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WORKSHOP ON ACUTE RESPIRATORY DISEASES AMONG CHILDREN OF THE WORLD

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WORKSHOP ON ACUTE RESPIRATORY DISEASES AMONG CHILDREN OF THE WORLD

North Carolina, 18-20 May 1983

The Edna McConnell Clark Foundation, the University of North Carolina, the Pan American Health Organization and the US Agency for International Development, sponsored a Workshop on Acute Respiratory Infections in Children, May 17th - 19th, in Chapel Hill, North Carolina. The agenda and list of ... participants are attached. The following is an overview of the Workshop and a synopsis of the major issues related to directions for research.

The Workshop was opened by Dr. Bondurant, Dean of the Medical School and Dr. Clyde also welcomed the participants.

Dr. Denny, from the University of North Carolina, presented an overview of the whole field of ARI and laid particular stress on the seriousness of the problem posed by morbidity and mortality from this group of diseases in all countries of the world. He outlined briefly the causes of upper respiratory infections which occur with a frequency of 8-9 episodes per year in the first two years of life, falling to 3-4 in school age children. More attention was paid to lower respiratory infections which contributed most to mortality. The most important causes of lower respiratory infection in the USA were respiratory viruses and Mycoplasma Pneumoniae. In view of this, antibiotics had a limited role to play in control of respiratory infections. There was need for more information on the epidemiology of these infections especially in developing countries before firm recommendations could be made about methods of treatment and control.

Dr. Glezen from Baylor College of Medicine described his research on influenza on childhood over the previous nine years in Houston, Texas. Several surveillance methods had been used to define the epidemiological characteristics of viral respiratory illnesses in children from various ethnic and socioeconomic backgrounds. There was a definite relation between socioeconomic status and influenza respiratory infection in infants. The prospects for control of influenza by use of vaccines and antiviral drugs was also discussed.

These presentations were followed by reports on work which was in progress in Vellore, India; Costa Rica; Rio de Janeiro, Brazil; and Papua, New Guinea. These reports all reinforced the importance of ARI as a cause of mortality in children. In India, for example, the mortality rate from ARI in preschool children was 70 times higher than in the USA. It was estimated that children from that part of India had respiratory infections for half of their lives. Both the studies from New Guinea and Brazil incorporated community based components from which it was possible to obtain estimates of the frequency of mild and severe ARI. The available etiologic data from these studies showed that bacteria were a more important cause of pneumonia than was the case in the USA. The study from New Guinea was the only one so far which had reached the stage of planning to evaluate a standard plan of management which was based on the severity of the illness and the need for treatment to be carried out at the primary care level.

In the next session of the Workshop there were presentations on the opportunities for research in the following countries: Uruguay, Panama, Nigeria, Colombia, Malaysia, Trinidad, Argentina and Kenya. The researchers from these countries all indicated the need to have adequate laboratory support and most of the studies being contemplated would be based in institutions and start with some definition of the range of etiologic agents causing the various clinical syndromes. The data from all these countries supported the view that high mortality from ARI was indeed a problem which affected all developing countries.

Various strategies and methodologies were analyzed in the next session. The importance of good epidemiological studies and the problems associated with such studies were discussed. These types of studies, especially when carried out in developing countries, had to be coordinated with great care. Community based epidemiological studies were not only important for measuring true incidence of the diseases, but also for evaluating the effectiveness of interventions. Even in developing countries it is advantageous to use computers to assist in the analysis of the data collected. In the developing countries it was particularly important to

include host and environmental factors among the variables to be considered in an epidemiological study.

Stress was placed on the need for investigators to be aware of the limitations and techniques of sampling when epidemiological studies were being designed.

The Workshop reviewed the current laboratory methods available for diagnosis of the viruses associated with ARI and considered also the prospects for introducing some new techniques for rapid diagnosis. International organizations could play a role in helping to standardize procedures and reagents. A lot of attention was being paid to standardizing clinical record schedules and similar effort was needed for microbiological diagnosis.

The requirements and pitfalls in protocol design were reviewed. The four kinds of research for which protocols had to be designed were epidemiological, operational, socio-behavioral and laboratory research. Hitherto, little attention had been paid to the operational or socio-behavioral research.

The agencies represented at the Workshop then described the extent of their interest and financial commitment to ARI research and control programs. The final day of the Workshop was devoted to an organizational meeting with the Committee on Research Grants of the Board of Science and Technology for International Development of the National Research Council. This Committee had approved a grants program on acute respiratory infections in children and was seeking from the Workshop further identification of research objectives and strategies to be adopted.

The major conclusions or results of the Workshop can be summarized as follows:

- All the available data confirm the seriousness of the problem of acute respiratory infections in children.
- In the developed countries the problem is now mainly one of morbidity, but in the developing countries ARI is a major cause of childhood mortality.

- There are growing opportunities for research on ARI in the countries of the developing world. Highly skilled researchers are being attracted to this area and the time is opportune for promotion of a concerted research effort in ARI.
- Although further research on the clinical epidemiological and microbiological characteristics of ARI is essential, there are interventions, based on established clinical practice, which can be applied now in a systematic way to reduce mortality in areas in which it is very high.
- In the area of laboratory research, the greatest need was for the development of simple rapid diagnostic tests which would facilitate clinical and epidemiological studies.
- There was considerable value to promoting international collaborative research in this field.

WORKSHOP ON ACUTE RESPIRATORY DISEASES AMONG CHILDREN OF THE WORLD

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

TUESDAY, 17 MAY 1983

2000 RECEPTION, CAROLINA INN

WEDNESDAY, 18 MAY 1983

0900 WELCOME DR. STUART BONDURANT

INTRODUCTION TO THE WORKSHOP DR. WALLACE CLYDE

I. STATE OF THE ART0920 ACUTE RESPIRATORY DISEASES IN CHILDREN,
AN OVERVIEW DR. FLOYD DENNY

0940 INFLUENZA IN CHILDHOOD DR. PAUL GLEZEN

1000 COFFEE BREAK

II. STATUS REPORTS

1030 STUDIES IN INDIA DR. T. JACOB JOHN

1115 STUDIES IN CENTRAL AMERICA DRA. LIBIA HERRERO

1200 LUNCH

1330 STUDIES IN BRAZIL DR. FRITS SUTMOLLER

1415 STUDIES IN NEW GUINEA DR. IAN RILEY

III. OPPORTUNITIES IN DEVELOPING NATIONS

1500 URUGUAY DRA. MARIA HORTAL DE PELUFFO

1530 PANAMA DR. WILLIAM REEVES

1600 COFFEE BREAK

1630 WEST AFRICA DR. W. I. ADERELE

1700 COLOMBIA DR. ALVARO DUENAS

1730 MALAYSIA DR. M. JEGATHESAN

1800 ADJOURN

1900 DINNER, MOREHEAD BUILDING

THURSDAY, 19 MAY 1983III. OPPORTUNITIES IN DEVELOPING NATIONS (CONT'D)

0900	TRINIDAD	DR. DAVID BASSETT
0930	ARGENTINA	DRA. MERCEDES WEISSENBACHER
1000	EAST AFRICA	DR. PETER TUKEI
1030	COFFEE BREAK	

IV. STRATEGIES AND METHODOLOGIES

1100	COORDINATION OF EPIDEMIOLOGICAL STUDIES	DR. ARNOLD MONTO
1145	EPIDEMIOLOGICAL APPROACHES	DR. HJORDIS FOY
1230	LUNCH	
1400	BIOMETRY	DR. RONALD HELMS
1445	LABORATORY TECHNIQUES	DR. HELIO PEREIRA
1530	COFFEE BREAK	
1600	PROTOCOL DEVELOPMENT	DR. GEORGE ALLEYNE

V. GRANTING AGENCY PROGRAMS

1630	EDNA M ^C CONNELL CLARK FOUNDATION	DR. JOSEPH COOK
	PAN AMERICAN HEALTH ORGANIZATION	DR. GABRIEL SCHMUNIS
	NATIONAL INSTITUTES OF HEALTH	DR. KARL WESTERN
	NATIONAL RESEARCH COUNCIL	DR. MICHAEL GREENE
	U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT	DR. GEORGE CURLIN

FRIDAY, 20 MAY 1983

0900	ORGANIZATIONAL MEETING, BOARD ON SCIENCE AND TECHNOLOGY FOR INTERNATIONAL DEVELOPMENT OF THE NATIONAL RESEARCH COUNCIL
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NATIONAL RESEARCH COUNCIL

OFFICE OF INTERNATIONAL AFFAIRS

2101 Constitution Avenue Washington, D. C. 20418

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BOARD ON SCIENCE AND TECHNOLOGY
FOR INTERNATIONAL DEVELOPMENT

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TWX #: 7108-22-9589

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JOSEPH HENRY BUILDING
21ST STREET AND
PENNSYLVANIA AVENUE, N.W.

COMMITTEE ON RESEARCH GRANTS

ACUTE RESPIRATORY INFECTIONS IN CHILDREN: EPIDEMIOLOGIC AND DIAGNOSTIC STUDIES

Organizational Meeting
Chapel Hill, N.C.
Friday, May 20, 1983

Preliminary Agenda

- | | |
|------------|--|
| 9:00-12:30 | Objectives of Priority Research in Acute Respiratory Infections
Diagnostic Methods
Clinical Surveillance
Community Surveillance |
| | Goals for BOSTID Research Grants in ARI |
| 12:30-2:00 | Lunch |
| 2:00-4:00 | Anticipated Outcomes and Limitations of ARI Research
Cooperative and Supporting Activities
Suggested Participating Institutions |
| 4:00-5:30 | Operational Aspects of NAS Research Grants Program (for
Developing Country Participants) |
| 5:30 | Adjournment |

Coffee Breaks at 10:30 a.m. and 3:30 p.m.

WORKSHOP ON ACUTE RESPIRATORY DISEASES AMONG
CHILDREN OF THE WORLD

University of North Carolina at Chapel Hill, 18 - 20 May 1983

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