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REPORT ON  
ACTIVITIES PERFORMED IN  
THE DOMINICAN REPUBLIC

A Report Prepared by PRITECH Consultant:  
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I. EXECUTIVE SUMMARY AND RECOMMENDATIONS

The Dominican Republic has not established a national Diarrheal Diseases Control Program, although it has received and distributed approximately 1 million donated ORS packets. PVOs and private industry have been the primary promoters of ORT. In private practice, physicians commonly prescribe antibiotics and antidiarrheal drugs, and advise mothers to withhold food.

Conferences concerning the proper management of diarrheal diseases were conducted by the consultant at the II Dominican Pediatric Congress, at the Dr. Roberto Reid Cabral Pediatric Hospital and its outpatient clinic, and at the pre-Congress course in Santiago de los Caballeros. The pediatric hospitals visited use ORT in the outpatient clinics, but the residents are not supervised by more experienced pediatricians and they do not advise mothers about the importance of feeding during rehydration. It is apparent that the Government of the Dominican Republic needs to develop a diarrheal diseases control program that includes PVO and private industry involvement. In the Medical Schools, the curricula need to include recent technical knowledge about diarrheal diseases. Finally, physicians need to be encouraged to diminish the use of antibiotics, antidiarrheal drugs and IV therapy, and to stop promotion of fasting during diarrhea.

## II. INTRODUCTION

In 1977 Dr. Myron M. Levine, from the Department of Vaccine Development, University of Maryland School of Medicine, Baltimore, MD, visited the Dominican Republic in order to promote oral rehydration therapy. He visited the Dr. Robert Reid Cabral Children's Hospital and convinced a few pediatricians, but they did not practice ORT. In 1982, Dihman Barua from the Diarrhoeal Disease Control Programme of the World Health Organization in Geneva, also visited the Dominican Republic, and urged the Ministry of Health to develop a diarrheal diseases control program. Oral rehydration therapy was practiced in a few patients with ORS packets given by UNICEF. In February 1984 I visited the Dominican Republic invited by the Dominican Pediatric Association in order to promote ORT. I gave several conferences that convinced most of the young physicians about the feasibility and benefits of ORT. Since that visit, ORT has been practiced in several pediatric hospitals. The Ministry of Health promised to launch an intensive two day campaign to promote ORT that would instruct the population about the use of ORS, and distribute ORS packets.

At the present, the GODR continues promising the campaign that will promote ORT. UNICEF, USAID and the Government of Brazil have donated several thousand ORS packets to the GODR, and with these ORS packets hospitals and PVOs have successfully practiced ORT in patients with diarrheal dehydration.

The Dominican Pediatric Association invited me to attend the II Dominican Pediatric Congress in order to promote ORT, during the week August 19 - 25, 1985.

### III. PRE-CONGRESS ACTIVITIES, AUGUST 19 - 21

During the pre-congress activities the consultant visited Santiago de los Caballeros and presented lectures on the intestinal physiology, pathophysiology of diarrheal disease, etiology of diarrhea, and oral rehydration therapy. During a visit to Dr. Arturo Grullon Children's Hospital (250 beds), a practical course on the approach to diarrheal disease was conducted. We discussed performing a clinical history, physical examination, prescriptions and educating mothers.

The hospital has a very small area for ORT (1.5 x 4 m); in this area mothers are instructed, and mildly dehydrated patients are rehydrated. The room has only two chairs. Residents use the main Emergency Room Service to rehydrate most of the patients. The supply of ORS packets is irregular. Patients are maintained less than twenty-four hours in the Emergency Room Service. The hospital does not provide food to the patients in the outpatient clinic. In the inpatient wards mothers are not allowed to stay with their children. After administering ORT, admission to inpatient wards is infrequent with respect to previous years, mainly because dehydrated patients are treated as outpatients. Nasogastric tube is underused.

The hospital's director, Dr. Julio Prado is an enthusiastic promoter of ORT. Most of the physicians in Santiago are graduated from the Catholic University Madre y Maestra. The new concepts on diarrheal diseases are not included in the pensum or curricula of the school of medicine.

Prevention of dehydration is promoted in Santiago by PVOs with ORS packets provided by UNICEF and USAID. The private industry produces ORS packets with bicarbonate and effervescent tablets with citrate, one tablet for 100 ml; packets are sold in pharmacies and cost US\$0.10 each, while one

packet of 10 effervescent tablets costs US\$0.20. Pharmacies offer antidiarrheal and expensive oral solutions instead of ORS or effervescent tablets. Physican's prescriptions are the main source for selling ORS packets and tablets.

Servipharm is a branch of Ciba-Geigy and produces both ORS packets and effervescent tablets.

IV. ACTIVITIES IN SANTO DOMINGO, AUGUST 22

A. Visit to the main children's hospital in the DR, the Dr. Robert Reid Cabral hospital.

This hospital has 300 beds and is directed by Dr. Hugo Mendoza. The hospital received 250,000 ORS packets from a donation of 1,000,000 packets from USAID. Dr. Rivera, Medical Advisor to USAID helped Dr. Mendoza get these packets. ORT has been practiced in the hospital since July 1983 in the outpatient clinic. Health promoters of the hospital work in a slum, Ensanche de Capetillo, promoting the prevention of dehydration and transmission of diarrhea. Diarrhea morbidity and the severity of dehydration diminished both in Ensanche de Capetillo and in patients attending the outpatient clinic of the hospital. In 1984 there were 25,772 cases of upper respiratory disease and 23,929 for diarrhea. During the previous years 15,000 cases of dehydration were treated in the Emergency Room Service. During the last year, the number of cases diminished to 5,000. ORS packets are prescribed by physicians and distributed free by the pharmacy to patients, 3 to 5 packets for each patient. Between 100 and 200 packets are distributed every day.

I visited the outpatient clinic and discussed with the residents the approach to diarrheal patients. As in Egypt, in Santiago they usually don't examine ears and throat because of the lack of examination equipment. They have used spoons and glasses to rehydrate children, but mothers kept both with them. Now children are rehydrated by means of bottle. Patients with severe dehydration are rehydrated with IV for 24 hours. Food is withheld during rehydration. Nasogastric tube for rehydration is not used, and they prefer IV therapy if ORT fails. Residents felt this kind of practice, working directly with patients and discussing with them the approach to diarrheal patients is a very good way to learn how to treat patients.

In the hospital pharmacy there were two kinds of packets: those donated by USAID, "Sales de Rehidratacion Oral" produced by Jianas Bros. Packing Co., Kansas City, Missouri; and "Rehidrate", packed by Magnachem International de Santo Domingo and distributed by C. Federico Gomez G., Registro Industrial 14361. The cost of each packet is US\$0.40.

B. Visit to Centro Nacional de Comunicacion Educativa en Salud (CENACES), in street Santiago No. 4, Santo Domingo.

The director of CENACES, Ing. is Laura Perez Leroux de Casasnovas. The main assistant is Ernest Ruiz Saona, an expert in teaching technology who is sponsored by the Pan American Health Organization.

CENACES started in December 1982 as a branch of the Secretaria de Salud Publica y Asistencia Social. Its main priority was to inform the population in the shortest time. The first practical exercise was practiced with the campaign against poliomyelitis in 1983. CENACES has been the main vehicle for disseminating health campaigns. Each campaign lasts two days, and is performed by massive dissemination through television and radio programs, as well as home visits by 5,000 health workers.

With respect to the oral rehydration campaign, the lack of packets inhibited the progress of the campaign. CENACES is working to teach health workers, nurses and physicians, as well as the illiterate population. They hope to have teaching materials completed by the end of October.

Ing. Perez showed me an excellent audiovisual program about intestinal parasites. This excellent program has at least 75% of the material needed for a diarrheal diseases teaching program.

- C. Lectures given during the Second Pediatric Dominican Congress:
1. Pathophysiology of diarrheal disease (August 22, 1985).
  2. Rehydration therapy (oral and intravenous) (August 24, 1985).
  3. Lecture given to the First Seminar on Medical Emergencias, UNAIIME (Union Nacional de Internos en Medicina):  
Fisiopatologia y tratamiento de la enfermedad diarreica.  
(August 23, 1985).

V. SUMMARY OF CONSTRAINTS

1. Oral rehydration therapy is promoted by PVOs (Dominican Pediatric Association, Catholic Relief Services, and the private industry). The GODR is not involved in the promotion of ORT; it only distributes packets to hospitals. The packets have been donated by USAID, UNICEF and the Government of Brazil.
2. Even when ORT is taught in Pediatric hospitals, the curricula of Medical Schools do not include the latest knowledge about diarrheal disease.
3. Fasting is recommended during diarrheal disease.
4. Intravenous therapy lasts 24 hours.
5. The MOH is planning to promote ORT through a 2 day campaign; during the campaign ORS packets would be distributed and mothers would be taught about its use. It is assumed after this campaign that mothers will continue demanding ORS packets when children have diarrhea. The MOH did not accept the proposition for a Diarrheal Disease Control Program promoted by PAHO.
6. Low physician salaries promote private practices. There are no full time physicians in the hospitals to supervise the teaching program for residents and interns.
7. Public hospitals lack reliable laboratory equipment to perform clinical investigation.