NEEDS

Y. WATANABE

WHO CONSULTANT

The seriousness of diarrhoeal diseases in this region has been clearly documented in the Report of the Regional Meeting on Cholera and Diarrhoeal Diseases, Alexandria, WHO. It was estimated that approximately 600 000 to 900 000 diarrhoea deaths can occur every among infants and young children under five years of age, which is about 30 - 45% of the total deaths in this age group.

Based on detail reviews of various available knowledge and technologies related with the control and managements of diarrhoeal diseases, including cholera, the members of the Regional Meeting have presented nine recommendations. For the purpose of discussion those recommendations are classified into three groups ; - collection and dissemination of scientific and technological information, implementation of availble technologies into health services and researches in order to add new knowledges.

1. Collection and dissemination of scientific and technological information

The recommendations state :

- "For the appropriate dissemination of technical information concerning cholera and diarrhoeal diseases, to-to-date technical guidelines and notes on recent advances in the epidemiology, diagnosis, treatment and prevention of enteric infections including diarrhoeal diseases and cholera should be issued by WHO. National authorities should also issue guidelines on the basis of up-to-date knowledge". (Recommendation 5)
- "Most recent advances in the pediatric field which are related to the treatment and management of infantile gastroenteritis, breast feeding etc. should be communicated to the paediatric profession and disseminated among doctors and nurses, as well as medical and nursing students. WHO should support regional and sub-regional meeting for dissemination of scientific knowledge among responsible paediatricians and also disseminate training materials and scientific notes as appropriate.". (Recommendation 9)

Contineous flow of information from its collectors to its users is only way to maintain up-to-date knowledge and interest by the users. Although both WHO and national authorities should collect necessary up-to-date information, WHO particularly its Headquarter, must play the key role because of its better accessibility to many scientists and field as well as literatures. The WHO should also explore strategies to stimulate both - way information system between the member countries and indiviudals in the countries. Another aspect to be considered is that appropriate information should be disseminated according to the professions of the users of information; national health planner, teaching staffs in medical institutions, teaching staffs in paramedical institutions, individual physicians etc. The preparations of various teaching materials including guidelines is also important task, and WHO should pay serious attention. Unless the above activities are smoothly practised, it would be difficult to expect satisfactory results in implementing up-to-date techniques and knowledge in the control and management of diarrhoeal diseases, including cholera, as a short and long term prospects.

2. Implementation of available technologies into national health services

The recommendations are ;-

- "The Regional Programme discussed and agreed upon during the meeting for a co-ordinated control of enteric infections (in Annex III) should be implemented." (Recommendation 2)
- "For the implementation of the Regional Programme of enteric infection control, adequate financing should be provided through voluntary contribution by the Member countries and collaborating Agencies." (Recommendation 3) "The cost of the Regional Programme, excluding the country programmes, is estimated to be of the order of US.$350 000 per annum in the initial phase of the programme". (Recommendation 4)
- "Member countries should develop, with WHO technical co-operation, national programme for the control of diarrhoeal diseases, suited to their individual needs". (Recommendation 1)
- "The countries of the Region should, in consultation with WHO, study the individual requirements and estimate the amount of external assistance required as soon as possible." (Recommendation 4)
- "Oral rehydration should be introduced at a domicilliary level as the most important component for the treatment and prevention of complications in the case of gastroenteritis among children. For this purpose oral rehydration salts should be made available at primary

health care level. In the case of cholera epidemics, active case search should be intensified so that timely oral rehydration can be administered along with appropriate medical care." (Recommendation 8)

- "Close liason should be established between and central laboratories, and epidemiological services." (Recommendation 7)

Recommendations 2,3,1, and 4 describe general principles of approach the control of diarrhoeal diseases, including cholera, in this region. The member of the Regional Metting discussed and agreed to implement "Programme for Control of Enteric Infections in the Eastern Mediterranean Region (1978- 1983)"., which is given in Annex III of the Report and identify target activities both at WHO Regional Office and national level.

Recommendations 7 and 8 emphasise two important components, management and surveillance, included in the above Programme.

A a whole the Programme is directed to implementation of the control activities into existing national health services or, if necessary, inovated health services. Some discussions on the Programme will be described later.

3. Researches in order to add new knowledges :

The recommendation is :

- "WHO should support and encourage the countries of the Region in the establishment of virological laboratories and where already existing, enlarge their scope and capability to clarify the role of virological pathogens as causative agents of enteric infections. Regional reference and collaborating virological laboratories should also be established to assit those countries where such facilities are not yet ready." (Recommendation 6)

The importance of researches cannot be neglected. On the other hand, it would be also important to assess value of researches in the light of probable advantages to the public health as far as WHO and national planners are concerned. This point is particularly true in the present economic situation in many pre-industrialised countries, where diarrhoeal diseases are life-threating health problem. It is however, certain researches which can only be studied in those countries. In the review of "Result of Oral Rehydration Trials" on page 29 of the Report, it was described "However, in both Phillippines and Turkey there was a significantly greater average monthly weight gain at all ages for months after the episode in the oral rehydration than in the control groups. It is difficult to explain why the way in which a child is managed during an episode of diarrhoea should affect his nutritional status not for merely weeks but for months afterwards (seven months in the case of the Philipine study and sixteen in the case of the Turkish one).

It perhaps indicates that diarrhoea is far more important in the aetiology of energy-protein malnutrition than had been previously recognised. If one pursues this line of thought perhaps severe malnutrition is much more the result of diarrhoeal disease and other infection than it is the result of inadequate dietary intake. This would explain why marasmus and kwashiorkor can exist even in the presence of abundant cheap and nutritious (but not always clean) food. It would explain also why those projects and programmes which concentrated almost exclusively on increasing quantity and quality of food intake, such as nutrition education projects, high protein weaning foods, Applied Nutrition Programmes, and Supplementary Feeding Projects, seemed to have rather disappointing results." This statement would raise certain questions, which can only be answered through researches in areas where diarrhoea and/ malnutrition are serious health problem. For example; can the similar observations in the Philippines and Turkey be obtainable in other parts of the world such as the Middle East, particularly in countries where malnutrition is very common and severe among young children? Whether the effect of oral rehydration to the nutrition is mainly related to correction of rehydration of body fluid? Only well controlled field trials will solve such questions. It would be important to recognise the difference, in planning as well as training, between such controlled trials and general implementation of oral fluid therapy in national health services.

Training and reorientation needs and measures to satisfy these needs ;

Since the main target of the control programme has been focussed on the second category of the recommendations-implementation of available technologies into national health services, the further discussions will be based on the various targets, which are presented in Programme for Control of Enteric Infections in the Eastern Mediterranean Region (1978 - 1983). For the purpose of discussion these targets are given in Table 1. As can be seen from Table 1 there are various targets which require logical steps to be taken, though/some steps may be initiated simultaneously. For example, in a country where diarrhoeal diseases are already recognised health problem, Target B. 1. may not be considered as a priority before initiation to develop plan of implementation which is given in Targets 4, 5 and 6. If the national planners desire to initiate the activities in Target 1, WHO should assist the country by providing guideline information covering the methods of implementation of appropriate epidemiological ad hoo studies, pre-investment analysis, and of comparative study of health priorities and situation analysis in order to justify the initiation of the programme.

There will be no question about the importance of Target B.2., but it may also be difficult to develop health manpower useful for enteric infections control and related research within short period in some countries, since the development of manpower requires simultaneous development of necessary supplies. However, dissemination of up-to-date knowledge and technologies must immediately initiated to all key persons in teaching institutions so that trained personnel become knowledgeable in diarrhoeal diseases and their control measures. As discussed already, WHO should take lead in such task. WHO by co-operation with WR and national health planners, should make it sure that the disseminated information and teaching materials can reach to actual users of the information.

Target B. 3. (Standardization of methodologies of control applicable to local conditions) would be the highest priority for national health planners in the Programme. The main tasks would be to review all available technologies in epidemiological surveillance, managements and preventive measures of diarrhoeal diseases from simplest to comprehensive technologies. In addition to asstance through activities described in Targets A. 4. and A. 5., visits by Regional Technical Group (Target A. 3.) from WHO may be helpful assistance for some countries, where the national health planners are interested in implementation of the Programme.

The actual plan of implementation of the control programme of diarrhoeal diseases can be made by activities in Targets B. 4., B. 5 and B.6. Although complete service coverage of whole territory in a country is ideal, but it is not realistic for many countries. The following steps may be helpful for the national planners;

- Applicability study of avialable technologies in various levels of existing health service networks.
- Assumptive estimation of efficacy and short-comings of the Programme under the above conditions.
- Identification of necessary activities to improve constraints or to expand the services to the population who have no access to the existing service net works.
- In considering the above taks, resources (human and materials), accessibility of communities to the services, probable acceptability of the services by communities, effectiveness of technologies to be applied may be taken into consideration.

Since the above tasks are based on assumptive exercise, it should be considered as the preliminary. Many variable such as epidemiological situation, geographical condition, racial and religious factors will affect the efficacy of a given services, which can only be solved by evaluation of implemented services. It is thus preferable to initiate trials in selected areas of a country by the operational research approach in the initial phase of the implementation of the Programme, in which evaluation of trials is a built-in component. (The principles to evaluate health services coverage is given in Bulletin of WHO.56(2); 295, 1978). Gradual expansion of the services may be considered as the second step applying the experience obtained such trials, which will make it easy to assure various strategies and logistics as compared with sudden expansion to whole areas of country. Since the programme implementation requires multidisciplinary tasks by many personal involved, careful planning of training to fit developed plan is essential. It is hoped that the Regional Technical Group assists such training by visiting the countries concerned.

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Table 1. Various Targets in Programme for Control of Enteric Infections in the Eastern Mediterranean Region (1978 - 1983)

Targets at national level (National health planners)	Targets at Regional level (WHO Co-ordination)
B. 1. Define priorities and draft baseline information for enteric infections control.	A.1. Compilation of baseline information to * assist country planning.
B. 2. Development of health manpower required for enteric infections control and related research.	A.7. Strengthening existing health education units and activities or establishing new once in the countries if necessary.
B. 3. Standardise methodlogies of control applicable to local conditions.	A.5. Definition of most suitable diagnostic, * treatment and prevention technologies. ** Drafting and dissemination of manual on diarrhoeal and prevention with particular reference to cholera and infantile diarrhoea. A.4. Definition of most suitable laboratory technologies. Drafting and dissemination of related practical manual of laboratory technique
B. 5. Prepare and finalise for implementation plan for enteric infections control with in the limits of available human, material and financial resources, according to local needs and priority.	A.2. Assitance to countries in planning of enteric infections control integrated into basic * health services in general and primary ** health care in particular.
B. 4. Define needs in terms of medical care facilities, laboratories and organisational institutions required for implementing enteric infections control. B. 6. Implement control plan in all its multidisciplinary aspects.	Emergency assistance A.9. Collaboration with countries in the implementation of enteric infections control; * evaluate efficiency and efficacy of measures ** applied.

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Target at national level (National health planners)	Target at Regional level (WHO co-ordination)
	A. 3. Establishment of Regional technical groups made of experts of the Region with national technical assistance.
	A. 8. Identification of related programmes at Regional and country levels.
	A. 6. Organisation of emergency service in case of epedemics. * **

* = Dissemination of information and /or guides to the countries.

** = Training activities are required as a part of coordination by WHO.

___ = The Programme may be considered as medium or long term project.

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WP/1

Observations on some Oral Rehydration Salt mixtures kept in the Office of Dr R. Cook at EMRO 1977 - 1979

Temperatures in the Office moderate, 15-25° most of the time, as there is heater/air conditioner.

1. Rehydran 5.5gms made in Egypt about winter 1977/78. Liquefied and ran out of packet in brown liquid April 1979.

2. UNICEF ORALYTE, made by Scherer, Melbourne, Australia, Manufacturing date 1975. Opened May 1979. Caramelised (fawn colour, powder sticking together).

3. Oresol, Philippines, 13.75 gms. no manufacturing date probably about 1976 or 1977. Opened May 1979. Dark brown contents like caramel toffee, partly liquid.

4. Oral Glucose Electrolyte solution manufactured Arthur Cox, Brighton, wt. 5.5grams, batch BNX0003, no date, opened May 1979. Caramelised, yellow, partly liquid.

5. UNICEF Oral Rehydration Salts. Mfg date 19 May 1976. Opened May 1979. Condition perfect.

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WP/2

30 May 1979

A note on WHO experience in obtaining ORAL REHYDRATION SALTS (ORS) in EMRO in the last 3 years

by

J.R. Köllish
Regional Medical Supply Officer, WHO/EMRO

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1977 A total of 200 000 sachets of ORS were requested for Syria in August 1977. UNICEF advised on 5 September that they regretted their inability to supply this item as stocks were entirely depleted and incoming supplies were already committed up to December.

50 000 sachets were subsequently made available by UNICEF for Syria and WHO has in addition provided the raw materials to prepare the oral rehydration salts locally, together with electrical powder mixers.

1978 250 000 sachets were ordered for Afghanistan in August and delivery was effected by UNICEF 3 months later. It should be noted however that this order was not placed on an urgent basis.

1979 60 000 sachets have been ordered on an urgent basis for UNRWA Gaza and West Bank on 10 April. UNICEF has quoted delivery for end-June.

Another 110 000 sachets have also been ordered for the same locations on 17 April with delivery requested before 1 July. UNICEF advises that due to unexpected delivery delay from manufacturers they cannot deliver before mid-August.

WHO Supply Services in Geneva were contacted to see if they could obtain an earlier delivery of the 110 000 sachets from any other source. They have advised that the only 2 (commercial) manufacturers of ORS are both fully booked with UNICEF orders for 2 million sachets for delivery in mid-August.

COMMENTS: Stocks of ORS available with UNICEF have been insufficient to meet urgent requirements in recent years.

It would appear that not enough ORS is manufactured by the 2 (commercial) manufacturers to meet the demand.

It might be possible, and advisable, to attempt to interest other known manufacturers in including ORS in their production.

The question of regional production and reserve stocks needs to be discussed.

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23 May 1979

LIST OF BACKGROUND DOCUMENTS

1.	DEVELOPMENT OF A PROGRAMME FOR DIARRHOEAL DISEASES CONTROL - Report of an Advisory Group - Geneva, 2 - 5 May 1978	WHO/DDC/78.1
2.	TREATMENT AND PREVENTION OF DEHYDRATION IN DIARRHOEAL DISEASES - A Guide for Use at the Primary Level.	WHO Geneva 1976
3.	DIARRHOEAL DISEASES CONTROL PROGRAMME UNICEF-WHO joint Committee on Health Policy - Twenty-Second Session - Geneva, 29 - 31 January 1979	JC22/UNICEF-WHO/79.8
4.	A POSITIVE EFFECT ON THE NUTRITION OF PHILIPPINE CHILDREN OF AN ORAL GLUCOSE - ELECTROLYTE SOLUTION GIVEN AT HOME FOR THE TREATMENT OF DIARRHOEA Report of a filed trial by an international study group	BULL, WHO Vol.55, 1977
5.	ORAL FLUID - A SIMPLE WEAPON AGAINST DEHYDRATION IN DIARRHOEA How it works and how to use it	WHO Chronicle, 31:87-93 (1977)
6.	REPORT OF THE REGIONAL MEETING ON CHOLERA AND DIARRHOEAL DISEASES, Alexandria, 1-5 June 1978	EM/CHOL./21 EM/DIR/DIS/5 EM/MTG/CHL.DHL.DIS/12
7.	CLINICAL MANAGEMENT OF ACUTE DIARRHOEA Report of a Scientific Working Group, New Delhi, 30 October - 2 November 1978	WHO/DDC/79.3
8.	ASSIGNMENT REPORT Seminar on Infantile Diarrhoeal & Rehydration, Karachi, 31 December 1978 - 2 January 1979 Lahore, 4-6 January 1979 by Dr Joh E. Rohde, WHO Consultant	EM/DIARR.DIS/6