



*executive committee of
the directing council*

PAN AMERICAN HEALTH ORGANIZATION

*working party of
the regional committee*

WORLD HEALTH ORGANIZATION



82nd Meeting
Washington, D.C.
June-July 1979

Agenda Item 24

CE82/18 (Eng.)
28 June 1979
ORIGINAL: ENGLISH

OTHER MATTERS

REPORT OF THE MULTIDISCIPLINARY STUDY GROUP ON ACUTE DIARRHOEAL DISEASES

Introduction

Diarrheal diseases remain the leading cause of childhood morbidity and mortality in the Americas (Puffer and Serrano, 1973). Strategies to control the problem have historically depended on capital-intensive environmental inputs and socioeconomic development. Recent breakthroughs, however, particularly in the areas of etiology, pathophysiology and therapy, have led to new short-term strategies for the control of diarrheal diseases made possible by more appropriate technology. The principal short-term strategy is the clinical management of patients with diarrhea by means of oral rehydration therapy.

In response to these exciting new developments the World Health Organization developed a global Diarrheal Diseases Control Programme (DDC) in 1978 (Annex I). The immediate objective of this DDC program is to reduce childhood mortality and diarrheal-related malnutrition by using oral rehydration therapy in the context of primary health care programs.

Activities to Date in the Americas Region

On the Regional level, PAHO has historically accorded high priority to the problem of diarrheal diseases. The Ten-Year Health Plan for the Americas, of the III Special Meeting of Ministers of Health of the Americas (Santiago, October 1972) recommended to the Director that the "...present mortality from enteric infections (be reduced) by at least 50 per cent with particular emphasis on infants and young children".

Resolution V of the 74th Executive Committee (1975), called for increased epidemiological, diagnostic and operational efforts to combat the problem of diarrheal diseases. In 1977, the Regional Gastroenteritis

project became the focal point for DDC in the PAHO Regular Budget at the level of \$16,100. A Regional Advisor on Enteric Diseases was appointed in March 1978.

The Director established the PAHO Multidisciplinary Gastroenteritis Task Force in March 1977 as a result of concern for the need to expand PAHO's efforts in combating the problem. The strategy document this group produced served as the working document for the Organization's activities in DDC to date. These activities, along with generalized program objectives, are summarized in Annex II.

Subsequent to the formation of the PAHO Multidisciplinary Task Force, three related meetings have taken place. In November 1977, a Central American seminar was held in Panama City to discuss appropriate strategies. A workshop held at the PAHO/WHO Caribbean Epidemiology Centre (CAREC) in Port of Spain, Trinidad and Tobago in October 1978 provided a review of ongoing research and identified priority areas for further studies in diarrheal diseases in Latin America and the Caribbean. Similarly, a meeting of the Subcommittee on Diarrheal Diseases of the Regional Advisory Committee on Medical Research (RACMR) held in Mexico City in May of this year made more specific research recommendations. These, in turn, were taken up by the RACMR at its meeting held at PAHO Headquarters in June 1979. These RACMR recommendations will be reviewed when the Global ACMR Subcommittee on Diarrheal Diseases meets in Atlanta, Georgia, in September 17-19, 1979.

In view of the rapidly expanding technical developments, growing interest of Member Countries and increasing availability of extrabudgetary funds from bilateral and multilateral agencies, the Director commissioned a Multidisciplinary Study Group to review the earlier Task Force document, make recommendations on program development and review research needs for the Regional Diarrheal Disease Control Program (Annex III). The recommendations of the Group, which met 21-22 June 1979 at PAHO Headquarters, are presented below.

Recommendations

1. STRATEGY

1.1 The Group reviewed the relevant documents (Annex IV) and concluded that data now available confirm that the key short-term component of the Regional as well as national Diarrheal Disease Control (DDC) programs should be the utilization of oral rehydration therapy employing the glucose electrolyte solution as recommended by the WHO. Numerous studies throughout this Region have firmly established findings elsewhere regarding the efficacy, safety and relatively low cost of oral rehydration therapy.

1.2 The Group expressed its appreciation of the efforts by the Director to date in accelerating the Regional DDC program and recommended that he urge all Member Governments in the strongest terms to make a commitment to develop and implement a national DDC program within the context of their primary health care activities.

It is further recommended that the Director request each Government to nominate a national programme coordinator to serve as the focal point for DDC activities.

1.3 The following goals and objectives have been identified to fit within the context of the current development of PAHO Medium Term Program Documents and reevaluation of the Ten-Year PAHO Health Plan for the Region with respect to Diarrheal Diseases.

1.3.1 Objectives

The Group recommends that national programs adopt as their medium-term (1985) objective the reduction to less than 1 per cent of case-fatality ratios among patients treated by trained personnel for diarrheal dehydration.

1.3.2 Goals

Short-Term (by end of 1981)

- a) Obtain commitments of at least 50 per cent of the member states to adopt DDC with an oral therapy component as a national priority.
- b) Develop and formulate national DDC programs in at least 12 countries.
- c) Implement clinical demonstration projects at the national level in at least 50 per cent of the member nations, coordinated with research activities as appropriate.
- d) Develop relevant national manuals and guidelines and teaching aids for all levels of health personnel in all participating countries.
- e) Augment PAHO budgetary and submit extrabudgetary DDC funding for supporting these recommendations.
- f) Increase DDC manpower resources, including regional coordinators and additional operational officers.

Medium-Term (by end of 1985)

- a) Establish training programs in oral and intravenous therapy as well as other priority aspects of DDC in at least 24 countries in the Region.
- b) Develop, organize and reallocate existing health services resources in 75 per cent of the Member Countries in the Region to best meet the need for adequate therapeutic coverage, and establish adequate local or regional production and supply of oral therapy packets to meet anticipated needs.
- c) Initiate activities to motivate the remaining Member Countries of the Region to institute DDC programs as described in the section on Short-Term Goals.

Long-Term (by end of 1989)

- a) Eliminate diarrheal diseases as a major public health problem; specifically,
 - i) reduce mortality to where diarrheal diseases no longer rank among the five leading causes of childhood deaths, and
 - ii) decrease severe morbidity of diarrheal diseases as reflected in diminished consultation and admission rates.

These shall be accomplished through:

- b) Increased public awareness of the importance of proper hygiene and nutrition;
- c) Close collaboration with other programs to reduce malnutrition;
- d) Improved water quality and utilization;
- e) Improved environmental sanitation and waste disposal systems.

1.4 For ensuring the success and continuity of the DDC program, it is recommended PAHO assist Member Countries in planning and implementing their national diarrheal disease programs. This should include an

initial survey to determine the extent of the problem, (especially diarrhea case-fatality ratios), and an analysis of current utilization of the available resources in order to program for more efficient re-allocation.

1.5 The Group strongly recommended that the Director continue to support the collaborative UNICEF/WHO activities which provide funds and technical guidance to establish facilities for local production of ORS packages on a global basis. Within the Region, PAHO should prepare a plan to provide for Regional self-sufficiency in ORS packages on a continuous basis until national production programs are fully operational.

1.6 It is recommended that PAHO cooperate with the Member Countries in their activities on training, development of training and teaching aids and dissemination of information on DDC activities. This should include newsletters, technical manuals, program formulation, standards for program evaluation and provision for demonstration projects in regional training centers within established institutions for the training of national staff. PAHO should promote technical cooperation among the developing countries in this program area. PAHO should also encourage Member Governments to include newer knowledge regarding diarrheal diseases and their treatment in the curricula of medical, nursing and paramedical schools.

1.7 It is recommended that the Director ensure a linkage between the Regional DDC Program and other Regional health activities, particularly those in maternal and child health, nutrition and immunization under the umbrella of primary health care rather than develop a vertical program.

2. RESEARCH

The Group, recognizing the need for definitive information for formulation of national program activities, recommended that PAHO promote and act as a catalyst for studies by national investigators in the following areas:

2.1 Epidemiology

2.1.1 Studies on etiology, ecology and epidemiology of diarrhea in different countries, especially to define the importance of newly-recognized etiologic agents such as Escherichia coli, vibrio pathogens, Campylobacter, Yersinia enterocolitica, rotavirus, and intestinal parasite by collaborative epidemiological research among different areas of Latin America and developed countries.

- 2.1.2 Simplified and rapid diagnostic techniques for identification of diarrheal disease etiology.
- 2.1.3 Behavioral studies to determine cultural and societal traits, including maternal practices, as they affect diarrheal diseases and explore their significance in the development of effective interventions.
- 2.1.4 Epidemiological studies for identification of high-risk groups.
- 2.1.5 Field studies to determine effectiveness of surveillance by village health workers in the early detection of epidemics.

2.2 Vaccine Development

- 2.2.1 Basic studies on the important etiological agents with an ultimate goal of vaccine development, (e.g., rotavirus, E. coli, S. typhi, parasitic agents), with supporting field trials when appropriate.

2.3 Treatment of Acute Diarrhea

- 2.3.1 The design of clinical studies to develop optimal local guidelines for management of acute diarrhea for both hospital and primary care workers.
- 2.3.2 Further studies to improve the present composition of the oral fluids and to evaluate fluids with fewer ingredients.
- 2.3.3 The effect of oral rehydration therapy on growth and development.
- 2.3.4 Evaluation of different promotional techniques to improve the local use of oral rehydration, including studies on local cultural and behavioral aspects.
- 2.3.5 Expanded studies to identify optimal local feeding practices during and after diarrheal episodes.
- 2.3.6 Evaluation of the effectiveness of currently available and newly-developed antidiarrheal agents, including traditional remedies.

2.4 Water Supply and Sanitation

2.4.1 Applied research on improving food hygiene in both domestic and institutional settings.

2.4.2 Impact evaluation of improved water supply and related educational and promotional activities.

2.5 Regional Reference Centers

Recognizing the need for laboratory support for the aforementioned studies on the etiology and epidemiology of diarrheal diseases, the Group recommended that the Director provide the Directing Council with a detailed report on specific needs for regional reference laboratories in diarrheal diseases.

3. IMPLEMENTATION

3.1 The manpower and fiscal resources now available at the national level are considerable but still insufficient to adequately deal with the immediate demand for technical cooperation and training. Current PAHO budgetary projections for 1980-1983 appear disproportionately small in relation to the magnitude of the problem and the mandate to develop DDC programs as integral components of national primary health care activities. Annex V is a summary of the PAHO budgetary commitment for 1977-1983 and an estimate of necessary resources to implement DDC in the Americas from 1980-1983.

3.2 The Group recommended, finally, that the Director present to the Organization's Governing Bodies at the earliest opportunity a proposed Diarrheal Diseases Control Program for the Americas. This report should emphasize the following points:

1. The essential elements of a national diarrheal diseases control program.
 2. A plan for short-term self-sufficiency in oral rehydration salts in countries which make an immediate commitment to develop national diarrheal diseases control programs.
 3. Plans for a coordinated operational (i.e., health services) and basic research effort in the Region to provide information necessary to develop and evaluate diarrheal diseases control activities.
4. A plan to assure the additional funds recommended for the Regional Program as outlined in Annex V.

ORGANISATION MONDIALE DE LA SANTÉ



WORLD HEALTH ORGANIZATION

ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ

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... The Director-General of the World Health Organization presents his compliments and has the honour to transmit herewith the text of resolution WHA31.44 adopted by the Thirty-first World Health Assembly on diarrhoeal diseases control.

Recognizing the socioeconomic and public health problem created by diarrhoeal diseases, and encouraged by the recent scientific advances in this field, the Health Assembly urges Member States to identify this group of diseases as a major priority area for action and apply known effective measures. The need for technical cooperation in control activities, and further research with and among countries, is also stressed. Success will depend largely on the extent to which Member States agree to implement these activities in the context of their primary health care programmes. The Director-General therefore expresses the hope that Member States will lend him their full support in the fulfilment of the tasks assigned to him by the Assembly in paragraph 2 of its resolution.

GENEVA, 9 August 1978

REGIONAL DIARRHOEAL DISEASE CONTROL PROGRAM OBJECTIVES AND ACTIVITIES TO DATE

OBJECTIVES	ACTIVITIES									
	Motivational visits to 12 countries	Training lectures developed, translated, distributed	Norms for program activities developed, distributed	OR salts supplied to 5 countries for preliminary activities	Liaisons established between institutions in U.S., 3 Latin American countries	Basic, operational research grants totalling \$34,526 allocated to 6 countries	Workshops, seminars on national, regional levels, involving 15 countries	Local OR salts production capabilities assessed in 11 countries	OR clinical demonstrations held in 12 countries	OR field trials proposed in 2 countries
Identify problem areas, design national programs	X		X				X			
Training: administrative, technical, operational		X			X	X	X		X	
Cooperate in program design, implementation, evaluation	X		X	X		X				X
Prepare program manuals, norms, strategies, procedures		X	X			X			X	X
Provide supplies, equipment where necessary				X					X	X
Assess, support local OR salts production								X		
Review, develop, apply appropriate technology innovations						X				X
Strengthen and support basic and operational research					X	X	X		X	X

MULTIDISCIPLINARY STUDY GROUP ON DIARRHOEAL DISEASES

Dates: 21-22 June 1979

Place: Pan American Health Organization Headquarters, Washington, D.C.

Participants:

1. Dr. Rubén M. Cáceres (Chairman)
Director General
Ministerio de Salud Pública y Bienestar Social
Asunción, Paraguay
2. Dr. Onofre Hernández Muñoz (Vice-chairman)
Pediatric Hospital
Instituto Mexicano del Seguro Social
Cuauhtemoc 330, Mexico 7, Mexico, D.F.
3. Dr. Christine Moody*
Principal Medical Officer for Health
Ministry of Health
Kingston, Jamaica
4. Dr. David Nalin (Rapporteur)
Center for Vaccine Development
University of Maryland
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Baltimore, Maryland
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5. Dr. Daniel Pizarro
National Children's Hospital
San José, Costa Rica
6. Dr. Fernando Tirado
Director
Hospital Medellín
Medellín, Colombia

Secretariat:

1. Dr. Dhiman Barua, Bacterial and Venereal Infections, Division of Communicable Diseases, WHO, Geneva, Switzerland.
2. Dr. James Bond, Regional Advisor on Viral Diseases, PAHO, Washington, D.C.
3. Dr. Carlos Hernán Daza, Chief, Nutrition Division, PAHO, Washington, D.C.
4. Dr. Patrick Hamilton, Director, Caribbean Epidemiology Centre (CAREC), Port of Spain, Trinidad

5. Mr. Michael J. McQuestion, Administrative Assistant to the Regional Diarrhoeal Diseases Control Program, PAHO, Washington, D.C.
6. Dr. James H. Rust, Regional Advisor on Enteric Diseases, PAHO, Washington, D.C.
7. Ms. Anita Shearer, Regional Advisor on Nosocomial Infections, PAHO, Washington, D.C.
8. Dr. Karl A. Western, Chief, Communicable Diseases, PAHO, Washington, D.C.

Observers:

1. Dr. George O. Alleyne, Chief, Dept. of Medicine, University of West Indies, School of Medicine, Kingston, Jamaica.
2. Mr. Robert Davis, USDHEW/Office of International Health, Washington, D.C., U.S.A.
3. Dr. Roger Feldman, Chief, Enteric Diseases, Center for Disease Control, Atlanta.
4. Ms. Lynn Mason, USDHEW/Office of International Health, Washington, D.C.

Objectives:

To review the PAHO Gastroenteritis Task Force Medium Term document and make specific administrative and technical recommendations as a basis for procedural policy for the development of integrated country programs in diarrhoeal disease control.

AGENDA

Thursday 21 June, 1979

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|------|---|---------------------|
| 0900 | Opening of the Meeting | Dr. Héctor R. Acuña |
| 0915 | Election of Chairman; Co-Chairman and Rapporteur | |
| 0930 | Outline of Global WHO Diarrhoeal Disease Control Program | Dr. Dhiman Barua |
| 1000 | Specific Terms of Reference for the Study Group | Dr. Karl A. Western |
| 1015 | Presentation of PAHO Gastroenteritis Task Force Document and Progress to Date | Dr. James H. Rust |
| 1030 | Coffee | |
| 1045 | Discussion | |
| 1200 | Lunch | |

1400 Work Groups

a) Administrative

b) Technical

- Operational

- Research

1515 Coffee

1530 General Working Session

1630 Recess

Friday 22 June, 1979

0900 Presentation of Work Group Documents for Review and Discussion

1015 Coffee

1030 Discussion

1200 Lunch

1400 Preparation of Final Document and Recommendations

1515 Coffee

1530 Review and Approval of Final Document

1630 Conclusion

REFERENCE DOCUMENTS FOR THE MULTIDISCIPLINARY STUDY GROUP ON DIARRHOEAL DISEASES
PAHO HEADQUARTERS, WASHINGTON, D.C.
21-22 JUNE, 1979

1. Barua, D., Cvjetanović, B., "Surveillance of diarrhoeal diseases including cholera," (Working Paper No. 18), Seminar on Methods of Epidemiological Surveillance of Zoonoses, Food-borne Infections and Other Communicable Diseases, Bangkok, 1-12 October, 1973.
2. "Clinical Management of Acute Diarrhoea," Report of a Scientific Working Group, Diarrhoeal Diseases Control Programme, New Delhi, 30 October - 2 November, 1978.
3. "The control of acute diarrhoeal diseases: WHO and UNICEF collaborate in country programmes," WHO Chronicle, 33:131-134, 1979.
4. "Control of diarrhoeal diseases: WHO's programme takes shape," WHO Chronicle, 32:369-372, 1978.
5. "Development of a programme for diarrhoeal diseases control," Report of an Advisory Group, Diarrhoeal Diseases Control Programme, Geneva, 2-5 May 1978.
6. "Diarrhoeal diseases control programme," UNICEF-WHO Joint Committee on Health Policy, Twenty-second Session, Geneva, 29-31 January 1979.
7. "Diarrhoeal diseases control program for the Americas; past, present and future perspectives, Working paper prepared for Advisory Committee on Medical Research meeting, Pan American Health Organization, Washington, D.C., 18-20 June, 1979.
8. "Escherichia coli diarrhea," Report of a Sub-group of the Scientific Working Group on Epidemiology and Etiology, Diarrheal Disease Control Programme, Copenhagen, 15-16 January, 1979.
9. "Immunity and vaccine development," Diarrheal Diseases Control Programme, Report of a Scientific Working Group, Geneva, 14-16 August, 1978.
10. Nalin, D.R., Hirschhorn N., "Research on oral rehydration therapy for diarrheal dehydration," Unpublished paper, 1979.
11. Pierce, N.F., Hirschhorn, N., "Oral fluid - a simple weapon against dehydration in diarrhoea," WHO Chronicle, 31:87-93, 1977.
12. "Strategy for reducing morbidity and mortality from enteric diseases," Gastroenteritis Task Force working document, Pan American Health Organization, Washington, D.C., 1977.
13. "The WHO diarrheal diseases control programme," WHO Wkly. epidem. Rec., 16:121-123, 1979.

AMRO-1203 GASTROENTERITIS

PAHO REGULAR BUDGET

1977 - 1983

	1977	1978	1979	1980-81	1982-83
P-5 Enteric Disease Advisor	-	36,200	51,100	97,500	111,200
G-4 Secretary	-	12,700	13,600	30,200	34,500
	(90)	(60)	(90)	(360)	(535)
Consultants (days)	8,100	6,000	10,200	48,600	92,500
Staff Duty Travel	-	5,000	5,500	12,500	14,400
Supplies and Materials	3,000	4,000	4,000	13,000	15,900
Courses and Seminars	-	-	-	73,000	38,000
Grants	5,000	5,000	6,000	80,600	38,000
TOTAL	16,100	68,900	90,400	355,400	344,500

AMRO-1203 GASTROENTERITIS

BUDGET REQUIREMENTS FOR PROGRAM IMPLEMENTATION

1980-1983

	Budget (PAHO Regular Funds)		Anticipated Expenditures		Required	
	1980-1981	1982-1983	1980-1981	1982-1983	1980-1981	1982-1983
P-5 Enteric Disease Advisor	97,500	111,200	97,500	111,200	-	-
P-3 Operations Officer	-	-	78,700	86,500	78,700	86,500
P-2 Operations Officer	-	-	67,100	73,800	67,100	73,800
G-6 Administrative Technician	-	-	40,000	44,000	40,000	44,000
G-6 Secretary	-	-	40,000	44,000	40,000	44,000
G-4 Secretary	30,200 (360)	34,500 (535)	30,200 (600)	34,500 (535)	-	-
Consultants (days)	48,600	92,500	81,000	92,500	32,400	-
Staff Duty Travel	12,500	14,400	20,000	25,000	7,500	10,600
Supplies and Materials	13,000	15,900	120,000	90,000	107,000	74,100
Courses and Seminars	73,000	38,000	240,000	100,000	167,000	62,000
Fellowships	-	-	42,200	46,400	42,200	46,400
Grants	80,600	38,000	100,000	75,000	20,000	37,000
TOTAL	355,400	344,500	956,700	823,900	601,900	478,400