

PROCEEDINGS OF THE DIRECTING COUNCIL
and
REPORTS OF THE PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY
for the
FISCAL YEAR 1969
(JULY 1, 1968 - JUNE 30, 1969)

VOLUME II

TABLE OF CONTENTS

Proceedings of the Directing Council
and
Reports of the Pakistan-SEATO Cholera Research Laboratory
for
Fiscal Year 1969
(July 1, 1968 - June 30, 1969)

Volume II

	Page Nos.
IN ABSENTIA	1
HONORS AND AWARDS	2
AGENDA FOR THE 9TH MEETING OF THE DIRECTING COUNCIL, December 5-6, 1969	5
SCIENTIFIC PROGRAM	
Report of the 7th Meeting of the Technical Committee	7 ✓
ADMINISTRATIVE PROGRAM	
Administrative Report	29
Management Policies and Procedures Circulars . . .	41
Maintenance Report	66
Financial Report	68
Budget Report - Proposals for FY71	83
Audit Report	92
Ward Report	111
Library Report	112
EXTENSION OF AGREEMENTS	117
REPRESENTATION	
Manuscripts Report and List of Publications and Presentations at Meetings	119
Visitors List	140
REPORT OF THE DIRECTING COUNCIL	156 ✓

IN ABSENTIA

With deep regret the PSCRL wishes to express condolence to the many colleagues and friends of Mr. David A. Wraight who passed away suddenly November 4, 1969 of coronary thrombosis. Mr. Wraight served several years on the PSCRL Directing Council representing the Secretary General of SEATO as Deputy. He was a native of New Zealand and served as Secretary of the Navy of New Zealand for 16 years.

HONORS AND AWARDS

In early 1969 Sir James W. Howie, Director, Public Health Laboratory Service, London and member of the PSCRL Technical Committee, was elected President of the British Medical Association. He also was conferred the honorary degree of LL.D. by his alma mater, the University of Aberdeen in Scotland.

Dr. John R. Seal, Chairman of the National Institutes of Health Cholera Advisory Committee who represents the Director of the NIH on the PSCRL Directing Council, was recipient of a Special Award in 1969 given by the Association of Military Surgeons of the United States of America. Dr. Seal also received a citation for scientific leadership in the development of new intramural research programs at the NIH during the first annual award ceremony by NIH held in Bethesda, Maryland, on June 30, 1969.

Dr. Colin MacLeod of the New York University School of Medicine, New York City and Chairman of the PSCRL Technical Committee, received the James D. Bruce Memorial Medal for 1969 awarded by the U.S. College of Physicians for his distinguished service.

On December 12, 1968 during annual meetings of the PSCRL Directing Council and Technical Committee in Dacca, the late Mr. David A. Wraight, Deputy Secretary General of SEATO at the Secretariat in Bangkok, representing the Secretary General, presented SEATO long service certificates and badges to over 60 PSCRL staff who had completed five years of satisfactory service by August 1, 1968. On "SEATO DAY" (September 8, 1969) observances at the PSCRL, Mr. Leslie A. Squires, American Consul General in Dacca, on behalf of the Secretary General of SEATO, presented 57 certificates and badges to PSCRL staff who had completed five years of satisfactory service by August 1, 1969. During

installation of new officers of the PSCRL Staff Welfare Association ceremonies on November 14, 1969, Mr. Eric Griffel, Acting Provincial Director for the U.S. Agency for International Development in Pakistan, on behalf of the Secretary General of SEATO, presented an additional 20 certificates and badges to additional PSCRL staff who had also had five years of satisfactory service by August 1, 1969 but whose receipt of the award had been temporarily delayed by a pending policy review required to amend previous guidelines used to determine eligibility. The Director and management staff were most pleased to amend criteria used previously thus allowing inclusion of the additional members of the staff in the awards. This brings to 137 the total number of PSCRL employees who have received this award through calendar year 1969.

On August 20, 1969 Dr. Phillips presented to Mrs. Constance Miccio on behalf of the U.S. Department of Health, Education and Welfare, a certificate and pin in recognition of ten previous years of service with the U.S. Government. Before being posted to Dacca at the PSCRL in April of 1968 Mrs. Miccio's service included 8-1/2 years with the U.S. Department of State as Foreign Service Staff Officer. She was posted to Dacca 1956-58 and also served in Tokyo, Brussels and Kinshasa (Leopoldville).

The nursing staff of the PSCRL's Dacca ward were given first prize at an exhibition held in Dacca in January 1969 by the Trained Nurses Association of Pakistan, Dacca Branch. The prize was a very fine dictionary, awarded to the staff for designing the best teaching aids. The award is enscribed by the TNA to the nursing staff for "showing simple aids to maintain fluid balance in the case of cholera and acute diarrhea".

On May 9, 1969 the American Ambassador to Pakistan Benjamin Oehlert, Jr., representing the U.S. Department of State, presented to the U.S. Mission staff and their families a citation and medal in recognition of the performance of the American Mission staff and their families during the then-recent "period of disturbances" in Dacca.

On November 5, 1969 Dr. Robert A. Phillips, Director of the PSCRL, was formally notified he had been conferred the 1969 Pakistan Civil Award, Sitara-i-Quad-i-Azam (abrev. S.Q.A.). In replying Dr. Phillips said "I am deeply honored by this award, realizing that it is to the entire staff who have worked with me in our investigations over the last four years. I would like to assure you that I and my staff will continue to make every effort to be worthy of the award."

AGENDA
of the
NINTH MEETING OF THE DIRECTING COUNCIL
December 5-6, 1969

1. Adoption of the Proposed Agenda
2. Confirmation of the Minutes of the Eighth meeting of the Directing Council held December 11-12, 1968
3. Director's Administrative Report
4. Director's Financial Report
5. Review of the Auditor's Report and the Director's Comments
6. Facilities Report
7. Report of the Technical Committee
8. Review of CRL Budget Plan for 1970-71 and determination of the level of the General Operating Fund contribution
9. Presentation of Appendices to Personnel Regulations
10. Clinical Investigation Committee
11. Extension of Agreements
12. Director's report on non-cholera research activities
13. Election of Chairman and Vice-Chairman for the ensuing year
14. Selection of dates for the 10th meeting of the Directing Council
15. Other items of business

SCIENTIFIC PROGRAM

FY69

REPORT OF THE
SEVENTH MEETING OF THE TECHNICAL COMMITTEE
December 1-3, 1969

The Technical Committee met in joint session with the Directing Council, three members of the Clinical Investigation Committee and four Consultants to the PSCRL.

In attendance at the meetings were the following:

Members of the Technical Committee

Dr. Colin MacLeod
New York University School of Medicine, U.S.A.
Chairman of the Technical Committee
Government of the United States of America

Dr. Ziaur Rahman
Deputy Director General, Health and
Deputy Secretary, Health Division, Islamabad, West Pakistan
Government of Pakistan

Sir James W. Howie
Director, Public Health Laboratory Service, London, England
Government of the United Kingdom

Members-designate of and representatives to the
Directing Council

Dr. Robert Cruickshank
Professor Emeritus, University of Edinburgh, Scotland
Chairman of the Directing Council
Delegate of the United Kingdom

Colonel M. M. Haque
Secretary, Health Department, and
Director, Health Services
Government of East Pakistan, Dacca, East Pakistan
Delegate of the Government of Pakistan

Dr. Jean F. Rogier
Chief Public Health Advisor, East Pakistan
U.S. Agency for International Development in Pakistan, Dacca
Delegate of the Government of the United States of America

Dr. John R. Seal
Chairman, NIH Cholera Advisory Committee and
Scientific Director, NIAID
National Institutes of Health
U.S. Department of Health, Education and Welfare
Public Health Service, Bethesda, Maryland, U.S.A.
Delegate of the Director of the
National Institutes of Health

Members of the Clinical Investigation Committee

Dr. Nazir Ahmad
Joint Secretary, Health
Government of West Pakistan, Lahore, West Pakistan

Dr. Graham Bull
Director, Medical Research Council
Clinical Research Center, London, England
Government of the United Kingdom

Dr. A. K. Shamsuddin Ahmed
Retired former Director
Institute of Chest Diseases and Chest Hospital
Government of East Pakistan, Dacca, East Pakistan

Consultants

Dr. Alexander Langmuir
Chief, Epidemiology Program
National Communicable Diseases Center
U.S. Department of Health, Education and Welfare
Public Health Service
Atlanta, Georgia, U.S.A.

Dr. T. Hastings Wilson
Department of Physiology
Harvard University Medical School
Boston, Massachusetts, U.S.A.

Dr. Alan Skyring
A. W. Morrow Department of Gastroenterology
Royal Prince Alfred Hospital
Camperdown, Australia

Professor W. E. van Heyningen
Master, St. Cross College
University of Oxford, Oxon, England

Observers

Dr. K. A. Monsur
Director, Institute of Public Health
Government of East Pakistan, Dacca, East Pakistan

Colonel J. K. Fleming
Chief Medical Officer (posted by Australia)
South-East Asia Treaty Organization, Bangkok, Thailand

Dr. A. K. M. Abdul Wahed
Former Director, Health Services
Government of East Pakistan
Dacca, East Pakistan

Dr. Paul Hamilton
Alfred I. du Pont Institute
Wilmington, Delaware, U.S.A.

The Technical Committee notes with deep regret the death of Mr. David A. Wraight on November 4, 1969. Mr. Wraight served for a number of years on the Directing Council representing the Secretary General of SEATO. His concern for the welfare of the Laboratory and his warm friendship are greatly missed.

The Technical Committee appreciates the assistance given by all these men and their interest in the work of the Laboratory. Our work was made efficient and pleasant because of the excellent cooperation of the Director and all of his staff.

We wish once again to compliment highly the Division heads and their associates on their oral and written presentations of work completed during the past year and their succinct protocols for future studies. This has been accomplished in the face of a heavy clinical load because of a severe epidemic of cholera for the second successive year.

We have now had a second experience of a joint meeting of the Technical Committee, the Directing Council and consultants to the Laboratory. These experiences convince us that a joint meeting is desirable for the future and we so recommend.

During the present meeting the Technical Committee was in session for three full days, with an additional day intervening before the meeting of the Directing Council. We recommend that this schedule be followed in the future.

Our meetings for the past few years have been held during the height of the cholera season. We believe that this places an unnecessary burden on the staff of the Laboratory because of their other urgent duties. We recommend, therefore, that the next meeting of the Technical Committee and the Directing Council be held during the last week of October 1970, with the assurance that the annual audit can be completed sufficiently in advance of that time.

ORGANIZATION

The Technical Committee wishes to note with approval the reorganization of the Laboratory into four divisions: Administrative, Maintenance, Epidemiology and Physiology.

ADMINISTRATION

It has been brought to the Committee's attention that considerable uneasiness exists among some members of the

professional staff concerning the current and projected programs of the Laboratory. The Committee is deeply concerned over these developments. While we have no specific recommendations to make we urge that these questions be given immediate attention as matters of the highest priority.

PERSONNEL

On June 30, 1970 Dr. W. Kendrick Hare and Dr. (Mrs.) Ruth Hare will leave the Laboratory, to which they have given devoted service of the highest quality since September 1966. In expressing its grateful thanks and good wishes to Kendrick and Ruth Hare, the Technical Committee notes this change as one of critical importance to the life and work of the Laboratory. Exact replacement of the Hares will not be possible.

Five posts were judged to be of particular importance and the Technical Committee recommends that they should be filled as fast as possible in order to continue the ongoing work of the Laboratory, to close gaps that have appeared and to meet new commitments set out in the protocols presented to the Committee. The numbering of the posts does not necessarily indicate priority ranking.

Post No.1 is for a biochemist (or physiologist) with a special interest in problems of electrolyte transport. The person appointed would be responsible for quality control of all chemical procedures undertaken.

Post No.2. It remains a serious deficiency that the Laboratory lacks an experienced bacteriologist with a good record of research. It is self-evident that a major requirement is adequate quality control of the routine and supporting work of the Laboratory. There is need also for formulation of research projects aimed at gaining a better understanding of the fundamental biology of Vibrio cholerae and at seeking markers which could make possible a typing scheme sufficiently detailed and reproducible to be of value in tracing the origin and spread of individual outbreaks of cholera.

Post No.3. An immunologist, preferably with an interest in the chemical side of the subject, is needed for work set out in both the epidemiology and the physiology programmes. The services of an immunologist are required in field and experimental work on the toxin and on the different possible forms and modes of use of toxoids and vaccines. Also, further chemical investigation is required to define the nature and specificity of various antibodies and neutralising substances found within the intestinal tract and elsewhere.

Post No.4. For the animal breeding programme, which is central to all the experimental work of the laboratory and to many of the epidemiological studies, it is essential to recruit the services of a man with a special interest in and experience of animal husbandry. The person appointed might have a veterinary training but this would not be regarded as essential. The need is to find someone with real skill and capacity in the breeding and maintenance of animals and a sincere interest in their welfare.

(Note: The Committee regards it as not impossible that, for a time at least, the posts numbered 2, 3, and 4 might be filled by two persons because it is possible to find, for example, veterinary graduates with an interest in animal breeding and maintenance as well as in either bacteriology or immunology. Similarly, some bacteriologists are competent immunologists and vice versa. In the end, however, all three posts should be filled.)

Post No.5. This is for an epidemiologist. A recommendation for the creation and filling of this post has appeared in three previous reports of the Technical Committee (1966, page 7; 1967, page 13; and 1968, page 9). The arguments previously advanced remain valid and there is now both need and opportunity for further epidemiological studies, particularly demographic studies. Taken along with the extended trials of vaccines and new toxoid preparations, these indicate clearly an increased load of work upon epidemiology. For this reason the Technical Committee now recommends the filling of this post as a matter of urgency.

FACILITIES

During the past year much has been accomplished in improving the Laboratory's physical facilities through renovation of existing space and construction of the new maintenance and supply building. The amount of new laboratory furniture that has been built and installed is impressive, as is the quality of the workmanship.

- It is particularly gratifying that most of the problems encountered for so many years because of an inadequate electric power supply will be relieved in the very near future with completion of the new substation and its connections to the various buildings and internal wiring.

The Technical Committee applauds, likewise, the complete renovation of the animal house, which now appears adequate for the needs of the immediate future with respect to space and caging for animals, experimental rooms, washing facilities, storage and the like. We hope that an adequate breeding colony for rabbits can now be operated successfully and thus relieve the large expenditures presently necessary in importing rabbits from England by air. It seems not unlikely, however, that success in rabbit breeding may have to await the recruitment of someone highly skilled in animal husbandry or in veterinary medicine.

Despite these great improvements for which much credit is due the staff, especially Mr. Mark Tucker, the Technical Committee is concerned that renovation and extension of the ward space has lagged behind. It remains true, to the great credit of all concerned, that the ward provides exemplary care for cholera patients. This is carried out in extremely crowded space with grossly inadequate supporting services. While patient care has been excellent we wish to note that the ward is the face the Laboratory presents to the Pakistani public and to visitors from abroad. Its inadequacies, moreover, place an unnecessarily heavy burden on Miss Torrance and her staff. This has been particularly apparent during the very large epidemic of last year as well as during the present epidemic which already promises to equal or exceed the previous one. Nor does it seem likely that the load on

the ward will diminish in the future. It is almost sure, rather, that it will continue to increase, limited only by the availability of facilities to transport patients to the Laboratory.

For these reasons the Technical Committee urges that vigorous action be started once again to expand the ward space through construction of the previously proposed one-storey building adjacent to it and extending out to the road, and through improvement of the facilities for care of convalescent patients.

Expansion of the ward area will permit adequate separation of adult male and female patients and provide enough space for children so that there is room for the staff to move freely between the beds and stretchers in carrying out treatment procedures.

A new laundry shed has been built which will accommodate the commercial size washer, extractor and dryer which are on order. The new steam generating plant to be installed will provide hot water for laundry and kitchen and for general ward use. This will be a major improvement.

There is also an immediate need to renovate the kitchen and to provide refrigerated storage for food.

A perennial difficulty at the Laboratory has been the water supply. The single water tower and single pump are inadequate. If power fails, a frequent occurrence in the past, or if the pump breaks down, the water supply will last for not more than two hours. While this is a serious matter for the various laboratories, it is much more so with respect to care of patients.

We concur fully with the recommendations of the Director and his staff that a new and larger water tower be built over its own new well and with a separate pump.

There seems to be little possibility, because of lack of space, that much can be done in the near future to relieve the congestion in the library area so that it can be made adequate for the constantly growing needs of the Laboratory.

Effective relief of the library problems, as well as of the extreme crowding in the laboratories, is dependent on construction of the proposed new four-storey laboratory building to be connected to the present building. Plans for this new building have been drawn and approved by the East Pakistan government, but construction funds have not been appropriated. With expansion of the Laboratory's activities into demography, family planning and prevention of fetal wastage, and into nutritional studies, the need for the new building becomes critical in order to house the expanding staff and the necessary equipment. The Technical Committee recommends strongly that steps be taken to obtain the funds needed for construction of the new building. It should be noted that if this building can be built soon the need for the additional ward space will be taken care of. However, we do not believe that the future prospects of the new laboratory building should be allowed to diminish the efforts to relieve the urgent present need for expanded and improved ward facilities.

PHYSIOLOGY DIVISION

Introduction.

Cholera is primarily a disease of poor people in poor communities, most of which are remote from transport or other amenities. Untreated, the fatality rate varies from sixty to ninety percent and death may occur as early as six hours from onset of the disease. These facts place very severe constraints on the practicability of treatment.

Based on current knowledge of the disturbed physiology in the disease, two regimes of therapy have been developed which are highly effective in particular favoured environments but which in field conditions leave much to be desired.

The first of these is the intravenous administration of a mixture of water and electrolytes developed by Dr. Phillips and his teams both here and in Taipei. Even if applied to moribund patients it leads to recovery and by its use the fatality rate could be reduced to virtually zero if it were possible to bring the patient to the treatment or the treatment to the patient in time. Unfortunately, there is no prospect of doing either except in special circumstances such as cities. An additional factor that almost rules it out for field use is cost, which in East Pakistan amounts to five month's wages of the average worker.

The second, an oral regime, is much cheaper (two days wages) but at the present stage of development this regime is incapable of saving the most severely ill patients. It might be possible to deploy it at village level; if so, this would probably reduce the fatality to approximately five to ten percent, a figure which is still unacceptably high.

Therefore, in the present state of efficacy of vaccines there is still a very great need for further developments in treatment. Moreover, even if a vaccine was developed which gave 100 percent protection to those receiving it there would still be a need for treatment, for experience in East Pakistan with smallpox vaccination has shown that large numbers of the population remain unvaccinated and are at risk.

The need for Pathophysiological Studies.

It is clear that death in cholera is due to loss of water and electrolytes in the stools. It can be prevented if fluid and electrolyte balance is restored and maintained for three to five days, during which time spontaneous recovery ensues.

There are several transport systems for electrolytes in the intestine and it is clear that one of them is affected by cholera toxin while at least two others are unaffected. These last are the glucose-associated and glycine-associated pathways for Na absorption and both of them have been exploited in the oral regimes developed and reported.

Further advances in therapy are most likely to arise from the following:

- A. 1. The identification of the toxin-affected pathways at the cellular and at the subcellular levels.
2. The dissection of the chemical processes involved in its action.
3. The uncoupling of toxin or bypassing of the enzyme step or steps affected by it.

- B. The investigation of other pathways, for electrolyte absorption unaffected by toxin, to determine whether they can be exploited in the same way as has been done with the glucose and glycine-associated pathways.

The Role of the PSCRL.

We have been asked to list priorities for the work of the Laboratory but we believe that it is inappropriate to do so. Any such list or direction of the research would restrict the freedom of action of the Director and staff who, we believe, should be free to decide on their own priorities.

It is self-evident that the principal effort should be centered on the cholera patient and that the seasonal nature of cholera requires that the months between outbreaks should be used for laboratory and animal experimentation. Beyond endorsing these points already made in Dr. Hare's Report of the Physiology Division, we would only comment on the continuing high standard of the work presented and in progress.

We are pleased to see the progress that has been made in particular in two directions as follows:

A. As a result of the completed flux studies and an ongoing study of the colon in cholera (Protocol 04 70 04) the macroscopic localization of the lesion in cholera is becoming clearer.

B. The oral regime, as proposed earlier and subsequently modified by the addition of glycine, has been demonstrated to be effective (Protocol 04 70 07). We hope that this work will be extended to the study of other pathways of Na absorption than the glucose and glycine ones.

In the case of the current studies we would single out two for comment:

1. Protocol 04 70 01 - Studies of material obtained by Crosby Capsules from patients with cholera and using the Ussing technique.

Dr. Rohde has already shown that the method is capable of obtaining useful and unexpected information. We hope that he will extend the work to embrace isotopic fluxes and the study of animal material after known intervals from exposure to cholera toxin or live vibrios. Further expansion of the work in other directions would be commended.

2. Protocol 04 70 02 - Distribution of body water and fat.

The preliminary data presented to us on cholera patients show that certain individuals have grossly abnormal distributions of body water and fat. These are almost certainly unrelated to cholera itself but are a manifestation of malnutrition or other disease. Although the most interesting results lead away from the main stream of cholera research we believe that the subject should be pursued at least for the time being.

EPIDEMIOLOGY DIVISION

Vaccine Field Evaluations.

The severe epidemic of cholera in the Matlab study area during the 1968-69 season made possible the most definitive vaccine evaluation in the history of the PSCRL. Monovalent whole cell vaccine, Inaba type, conferred marked protection of better than 90% for a period of at least three months. A purified Inaba antigen was equally effective. A monovalent whole cell Ogawa vaccine failed to protect. This field trial revealed, for the first time, that immunity against classical Inaba cholera is type-specific.

The participants in the field trial have received booster inoculations and will be observed for a second year in accordance with the original plan for the trial when it was established.

Cholera due to El Tor Ogawa strains is presently occurring in the study area, thus giving promise that a test of both type-specific immunity from Ogawa vaccine and heterologous immunity from Inaba vaccine may be obtained this season.

Substantial progress has been made during the past year in the production and purification of cholera toxin. There is a good prospect that an effective toxoid will be available for large-scale field trials during the 1971-72 seasons. In the meantime, it is recommended that the present study populations be kept under observation to measure duration of immunity of the vaccines presently under test. Plans should be formulated for a large-scale field trial with pure toxoid and a combination of toxoid and bacterial antigens as soon as these products become available. The old test area will be most suitable for inclusion in this field trial because a population of approximately 25,000 unimmunized children under six years of age will have accumulated by 1971.

Serological Studies.

The purification of cholera toxin has led to the discovery of a new in vitro hemagglutination test for antitoxic antibodies (Finkelstein and Hochstein). The preliminary experiments at PSCRL with this test reveal it to be reproducible, sensitive and specific. It is recommended that this test be further developed and fully evaluated in a variety of epidemiological studies with the view of having it available as a routine method by the time the toxoid field trial is initiated.

Field Epidemiology.

The intensive epidemiological studies in the village of Meharan in the Matlab area during the 1968-69 season revealed the extent of inapparent infection during an epidemic of classical Inaba cholera. Among 1,600 members of the village, 116 persons became infected, but of them only 11% required hospitalization and 15% treatment as outpatients. The majority of infections were asymptomatic. It is recommended that these studies be continued, especially in view of the recent recognition of the presence of El Tor Ogawa infections in this area.

The studies of cholera in Chittagong during the 1968-69 season demonstrated the value of maintaining at least limited observation of cholera in areas of East Pakistan other than Dacca and Matlab. A comparison of the clinical and epidemiological characteristics of classical Inaba and El Tor Ogawa infections was accomplished. While clinical cases of the two types of infection were indistinguishable, there were distinct epidemiological differences. The carrier rate among family contacts was higher for the El Tor biotype than for the classical strain, and the El Tor strain was isolated ten times more frequently in nightsoil and latrine samplings. It is recommended that the surveillance of cholera infections in Chittagong be continued.

Demographic Studies.

1. Descriptive Demography. Analyses of rates of births, deaths, stillbirths, neonatal mortality, and in and out migration among the 117,000 persons in the "old test area" at Matlab have been completed for two consecutive 12-month periods and preliminary data for a third year are available. Additional data for one year among the 110,000 persons in the new test area are also fully recorded. Thus, a population of 227,000 persons is now available for continuing descriptive demographic studies.

These studies, which up to the present, have been a mere by-product of the vaccine evaluation program, have attracted the attention of the Pakistan government, the AID, the National Institute of Child Health and Human Development (NICHD) of the NIH in Washington, the Population Council and the Ford Foundation. These demographic data may well represent the most precise and detailed figures available anywhere in the subcontinent.

The NICHD-NIH has agreed to assign a demographer to the PSCRL to assume responsibility for extending and developing this demographic resource. A collaborative project with AID-Pakistan and Dacca University has been prepared and is now being processed. It is recommended that this project be given full support and be incorporated as a continuing activity of PSCRL.

2. Maternal Mortality. In the latter half of 1968 a study of maternal mortality in the Matlab area was undertaken in collaboration with the East Pakistan Research and Evaluation Center. A maternal mortality rate of seven per 1,000 live births was measured. This is considerably lower than recorded rates from other areas of the subcontinent which are derived from hospitalized patients. This study is now complete and has been reported at several conferences. It illustrates the value of the Matlab population for broad demographic and epidemiologic studies.

3. Pilot Pregnancy Wastage and Interval Study.

In January 1969 a new collaborative project, supported by AID-Pakistan and the Population Council, was undertaken in Matlab to determine the feasibility of using pregnancy tests and detailed interviews of women in the childbearing age groups to measure pregnancy, abortions, fetal wastage and child spacing. A microtest on urine was developed in the PSCRL reducing the cost per test from \$1.00 to \$.20.

The cooperation on the part of the women in this population was excellent. They could be readily classified into three main groups on a monthly basis:

- a) menstruating women 50 to 60 percent
- b) lactating women 30 to 40 percent, and
- c) pregnant women 10 to 20 percent

Only a small fraction of women were found to be sterile.

Over the first six month period of study new pregnancies occurred from four to five times more frequently among menstruating women than among lactating women, confirming a long-held belief which has only rarely been documented.

This pilot project has established the feasibility of conducting a large-scale investigation of pregnancy, pregnancy wastage and child spacing in the Matlab study area. AID has continued support of the pilot project for six months and is now considering a formal project proposal. It is recommended that PSCRL collaborate in this proposal with the understanding that:

- 1) adequate funds will be made available
- 2) appropriate statistical and computer programming services can be provided

- 3) regular consultation with a qualified research gynecologist can be obtained, and
- 4) the project has the full endorsement of the Pakistan government

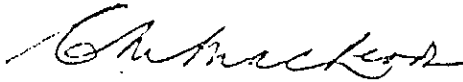
5. Other Epidemiological Studies.

During the six years of its existence the Matlab population has been considered for a number of epidemiological studies other than cholera but on only rare occasions have these been undertaken because they were not considered to be appropriate to the mission of the Laboratory. In 1967-68, during a period when cholera was absent in Matlab, a collaborative study of smallpox was undertaken with the WHO and the Pakistan Medical Research Center in Lahore. Age-specific vaccination effectiveness rates were measured with great precision. These ranged from 94 to 96% in children to 74% in adults.

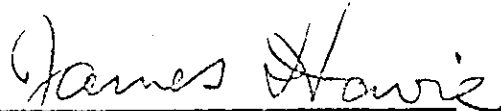
It is recommended that other epidemiological projects be judiciously considered for appropriateness to the Matlab situation. For example, diphtheria-tetanus toxoid has been employed as a placebo inoculation in the cholera vaccine studies. Tetanus neonatorum is known to be a serious continuing health problem in East Pakistan. It would be a simple procedure to evaluate tetanus toxoid in the prevention of tetanus neonatorum as an addition to the proposed cholera toxoid field trial in 1971-72.

Other diseases should also be considered. Measles is generally recognized in the community, but a pilot project would need to be undertaken to calibrate the degree of accuracy of the present lay staff in collecting such reports. Nutritional conditions, such as edema, or kwashiorkor may also be feasible for study. More sophisticated nutritional studies would require the addition of trained personnel.

Signed by the members
of the Technical Committee


(Dr. Colin M. MacLeod; Chairman)


(Dr. Ziaur Rahman)


(Sir James W. Howie)

on December 4, 1969 Dacca, East Pakistan.

ADMINISTRATIVE PROGRAM

FY69

ADMINISTRATIVE REPORT

Introduction.

The Administrative Report will cover significant developments during fiscal year 1969 and in some cases will describe changes that have taken place through November 1, 1969.

Effective July 1, 1969 the structure of the PSCRL was reorganized (see chart). The Laboratory, over the years, has developed new interests and the procedure in the past was to dignify the activity by breaking it off from its parent section, into a new section. For a variety of reasons this resulted, eventually, in a cumbersome administrative problem; hence, the reorganization. The four Divisions and their heads are:

Administration	-	Mr. Nuran Nabi
Maintenance	-	Mr. Mark P. Tucker
Epidemiology	-	Dr. Henry W. Mosley
Physiology	-	Dr. Kendrick W. Hare

Epidemiology assumed responsibility for the former bacteriology and immunology sections and Physiology is now responsible for the previous chemistry, clinical investigation, ward, library and animal resources sections.

The rest of this report will deal more specifically with the various areas of administration and items of special interest.

Personnel.

Total staff increased from 616 on July 1, 1968 to 780 on June 30, 1969 (please refer to Table A for a break-down of the staff by section). Table A also indicates the number of staff in each Division according to the reorganization of the Laboratory.

Of the total staff of 780 as of June 30, 1969 443 were regularly appointed staff while 337 were of a temporary or seasonal hire, such as the dais and boatmen at Matlab. For comparison, the respective figures as of July 1, 1968 were 418 and 198.

The increase in the Administrative Section was due to transfer of administrative staff from Matlab when that area of operation was redefined as Field Surveillance Section. The increase in the latter section was due to additional hiring of seasonal boatmen.

Table B is a list of Laboratory staff who returned from foreign training during the year 1969. No staff from the Laboratory are on foreign training at the present time. Table C is a list of key personnel changes for 1969.

Transportation.

The Laboratory is currently operating 19 vehicles and received two new ambulances during FY69, one from Australia and the other from the U.S.A. A check of Table D will reveal that the majority of the vehicles have very high mileage and, consequently, a number of vehicles will be out of commission at any given time. Four vehicles were declared out of commission during the period under survey. However, we hope to replace some of these vehicles with donations from the Australian Government, which has promised two more Microbuses for FY70. The Laboratory recently indicated to the Australian authorities the requirement for replacement of six more vehicles in FY71 as well as a small cabin cruiser for use in Matlab.

Table E provides both the number and status of boats and outboard motors.

Communications.

Although the Laboratory has received the wireless set donated by Australia, certain vital parts were missing in the shipment and, as of the date of this report, the Laboratory was awaiting replacement parts to arrive from Australia.

Supplies and Equipment.

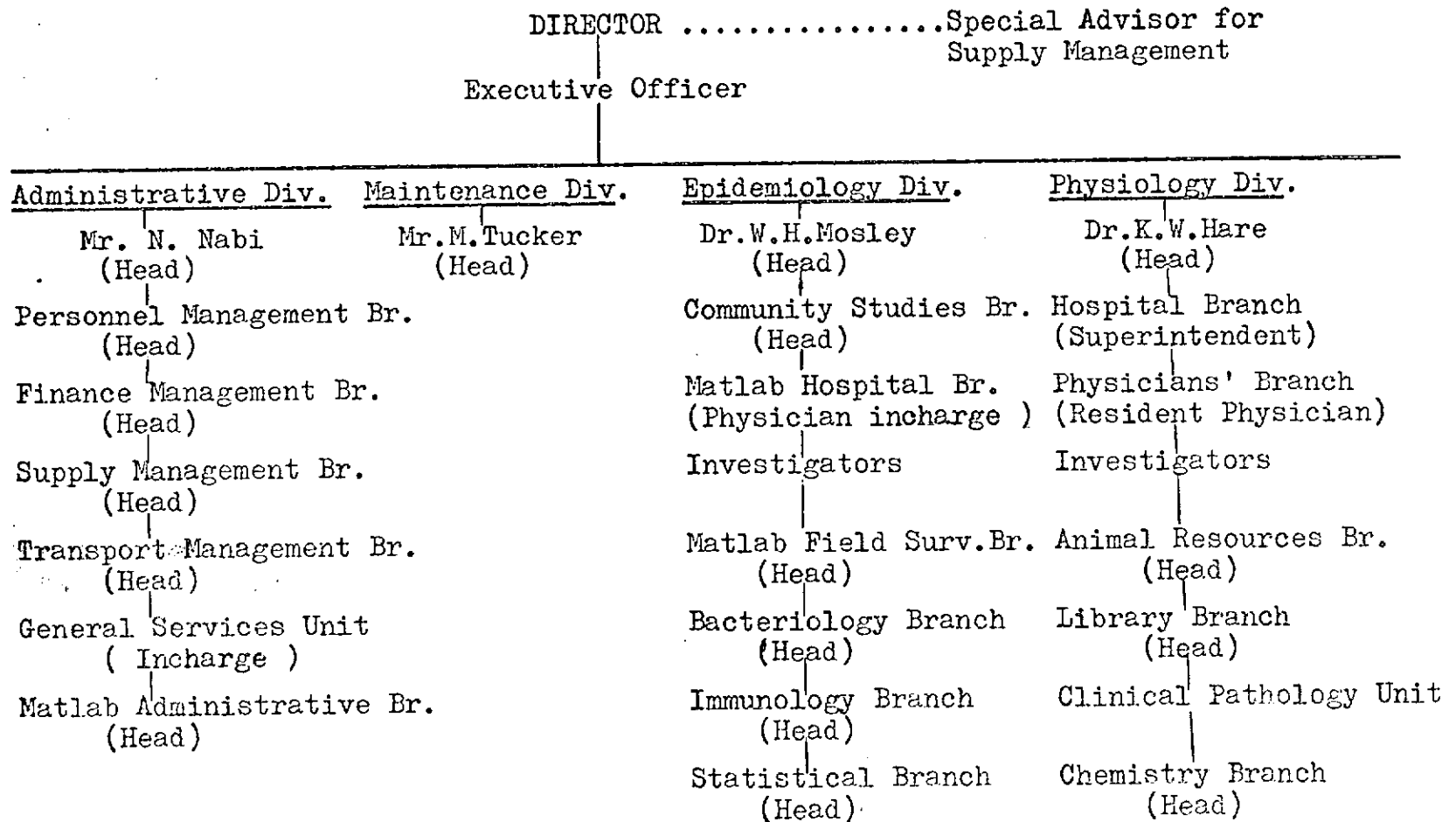
The Laboratory was very fortunate in having Mr. George Eddy, Jr., join the staff on October 22, 1969 as Special Adviser to the Director, for Supply Management. With his help and guidance the supply operations of the Laboratory should be further streamlined.

With the additional space made available in the recently completed building, supplies have been stockpiled in sufficient quantities to meet the needs of the hospital during the cholera season.

As noted in last year's report, the Laboratory was leasing additional space for storage. Despite additional space available for storage of supplies in the new building recently completed, this space is not adequate, and the Laboratory is continuing to lease additional storage space.

The areas of physical facilities, utilities and maintenance are now covered in the Facilities Report which is a separate presentation to the Directing Council.

REORGANISATION OF THE PSCRL*



* Effective July 1, 1969; revised November 1, 1969

TABLE 'A'
BREAKDOWN OF PSCRL PERSONNEL BY SECTION

	A.S.	A.R.S.	B.S.	C.I.S.	N&H S.S.	C.S.	E.S.		M.S.	F.S.S.	D.O.	C.	Total
							H.Q.	M VTS					
July 1, 1968	95	23	35	37	42	32	38	279	17	-	2	3	603
Local													
Foreign	-	-	-	3	1	1	3	-	1	-	4	-	13
June 30, 1969	137	29	35	33	48	23	45	-*	16	394*	3	3	766
Local													
Foreign	-	-	-	4	1	1	5	-	1	-	4	-	14

*Matlab Vaccine Trial Surveillance, part of Epidemiology Section was redesignated as the Field Surveillance Section on September 1, 1968.

Key:

A.S. Administrative Section
A.R.S. Animal Resources Section
B.S. Bacteriology Section
C.I.S. Clinical Investigation Section
N&H Nursing & Hospital Services Section
S.S.
C.S. Chemistry Section
E.S. Epidemiology Section

M.VTS Matlab Vaccine Trial
Surveillance
M.S. Maintenance Section
F.S.S. Field Surveillance Section
D.O. Director's Office
C. Consultant

TABLE 'A' (cont.)

EFFECTIVE JULY 1, 1969 THE ABOVE SECTIONS WERE
REORGANIZED INTO 4 DIVISIONS AS FOLLOWS

	D.O.	A. D.		P. D.		E. D.		M.D.	Total
		H.Q.	M.	R.	H.	H.Q.	M.		
July 1, 1969 Local	2	107	30	86	48	83	394	16	766
Foreign	3	-	-	6	1	3	-	1	14

Key:
D.O. Director's Office
A.D. Administrative Division
H.Q. Headquarter
M. Matlab
P.D. Physiology Division
R. Research
H. Hospital
E.D. Epidemiology Division
M.D. Maintenance Division

TABLE B

FOREIGN TRAINING DURING FISCAL YEAR
1968-69

<u>Name and Designation</u>	<u>Date Departed</u>	<u>Date Returned</u>	<u>Purpose of Training</u>	<u>Place of Training</u>	<u>Remarks</u>
Mr.Yousuf A. Saeed	Oct. 12, 1966	May 27, 1969	Training in bacterial genetics	Dept. of Biology, Univ.of Calgary, Alberta, Canada.	Extended the period from Nov.22,1967 to May 26, 1969 at his own expense.
Dr.(Mrs) K.M.Ally Research Associate	June, 1966	Feb. 24, 1969	Higher training at Bellevue Hospital, Univ.of Columbia, New York, N.Y., U.S.A. and various hospitals in U.K.	Dept. of Medicine, College of Physicians & Surgeons, Univ. of Columbia, New York, N.Y., U.S.A. and U.K.	-

TABLE C

KEY PERSONNEL CHANGES DURING FY 69

<u>Name & Designation</u>	<u>Section/Division</u>	<u>Date of joining</u>	<u>Date of Departure</u>
Dr. George T. Curlin Research Physician	Physiology Division	July 1, 1969	-
Dr. Robert S. Northrup Research Physician	Physiology Division	July 19, 1966	July 25, 1969
Mr. George Eddy, Jr., Special Advisor to the Director on Supply Management	Director's Office	October 22, 1969	-

TABLE D

STATUS OF PSCL VEHICLES
AS OF OCTOBER 31, 1969

<u>Nomenclature</u>	<u>Mfgr.</u>	<u>Model</u>	<u>Local Registration Number</u>	<u>Mileage as of Nov. 1, 1968</u>	<u>Mileage as of Oct. 31, 1969</u>	<u>Miles Travelled</u>
1. STATION WAGON	PLYMOUTH	1964	DACCA KHAW-7156	80,368	97,164	16,796
2. TRUCK CARRYALL	JEEP	1967	DACCA CHAW-7449	34,570	48,682 1/	14,112
3. TRUCK CARRYALL	JEEP	1967	DACCA CHAW-7450	30,433	43,105 1/	12,672
4. DELUXE SALOON	AUSTIN	1963	DACCA KHAW-6033	99,699	Deadlined 2/	
5. DELUXE SALOON	AUSTIN	1963	DACCA KHAW-6034	78,114	86,714 1/	8,600
6. DELUXE SALOON	AUSTIN	1964	DACCA KHAW-7026	85,360	87,635 1/	2,275
7. DELUXE SALOON	AUSTIN	1964	DACCA KHAW-7027	70,544	Deadlined 2/	
8. DELUXE SALOON	AUSTIN	1963	DACCA KHAW-6032	88,216	111,796	23,580
9. DELUXE SALOON	AUSTIN	1966	DACCA GAW-4677	65,918	87,347	21,429
10. DELUXE SALOON	AUSTIN	1966	DACCA GAW-4678	68,820	89,601	20,781

1/ Estimated mileage; speedometer out of order

2/ Out of commission - no longer economically
feasible to operate

TABLE D (Cont.)

<u>Nomenclature</u>	<u>Mfgr.</u>	<u>Model</u>	<u>Local Registration Number</u>	<u>Mileage as of Nov. 1, 1968</u>	<u>Mileage as of Oct. 31, 1969</u>	<u>Miles Travelled</u>
11. DELUXE SALOON	AUSTIN	1967	DACCA GAW-7198	51,017	77,920	26,903
12. DELUXE SALOON	AUSTIN	1967	DACCA GAW-7199	59,904	88,897	28,993
13. STATION WAGON	WILLYS	1964	DACCA KHAW-8721	100,307	110,499 1/	10,192
14. TRUCK CARRYALL	LAND ROVER	1962	DACCA KHAW-2781	76,523	81,023 1/	4,500
15. TRUCK CARRYALL	LAND ROVER	1962	DACCA KHAW-2899	60,229	Deadlined 2/	
16. TRUCK CARRYALL	CHEVROLET	1961	DACCA KHAW-8978	79,453	Deadlined 2/	
17. AUSTRALIAN JEEP	WILLYS	1968	DACCA BAW-474	263	20,899	20,636
18. AUSTRALIAN JEEP	WILLYS	1968	DACCA BAW-475	1,974	18,912	16,938
19. AUSTRALIAN JEEP	WILLYS	1968	DACCA BAW-482	1,551	19,263	17,712
20. MERCEDEZ BENZ	MERCEDEZ	1962	DACCA KHAW-5569	65,059	74,035	8,976
21. DODGE SEDAN	DODGE	1964	DACCA GAW-3423	41,079	47,426	6,347
22. TRUCK CARRYALL	CHEVROLET	1968	DACCA BAW-202		5,098	5,098
23. AMBULANCE	VOLKSWAGEN	1968	DACCA BAW-204		6,040	6,040

1/ Estimated mileage; speedometer out of order

2/ Out of commission - no longer economically
feasible to operate

TABLE E

STATUS OF PSCRL BOATS & OUTBOARD MOTORS
AS OF NOVEMBER 1, 1969

	<u>Type & Length</u>	<u>Quantity</u>	<u>Source</u>	<u>Year Purchased</u>	<u>Condition</u>
1.	*Boat, Boston Whaler, 13'3"	3 Each	U.S.	1966	Good
2.	*Boat, Boston Whaler, 13'3"	4 Each	U.S.	1968	New
3.	**Boat, Sears, 14'	1 Each	U.S.	1965	Poor
4.	**Boat, Sears, 14'	1 Each	U.S.	1964	Poor
5.	**Boat, Shark, 12'9"	1 Each	Local	1963	Poor
6.	**Boat, Shark, 12'9"	2 Each	Local	1964	Poor
7.	**Boat, Shark, 12'9"	1 Each	Local	1966	Poor
8.	**Boat with Oars, 10'	1 Each	Local	1963	Poor
9.	*Boat, Jet, Dowty, 14'6"	1 Each	U.K.	1966	Good
10.	**Boat, Sea King, 10'	<u>1 Each</u>	Local	1969	Poor
		Total 16			

*Fiberglass

**Aluminium

Outboard MotorsTABLE E (cont.)

	<u>Make and H.P.</u>	<u>.Quantity</u>	<u>Source</u>	<u>Year Purchased</u>	<u>Condition</u>
1.	Johnson 5½	1 Each	Local	1963	Poor
2.	Johnson 7½	2 Each	U.S.	1964	Poor
3.	Johnson 9½	4 Each	U.S.	1968	Good
4.	West Bend 18	1 Each	Local	1963	Poor
5.	Johnson 28	1 Each	U.S.	1964	Poor
6.	Johnson 28	1 Each	Local	1964	Poor
7.	Johnson 33	1 Each	U.S.	1964	Good
8.	Johnson 33	9 Each	U.S.	1966	Good
9.	Johnson 33	8 Each	U.S.	1968	Good
10.	Evinrude 40	1 Each	Local	1966	Good
11.	Sea King 5	<u>1 Each</u>	Local	1969	Poor
	Total	30			

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

GENERAL ADMINISTRATION No.3

December 18, 1968

To : PSCRL Staff

From : The Director

Subject : SALARY COMPENSATION PLAN AND
TRANSPORT POLICIES FOR LOCALLY
ENGAGED STAFF

The American Embassy, USAID, USIS and other U.S. Government Agencies in Pakistan recently revised their compensation plan for locally engaged staff in Pakistan. The revised plan was based on a recently completed survey of prevailing salary rates and fringe benefits offered by outside organisations for comparable positions. The U.S. Government Agencies have continued to include cash adjustments for the following benefits in their revised compensation plan which other employers in Pakistan generally do pay separately or offer as a fringe benefit:

Transportation
Medical
Housing
Bonus

As was the case in 1966 when the Laboratory last revised its compensation plan based on the revised pay schedule of U.S. Government Agencies at that time, the Laboratory has followed the guidelines utilized by the U.S. Government Agencies in revising their pay schedule this year within the budgetary limitations and operational restrictions imposed on this Laboratory. Therefore, the following percentage increases to the present salary schedule have been made effective November 1, 1968:

Grades A to C	approx 25%
Grades D to F	" 20%
Grades G to I	" 15%
Grades J to O	" 10%

As noted above in the revised compensation plan for locally engaged staff of U.S. Government Agencies, cash adjustments have been incorporated in the new salary schedule (copy attached) of the Laboratory for the following benefits - TRANSPORTATION, MEDICAL, HOUSING and BONUS.

Pay adjustments will be effected by individual notification. An employee will have this pay rate adjusted to the same step in the revised plan as the step he is currently holding in his grade. A pay adjustment under this revised plan will not affect the waiting period for "annual increment" unless it coincides with a personnel action, e.g., promotion or re-classification.

In line with the cash adjustment made in the salary schedule for transportation, and to bring about operational economies in the Laboratory's transport fleet, effective January 1, 1969, the privilege of regular pickup and drop for locally engaged staff will be discontinued. Unofficial use of PSCRL transport will also be discontinued effective January 1, 1969, for locally engaged staff.

However, PSCRL will provide pickup and drop for the following categories of locally engaged staff: (1) females, (2) consultants and (3) basic personnel. The last category includes

1. Physician-in-Charge
2. Chief Resident Physician
3. Guest Investigators
4. Head, Supply Management Branch
5. Administrative Officer
6. Ward Physician on evening duty

PSCRL transport will continue for staff of all categories for pickup and drop between 2000 and 0600 hours. Mirpur will be regarded outside PSCRL transport routes and as such staff including females residing in that area will be excluded effective that date. The attached list of various points in Dacca will be the limits beyond which PSCRL vehicles will normally not be allowed to operate; therefore, staff of the above 3 afforded categories residing beyond the PSCRL Transport limits will not be entitled to Laboratory pickup and drop.

This circular supersedes all prior applicable Circulars and Memoranda on salaries and transport policies for locally engaged staff.

LIMITATION OF PSCL TRANSPORT ROUTES
EFFECTIVE JANUARY 1, 1969.

Banani	- North End
Gulshan	- North End
Tejgaon Industrial Area	- Film Development Corporation
Magh Bazar	- Railway Tracks
Mali Bagh	- Railway Tracks
Kamalapur	- Railway Station
Motijheel	- Glaxo Building
Ram Krishna Mission Road	- 3rd. Lane
Hatkhola	- Hardeo Glass Factory - East End
Dayaganj	- 1st Railway Over Bridge
Sutrapur	- Police Station
Sadarghat	- IWTA Terminal
Lalbagh Fort	- West End
Shaik Shaheb Bazar Lane	- East End
Sher-E-Bangla Road	-
Rayer Bazar PSCL Clinic	
Mohamadpur	- College Road
Ayub Nagar	
Cantonment Supply Department	

SCHEDULE OF
GRADES SHOWING MONTHLY PAY AND ANNUAL INCREMENTS
FOR PERSONNEL OF THE
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Grade	1	2	3	4	5	6	7	8	9	10	Increment Amount
A	3216	3372	3528	3684	3840	3996	4152	4308	4464	4620	156
B	2466	2616	2766	2916	3066	3216	3366	3516	3666	3816	150
C	2066	2166	2266	2366	2466	2566	2666	2766	2866	2966	100
D	1696	1768	1840	1912	1984	2056	2128	2200	2272	2344	72
E	1456	1516	1576	1636	1696	1756	1816	1876	1936	1996	60
F	1216	1276	1336	1396	1456	1516	1576	1636	1696	1756	60
G	982	1028	1074	1120	1166	1212	1258	1304	1350	1396	46
H	752	798	844	890	936	982	1028	1074	1120	1166	46
I	621	658	695	732	769	806	843	880	917	954	37
J	493	522	551	580	609	638	667	696	725	754	29
K	396	420	444	468	492	516	540	564	588	612	24
L	270	288	306	324	342	360	378	396	414	432	18
M	204	217	230	243	256	269	282	295	308	321	13
N	165	175	185	195	205	215	225	235	245	255	10
O	121	130	139	148	157	166	175	184	193	202	9

Effective November 1, 1968

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

GENERAL ADMINISTRATION No.4

March 6, 1969

To : PSCRL Staff
From : Executive Officer
Subject : WORK DURING HARTAL

During the periods Hartals are in effect staff within 2 miles radius of the Laboratory (e.g. Farm Gate) and critical personnel beyond 2 miles radius will come to work. Transport will be provided as a special case for critical personnel beyond 2 miles radius.

Staff outside the above categories will be allowed Administrative leave during Hartal and will not be charged against their leave. Hartal day attendance by staff within 2 miles radius and by critical personnel will be regarded as a normal work day and therefore overtime or compensatory leave in lieu of work will not be allowed.

Section Chiefs will determine the need of their sections and decide which staff should be defined as critical in terms of the above.

The above policy is effective immediately.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

GENERAL ADMINISTRATION No.5*

August 13, 1969

To : PSCRL Staff

From : Director

Subject : POLICY AND CLEARANCE PROCEDURES FOR
PAPERS TO BE PRESENTED AT CONFERENCES,
FOR MANUSCRIPTS PRIOR TO PUBLICATION,
FOR LECTURES AND FOR ABSTRACTS

Written approval must be given by the Director, or the Acting Director in his absence, for papers written by PSCRL staff for presentation at all conferences, congresses, etc. Approval must be given for manuscripts prior to submission to journals, and for lectures to be given outside the PSCRL.

Manuscripts, lectures, abstracts, etc., will be forwarded to the editor, convenor, etc., over signature of the Director or Dr. K. Hare. During absences of both the Director and Dr. K. Hare, submissions will be delayed until return.

Clearance Procedure for Manuscripts

The principal author wishing to submit a manuscript either for publication and/or presentation at a meeting must route a copy of the manuscript in the "Manuscript Routing Envelope" (envelope must be filled out properly) to his Division Head. The Head will review it and either send it back for revision or submit to the Director (original and two copies) for final approval. The Director's office will maintain and operate a system for mailing, follow-up, etc.

* Supersedes February 28, 1968 and May 30, 1969 memos on same subject, and May 22, 1968 memo, subject "Publications from this Laboratory."

The credit line for the title page of all manuscripts from this Laboratory will be:

"The Pakistan-SEATO Cholera Research Laboratory is a part of the SEATO Cholera Research Program and is supported by the U.S. Agency for International Development, Department of State; the National Institutes of Health and the National Communicable Disease Center of the Department of Health, Education and Welfare; and by the Governments of Pakistan, United Kingdom and other SEATO nations. The NIH Cholera Advisory Committee coordinates the research program."

"These studies were supported in part by Research Agreement No. 196802 between the National Institutes of Health, Bethesda, Maryland, U.S.A. and the Pakistan-SEATO Cholera Research Laboratory, Dacca, East Pakistan."

Subject to the availability of travel funds for this purpose, PSCRL staff may be given approval to present a paper at a conference (meeting) on the following conditions: (1) paper is approved by the Director (2) paper has been accepted for presentation and (3) individual presenting paper is principal author. Secondary author(s) will not be eligible. (See Circular Policy on PSCRL Funded Meeting Travel August 13, 1969 for complete policy).

Clearance Procedure for Lectures

Author will submit copy of proposed lecture, together with information as to where lecture will be given, date, etc., to his Division Head, who will review it and either send it back for revision or forward it to the Director for approval. If approved, copy of lecture will be kept in the central files in the Director's Office.

Clearance Procedure for Abstracts

Until a separate routing envelope is designed, the "Manuscript Routing Envelope" should be used. Author will forward abstract (filled out according to specific instructions which come with the blank abstract forms) to his Division Head who will in turn, after approving it, submit it (original and two copies) to the Director for approval.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

GENERAL ADMINISTRATION No.6

August 18, 1969

To : PSCRL Staff

From : Director

Subject : POLICY & PROCEDURE FOR SUBMITTING
PROPOSED PROTOCOL

SMB Form No.13 "Instructions for the Preparation of a Protocol of a Research Project" must be used by investigators for submission of proposed protocols. A copy of the completed protocol will be placed in a "Project R Routing Envelope" (all appropriate information must be provided on the routing envelope between the head of horizontal lines, otherwise it will not be accepted in the Director's office) and submitted to the Division Head who will review it and either send it back for revision or present it at the weekly research meeting for consideration. The Division Head will be responsible for distributing copies of the proposed protocol to members of the research group prior to meeting. If approved the Division Head will make certain the original copy of the protocol is filed in the Director's Office, and copies sent to the Administrative Division, Executive Officer and the Division Head.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

ORGANISATION AND FUNCTIONS No.7*

June 25, 1969

To : PSCRL Staff

From : The Director

Subject : REORGANIZATION OF THE PAKISTAN-SEATO
CHOLERA RESEARCH LABORATORY

For administrative purposes, the Laboratory is reorganized into four Divisions, two for the supportive services of maintenance and administration and two for research in epidemiology and pathophysiology, all headed by persons responsible to the Director through his Executive Officer. Each Division is divided, in turn, into branches or units according to the attached graph. In matters of science, the two research divisions are directly responsible to the Director.

The creation of four Divisions in place of nine Sections permits centralization of authority and reduces the administrative burden on those who should be making contributions to the research programs which are of first importance to the Laboratory. The Head of each Division has full responsibility for his personnel and will decide increments and disciplinary matters, and will write all job descriptions and letters of recommendation in accordance with PSCRL regulations. He will recommend all hirings, terminations and promotions which must have the concurrence of the other Division Heads, the Executive Officer and the Director before they become effective.

The Executive Officer will attend to the extramural affairs of the Laboratory and to planning ahead.

* Supersedes prior applicable circulars

A description of each Division follows:

The Pathophysiology Division

This Division will contain investigators, five branches, and one unit:

1. Hospital Branch will be headed by a Superintendent and will contain nursing and ward care, pharmacy, laundry, kitchen, intravenous fluid production and related activities.
2. The Physicians' Branch will be supervised by a Resident Physician and his Assistant Resident and will include all physicians on the ward, outpatient duty and a staff physician for all employees. The Resident Physician shall also be in charge of the X-ray services.
3. The Investigators will include the physicians assigned to Clinical Investigation by the NIH and the Guest Investigators, all of whom will be individually responsible to the Head of the Division.
4. Animal Resources Branch will have a Head.
5. The Library Branch will have a Head Librarian.
6. The Clinical Pathology Unit will be responsible to the Head of the Division through a selected advisor.
7. The Chemistry Branch will be in the charge of a Head.

The Epidemiology Division

This Division will contain six branches, and investigators:

1. Community Studies Branch will include personnel and activities relating to field studies in Dacca, Chittagong and other areas. This branch will be under the administrative supervision of a Branch Head.

Library,
Pakistan-SEATO Cholera Research Lab.
Mohakhali, Dacca-12

2. Matlab Hospital Branch will include personnel and activities providing medical and nursing services, and will be under the Physician-In-Charge.

3. Investigators will include P.H.S. officers assigned from C.D.C. and Research Associates in the Epidemiology Division who will be individually responsible to the Division Head.

4. Matlab Field Surveillance Branch will include all personnel and activities related to the vaccine trial, demographic, and other studies in the Matlab population, and will be in the charge of a Branch Head.

5. The Bacteriology Branch will be in the charge of a Head.

6. Immunology Branch will be in the charge of a Head.

7. Statistical Branch will include statistical activities and the Medical Records Library, and will be in the charge of a Branch Head.

The Maintenance Division

Until Maintenance moves into its new quarters it will not be subdivided.

The Administrative Division

The Administrative Division with five branches and a unit will be under the direct supervision of the Administrator and will be responsible for the overall administrative activities of the Laboratory:

1. Personnel Management Branch under the supervision of a Head introduces, implements and improves personnel policies, regulations and actions using GOP and USA personnel regulations as guidelines.

2. Finance Management Branch under the supervision of a Head prepares, controls and expends dollars, sterling and rupee budgets.

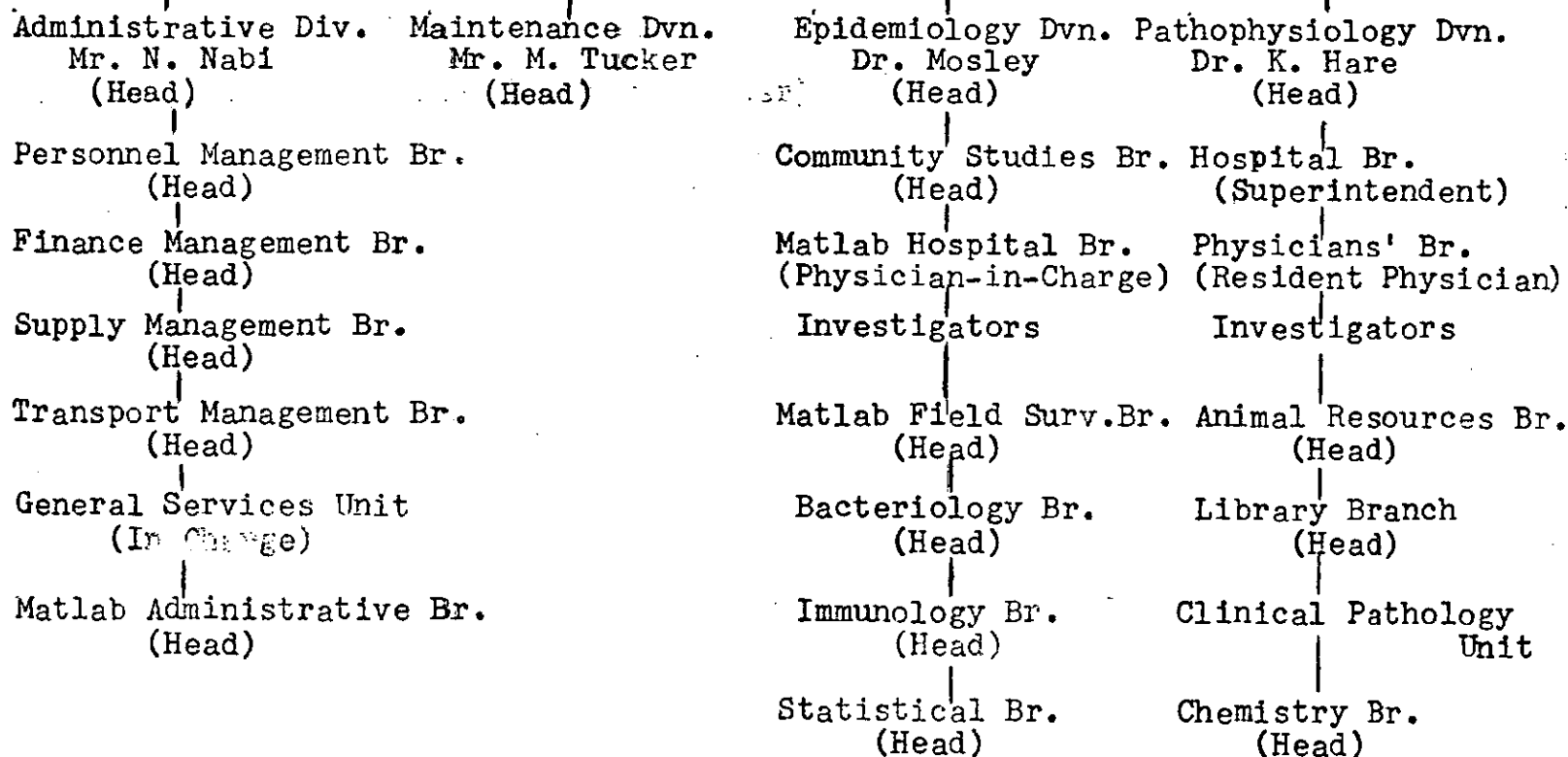
3. Supply Management Branch under the supervision of a Head plans and controls procurement, storage and supply.
4. Transport Management Branch under the supervision of a Head ensures the proper utilization of Laboratory vehicles for overall research, field and administrative activities.
5. General Services Unit under the supervision of an In-Charge provides security measures, ensures cleanliness of the buildings and premises. Provides reception, messenger, tailoring services, telephones, communications and duplicating services. Also maintains gardens.
6. Matlab Administrative Branch under the supervision of a Head provides overall administrative support including personnel, finance, supply, transport and general services in Matlab.

The Budget

The budget is for support of research. Each investigator will submit a protocol for each project he plans for the fiscal year beginning July 1, 1969. The protocol form is modified from that used in the extramural grants program of the National Institutes of Health and is intended to cover the full cost of the project. When reasonable estimates of personnel, equipment, supplies, travel, publications, etc., are summed a 30% allowance for overhead is to be added. This overhead will pay for the committee meetings, administration, maintenance and consultants. An investigator may submit as many protocols as he sees fit. Second and third protocols will be approved until either personnel or money or both are fully committed. Copies of the approved protocols will be in the hands of the Executive Officer and the Administrator so that no expenditure irrelevant to or in excess of the protocol will be allowed.

The present salary and tenure of service of staff members will not be affected by this reorganization. This reorganization will be effective July 1, 1969.

DIRECTOR
Executive Officer



PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

ORGANISATION & FUNCTIONS No.8

November 12, 1969

To : PSCRL Staff
From : Executive Officer
Subject : RENAMING OF DIVISION

Effective immediately the Pathophysiology Division will be known as Physiology Division.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

PERSONNEL MANAGEMENT No.16

AUGUST 9, 1968

To : All Section Chiefs

From : Patrick G. Talmon
Executive Officer

Subject : LETTERS OF RECOMMENDATIONS

Effective immediately all letters of recommendations written on behalf of PSCRL employees must have prior approval of the Director.

Drafts of recommendation letters must be channelled through Section Chiefs who must approve drafts before being forwarded to the Director's office through the Executive Officer.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

PERSONNEL MANAGEMENT No.17

May 8, 1969

To : PSCRL Staff
From : W. H. Mosley, M.D.
Acting Director
Subject : LEAVE

With immediate effect, the following is the amendment to the PSCRL Circular Personnel Management No.15 dated June 27, 1968:

"Compensatory Leave can be used with Annual Leave or vice versa on Section Chiefs recommendation."

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

PERSONNEL MANAGEMENT No.18

June 27, 1969

To : PSCRL Staff

From : The Director

Subject : ABOLITION OF THE TITLE " GUEST INVESTIGATOR"
AND RECLASSIFICATION OF THE POSITION

1. With the reorganization of the Laboratory, the title "Guest Investigator" will be abolished effective July 1, 1969. The title, instead, will be "Investigator" and there will be three categories, i.e. "Junior Investigator", "Investigator" and "Senior Investigator".

2. Personnel joining the Laboratory in these categories will be taken on as "Junior Investigator (Temporary)" on a purely temporary basis for three months. At the end of the first three months their performance will be reviewed with the objective of either (1) giving them a letter of regular appointment (with one year's probationary period before confirmation) as a Junior Investigator, or (2) extending their temporary appointment for a further period of three months as a Junior Investigator (Temporary), or (3) terminating their services. If their services are extended after the first three months for a further period of three months, then at the end of the second three months period their performance will again be reviewed to determine either (1) giving them a letter of regular appointment, or (2) terminating their services.

3. The salary structure will be:

Senior Investigator	- Grade A
Investigator	- Grade B
Junior Investigator	- Grade C

The above pay scales will hold true for both temporary and regular appointments.

4. A basic requirement for candidacy in any of the categories of "Investigator" will be a Ph.D. degree in one of the biological sciences.

JOB STANDARDS

Junior Investigator

PSCRL Grade 'C'

Qualification, Experience and Responsibilities

A Junior Investigator must have at least a Ph.D. degree in one of the biological sciences, and some working experience in the respective field of study.

Will work under the direct supervision of a Division Head or an assigned Senior Investigator. Should work for one year in this grade to be considered for the position of Investigator.

Investigator

PSCRL Grade 'B'

Qualification, Experience and Responsibilities

Candidate must have at least a Ph.D. degree in one of the biological sciences and must have shown proficiency in his field of study, or a Junior Investigator having one year in grade and having made meaningful contributions in his field of endeavour. Should be able to write up and initiate his own protocol. Should be able to work more or less independently with general guidance from his superiors.

Should be in this grade for one year to be considered for the position of Senior Investigator.

Senior Investigator

PSCRL Grade 'A'

Qualification, Experience and Responsibilities

Candidate must have at least a Ph.D. degree with original contributions and extensive experience in his respective field, or an Investigator with one year in grade having made significant and important contributions. Must be able to write his own protocol and project, and be able to initiate and conduct studies independently with occasional consultations.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

PERSONNEL MANAGEMENT No.19

July 31, 1969

To : PSCRL Staff

From : The Director

Subject : PROMOTIONS ON RETURN FROM TRAINING

In the past some PSCRL employees who returned from foreign training were given promotions immediately upon their return.

PSCRL policy will be that employees who are either sent abroad or within Pakistan for specialized training will not be eligible for promotion while in training status. On completion of training, employees will return to the position they occupied before leaving for training. In certain cases the Director may place a returning trainee in a different job category with no change in grade; this type of action will not constitute a promotion.

It is assumed that employees sent on training will return with an expanded potential for assuming higher responsibilities and duties. After a reasonable period of time following their return their supervisor will ascertain the extent to which their training has improved their performances, and at the appropriate time will consider them for promotion.

Furthermore, positions will not be kept open for employees resigning from the Laboratory to pursue training on their own. However, every consideration will be given to them for their new employment at this Laboratory.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

PERSONNEL MANAGEMENT No.20

August 25, 1969

To : PSCRL Staff

From : Director

Subject : LEAVE

The following regulation on Leave will be in force for any regular appointment effective September 1, 1969. The annual and sick leave entitlements enjoyed by the present employees will remain unchanged.

Annual Leave

1. An employee serving for three years or less will earn annual leave at the rate of one working day (8 hours) per calendar month.
2. An employee serving for more than three years will earn annual leave at the rate of one and a half working day (12 hours) per calendar month.
3. At the close of a calendar year a maximum of thirty days (240 hours) will be allowed to be carried over to the next year and any amount beyond this will automatically lapse.
4. Annual leave will be scheduled and allowed by Division Head or his designated authority based on the need of the Laboratory.
5. At the time of separation an employee will be paid for the accumulated annual leave to a maximum of thirty days (240 hours).

Sick Leave

1. A regular employee will accrue one day (8 hours) of sick leave per calendar month regardless of his length of service. Sick leave is allowed to be carried over from one calendar year to the next without any limit. Absence for sickness for more than three days will have to be supported by a certificate from a physician stating the period of sickness and rest recommended. At the time of separation an employee will receive no pay in lieu of accumulated sick leave.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

PERSONNEL MANAGEMENT No.21

September 2, 1969

To : PSCRL Staff

From : Executive Officer

Subject : ATTENDANCE, LEAVE AND OVERTIME

The following procedures on Attendance, Leave and Overtime will be in force with immediate effect:

1. Daily Attendance Sheet will be signed only by those below grade level 'L' and day-to-day workers. No monthly statements of Daily Attendance will be submitted to Personnel Management Branch or Finance Management Branch, except for day-to-day workers.
2. Supervisors (personnel responsible for a Branch or Unit) will inform in writing to Personnel Management Branch of absences only. Personnel Management Branch will inform Finance Management Branch of cases of leave without pay.
3. Annual leave will not be granted for less than one day (8 hours).
4. There will be no overtime payment except for certain critical positions for which Division Heads will submit the list of positions to the Executive Officer for prior approval. The overtime form must be authorized in advance by the Division Head or by the Supervisor. Compensatory leave will be determined and given by the Supervisors on a restrictive basis. Compensatory leave will be scheduled and given by the Supervisors promptly and will neither involve the Administrative Division nor the Division Heads concerned.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

PSCRL CIRCULAR

PERSONNEL MANAGEMENT No.22

September 4, 1969.

To : PSCRL Staff

From, : Executive Officer

Subject : DISCONTINUATION OF CHARGE ALLOWANCE

With immediate effect the Charge Allowance entitlements for holding additional responsibilities in accordance with PSCRL Circular Personnel Management No.2 shall be discontinued.

MAINTENANCE REPORT

Last year it was anticipated that the new Maintenance & Supply building would be completed by the first of January 1969 and was occupied six months later, in July 1969. The building was designed with beams and columns so that no wall is weight bearing and the foundation is adequate to support two additional floors. The service cable for electricity is of sufficient size to supply the three stories.

The present floor space of 8,000 square feet is divided into an area for storage of supplies and another for shopwork. Supply Management Branch occupies 1,600 square feet for shelf storage of small items and 1,200 square feet for bulk storage.

The remaining 5,200 square feet is occupied by the Maintenance Division, which includes an office, a locker room, a storage room for tools and spare parts and shops for carpentry, plumbing, electronics and sheet metal work and service areas for automobiles and for refrigeration units.

The approaches to the front and rear of the building are carpeted with brick and bitumen to provide an unloading area for trucks, space for grease and wash racks, for parking vehicles that are out of service and for storing the mobile generators and the van trailer.

The substation for electric power is complete and all equipment, except the 70KVA standby generator, has been installed. Two outdoor 1,250 KVA transformers are in place with provision for a third one in the future. The 11,000 volt overhead line is completed and energized. The cables for distributing 440 volt, three phase power to the PSCRL wing, the animal house, the garage and the new building are all laid. The final connections in the substation have not been made but when this final step is taken the power available will be increased from 700 KVA to 2,500 KVA. When the new 250 KVA standby generator is put into operation the 70 KVA unit will be moved from its present housing into the new substation.

Teakwood furniture of high quality has been fabricated here at PSCRL and where required, fitted with laminated plastic tops. Most of the laboratories, offices and the library have been refurnished.

The animal house has been completely renovated. The electric wiring has been replaced and extended to provide power for apparatus, ovens, autoclaves, laundry equipment and air conditioning. A locker room, dog runs, a sheep fold and a cage washing area with a steam generator have been constructed. The building has been painted inside and out.

A new laundry shed, adjacent to the present laundry, has been constructed to receive the commercial size washer, extractor and dryer.

Surplus electrical components purchased in Japan and new components purchased in U.S.A. will be used in rewiring the PSCRL wing of the Institute of Public Health.

FINANCIAL REPORT
FY69

(July 1, 1968 - June 30, 1969)

1. PSCRL OPERATING FUND

During FY69 a total of Rs.857,281.38 was available of which Rs.834,126.79 was expended leaving a balance of Rs.23,154.59 (Appendix I). This fund included an additional Rs.44,000 provided by the Government of East Pakistan for cholera patient-care expenses at PSCRL although the 7th Meeting of the Directing Council had recommended a 10% increase over the FY68 allocation of Rs.50,000 i.e., Rs.55,000 for FY69. 51% of this fund represented the unrestricted portion contributed by the GOEP and 49% represented the restricted portion contributed by the US Government. Therefore, out of the balance of Rs.23,154.59, Rs.11,345.95 representing the US Government balance will be carried over to the Operating Fund for FY70, and Rs.11,808.64 representing the GOEP balance was transferred to the Capital Reserve Fund for FY70. Total expenditures during FY69 exceeded the previous year's expenditures of Rs.663,782.57 by 26%.

2. NIH RESEARCH AGREEMENT

Rupee

During FY69 Amendment No.6 of NIH/CRL Research Agreement No.196802 made available Rs.4,266,000. With the previous year's carry-over and earned bank interest total funds available for obligation during the year were Rs.4,640,921.67 out of which Rs.4,404,258.98 was expended, leaving a balance of Rs.236,662.69 (Appendix IIA). Total expenditures during FY69 exceeded the previous year's expenditures of Rs.3,424,027.52 by 29%. The balance of Rs.236,662.69 will be carried over to FY70.

Dollar

According to paragraph 1, Section IV of Research Agreement No.196802, Amendment No.6, NIH released \$105,200 to the Bank of Bethesda account maintained and operated by PSCRL. With the previous year's carry-over of \$34,555.32 total funds available during FY69 were \$139,755.32 out of which \$82,763.11 was expended (Appendix IIB). The balance of \$56,992.21 will be carried over to FY70. Total expenditure during FY69 exceeded the previous year's expenditures of \$72,300.17 by 14%.

3. CAPITAL RESERVE FUND

The status of the Capital Reserve Fund for FY69 is shown in Appendix III. The unrestricted portion of the unspent balance from the PSCRL Operating Fund for FY68 amounting to Rs.78,711.52 was transferred, as well as Rs.1,651.35 earned bank interest during FY69. A sum of Rs.54,849 received from the Chittagong Port Health Authority in 1967 for services rendered to pilgrims to Mecca was also available for use in FY69. Total amount available for obligation was Rs.288,880.72 out of which Rs.200,000.00 was expended for construction of a one-storey building to house maintenance workshops and storage of supplies. The balance of Rs.88,880.72 was carried over to FY70.

4. U.K/CRL FUND

During the U.K. Fiscal Year (April 1, 1968 - March 31, 1969) the Ministry of Overseas Development made available £12,500, out of which £5000 was retained by the Ministry of Overseas Development (ODM) for the support of U.K. deputed personnel at PSCRL and PSCRL personnel on training in U.K. £7,500 was transferred to the Crown Agents out of which £7221-19-9 was expended for purchase of supplies and equipment. Towards the end of the U.K. fiscal year the laboratory was notified that an additional £1500 from the ODM retained portion of £5000 would be available for use through the Crown Agents. However, due to delays in the Crown Agents processing of indents, which

would have utilized the remaining money, this amount and the difference between the original portion transferred to the Crown Agents £7,500 and £7221-19-9 expended, £278-0-3, lapsed.

Following is the breakdown of support received by the PSCRL from the Government of United Kingdom during FY69:

1. Personal Services ...	£ 5,000-0-0	1/
2. Travel & Transportation of Persons ...	-	
3. Transportation of Things	1,102-6-3	
4. Rent, Communication & Utilities ...	936-12-9	
5. Printing & Reproduction	-	
6. Other Contractual Services	451-11-0	
7. Supplies & Materials...	4,041-9-8	
8. Equipment ...	<u>222-17-4</u>	
	£11,754-17-0	2/

1/ Breakdown of expenditure of £5000 by the Ministry of Overseas Development for PSCRL is not available.

2/ £467-2-9 expended for purchase of supplies and equipment during FY68 and payment made from FY69 fund has not been accounted.

5. SEATO-AID-NIH CHOLERA FUND

The PSCRL utilized \$399,533.49 out of the SEATO-AID-NIH Cholera Fund in FY69, which is controlled by the Chairman of the NIH Cholera Advisory Committee, compared to \$392,953 in FY68, an increase of approximately 2%. \$105,200 was transferred to the Bank of Bethesda account from this fund.

A breakdown of expenditures provided by the NIH is given below:

1. Personal Services	...	\$ 26,669.36	
2. Travel & Transportation of Persons	...	13,562.79	
3. Transportation of Things..		47,983.74	
4. Rent, Communication & Utilities	...	-	
5. Printing & Reproduction...		-	
6. Other Contractual Services		110,550.65	1/
7. Supplies & Materials	...	144,744.09	
8. Equipment	...	<u>56,022.86</u>	
		\$399,533.49	

1/ Includes \$105,200 transferred to the Bank of Bethesda account.

6. USAID TRUST FUND

The estimated logistic support received by the PSCRL from the USAID Trust Fund in terms of paragraph G.3 of the Revised Agreement between GOP, and USAID dated December 30, 1961, amounted to Rs.611,387. This covered expenses supporting American Personnel assigned to PSCRL, the cost of fuel for PSCRL vehicles and boats, and for their maintenance.

The following is a breakdown of support received by the PSCRL :

1. Personal Services	...	Rs.	-
2. Travel & Transportation of Persons	...	124,321.39	1/
3. Transportation of Things..		-	
4. Rent, Communication & Utilities	...	271,294.00	
5. Printing & Reproduction...		-	
6. Other Contractual Services		31,495.75	
7. Supplies & Materials	...	184,276.36	
8. Equipment	...	-	
		Rs.611,387.50	

1/ Assignment, termination, home leave
R&R, medical evacuation.

7. OTHER SUPPORT

a. US Government

The total commitments by the National Institutes of Health (NIAID) and the National Communicable Diseases Center in support of Personnel assigned to PSCRL was \$137,495 for FY69.

b. Government of Pakistan

This covered support received by PSCRL in terms of accommodation (space for the Laboratories and hospitals) electricity, water supply, telephone bills and other incidental costs provided by the GOEP as stated in Paragraph G.1 of the Revised Agreement between the GOEP and USAID dated December 30, 1961. Estimated total support by the GOEP amounted to Rs.500,000.

c. Government of Australia

The total commitment of the Government of Australia during FY69 was \$A 5,133.47.

8. FY70 PROVISIONS

Appendix IV provides a current account of expenses for the Operating Fund and NIH Research Agreement (Rupee) Fund. Appendix V shows the current account of expenditures for the Bank of Bethesda account and the SEATO-AID-NIH Cholera Fund, respectively administered by the Director, PSCRL, and the Chairman, NIH Cholera Advisory Committee.

Appendix VI provides the current account of expenses for the U.K. contribution.

9. SUMMARY

Appendix VII indicates the total support available in FY69 to the PSCRL by source with total expenditure and carry-over in currency of the respective contributing nations.

Appendix VIII shows the total support available in FY69 to the PSCRL by source with total expenditure for each source and with all funds converted to Pakistan currency. Appendix VIII also shows the total support by the contributing nations broken down by percentage.

PSCRL OPERATING FUND

Appendix 1

STATEMENT OF EXPENDITURE FOR FISCAL YEAR 1969

(JULY 1, 1968 TO JUNE 30, 1969)

<u>INCOME</u>		<u>EXPENDITURE</u>	
	Rs.		Rs.
Opening balance for Fiscal Year 1968-69 after transfer of GOEP portion of unutilized balance of Fiscal Year 1967-68. . . .	29,883.42	1. Personal Services. . .	616,256.85
Contribution by GOEP for Fiscal Year 1968-69 (includes Rs. 44,000.00 for patient care). . . .	429,000.00	2. Travel & Transporta- tion of Persons. . . .	22,843.61
Contribution by US Government PL 480 (Sec. 104K) for Fiscal Year 1968-69	385,000.00	3. Transportation of Things.	5,270.98
Interest earned on fixed deposit.	13,397.96	4. Rent, Communication & Utilities	18,064.46
		5. Printing & Reproduction	4,850.30
		6. Other Contractual Services	27,168.48
		7. Supplies & Materials .	129,751.61
		8. Equipment.	9,920.50
	<u>857,281.38</u>		<u>834,126.79</u>

<u>FINAL ACCOUNT</u>	
	Rs.
Total Income.	857,281.38
Minus total expenditure	<u>834,126.79</u>
Balance	23,154.59

	Rs.
U.S. Govt. share of unutilized balance. 49%	11,345.95
GOEP share (Un-restricted portion) 51%	11,808.64

NIH RESEARCH AGREEMENT (RUPEE)
STATEMENT OF EXPENDITURE FOR FISCAL YEAR 1969
(JULY 1, 1968 TO JUNE 30, 1969)

<u>INCOME</u>		<u>EXPENDITURE</u>	
	Rs.		Rs.
Opening balance for Fiscal Year 1968-69.	290,207.70	1. Personal Services.	2,679,508.82
Contribution by NIH for Fiscal Year 1968-69.	4,266,000.00	2. Travel & Transporta- tion of Persons.	794,775.39
Interest earned on fixed deposit.	34,713.97	3. Transportation of Things	41,501.02
		4. Rent, Communication & Utilities.	58,533.22
		5. Printing & Reproduction.	7,787.40
		6. Other Contractual Services	162,360.62
		7. Supplies & Materials . .	451,826.85
		8. Equipment.	207,460.65
	<u>4,640,921.67</u>		<u>4,404,258.93</u>

<u>FINAL ACCOUNT</u>		Rs.
Total Income.	1	4,640,921.67
Minus total expenditure		<u>4,404,258.93</u>
Total uncommitted balance available for carry-over to Fiscal Year 1970.		236,662.69

DOLLAR PORTION
ACCOUNT WITH BANK OF BETHESDA
OPERATED BY PSCRL

<u>INCOME</u>	\$	<u>EXPENDITURE</u>	\$
Opening balance as of July 1, 1968 (Carry-over of Fiscal Year 1968 unspent balance)	34,555.32	1. Personal Services.	69,336.41
NIH Contribution for Fiscal Year 1968-69	105,200.00	2. Travel & Transportation of Persons	8,160.82
		3. Transportation of Things	45.35
		4. Rent, Communication & Utilities.	691.34
		5. Printing & Reproduction.	
		6. Other Contractual Services	2,415.59
		7. Supplies & Materials	1,732.65
		8. Equipment.	380.95
	<u>139,755.32</u>		<u>82,763.11</u>

FINAL ACCOUNT

Total Income.	139,755.32
Minus total expenditure for fiscal year 1969.	<u>82,763.11</u>
Uncommitted balance available to carry-over to Fiscal Year 1970.	56,992.21

STATEMENT OF EXPENDITURE FOR FISCAL YEAR 69

Appendix III

CAPITAL RESERVE FUND

JULY 1, 1968 TO JUNE 30, 1969

INCOME

	Rs.
1. Opening balance.	152,778.85
2. Uncommitted balance of GOEP share of CRL Operating Fund for Fiscal Year 68	78,711.52
3. Allocation of receipts from Chittagong Port Health Authority.	55,739.00
4. Interest earned on bank deposits during Fiscal Year 69	1,651.35
	<u>288,880.72</u>

EXPENDITURE

	Rs.
1. Construction of Godown.	200,000.00
	<u>200,000.00</u>

FUND STATUS AS OF JULY 1, 1969

	Rs.
Funds available.	288,880.72
Minus Expenditure	<u>200,000.00</u>
Unobligated balance	88,880.72

STATEMENT OF BUDGET PROVISIONS AND OBLIGATIONS FOR
THE PERIOD FROM JULY 1, 1969 THROUGH OCTOBER 31, 1969.

RUPEE FUNDS

<u>HEADS OF ACCOUNTS</u>	<u>C R L O P E R A T I N G F U N D</u>					<u>N I H R E S E A R C H A G R E E M E N T (RUPEE)</u>				
	Budget Provision for FY 1969-70	Proportion- ate Provi- sion thru October 31, 1969	Obligations thru October 31, 1969	Savings or excess as per proportionate Provision for 4 months	Balance left over for remaining of FY 70	Budget Provision for FY 1969-70	Proportion- ate Provi- sion thru October 31, 1969	Obligations thru October 31, 1969	Savings or excess as per proportionate Provision for 4 months	Balance left over for remaining of FY 70
<u>PERSONAL SERVICES</u>	620400	206800	221945	- 15145	398455	3144500	1048164	904731	143433	2239769
<u>TRAVEL & TRANSPORTATION OF PERSONS</u>	24200	9068	6854	1214	17346	600000	200000	194495	5505	405505
<u>TRANSPORTATION OF THINGS</u>	17600	5868	4737	1131	12863	75400	25132	44441	- 19309	30959
<u>RENT, COMMUNICATION & UTILITIES</u>	21000	7000	2829	4171	18171	53600	17868	11011	6857	42589
<u>PRINTING & REPRODUCTION</u>	12000	4000	3103	897	8897	18000	6000	3610	2390	14390
<u>OTHER CONTRACTUAL SERVICES</u>	48400	16132	4660	11472	43740	350000	116668	163635	- 46967	186365
<u>SUPPLIES & MATERIALS</u>	145200	48400	35979	12421	109221	348200	116068	134939	- 18871	213261
<u>EQUIPMENT</u>	18700	6232	-	6232	18700	102300	34100	2564	31536	99736
<u>TOTALS</u>	<u>907500</u>	<u>302500</u>	<u>280107</u>	<u>22393</u>	<u>627393</u>	<u>4692000</u>	<u>1564000</u>	<u>1459426</u>	<u>104574</u>	<u>3232574</u>

STATEMENT OF BUDGET PROVISIONS AND OBLIGATIONS FOR THE
PERIOD FROM JULY 1, 1969 THROUGH OCTOBER 31, 1969.

SEATO AID NIH CHOLERA FUND & BANK OF BETHESDA ACCOUNT

HEADS OF ACCOUNTS	SEATO AID NIH DOLLAR FUND					BANK OF BETHESDA ACCOUNT				
	Budget Provision for FY 1969-70	Proportionate Provision thru September 30, 1969	Obligations thru September 30, 1969	Savings or excess as per proportionate Provision for 3 months	Balance left over for remaining of FY 70	Budget Provision for FY 1969-70	Proportionate Provision thru October 31, 1969	Obligations thru October 31, 1969	Savings or excess as per proportionate Provision for 4 months	Balance left over for remaining of FY 70
PERSONAL SERVICES	16637	4159	6588	- 2429	10049	79300	26433	33686	- 7253	45614
TRAVEL & TRANSPORTATION OF PERSONS	18400	4600	3355	1245	15045	6700	2233	407	1826	6293
TRANSPORTATION OF THINGS	75600	18900	4500	14400	71100	3500	1167	547	620	2953
RENT, COMMUNICATION & UTILITIES	-	-	-	-	-	900	300	131	169	769
PRINTING & REPRODUCTION	1000	250	160	90	840	-	-	-	-	-
OTHER CONTRACTUAL SERVICES	140500	35125	116934	- 81809	23566	12200	4067	83	3984	12117
SUPPLIES & MATERIALS	132000	33000	61178	- 28178	70822	8000	2667	23	2644	7977
EQUIPMENT	91000	22750	27478	- 4728	63522	4800	1600	-	1600	4800
TOTALS	<u>475137</u>	<u>113784</u>	<u>220193</u>	<u>- 101409</u>	<u>254944</u>	<u>115400</u>	<u>38467</u>	<u>34877</u>	<u>3390</u>	<u>80523</u>

STATEMENT OF BUDGET PROVISIONS AND OBLIGATIONS FOR
THE PERIOD FROM APRIL 1, 1969 TO SEPTEMBER 30, 1969.

UK/CRL FUND

<u>HEADS OF ACCOUNTS</u>	Budget Provision for FY 1969-70	Proportion- ate Provi- sion from April thru September 1969.	Obligations thru September 1969	Savings or excess as per proportionate Provision	Balance left over for remaining period of FY 70
<u>PERSONAL SERVICES</u> ^Y	4750	2375	838 ^{1/}	1487	3862
<u>TRAVEL & TRANSPORTATION OF PERSONS</u>	250	125	36	89	214
<u>TRANSPORTATION OF THINGS</u>	750	375	52	323	698
<u>RENT, COMMUNICATION & UTILITIES</u>	-	-	-	-	-
<u>PRINTING & REPRODUCTION</u>	-	-	-	-	-
<u>OTHER CONTRACTUAL SERVICES</u>	750	375	1139	- 764	- 389
<u>SUPPLIES & MATERIALS</u>	3500	1750	3977	-2227	- 477
<u>EQUIPMENT</u>	2500	1250	30	1220	2470
<u>TOTALS</u>	<u>12500</u>	<u>6250</u>	<u>6122</u>	<u>- 128</u>	<u>6378</u>

^{1/} Amount for Personal Services does not
include September expenditure.

STATEMENT OF EXPENDITURE FOR FISCAL YEAR 1968-69

(July 1, 1968 to June 30, 1969)

Appendix VII

HEADS OF ACCOUNTS	RUPEE FUND			DOLLAR FUND		STERLING FUND	OTHER SUPPORT			
	CRL Operating Fund	NIH Research Agreement Rupee Fund	CRL Capital Reserve Fund	Bank of Bethesda Account	NIH/SEATO Fund	UK/CRL Fund	US/AID Logistic Support	NIH-US Technician Fund	GOEP	Govt. of Australia
	Rs.	Rs.	Rs.	\$	\$	£	Rs.	\$	Rs.	\$A
<u>TOTAL FUND AVAILABLE</u>	<u>357281</u>	<u>4640921</u>	<u>288880</u>	<u>139755</u>	<u>449017</u>	<u>12500</u>	-	-	-	-
<u>EXPENDITURE</u>										
<u>PERSONAL SERVICES</u>	616257	2679509	-	69336	26669	5000	-	137495	-	-
<u>TRAVEL & TRANSPORTATION OF PERSONS</u>	22844	794775	-	8161	13563	-	124321	-	-	-
<u>TRANSPORTATION OF THINGS</u>	5271	41501	-	45	47984	1102	-	-	-	-
<u>RENT, COMMUNICATION & UTILITIES</u>	18064	50538	-	691	-	937	271294	-	-	-
<u>PRINTING & REPRODUCTION</u>	4850	7787	-	-	-	-	-	-	-	-
<u>OTHER CONTRACTUAL SERVICES</u>	27168	162861	200000	2416	110551	452	31496	-	500000	-
<u>SUPPLIES & MATERIALS</u>	129752	451827	-	1733	144744	4041	184276	-	-	-
<u>EQUIPMENT</u>	9921	207461	-	381	56023	222	-	-	-	5133
<u>TOTAL EXPENDITURE</u>	<u>334127</u>	<u>4404259</u>	<u>200000</u>	<u>82763</u>	<u>399534</u> ^{2/}	<u>11754</u>	<u>611387</u> ^{3/}	<u>137495</u> ^{4/}	<u>500000</u> ^{5/}	<u>5133</u>
<u>BALANCE</u>	<u>23154</u> ^{1/}	<u>236662</u>	<u>88880</u>	<u>56992</u>	<u>49483</u>	-	-	-	-	-
<u>GRAND TOTAL</u>	<u>357281</u>	<u>4640921</u>	<u>288880</u>	<u>139755</u>	<u>449017</u>	-	-	-	-	-

- 1/ GOEP Share of Rs.11,808.64 was transferred to the Capital Reserve Fund.
- 2/ Fund controlled by NIH and includes \$105,200 transferred to Bank of Bethesda Account.
- 3/ Estimated logistic support received by the PSCRL from US/AID/P.

- 4/ Total support for US Govt. Personnel assigned to the PSCRL.
- 5/ Estimated logistic support received by the PSCRL from the GOEP.

STATEMENT OF EXPENDITURE FOR FISCAL YEAR 1968-69

(July 1, 1968 to June 30, 1969)

ALL FUNDS IN PAKISTAN CURRENCY

HEADS OF ACCOUNTS	RUPEE FUND			DOLLAR FUND		STERLING FUND	OTHER SUPPORT				Grand Total
	CRL Operating Fund	NIH Research Agreement Rupee Fund	CRL Capital Reserve Fund	Bank of Bethesda Account	SEATO/AID-NIH Fund	UK/CRL Fund	US/AID Logistic Support	NIH-US Technician Fund	GOEP Support	Govt. of Australia	
<u>TOTAL FUND AVAILABLE</u>	857281	4640921	288880	670824	2155282	142500	-	-	-	-	-
<u>EXPENDITURE</u>											
<u>PERSONAL SERVICES</u>	616257	2679509	-	332813	128011	56920	-	659976	-	-	4473486
<u>TRAVEL & TRANSPORTATION OF PERSONS</u>	22844	794775	-	39173	65102	-	124321	-	-	-	1046215
<u>TRANSPORTATION OF THINGS</u>	5271	41501	-	216	230323	12563	-	-	-	-	289874
<u>RENT, COMMUNICATION & UTILITIES</u>	18064	53538	-	3317	-	10682	271294	-	-	-	361895
<u>PRINTING & REPRODUCTION</u>	4850	7787	-	-	-	-	-	-	-	-	12637
<u>OTHER CONTRACTUAL SERVICES</u>	27163	162861	200000	11597	25685 1/	2170	31496	-	500000	-	960977
<u>SUPPLIES & MATERIALS</u>	129752	451827	-	8318	694771	46067	184276	-	-	-	1515011
<u>EQUIPMENT</u>	9921	207461	-	1829	268910	2531	-	-	-	22074	512726
<u>TOTALS</u>	834127	4404259	200000	397263	1412802	130933	611387	659976	500000	22074	9172821

1/ US \$ 105,200 equivalent to Rs. 504,960 transferred to Bank of Bethesda account has not been included.

Exchange rate used US \$ 1.00 = Rs. 4.80, UK £ 1.00 = Rs. 11.43 & A\$ 1.00 = Rs. 4.30

BREAKDOWN OF SUPPORT BY CONTRIBUTING NATIONS BY PERCENTAGE

Expenditure from U.S. Govt. Support		Rs.
1. CRL Operating Fund.		408,722
2. NIH Research Agreement (Rupee)		4,404,259
3. Capital Reserve Fund		98,000
4. Bank of Bethesda account.		397,263
5. SEATO-AID-NIH Fund.		1,412,802
6. Other Support		
(a) US/AID Logistic support.		611,387
(b) NIH-US Technician Fund		659,976
		7,992,409 87.13%

Expenditure from GOEP Support		Rs.
7. 1. CRL Operating Fund.		425,405
2. Capital Reserve Fund		102,000
3. Other Support		500,000
		1,027,405 11.20%
8. Expenditure from U.K. Govt. Support		130,933 1.43%
9. Expenditure from Govt. of Australia.		22,074 0.24%
		9,172,821 100%

BUDGET REPORT - PROPOSALS FOR FY71

(July 1, 1970 - June 30, 1971)

The format suggested by last year's Directing Council for the presentation of the various budget plans for FY71 has been followed this year. Appendix I indicates the requirements for the General Operating and Capital Reserve Funds for FY71 for approval by the Directing Council. Appendixes II, III and IV are provided for the information of the Directing Council. Appendix II outlines other contributions being requested from other SEATO nations. Appendix III provides an overall accounting of the total funding of the PSCRL from all sources in currency of donor, and Appendix IV shows all funds converted to Pakistan currency.

JUSTIFICATION FOR THE GENERAL OPERATING FUND

The proposed FY71 budget for this fund is an across the board 10% increase over the FY70 budget. This nominal increase is requested to pay increased costs of the administrative and some of the supportive staff (the salary base is increasing all the time due to increments and promotions), increased cost of local supplies, etc. It should be emphasized that the carry-overs from the GOEP contributions are the only present source of replenishment for the Capital Reserve Fund. Contributions to be requested from each of the participating nations should be as follows:

Government of the USA	Rs 465,900
Government of East Pakistan	<u>532,400</u>
TOTAL	<u>998,300</u>

The GOEP contribution includes Rs 66,500, an increase of 10% over FY70, for patient care expenses in Dacca. The USG contribution has been agreed upon and will be incorporated into an amendment to the NIH-CRL Research Agreement.

Breakdown by budget category with previous expenditures from FY67 onward for comparison:

Personal Services

The figure of Rs 682,500 is based partly on the total salary cost of the projected payroll for FY70 with the present level of staff and allowances provided for overtime pay and the Laboratory's contribution to the CRL Staff Provident Fund. Following is a list of expenditures for the last 3 years and the budget provision for the current fiscal year for comparison:

FY 67	Rs 409,655	
FY 68	501,930	
FY 69	616,257	
FY 70	620,400	(Budget Provision)
FY 71	682,500	Proposed

Travel & Transportation of Persons

From time to time the Laboratory receives requests from the GOEP to check into outbreaks of cholera in East Pakistan.

FY 67	Rs 15,164	
FY 68	17,686	
FY 69	22,844	
FY 70	24,200	(Budget Provision)
FY 71	26,600	Proposed

Transportation of Things

At the date of this report the Laboratory is air shipping rabbits from the UK; air freight charges are paid from this category. This requirement may be extended into FY 71.

FY 67	11,782	
FY 68	4,616	
FY 69	5,271	
FY 70	17,600	(Budget Provision)
FY 71	19,400	Proposed

Rent, Communication & Utilities

Matlab was recently connected with electricity which means a new expenditure not previously encountered.

FY 67	Rs	14,791	
FY 68		11,540	
FY 69		18,064	
FY 70		21,000	(Budget Provision)
FY 71		23,100	Proposed

Printing & Reproduction

FY 67	Rs	9,141	
FY 68		374	
FY 69		4,850	
FY 70		12,000	(Budget Provision)
FY 71		13,200	Proposed

Other Contractual Services

FY 67	Rs	31,513	
FY 68		22,096	
FY 69		27,168	
FY 70		48,400	(Budget Provision)
FY 71		53,200	Proposed

Supplies & Materials

FY 67	Rs 108,114	
FY 68	99,457	
FY 69	129,752	
FY 70	145,200	(Budget Provision)
FY 71	159,700	Proposed

Equipment

FY 67	Rs 9,554	
FY 68	6,084	
FY 69	9,921	
FY 70	18,700	(Budget Provision)
FY 71	20,600	Proposed

CAPITAL RESERVE FUND

The unspent balance of the GOEP contribution to the General Operating Fund for FY69 amounting to Rs 11,809 was transferred to the Capital Reserve Fund for FY70. In accordance with paragraph D.I.e of the Revised Agreement between the GOP and AID dated December 30, 1961, final approval is required from the Directing Council to transfer this amount to the Capital Reserve Fund.

In addition to the above amount, Rs 88,881 was carried over from FY69 to FY70. Therefore, Rs 100,690 is available for obligation during FY70. Construction of housing for a steam generator costing about Rs 6,000 is planned. The construction of another floor to the recently completed new building would be a welcomed addition to provide much needed space. However, the estimated cost of Rs 256,000 far exceeds the remaining amount in this fund.

It appears extremely unlikely that the level of this fund can be raised appreciably unless another source(s) of replenishment can be found besides the present one - unspent balances of GOEP contributions to the General Operating Fund.

UNITED KINGDOM CONTRIBUTION

Despite the fact that the United Kingdom did not meet the Laboratory's FY70 request to increase its contribution from £12,500 to £15,000, it is requested that the FY71 level be increased to £15,000. Additional funds would be used to purchase supplies and pieces of equipment only obtainable in the U.K. An additional amount in this fund would also enable the Laboratory to be more flexible in using its various funds. For example, the Laboratory could elect to pay the trips of its U.K. consultants from the U.K. contribution if it were increased, thus transferring the burden from its rupee funds which will suffer an overall reduction in FY71.

AUSTRALIAN CONTRIBUTION

The Laboratory has requested the Australian Deputy High Commission in Dacca for six vehicles and one 20-25 foot cabin cruiser for Matlab as desirable support for FY71; estimated cost is A\$ 37,500. The vehicles would be used as much needed replacements for present vehicles in use. The Australian Government is donating two vehicles as their contribution to the Laboratory in FY70.

PROPOSED PSCRL BUDGETFY71

(July 1, 1970 - June 30, 1971)

	<u>GENERAL OPERATING FUND (RUPEE)</u>			<u>CAPITAL RESERVE FUND (RUPEE)</u>		
	<u>FY69</u> <u>Expenditure</u>	<u>FY70</u> <u>Budget</u>	<u>FY71</u> <u>Budget</u>	<u>FY69</u> <u>Expenditure</u>	<u>FY70</u> <u>Budget</u>	<u>FY71</u> <u>Budget</u>
<u>PERSONAL SERVICES</u>	<u>616,257</u>	<u>620,400</u>	<u>682,500</u>			
Professional	42,307	70,400	35,000			
Technical & supporting	573,450	550,000	647,000			
Consultant	-	-	-			
<u>TRAVEL AND TRANSPORTATION</u> <u>OF PERSONS</u>	<u>22,344</u>	<u>24,200</u>	<u>26,600</u>			
In Pakistan	1,331	6,600	7,400			
Outside Pakistan	-	1,100	1,200			
Consultant	21,513	16,500	18,000			
<u>TRANSPORTATION OF THINGS</u>	<u>5,271</u>	<u>17,600</u>	<u>19,400</u>			
Shipping and clearance	5,271	17,600	19,400			
<u>RENT, COMMUNICATIONS AND</u> <u>UTILITIES</u>	<u>18,064</u>	<u>21,000</u>	<u>23,100</u>			
Rent	2,085	3,400	3,100			
Communication	15,979	17,600	20,000			
<u>PRINTING AND REPRODUCTION</u>	<u>4,850</u>	<u>12,000</u>	<u>13,200</u>			
<u>OTHER CONTRACTUAL SERVICE</u>	<u>27,169</u>	<u>43,400</u>	<u>53,200</u>	<u>200,000</u>	<u>100,700</u>	<u>262,000</u> ^{2/}
Repair	8,962	30,300	10,200			
Other	18,207	17,600	43,000			
<u>SUPPLIES AND MATERIALS</u>	<u>129,751</u>	<u>145,200</u>	<u>159,700</u>			
Laboratory and hospital	33,317	35,200	33,700			
Office and janitorial	15,511	29,700	32,600			
Research animal and feed	16,056	13,200	14,500			
Fuel	7,725	5,500	6,200			
Hospital food	15,135	24,200	26,600			
Linen and uniforms	6,972	13,200	14,500			
Educational	436	3,300	3,600			
Other	34,599	20,900	23,000			
<u>EQUIPMENT</u>	<u>9,921</u>	<u>13,700</u>	<u>20,600</u>			
Laboratory and hospital	4,225	6,600	8,600			
Transport	(14,400) ^{1/}	-	-			
Office	11,065	6,600	9,000			
Books (permanent)	-	-	500			
Other	9,031	5,500	2,500			
<u>TOTALS</u>	<u>834,127</u>	<u>907,500</u>	<u>998,300</u>	<u>200,000</u>	<u>100,700</u>	<u>262,000</u>

1/ Receipt of insurance claim, credited against total Equipment expenditures.

2/ Estimated as required for steam generator housing and additional floor in new building.

CONTRIBUTIONS TO BE REQUESTED FROM OTHER SEATO NATIONS

Appendix II

FY71

(July 1,1970 - June 30,1971)

	UK Fund Pounds	NIH Research Rupee Portion	Agreement Dollar Portion	SEATO AID NIH Cholera Fund(Dollar)	Australia (A.\$)
<u>PERSONAL SERVICES</u>	<u>5,000</u>	<u>3,152,100</u>	<u>105,000</u>	<u>18,300</u>	
Professional		750,000			
Technical and supporting		2,352,100			
Consultant		50,000			
<u>TRAVEL AND TRANSPORTATION OF PERSONS</u>	<u>250</u>	<u>500,000</u>	<u>3,000</u>	<u>20,200</u>	
In pakistan		300,000			
Outside pakistan		100,000			
Consultant		100,000			
<u>TRANSPORTATION OF THINGS</u>	<u>1,250</u>	<u>75,400</u>	<u>3,000</u>	<u>83,200</u>	
Shipping and clearance		75,400			
<u>RENT, COMMUNICATIONS AND UTILITIES</u>	<u>-</u>	<u>53,600</u>	<u>1,000</u>	<u>-</u>	
Rent		30,000			
Communication		23,600			
<u>PRINTING & REPRODUCTION</u>	<u>-</u>	<u>18,000</u>	<u>-</u>	<u>1,100</u>	
<u>OTHER CONTRACTUAL SERVICES</u>	<u>1,000</u>	<u>100,000</u>	<u>2,000</u>	<u>143,600</u>	
Repair		25,000			
Other		75,000			
<u>SUPPLIES AND MATERIALS</u>	<u>3,500</u>	<u>350,000</u>	<u>1,000</u>	<u>145,200</u>	
Laboratory and hospital		125,000			
Office and janitorial		15,500			
Research animal and feed		40,000			
Fuel		43,000			
Hospital food		35,000			
Linen and uniforms		22,000			
Educational		2,000			
Other		67,500			
<u>EQUIPMENT</u>	<u>4,000</u>	<u>100,000</u>	<u>1,000</u>	<u>100,100</u>	<u>37,500</u>
Laboratory and hospital		42,000			
Transport		3,000			
Office		32,000			
Books (permanent)		3,000			
Other		20,000			
<u>TOTALS</u>	<u>15,000</u>	<u>4,349,100</u> ^{1/}	<u>116,000</u>	<u>511,700</u> ^{2/}	<u>37,500</u> ^{3/}

1/ Rs.342,900 (7.60%) less than in FY70.

2/ Estimated.

-89-

3/ Estimated requirement for six vehicles and one cabin cruiser.

TOTAL FUNDING OF PSCRLFY71

(July 1, 1970 - June 30, 1971)

	General Operating Fund (Rupees)	Capital Reserve Fund (Rupees)	UK Fund (Pound)	NIH Research Agreement		SEATO AID- NIH Cholera Fund (Dollars)	Australia (Aust.\$)	GOEP Logistic Support	NIH-US Technician Fund	AID Logistic Support
				Rupee Portion	Dollar Portion					
<u>PERSONAL SERVICES</u>	632,500	-	5,000	3,152,100	105,000	13,300	-	-	175,000	15,000
<u>TRAVEL AND TRANSPORTATION OF PERSONS</u>	26,600	-	250	500,000	3,000	20,200	-	-	-	250,000
<u>TRANSPORTATION OF THINGS</u>	19,400	-	1,250	75,400	3,000	83,200	-	-	-	100,000
<u>RENT, COMMUNICATIONS AND UTILITIES</u>	23,100	-	-	53,600	1,000	-	-	550,000	-	450,000
<u>PRINTING & REPRODUCTION</u>	13,200	-	-	13,000	-	1,100	-	-	-	-
<u>OTHER CONTRACTUAL SERVICES</u>	53,200	262,000	1,000	100,000	2,000	143,600 ^{1/}	-	-	-	55,000
<u>SUPPLIES & MATERIALS</u>	159,700	-	3,500	350,000	1,000	145,200	-	-	-	240,000
<u>EQUIPMENT</u>	20,600	-	4,000	100,000	1,000	100,100	37,500	-	-	-
<u>TOTALS</u>	<u>998,300</u>	<u>262,000</u>	<u>15,000</u>	<u>4,349,100</u>	<u>116,000</u>	<u>511,700</u> ^{2/}	<u>37,500</u> ^{3/}	<u>550,000</u> ^{2/}	<u>175,000</u> ^{2/}	<u>1,110,000</u> ^{2/}

1/ \$116,000 of this amount to be transferred to the dollar portion of the NIH Research Agreement at the beginning of the fiscal year.

2/ Estimated.

3/ Estimated cost of 6 vehicles and one Cabin cruiser.

TOTAL FUNDING OF PSCL

(July 1, 1970 - June 30, 1971)

(All funds in Pakistan Currency)

	General Operating Fund (Rupee)	Capital Reserve Fund (Rupee)	UK Fund (Pound)	NIH Research Agreement Rupee Portion	Dollar Portion	SEATO-AID- NIH Cholera Fund (Dollar)	Australia (Aust. \$)	GOEP Logistic Support	NIH-US Technician Fund	AID Logistic Support	Total
PERSONAL SERVICES	682,500	-	57,150	3,152,100	504,000	87,840	-	-	840,000	15,000	5,338,590
TRAVEL AND TRANSPORTATION OF PERSONS	26,600	-	2,858	500,000	14,400	96,960	-	-	-	250,000	890,818
TRANSPORTATION OF THINGS	19,400	-	14,288	75,400	14,400	399,360	-	-	-	100,000	622,848
RENT, COMMUNICATIONS AND UTILITIES	23,100	-	-	53,600	4,800	-	-	550,000	-	450,000	1,081,500
PRINTING AND REPRODUCTION	13,200	-	-	18,000	-	5,280	-	-	-	-	36,480
OTHER CONTRACTUAL SERVICES	53,200	262,000	11,430	100,000	9,600	132,480 ^{1/}	-	-	-	55,000	623,710
SUPPLIES AND MATERIALS	159,700	-	40,000	350,000	4,800	696,960	-	-	-	240,000	1,491,460
EQUIPMENT	20,600	-	45,724	100,000	4,800	480,480	161,250	-	-	-	812,834
TOTALS	998,300	262,000	171,450	4,349,100	556,800	1,899,360	161,250	550,000	840,000	1,110,000	10,898,260

Exchange rate used \$1.00 = Rs.4.80, UK £1.00 = Rs.11.43 and A\$ 1.00 = Rs.4.30

^{1/} Does not include Rs.556,800 shown under NIH Research Agreement Dollar Portion which is transferred from the SEATO-AID-NIH Cholera Fund at the beginning of the fiscal year.

Pakistan-SEATO Cholera Research Laboratory

G.P.O.Box 128

Dacca-2, East Pakistan

June 13, 1969

Alda Holliday, M.D.

Acting Senior Public Health Officer

U.S. Agency for International Development, Pakistan

Alfalah Building, The Mall

Lahore, West Pakistan.

(Ref: FY68 Audit)

Through: Dr. Jean F. Rogler

Chief, Public Health Adviser

USAID, Dacca

Dear Dr. Holliday:

This letter is in reply to Dr. Boynton's December 30, 1968 letter to the Director of this Laboratory regarding the recommendation contained in Audit Report No. 69-13 covering this Laboratory for FY68.

Recommendation No. 1 (Action PHD/D)

The USAID's Public Health Division require CRL to complete its physical inventory of non-expendable property as soon as possible and thereafter to establish and maintain an adequate system of internal control over such property.

Whereas at the time of the above audit a physical inventory of NIH-supplied non-expendable property had been completed, the inventory of the remaining non-expendable property either supplied by the United Kingdom, Australia or purchased locally has now been completed. Each item of non-expendable property has been posted separately in our cardex card system. Control over the receipt and issue of these items is also being maintained.

I hope the above action will meet the approval of the Controller.

Sincerely yours,

Patrick G. Talmon
Executive Officer



UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
MISSION TO PAKISTAN

Cable: USAIDPAK

Office of the Provincial Director
C/o American Consulate General
Adamjee Court/Motijheel
Dacca-2, East Pakistan

August 4, 1969

(Ref: FY68 Audit)

Mr. Patrick G. Talmon
Executive Officer
SEATO Cholera Research Laboratory
Mohakhali, Dacca

Subject: Recommendation No. 1, Audit Report 69-13
SEATO-CRL

Dear Mr. Talmon:

The subject recommendation has been closed on the basis of your letter dated June 13, 1969 addressed to USAID/Lahore and our subsequent review of the non-expendable records established by your office.

Sincerely yours,

Robert L. Bourquein
Associate Controller

(C O P Y)

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
MISSION TO PAKISTAN
RAWALPINDI

REPORT OF AUDIT

PROJECT NO. 391-11-510-138
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY
For the Period July 1, 1968 to June 30, 1969
(FY69)

(C O P Y)

ISSUED BY THE OFFICE OF
ASSISTANT DIRECTOR/CONTROLLER
Report No. 70-10
November 24, 1969

REPORT OF AUDIT

PROJECT NO. 391-11-510-138

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

For the Period July 1, 1968 to June 30, 1969

Scope of Examination

We have examined certain funds provided to the Cholera Research Laboratory (PSCRL) for the year ended June 30, 1969.

Our examination was limited to Rupee Funds which are directly controlled by PSCRL and are identified as the Research Agreement Fund, the General Operating Fund and the Capital Reserve Fund. We also reviewed Trust Fund Rupee Support provided by USAID. The source and purposes for which these funds were established are explained in the following section of this report.

Our examination was conducted in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures which we considered necessary in the circumstances.

Background Information

The PSCRL was established in the year 1960 as a part of a Regional Cholera Research Program sponsored by South-East Asia Treaty Organization (SEATO). The Governments of the United States of America, Pakistan, the United Kingdom and Australia have assisted the PSCRL's operations by providing funds, equipment, and administrative and technical personnel.

The GOP and USAID/Pakistan entered into an agreement on October 14, 1960, to establish the PSCRL at Dacca. This agreement has been revised several times and at the date of this report the agreement is effective until June 30, 1977.

1. Pakistan-SEATO - AID - NIH Cholera Research Fund

This fund, administered by the National Institutes of Health (NIH) has given dollar support to the PSCRL. A portion of the support fund to date, \$432,697, has been deposited in the Bank of Bethesda, Maryland, for direct use of PSCRL. Of this amount, \$375,705 has been obligated through June 30, 1969 (Exhibit A).

2. NIH - Research Agreement Fund

This is a rupee fund allocated by the US Congress to NIH from PL 480, Title I, Section 104(b)(3) funds. NIH has provided Rs 16,007,200 of these funds to PSCRL through June 30, 1969, including Rs 4,266,000 during the year covered by this audit (Exhibits B and C).

PSCRL received Rs 4,692,000 on May 23, 1969 from NIH for this fund for Fiscal Year 1970.

3. GOP - NIH - General Operating Fund

This is a rupee fund generated by annual contributions from NIH and GOP. The NIH portion of the contribution is obtained from PL 480, Title I, Section 104(b)(3) holdings and the uncommitted year end balance is carried forward to the next fiscal year. The uncommitted year end balance attributed to the GOP contribution is transferred to the "Capital Reserve Fund" described below. As indicated in Exhibits B and C, a total of Rs 2,243,000 had been contributed to the General Operating Fund by the GOP and Rs 2,088,000 by NIH through June 30, 1969. The GOP contributed Rs 385,000 and NIH contributed Rs 385,000 during the fiscal year covered by this audit.

PSCRL received Rs 423,500 on May 23, 1969, from NIH for this fund for Fiscal Year 1970.

4. GOP - USAID Capital Reserve Fund

This fund was established in 1962 by direct contributions from GOP and USAID. Subsequently, further contributions have been made and the unspent balances attributed to GOP's contribution to the General Operating Fund each year have been transferred to this fund.

Direct contributions by USAID from PL 480, Title I, Section 104(f) funds have totaled Rs 191,200 and GOP's

direct contribution has totaled Rs 98,680. GOP unspent funds transferred from the General Operating Fund have totaled Rs 287,435 including Rs 11,809 from Fiscal Year 1969. In addition Rs 50,000 and Rs 55,739 given to PSCL by the GOP for special purposes, but which remained unspent, was also transferred to this fund (See Exhibit B).

5. USAID - Trust Fund Rupee Support

USAID provides logistic support from the Trust Fund for PSCL's American employees for travel, housing, utilities and maintenance. Other local support such as the costs of gasoline, oil and maintenance of PSCL's vehicles and motor boats are provided by USAID. The total expenditure for this purpose amounts to Rs 3,013,404 including Rs 611,388 expended this fiscal year (See Exhibit D).

6. United Kingdom Contributions

PSCL's records show that the support received from the United Kingdom has totaled 80,218 Pounds through June 30, 1969.

7. Government of Australia Contributions

PSCL's records show that the support received from the Government of Australia has totaled Aus. \$39,641 through June 30, 1969.

The only recommendation contained in our prior audit report (Report No. 69-13, dated November 29, 1968), which concerned PSCL's lack of internal control over non-expendable property, has been closed.

DETAILED FINDINGS

Finance

Receipts and Expenditures

The statements and supporting schedules presented in Exhibits A through D of this report were prepared by us from PSCRL and USAID records and reports, and represent the receipt and expenditure of funds directly controlled by PSCRL.

Based on our test checks of the accounting records, it is our opinion that all expenditures made from funds directly controlled by PSCRL and support from the rupee Trust Fund, have been in accordance with applicable agreements and legislation.

Advances for Local Purchases

The Pakistani employees listed below who are authorized to draw cash advances for local purchases, in the amounts indicated, are not covered by fidelity bonds:

<u>Name</u>	<u>Advance Authorized</u>
Peter A. Gomes	Rs10,000
A. K. M. Matin	Rs10,000 (only during the annual vaccination campaign at Matlab, each year)
Paul Das	Rs 7,000
Hafizur Rahman	Rs 300

PSCRL's account of advances shows that in some months the unliquidated advances made to Peter Gomes were as much as Rs 33,170, Rs 51,492 and Rs 73,664; and on one occasion Rs 10,500 to A. K. M. Matin. The Chief of the Administrative Section, PSCRL, told us that the above amounts do not represent cash balances with the individuals, but for a large part represent cash vouchers submitted by them which had not been formally processed due to the heavy workload.

In the interests of better control we suggest that advances be more promptly liquidated on presentation of proper documents and to safeguard against possible loss or misappropriation, we suggest that PSCRL purchase fidelity bonds for all employees handling substantial amounts of cash.

Advances and Deposits

For personal convenience, American employees are cashing their dollar checks with the PSCRL Cashier who later presents the dollar checks to the American Consulate Cashier and obtains the equivalent rupees. The employees do not draw all of the rupees thus converted, but leave large sums on deposit with the PSCRL Cashier to be drawn when needed. American contract employees also leave on deposit amounts due to them from cost of living allowances and travel reimbursements.

We believe that PSCRL should not be engaged in such a banking operation for the personal convenience of employees. This places an unnecessary added workload and responsibility on PSCRL's Accounts Section. We suggest that the American employees should use the local banking facilities that are available for this purpose.

Overtime

Pakistani Employees

Overtime payments to Pakistani employees during Fiscal Year 1969 totaled Rs 165,510.62 or about 5% of the local payroll. PSCRL has taken steps to reduce the level of overtime payments by allowing more compensatory time off than in the past.

American Employees

During Fiscal Year 1969 the Director's Secretary was paid for a total of 680 hours of overtime work (the overtime work was performed between April 29, 1968, and December 24, 1968). Of this amount, overtime payments for 148 hours were paid by NIH from its dollar funds and 532 hours were paid by PSCRL from its PL 480 rupees. Although the Director's Secretary worked overtime after December 24, 1968, no further payments have been authorized nor has compensatory time off been used.

PSCRL's correspondence with NIH indicates that overtime performed in the future will be restricted to a maximum of 150 hours each year. Therefore, we have not evaluated the volume of overtime or the rates applied. One exception that we noted, which may affect overtime performed in the future, is that the Director's Secretary was paid for overtime performed on local holidays. Under US Government regulations this would not be permitted. The Directing Council may wish to apply these rules to American employees of PSCRL or formally adopt a policy covering this matter.

Air Travel

PL 480 funds have been used to pay for 1st class air travel of certain PSCRL employees as well as for invitational travel. A total of Rs 66,540 represents the difference between 1st and economy class paid during Fiscal Year 1969.

Since it is US Government policy that all air travel, except for some limited exceptions, be performed by economy class, we discussed this matter with the Director, PSCRL. The Director told us that he had already taken steps to reduce the incidence of 1st class air travel. In the future he intends to apply regulations similar to that used by NIH, which restricts use of 1st class to trips involving eight or more hours travel, ill health and a few other exceptions.

We are not making any recommendation in this connection, but present this information for the benefit of the Directing Council who may wish to formally establish a policy covering use of 1st class air travel.

Procurement

During the year, PSCRL purchased furniture costing Rs171,282.8. from one supplier without using competitive bid procedures. The supplier, on request, was allowed an arbitrary price increase of 40% on the first order, as he stated that the price of timber had increased. Large advance payments were made to the supplier. In one case the total amount of the order was paid before delivery of some items, two of which were subsequently cancelled. The specifications of some items delivered were not the same as ordered.

PSCRL's justification for placing all orders for furniture with the one selected supplier was that no other furniture supplier is capable of producing the quality of furniture required by the Laboratory or able to deliver on time.

We suggest that PSCRL employ formal competitive bid procedures in its procurement actions and fully document its reasons for placing orders with other than lowest bidders. This is the normal method of assuring that reasonable prices are paid. We also suggest that limitations on advances to suppliers be enforced and that effective procedures be instituted to inspect all items at time of delivery by suppliers to ensure that they meet the required specifications.

Supplies and Property

Expendable

We test checked 28 items of expendable supplies purchased during the fiscal year under audit and found that the records of receipt and disposition were adequate.

Non-Expendable

The records for receipt and disposition of non-expendable property (NXP) have improved considerably over the prior years. PSCRL has recently hired an American who has specialized in this area and it is expected that control over property will be further improved and refined.

PSCRL does not maintain detailed property records for items costing less than \$100 or rupee equivalent.

We suggest that PSCRL consider maintaining control over property that has a normal life of more than three years such as office tables, cabinets and chairs. This could be done in memorandum form showing total number of items on inventory by logical categories.

Disposal and Sales Proceeds

Numerous items of property have been donated and loaned to employees, private individuals and institutions and Rs6,754.25, representing proceeds from sale of

property during the year, has been given to the PSCRL Employees Welfare Association.

The agreements under which PSCRL operates state that title to all property will vest with the Government of Pakistan upon termination of these agreements. For this reason we suggest that donation of property be discontinued and that all surplus or unserviceable property be sold for the highest price available and that the proceeds arising from such sales be credited to the appropriate PSCRL fund.

If PSCRL loans equipment to Government and other agencies in the furtherance of its activities, such equipment should be accounted for by memorandum receipts and remain on PSCRL's inventory.

Time and Attendance

Pakistani Employees

Until September 1, 1969, time and attendance records were maintained for all Pakistani employees. Since then, the maintenance of these records for about 140 employees in the higher grades was discontinued. This was done on a trial basis to reduce the volume of paper work. Under the present procedures, only absences are reported to the personnel Section by Section/Department Chiefs.

American Employees

No time and attendance records are maintained in Pakistan for PSCRL's American employees. Salaries for these employees are paid automatically into their banks whenever due. Leave is documented by the employees submission of leave slips to their parent agencies.

USAID/P (PROJECT NO. 391-11-510-138
PAKISTAN SEATO CHOLERA RESEARCH LABORATORY)

SEATO AID NIH CHOLERA RESEARCH FUND
CUMULATIVE U.S. DOLLAR EXPENDITURE THROUGH JUNE 30, 1969

<u>Description</u>	<u>Through June 30, 1968</u>		<u>July 1, 1968 - June 30, 1969</u>		<u>Cumulative Through June 30, 1969</u>	
	<u>Controlled by</u>		<u>Controlled by</u>		<u>Controlled by</u>	
	<u>NIH</u> <u>(1)</u>	<u>CRL</u>	<u>NIH</u> <u>(1)</u>	<u>CRL</u>	<u>NIH</u> <u>(1)</u>	<u>CRL</u>
Personal Services	18,393	241,514	26,669	69,336	45,062	310,850
Travel and Transportation of Persons	94,317	17,403	13,563	8,161	107,880	25,564
Transportation of Things	225,635	7,112	47,984	45	273,619	7,157
Rent, Communication and Utilities	163	2,683	-	691	163	3,374
Printing and Reproduction	46	92	-	-	46	92
Other Contractual Services	324,343	5,689	110,551	2,416	434,894	8,105
Supplies and Materials	387,537	12,307	144,744	1,733	532,281	14,040
Equipment	<u>336,915</u>	<u>6,142</u>	<u>56,023</u>	<u>381</u>	<u>392,938</u>	<u>6,523</u>
Total Obligations	<u>1,387,349</u>	<u>292,942</u>	<u>399,534</u>	<u>82,763</u>	<u>1,786,833</u>	<u>375,705</u>

(1) Includes amounts transferred each year to PSCRL's direct control.

CRL - Bank of Bethesda a/c FY69 transactions, as per PSCRL Records

	<u>Amount</u>	<u>Total</u>
Unliquidated Balance at July 1, 1968	34,555.32	
NIH Fund Transferred during the year	<u>105,200.00</u>	139,755.32
FY69 Expenditure		<u>82,763.11</u>
Unliquidated Balance at June 30, 1969		<u>56,992.21</u>

USAID/P (PROJECT NO. 391-11-510-138 -
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY)

EXHIBIT B
1 of 2 Pages

CUMULATIVE RUPEE ACCOUNTABILITY - INCEPTION THROUGH JUNE 30, 1969

Research Agreement Fund

<u>Fiscal Year</u>	<u>Contribution by NIH</u>	<u>Earned Interest</u>	<u>Total Receipts</u>	<u>Total Expenditure</u>	<u>Uncommitted Balance</u>
1962	533,755	3,537	537,292	44,285	
1963	746,245	14,751	760,996	630,193	
1964	773,619	11,688	785,307	1,105,562	
1965	1,371,381	13,581	1,384,962	1,477,508	
1966	1,956,000	38,641	1,994,641	1,816,710	
1967	2,809,000	44,826	2,853,826	3,168,651	
1968	3,551,200	88,920	3,640,120	3,424,028	
1969	4,266,000	84,714	4,350,714	4,404,258	
Sub-total	16,007,200	300,658	16,307,858	16,071,195	236,663
1970	4,692,000	258,035 (1)	4,950,035	-	
Total	20,699,200	558,693	21,257,893	16,071,195	5,186,698

General Operating Fund

<u>Fiscal Year</u>	<u>Contribution by</u>			<u>Interest</u>	<u>Total Receipts</u>	<u>Total Expenditure</u>	<u>Transferred to CRF</u>	<u>Uncommitted Balance</u>
	<u>G O P</u>	<u>N I H</u>	<u>Other Cont. By GOP</u>					
1962	210,000	105,000		790	315,790	83,266	162,523	
1963	210,000	210,000	217	4,372	424,589	394,660	42,971	
1964	210,000	210,000		3,041	423,041	448,459	13,878	
1965	250,000	250,000		2,602	502,602	500,411	9,590	
1966	275,000	275,000		8,291	558,291	549,520	9,328	
1967	303,000	303,000		11,926	617,926	610,036	8,624	
1968	400,000	350,000		13,402	763,402	663,782	78,712	
1969	385,000	385,000	44,000 (2)	13,399	827,399	834,127	11,809	
Sub-total	2,243,000	2,088,000	44,217	57,823	4,433,040	4,084,261	337,433	11,346
1970	-	423,500	-	23,290 (1)	446,790	-	-	
Total	2,243,000	2,511,500	44,217	81,113	4,879,830	4,084,261	337,433	458,136

(1) Advance interest received from bank.

(2) GOP's contribution for cholera patients' care.

USAID/P (PROJECT NO. 391-11-510-138 -
PAKISTAN SEATO CHOLERA RESEARCH LABORATORY)

CUMULATIVE RUPEE ACCOUNTABILITY - INCEPTION THROUGH JUNE 30, 1969

Capital Reserve Fund

<u>Fiscal Year</u>	<u>Direct Contributions</u> <u>by</u>		<u>Other</u> <u>Contributions</u> <u>by GOP</u>	<u>Transferred</u> <u>From General</u> <u>Operating Fund</u>	<u>Earned</u> <u>Interest</u>	<u>Total</u> <u>Receipts</u>	<u>Total</u> <u>Expenditure</u>	<u>Uncommitted</u> <u>Balance</u>
	<u>G O P</u>	<u>USAID</u>						
1962	2,680	96,000		162,523	634	261,837	77,449	
1963		(800)		42,971	3,826	45,997	42,281	
1964				13,878	3,532	17,410	93,711	
1965				9,590	1,623	11,213	21,247	
1966		96,000		9,328	1,292	106,620	139,788	
1967	96,000			8,624	5,323	109,947	31,230	
1968			50,000 (3)	28,712	5,459	84,171		
1969			55,739 (4)	11,809	1,651	69,199	200,000	
Total	<u>98,680</u>	<u>191,200</u>	<u>105,739</u>	<u>287,435</u>	<u>23,340</u>	<u>706,394</u>	<u>605,706</u>	<u>100,688</u>

(3) This amount was provided to CRL for cholera patient care, but remained unspent and was transferred to the Capital Reserve Fund.

(4) Funds received from Port Health Office/GOP for CRL's services.

USAID/P (PROJECT NO. 391-11-510-138 -
PAKISTAN SEATO CHOLERA RESEARCH LABORATORY)

EXHIBIT C

STATEMENT OF INCOME AND EXPENDITURES - CRL RUPEE FUNDS
FOR FISCAL YEAR ENDED JUNE 30, 1969 (PER PSCL RECORDS)

	Research Agreement Fund	General Operating Fund	Capital Reserve Fund	Total Rupee Fund
Balance July 1, 1968	<u>290,207</u>	<u>29,883</u>	<u>231,490</u>	<u>551,580</u>
Receipts: Contribution by GOP in FY69	-	429,000	-	
" " NIH " "	4,266,000	385,000	-	
Port Health Office	-	-	55,739	
Net interest earned in FY69	84,714	13,399	1,651	
Total Rupees Available	<u>4,640,921</u>	<u>857,282</u>	<u>288,880</u>	<u>5,787,083</u>
Expenses (See Schedule 1)	(4,404,258)	(834,127)	(200,000)	(5,438,385)
Balance	<u>236,663</u>	<u>23,155</u>	<u>88,880</u>	<u>348,698</u>
Transferred to Capital Reserve Fund	-	(11,809)	11,809	
Balance June 30, 1969	<u>236,663</u>	<u>11,346</u>	<u>100,689</u>	<u>348,698</u>
Contribution by NIH for FY70	4,692,000	423,500	-	5,115,500
Advance Interest Received for FY70	<u>258,035</u>	<u>23,290</u>	-	<u>281,325</u>
Total	<u>5,186,698</u>	<u>458,136</u>	<u>100,689</u>	<u>5,745,523</u>

Total Fund Balance at June 30, 1969, by Account

Habib Bank Ltd., Motijheel	197,494.52
Habib Bank Ltd., Yousuf Market	126,000.00
United Bank Ltd., Motijheel	15,182.00
National & Grindlays Bank, London	21.48
Petty Cash	<u>10,000.00</u>
Sub-total	<u>348,698.00</u>
Fixed deposits with Habib Bank Ltd.	5,396,825.00
Total	<u>5,745,523.00</u>

USAID/P (PROJECT NO. 391-11-510-138 -
PAKISTAN SEATO CHOLERA RESEARCH LABORATORY)

EXHIBIT C
SCHEDULE 1

STATEMENT OF EXPENSES - CRL RUPEE FUNDS FOR
THE FISCAL YEAR ENDED JUNE 30, 1969
(PER PSCL RECORDS)

	<u>Research</u> <u>Fund</u>	<u>Operating</u> <u>Fund</u>	<u>Capital</u> <u>Reserve</u>	<u>Total</u>
<u>PERSONAL SERVICES</u>	<u>2,679,509</u>	<u>616,257</u>		<u>3,295,766</u>
Professional	597,838	42,807		640,645
Technical and supporting	2,080,431	573,450		2,653,881
Consultant	1,240	-		1,240
<u>TRAVEL AND TRANSPORTATION</u> <u>OF PERSONS</u>	<u>794,775</u>	<u>22,844</u>		<u>817,619</u>
In pakistan	362,390	1,331		363,721
Outside pakistan	208,921	-		208,921
Consultant	223,464	21,513		244,977
<u>TRANSPORTATION OF THINGS</u>	<u>41,501</u>	<u>5,271</u>		<u>46,772</u>
<u>RENT, COMMUNICATION AND</u> <u>UTILITIES</u>	<u>58,538</u>	<u>18,064</u>		<u>76,602</u>
Rent	54,541	2,085		56,629
Communication	3,994	15,979		19,973
<u>PRINTING & REPRODUCTION</u>	<u>7,787</u>	<u>4,850</u>		<u>12,637</u>
<u>OTHER CONTRACTUAL SERVICES</u>	<u>162,861</u>	<u>27,168</u>	<u>200,000</u>	<u>390,029</u>
Repair	16,725	8,962		25,687
Other	146,136	18,206	200,000	364,342
<u>SUPPLIES AND MATERIALS</u>	<u>451,827</u>	<u>129,752</u>		<u>581,579</u>
Laboratory and hospital	137,627	33,317		170,944
Office and janitorial	30,454	15,511		45,965
Research animal and feed	44,322	16,056		60,378
Fuel	36,137	7,725		43,912
Hospital food	54,988	15,136		70,124
Linen and uniform	20,376	6,972		27,348
Educational	1,040	436		1,476
Others	126,833	34,599		161,432
<u>EQUIPMENT</u>	<u>207,460</u>	<u>9,921</u>		<u>217,381</u>
Laboratory and hospital	124,316	4,225		128,541
Transport	1,448	(14,400)		(12,952)
Office	56,867	11,065		67,932
Books (permanent)	761			761
Others	24,068	9,031		33,099
<u>TOTALS</u>	<u>4,404,258</u>	<u>834,127</u>	<u>200,000</u>	<u>5,438,385</u>

USAID/P (PROJECT NO.391-11-510-138
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

EXHIBIT C
SCHEDULE 2

COMPUTATION OF TRANSFERS FROM GENERAL OPERATING
FUND TO CAPITAL RESERVE FUND AS OF JUNE 30, 1969

	<u>Rupees</u>	<u>Rupees</u>
Prior Year End balance (FY68) attributed to NIH (see Exhibit C)	29,883	
FY69 NIH contribution (see Exhibit B)	<u>385,000</u>	<u>414,883</u>
FY69 GOP contribution, including Rs44,000 for patient care		429,000
Net interest earned on fixed deposits		<u>13,399</u> 857,282
Expenses during FY69 (see Exhibit C)		(<u>834,127</u>)
Balance of General Operating Fund on June 30, 1969 (see Exhibit C)		<u>23,155</u>
Percentage of contribution attributed to GOP transferred to Capital Reserve Fund - 51%		11,809
Percentage of contribution attributed to NIH available for FY70 - 49%		<u>11,346</u>
Total		<u>23,155</u>

USAID/PAKISTAN TRUST FUND EXPENDITURES FOR THE
CHOLERA RESEARCH LABORATORY FROM INCEPTION
August 16, 1961 to June 30, 1969

<u>PERIOD</u>	<u>AMOUNT (Rs)</u>
8/16/1961 - 12/31/1961	117,879 <u>1/</u>
1/ 1/1962 - 6/30/1964	527,185
7/ 1/1964 - 6/30/1965	336,309
7/ 1/1965 - 6/30/1966	448,904
7/ 1/1966 - 6/30/1967	549,884
7/ 1/1967 - 6/30/1968	421,855
7/ 1/1968 - 6/30/1969	611,388
	<u><u>3,013,404</u></u> <u>2/</u>

- 1/ The bulk of these expenditures were for PSCRL's operational costs, including local salaries, furniture and equipment. Such costs were also paid from Trust Funds up to January 1, 1962.
- 2/ Consists of USAID/Pakistan expenditures on behalf of the PSCRL; including costs for travel, housing, utilities and equipment maintenance, etc.

USAID/P (PROJECT NO. 391-11-510-138
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY)

EXHIBIT E

DISTRIBUTION OF REPORT

<u>USAID/P:</u>	<u>No. of Copies</u>
D	1
DD	1
PH	2
AD/DP	1
C/AC-D (20 copies for PSCRL)	22
IIS/New Delhi	1
EX/C&R, Lahore	1
EX/C&R, Rawalpindi	1
 <u>AID/W:</u>	
AG/AUD	2
Pakistan Desk	1
NESA PMCA	2
IGA/STATE	1

WARD REPORT

The ward report for FY69 will cover both the ward operated in the headquarters of PSCRL in Dacca and the ward operated in Matlab.

A total of 3695 patients were admitted to the wards during FY69: 1503 in Dacca and 2192 in Matlab. Of the 3695 admissions 2317 were cholera cases: 929 in Dacca and 1388 in Matlab.

The non-cholera cases (total 1378) were the usual amoeba, shigella and salmonella infections, plus a large number of children suffering from malnutrition, and diarrhoeas. Of the 1378, 574 were admissions in Dacca and 804 in Matlab.

In addition to the total admissions of 3695 cholera and non-cholera cases, 6742 patients attended the outpatient clinics during FY69: 4676 in Dacca and 2066 in Matlab.

24,779 liters of intravenous fluids were produced during FY69 and 22,480 liters consumed in Dacca and Matlab.

LIBRARY REPORT

Acquisitions and Services.

The statistical tables of Library acquisitions and Library services appended indicate increases in periodical resources. As collections become organized, requests for journal articles from the U.S. National Library of Medicine decline.

With an increasing number of research investigators reading a larger number of periodicals, the circulation figures accelerated sharply. Due to the availability of the Xerox 914 Copier, copy services have shown an appreciable increase over the previous year. The loan of bound journals decreased due to this facility.

Over 1,600 journals have been received through the various exchanges. The Library sent out 233 issues of the East Pakistan Medical Journal and the Journal of the Pakistan Medical Association as exchange items.

Twenty new periodicals were subscribed during the fiscal year and three periodicals were discontinued.

Library Orientation Program.

The Director, School of Tropical Medicine and Public Health, requested the PSCRL Librarian to give training to the post-graduate students of the School in the use of the Library. Research assistants, laboratory technicians, nurses, doctors and other interested staff of the PSCRL were invited in groups of five daily for the program.

An exhibition was held in cooperation with the British Council and U.S.I.S. Libraries to coincide with the Tenth All Pakistan Medical Conference held in Dacca from November 14-17, 1968.

Visit of Mr. James W. Barry.

Consultations with Mr. James W. Barry, Visiting Librarian (Rockefeller Foundation Scholar at Bangkok) were held in the PSCRL Library January 28-29, 1969 on

arrangements with the Director. Mr. Barry suggested analyzing inter-library loan requests to find the most used journals in order to determine the necessity for building backfiles of those journals and commented favorably on services being provided by the Library.

Participation in the III International Congress of Medical Librarianship.

The Librarian attended the Congress held in Amsterdam, May 5-9, 1969, as the representative of the PSCRL and Pakistan. A paper entitled "An International Biomedical Library in Dacca and the Use of World-wide Medical Information Services" was presented and later published. Another paper entitled "Academic Medical Libraries in Pakistan" was presented and published in abstract.

Attendance at this conference was of great assistance in evaluating PSCRL Library operations and provided a treasure of contacts with foreign librarians who now take an active interest in the Library of the PSCRL.

Other Items.

Twenty new bookcases and three filing cabinets were accommodated in the Library in January 1969. The limited area is now over-furnished and there is no room for incoming material. The Library is desperately in need of further space and an air-conditioned facility for storage of back issues of useful journals.

The Eastern Librarian, Dacca, East Pakistan, published in September 1968 an article by the Librarian entitled "Introducing public libraries to school children".

Table I Library Acquisitions

	<u>FY65</u>	<u>FY66</u>	<u>FY67</u>	<u>FY68</u>	<u>FY69</u>
Books added	158	856	662	564	368
Bound journals added	220	348	925	301	553
Reprints cumulative total	-	-	-	2520	3320
Periodicals subscribed (cumulative total)	80	146	158	196	216
Inter-Library loan journal articles in Xerox from NLM	225	352	339	508	403
Journals received through Exchange	-	-	-	477	1639
Gifts received	-	-	-	-	112
Books withdrawn	-	-	-	-	44

Table II Library Services

	<u>FY 68</u>	<u>FY 69</u>
Current periodicals circulated	5835	15567
Reprints circulated	4681	6837
Photocopies provided: PSCRL	4132	12589
NLM	3691	1783
WHO	28	20
Bound journals loaned	1940	5146
Books referred to in Library	11904	10657
Overdue Notices sent out	817	987

EXTENSION OF AGREEMENTS

FY69

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
MISSION TO PAKISTAN

(C O P Y)

Alfalsh Building
The Mall, Lahore

June 26, 1968

Mr. I. A. Khan, S.Q.A., C.S.P.
Secretary
Economic Affairs Division
President's Secretariat
Government of Pakistan
Islamabad, Pakistan

(Ref: Extension of
Agreement)

Dear Mr. Khan:

The Directing Council of the Pakistan-SEATO Cholera Research Laboratory recommended during their meeting on 17 and 18 January 1968 that the existing Agreement between the United States of America and the Government of Pakistan governing the Pakistan-SEATO Cholera Research Laboratory be extended for a period of not less than seven years.

Accordingly, I propose that paragraph J.2 of the Agreement be amended to read as follows:

"2. This Agreement will terminate June 30, 1977. Negotiations with respect to extension of this Agreement beyond this date will begin not later than June 30, 1976 based on recommendations of the Directing Council. Any party to the Agreement may terminate its participation upon twelve months' written notice to all other parties to the Agreement."

You may indicate the acceptance of the Government of Pakistan by signing and returning a copy of this letter.

(C O P Y)

Sincerely yours,

C. William Kontos
Director

Concurred:
For Economic Affairs Division

(Signed February 20, 1969)

REPRESENTATION

FY69

MANUSCRIPTS REPORT FY69

Constance G. Miccio

One hundred fifty-one separate manuscripts generated by the professional staff were produced by the clerical staff of the PSCRL during the reporting period. Of these, 84 were published or accepted in full or abstract, another 32 were presented at meetings or accepted, and 32 were "in process" (manuscripts submitted to publishers who had not yet replied and material in various stages of draft) by June 30, 1969. Included in the above total are eight manuscripts withdrawn for various reasons after submittal, material rejected by publishers and then in process of revision, and material accepted in FY69 for publication or presentation in FY70.

Not included in the above total are two bound volumes (totalling approximately 500 pages) of the Proceedings of the Directing Council and the Proceedings of the Technical Committee - reports produced for the annual meetings in Dacca and then published by the PSCRL for a limited distribution. Material for the FY68 edition, produced in FY69, introduced new pages (Tables of Contents and Honors and Awards) and pagination. Material for the reports arrive from each section of the PSCRL and from outside the organization as well, often not in accordance with any particular format or page size suggestive of one publishable standard. An attempt was made in the FY68 editions to arrange the material in some coordinated manner, re-produce or re-format other material that disagreed markedly from that produced by PSCRL, and thus hope that this end-product would altogether be more representational of the fine work ongoing at the PSCRL as well as serve end-users to a larger degree. Enlisted to assist in the production of the books were administrative assistants, secretaries, and typists throughout the organization - none of whom had had any particular direction or specific training or indoctrination in publishing of material of this kind, although most had contributed the initial material. Some political

turbulence and a natural disaster in Dacca disrupted production last year of the final editions, but the product itself was more than adequate. Production of the FY69 editions is ahead of schedule and being produced by the same staff of approximately 11 persons who contributed last year.

Also not included in the above total are various combined administrative and technical reports that require coordinating, editing and production, such as the Annual Report to the Director of the U.S. National Institutes of Health.

Largely as an outcome of various problems encountered during preparation of the Proceedings for FY68 and general dissatisfaction with the quality of products being submitted to publishers - not to be confused with content - considerable attention has been given during the past year to the matter of manuscripts. Modern practices, such as using guide sheets, have been introduced, as have a few sophisticated products and processes since installation of a Rank Xerox copying machine (which had just become operational shortly before production of last year's editions). Plastic covers and "Sno-pake" have been in use for some time and typing of "masters" from which Xerox copies may be reproduced is now standard practice. Equipment has been shifted to facilitate uniformity of size of type and procedures for handling this material have been standardized insofar as possible with such wide range of end-users, largely publishers. These few innovations, however, have resulted in major time savings for staff professionals and the increased speed of output in the production of finished copy is pronounced - one manuscript may be divided among several typists and two-thirds, if not more, of the editing and re-proofreading of re-typed material is no longer necessary or is in the nature of major revisions. Five typists are specializing in manuscripting at the present time in addition to producing general non-statistical, non-technical material.

Most of the supplies have had to be programmed for receipt by surface from the U.S. which has afforded considerable cost reduction (example: typewriter ribbons, \$.15 shipped from U.S. vs. \$3.00 local market price).

Distribution of reprints or reproduction of staff-produced, published material have, of necessity due to copyright factors, been handled in the Director's office. A survey was made of these operations inclusive of a review of mailing costs and practices. Introduction to certain sensitive aspects of copyrights, explanation of some general geographical elements, training in the use of unique mailing facilities available, and correction of duplications and errors in distribution lists have resulted in greater understanding by the staff charged with this work. This has also facilitated a more equitable distribution of reprints to authors on the staff as well as to requestors and promoted guidelines for assembly of "kits" of recent reprints which are more representative of the work of all of the professionals on the staff (for handing out to official, professional visitors or requestors by mail).

Another equally significant benefit has been that no manuscripts have "gone astray" due to mistaken addressing, nor been damaged, for well over one year; as a matter of fact, material that has been returned has been received. Possibly location on local market of better quality mailing envelopes for manuscripts has contributed to the latter fact as has correction of the PSCRL return address on stationery, envelopes, reprint forms, and manuscripts.

Despite the great number of reprints being mailed regularly - which accelerates year by year as more material is accepted for publication - the cost of such bulk mailing has not previously been reviewed as an expense line item. A particularly significant benefit of a survey having been made and some guidance given to the staff is a savings in postage costs. Assembly of this detail may be useful for budget purposes.

The survey revealed that 75% of the mailing is to the U.S.A. at the present time using the upgraded distribution list. Formerly all of this material had been sent via international mail despite significantly higher postage. It is recommended that pre-affixed indicia envelopes be obtained from U.S. sources for use on manuscripts and reprints only since this would afford still cheaper postage at bulk rates (this is justifiable since this material is a product of 87% USG funded programs) which would enable reductions to be made in addition to the following.

A significant savings has been realized for the past year for reprints mailing. The average weight of envelopes containing a reprint is 3 oz. The mailing of 3 oz. envelope through official channels to the U.S. requires, at the present time, affixing of \$.06 postage vs. mailing of same envelopes through open mail at per unit cost of \$.50. A fairly standard stock of reprints per published article which will be mailed is 200. Until FY69 distributions totalled approximately 15,300 units. It is predictable that 57 orders will have been placed for products of FY69 which may result in mailing of 11,400 units, 7,590 to U.S., at a savings of \$3,762.00.

Some savings have been realized in the mailing of manuscripts. The mailing of an 8 oz. manuscript through official channels to the U.S. requires, at the present time, affixing of \$.80 postage vs. mailing of same manuscript through open mail at a unit cost of \$3.28. Fifteen manuscripts were sent to U.S. publishers in FY69 at a savings of \$37.20, although this figures does not allow for material that may have been handcarried. It follows that greater emphasis on reaching this media would result in proportionate savings in postage costs.

Better recordkeeping, greater accuracy and speed, expanded understanding of and identification with ongoing studies and a mounting pride in quality of workmanship by PSCRL clerical staff is a small but significant contribution to programs. This report

would not be complete if the work of clerical personnel in Finance Management Branch and Epidemiology Division were overlooked in emphasizing contributions made by specialists previously mentioned. Several large financial statements typed on stencils, which constitute the financial and budget reports that are issued for the annual meetings and later provided for inclusion in the Proceedings, have been prepared in the FMB by typists assigned to that section after this material is coordinated by the Director's office to key margins and paper size to the remainder of the material. The secretary to the head of Epidemiology has, despite being part-time, produced most of the manuscripts submitted by that section either in draft or final.

Appended are lists of manuscripts and presentations for FY69.

MANUSCRIPTS PUBLISHED
FY69

Aziz, K.M.S., Mohsin, A.K.M., Hare, W.K., and Phillips, R.A.: Using the rat as a cholera "model". Nature (London, England), 220: No. 5169, pp. 814-815, November 23, 1968.

Bairagi, R.: Estimation of the covariance between two sets of values of a variable given at two periods. Bulletin of the Institute of Statistical Research and Training, University of Dacca (East Pakistan), 3: No. 1 pp. 42-47, January 1969.

Chowdhury, A.K.M., Aziz, K.M.A., and Mosley, W.H.: Demographic studies in rural East Pakistan, second year, May 1967 - April 1968. Pakistan-SEATO Cholera Research Laboratory, (Dacca, East Pakistan), June 1969.

Gangarosa, E.J., Dewitt, W.E., Huq, I., and Zarifi, A.: Laboratory methods in cholera - isolation of Vibrio cholerae (El Tor and classical) on TCBS medium in minimally-equipped laboratories. The Royal Society of Trop. Med. and Hygiene (London, England), 62: No. 5, pp. 693-699, 1968.

Hirschhorn, N.: Bile in acute cholera. Letters to the Editor of The Lancet (London, England), p. 405, August 17, 1968.

Hirschhorn, N., Chowdhury, A.K.M.A., and Lindenbaum, J.: Cholera in pregnant women. The Lancet, No. 1, pp. 1230-1232, June 21, 1969.

Hirschhorn, N., Kinzie, J.L., Sachar, D.B., Northrup, R.S., Taylor, J.O., Ahmad, S.Z., and Phillips, R.A.: Decrease in net stool output in cholera during intestinal perfusion with glucose-containing solutions. New England J. of Med. (Boston, Massachusetts, U.S.A.). No detail available.

Hirschhorn, N. and Rosenberg, I.H.: Sodium-potassium stimulated adenosine triphosphatase of the small intestine of man - studies in cholera and other diarrheal diseases. J. Lab. and Clin. Med. (St. Louis, Missouri, U.S.A.). No detail available.

Khan, A.Q.: An outbreak of cholera in a Dacca city household. J. Pakistan Med. Assn. (Karachi, West Pakistan), 18: No. 7, pp. 268-272, July 1968.

McCormack, W.M., Chowdhury, A.M., Jahangir, N., Ahmed, A.B.F., and Mosley, W.H.: Tetracycline prophylaxis in the families of cholera patients. Bulletin of the World Health Organization (Geneva, Switzerland), 35: No. 5, pp. 787-792, 1968.

McCormack, W.M., Islam, M.S., Fahimuddin, M., and Mosley, W.H.: A community study of inapparent cholera infections. American J. of Epidemiology (Johns Hopkins Univ., Baltimore, Maryland), 89: No. 6, pp. 658-664, June 1969.

McCormack, W.M., Mosley, W.H., Fahimuddin, M., and Benenson, A.S.: Endemic cholera in rural East Pakistan. American J. of Epidemiology, 89: No. 4, pp. 393-404, 1969.

McCormack, W.M., Rahman, A.S.M., Chowdhury, A.K.M.A., and Mosley, W.H.: Report of the 1966-67 cholera vaccine field trial in rural East Pakistan. III. The lack of effect of prior vaccination or circulating vibriocidal antibody on the severity of clinical cholera. Bulletin of the World Health Organization, 40: p. 199, 1969. (See Mosley, W.H. et al, for parts I and II of this study)

Mackay, D.M., Rahaman, M.M., and Bairagi, R.: Effect of weight at birth on infant mortality. J. Pakistan Med. Assn., 19: No.4, pp. 144-146, April 1969.

Martin, A.R.: Preventive aspects of rural medicine. East Pakistan Med. J. (Dacca), 12: No. 4, pp. 132-134, October 1968.

Martin, A.R., Mosley, W.H., Sau, B., Ahmed, S., and Huq, I.: Epidemiologic analysis of endemic cholera in urban East Pakistan, 1964-1966. American J. of Epidemiology, 89: No. 5, p. 572, May 1969.

Martin, A.R., Vernon, T.M., and Mosley, W.H.: Studies of the neutralization of the vascular permeability factor of Vibrio cholerae in man. American J. of Trop. Med. and Hygiene (Allen Press, Inc., Lawrence, Kansas, U.S.A.), 18: No. 2, pp. 253-257, March 1969.

Molla, P.: Introducing public libraries to school children. The Eastern Librarian (Dacca, East Pakistan), 3: No. 2, pp. 17-29, September 1968.

Mosley, W.H.: Worldwide cholera surveillance and control, a historical perspective. Pakistan Med. Forum (Karachi, West Pakistan), 4: No. 4, pp. 87-96, April 1969.

Mosley, W.H., Ahmad, S., Benenson, A.S., and Ahmed, A.: The relationship of vibriocidal antibody titer to susceptibility to cholera in family contacts of cholera patients. Bulletin of the World Health Organization, 38: No. 5, pp. 777-785, 1968.

Mosley, W.H., McCormack, W.M., Fahimuddin, M., Aziz, K.M.A., Rahman, A.S.M.M., Chowdhury, A.K.M.A., Ahmed, A., Martin, A.R., Feeley, J.C., and Phillips, R.A.: 1966-67 cholera vaccine field trial in rural East Pakistan. East Pakistan Med. J., 13: No. 2, pp. 77-84, April 1969.

Mosley, W.H., McCormack, W.M., Fahimuddin, M., Aziz, K.M.A., Rahman, A.S.M., Chowdhury, A.K.M.A., Martin, A.R., and Phillips, R.A.: Report of the 1966-67 cholera vaccine field trial in rural East Pakistan. I. Study design and results of first year of observation. Bulletin of the World Health Organization, 40: p. 177, 1969.

Mosley, W.H., McCormack, W.M., Barui, R.K., Ahmed, A., and Chowdhury, A.K.M.A.: Report of the 1966-67 cholera vaccine field trial in rural East Pakistan. II. Results of the serological surveys in the study populations; the relationship of case rate to antibody titer and an estimate of the inapparent infection rate with V. cholera. Bulletin of the World Health Organization, 40: p. 187, 1969. (See McCormack, W.M. et al, for part III of this study.)

Nalin, D.R., Cash, R.A., Islam, R., Molla, M., and Phillips, R.A.: Oral maintenance therapy for cholera in adults. The Lancet, pp. 370-372, August 17, 1968.

Rahaman, M.M.: Cholera - the scourge of East Pakistan. Editorial in the Pakistan Observer (newspaper, Dacca, East Pakistan), November 11, 1968.

Sachar, D.B., Taylor, J.O., Saha, J.R., and Phillips, R.A.: Intestinal transmural electric potential and its response to glucose in acute and convalescent cholera. Gastroenterology (University of California Medical Center, San Francisco, Calif.), 56: No. 3, pp. 512-521, March 1969.

MANUSCRIPTS
ACCEPTED BY PUBLISHERS IN FY69
FOR PUBLICATION IN FY70
(Detailed provided if available)

Cash, R.A., Nalin, D.R., Rochat, R., Reller, L.B., Haque, Z., and Rahman, A.S.M.M.: Results of clinical trial of oral therapy in a rural cholera treatment center. American J. of Trop. Med. and Hygiene. No detail available.

Cash, R.A., Nalin, D.R., Toha, K.M.M., and Phillips, R.A.: Acetate in the correction of acidosis secondary to diarrhoea. The Lancet, pp. 302-303, August 9, 1969.

Cash, R.A.: On cholera. Guest editorial for the J. Pakistan Medical Assn., XIX: No. 8, pp. 343, August 1969.

Cash, R.A.: Aspects of the current understanding of the pathophysiology of cholera. J. Pakistan Medical Assn., XIX: No. 8, pp. 345-348, August 1969.

Gangarosa, E.J. and Bart, K.J.: Cholera. Brenneman's Practice of Pediatrics, published by Harper and Row, Hoeber Medical Division, New York, N.Y., U.S.A. No detail available.

Gangarosa, E.J. and Mosley, W.H.: Asiatic cholera. Tice's Practice of Medicine, published by Harper and Row, Hoeber Medical Division, New York, N.Y., U.S.A. No detail available.

Hare, W.K., Nalin, D.R., Northrup, R., Rahaman, M., Cash, R.A., and Phillips, R.A.: Cholera - the method of the Pakistan-SEATO Cholera Research Laboratory. Current Therapy, published by W.B. Saunders Co., Philadelphia, Pennsylvania, U.S.A. No detail available.

Khan, M. and Mosley, W.H.: Contrasting epidemiologic patterns of diarrhea and cholera in a semi-urban community. J. Pakistan Medical Assn., XIX: No. 8 pp. 380-385, August 1969.

McCormack, W.M., Chakraborty, J., Rahman, A.S.M.M., and Mosley, W.H.: Vibriocidal antibody in clinical cholera. J. of Infectious Diseases (University of Chicago Press, Chicago, Illinois, U.S.A.) 120: p. 192, 1969.

Mollah, A.M., Saha, P.S.K., and Northrup, R.S.: Intravenous therapy of cholera. J. Pakistan Med. Assn., XIX: No. 8, pp. 349-355, August 1969.

Mosley, W.H.: The role of immunity in cholera. A review of epidemiological and serological studies. Texas Reports on Biology and Medicine, Vaccines and Somatic Antigens, 27 (Supplement No. 1): pp. 227-241, July 1969.

Mosley, W.H. and Ahmed, A.: Active and passive immunization in the adult rabbit ileal loop model as an assay for production of antitoxin immunity by cholera vaccines. J. of Bacteriology, 100: No. 1, pp. 547-549, October 1969.

Mosley, W.H., Aziz, K.M.S., and Ahmed, A.: Serological evidence for the identity of the vascular permeability factor and ileal loop toxin of *Vibrio cholera*. J. of Infectious Diseases. To be published in March 1970.

Mosley, W.H. and Langmuir, A.D.: The evaluation of cholera vaccine in the endemic area. Bulletin of the International Epidemiology Assn., (No detail available).

Nalin, D.R.: Oral therapy for cholera. SEATO Medical Bulletin (Bangkok). No detail available.

Nalin, D.R., Cash, R.A., Reller, B., Rochat, R., Islam, R., Mollah, M., Haque, Z., and Phillips, R.A.: Reduction of maintenance of intravenous fluid needs in cholera by means of an oral therapeutic solution. J. Pakistan Medical Assn., XIX: No. 8, pp. 373-379, August 1969.

Phillips, R.A.: Progress in cholera research. Preface for J. Pakistan Medical Assn., XIX: No. 8, p. 343, August 1969.

Northrup, R.S.: Antibiotics in cholera therapy. J. Pakistan Medical Assn., XIX: No. 8, pp. 356-362, August 1969.

Rahaman, M.M. and Rahman, W.: Cholera therapy in children - some practical hints for the treatment of acute diarrhea. J. Pakistan Medical Assn., XIX: No. 8, pp. 356-362, August 1969.

Rahman, A.S.M.M.: Experience in treating cholera at a rural hospital. J. Pakistan Medical Assn., XIX: No. 8, pp. 366-372, August 1969.

Woodward, W.E., and Rahman, A.S.M.M.: Trial of clioquinol in cholera. The Lancet, p. 270, August 2, 1969.

PRESENTATIONS AT MEETINGS
FY69

SYMPOSIUM ON MEDICINE, INSTITUTE OF POSTGRADUATE MEDICINE,
Dacca, EAST PAKISTAN, June 28-29, 1968.

Northrup, R.S.: Advances in cholera pathophysiology and therapy. (Abstract published by the Institute, pp. 74-85, February 1969.)

7TH ANNUAL MEDICAL SYMPOSIUM, JINNAH POSTGRADUATE MEDICAL
CENTER, KARACHI, WEST PAKISTAN, August 12-17, 1968.

(Abstracts published by Symposium.)

Aziz, K.M.S. and Mohsin, A.K.M.: Highly potent Vibrio cholerae exotoxin, p. 43.

Bhattacharjee, A.K. and Mosley, W.H.: Studies on the nature of antibodies in cholera, p. 41.

Cash, R.A., Mollah, M., Haque, Z., Toha, M.M., and Nalin, D.R.: Acetate as a base precursor in the correction of acidosis secondary to diarrhea and its use in intravenous fluid, p. 42.

Khan, M. and Mosley, W.H.: Incubation period and hours of onset of cholera, p. 43.

Nalin, D.R., Islam, R., Cash, R.A., Mollah, M., and Phillips, R.A.: Clinical trial of oral solution for treatment of cholera, p. 42.

Northrup, R.S.: Immunoglobulins in the intestine and stool of cholera patients, p. 47.

Rahaman, M.M. and Rahman, G.S.: Follow-up of severely malnourished children admitted to the Pakistan-SEATO Cholera Research Laboratory between 1962 and 1967, p. 39.

Rahaman, M.M. and Rahman, W.: Electrolyte composition of diarrheal stool in children - some thoughts on proper replacement therapy, p. 45.

Rahman, R., Kibriya, G., and Huq, I.: Intestinal bacterial flora in normal adults of East Pakistan, p. 46.

8TH INTERNATIONAL CONGRESSES ON TROPICAL MEDICINE AND
MALARIA, TEHERAN, IRAN, September 7-15, 1968.

(Some papers appeared in Abstracts and Reviews issued by the Congresses, all papers were to be published in full in a supplement. No detail available.)

Aziz, K.M.S. and Mohsin, A.K.M.: Cholera toxin from culture filtrates of human cholera stool, Abstracts and Reviews, pp. 487-488.

McCormack, W.M., Chowdhury, A.M., Jahangir, N., Ahmed, A.B.F., and Mosley, W.H.: Tetracycline prophylaxis in the families of cholera patients, Abstracts and Reviews, pp. 518-519.

Mosley, W.H.: Cholera vaccine field trials. (This was substituted on the program for a paper originally scheduled to be given by Dr. Jesus Azurin of Manila, Philippines. It did not appear in Abstracts and Reviews.)

Mosley, W.H.: Recent developments in cholera immunizations, Abstracts and Reviews, pp. 1067-1068.

Mosley, W.H.: The surveillance of cholera. (This was given before the Intercongressional Plenary Session No. 4, entitled 'Dynamics, Surveillance and Control of Infections and it did not appear in Abstracts and Reviews.)

Nalin, D.R., Cash, R.A., Islam, R., Mollah, A.M., and Phillips, R.A.: Clinical trial of an oral solution for the treatment of cholera, Abstracts and Reviews, p. 502.

Nalin, D.R., Cash, R.A. and Phillips, R.A.: Acetate as a base precursor in the correction of acidosis secondary to diarrhea and its use in intravenous fluids, Abstracts and Reviews, p. 501.

Northrup, R.S., Kinzie, J.L., McCormack, W.M., and Phillips, R.A.: Tetracycline lavage used to clarify the recovery process in cholera, Abstracts and Reviews, pp. 489-490.

Rahaman, M.M., Rahman, W., Hare, W.K., Hare, R., and Phillips, R.A.: Electrolyte and fluid balance in pediatric cholera, Abstracts and Reviews, p. 490.

CHOLERA WORKSHOP, an informal meeting concerned with pathophysiology and immunology aspects of cholera. The meeting was sponsored jointly by the NIH Cholera Advisory Committee and the U.S.-Japan Cooperative Medical Science Program committee and was held at the National Institutes of Health, Bethesda, Maryland, U.S.A., October 2-3, 1968. The workshop was attended by Drs. Robert A. Phillips and W. Henry Mosley. The reports given were informal and neither proceedings nor abstracts were published.

NIH CHOLERA ADVISORY COMMITTEE meeting, National Institutes of Health, Bethesda, Maryland, U.S.A., October 4-5, 1968. The meeting was chaired by Drs. John R. Seal and was attended by Drs. Robert A. Phillips, W. Kendrick Hare, W. Henry Mosley and K.M.S. Aziz. A copy of agenda detail was not received and abstracts were not published.

UNIVERSITY OF WEST VIRGINIA, DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS, MORGANTOWN, WEST VIRGINIA, U.S.A.,
October 10, 1968 (lecture).

Aziz, K. M.S.: Cholera toxin and its effects.

U.S.-JAPAN CONFERENCE, Cholera Symposium, Unzen, Nagasaki, Japan, November 4-6, 1968. Afternoon session, November 5, 1968 on Epidemiology, phage, antigenic structure of Vibrio cholerae, and diagnostic techniques of cholera. (No detail available.)

Mosley, W.H.: Recent developments in cholera immunization.

5TH CONFERENCE OF THE INTERNATIONAL EPIDEMIOLOGICAL ASSOCIATION, August 1968, Primosten, Yugoslavia. Conference organized by the Union of Medical Societies of Yugoslavia, Belgrade, Yugoslavia. (To be published in full by the Society.)

Mosley, W.H. and Langmuir, A.D.: The evaluation of cholera vaccine in an endemic area.

CENTO SYMPOSIUM ON DEMOGRAPHIC STATISTICS, KARACHI,
WEST PAKISTAN, November 5-12, 1968. (Symposium organized
by CENTO secretariat in Ankara, Turkey; program handled
by Central Statistical Office ISMCH Society, Karachi.
No detail available.)

Ahmad, S. and Gesche, M.C.: Preliminary report of a
maternal mortality study conducted at Matlab (Comilla
District), East Pakistan.

Aziz, K.M.A., Chowdhury, A.K.M.A., and Mosley, W.H.:
Population studies in rural East Pakistan.

Chowdhury, A.K.M.A. and Aziz, K.M.A.: Possible limitations
of the family planning program on population growth of
East Pakistan.

10TH ALL-PAKISTAN MEDICAL CONFERENCE (Pakistan Medical
Association), DACCA, EAST PAKISTAN, November 14-17, 1968.
(All abstracts published in "Souvenir" brochure,
unpaginated.)

Aziz, K.M.S., Mohsin, A.K.M., Hare, W.K., and Phillips,
R.A.: Studies on cholera toxin with animal models
including rats.

Cash, R.A.: Recent development in the pathophysiology of
cholera.

Islam, M.R., Mollah, A.M., Saha, P.S.K.: Intravenous
therapy of cholera.

Monsur, K.A., Northrup, R.S., Hirschhorn, N., and Rahman,
M.A.: Preliminary studies of phage for the treatment of
cholera.

Mosley, W.H., Fahimuddin, M., Aziz, K.M.A.: Cholera
vaccine studies in rural East Pakistan.

Nalin, D.R., Cash, R.A., Islam, R., Mollah, A.M., and
Phillips, R.A.: Oral therapy of cholera.

Northrup, R.S.: Using of antibiotics in cholera including
clinical trial of Ampicillin.

Rahman, M.: Experiences in treating cholera in a rural
hospital.

Rahaman, M.M. and Rahman, W.: Some problems of cholera
therapy of children.

INTERNATIONAL CONGRESS OF PEDIATRICS, MEXICO CITY, MEXICO,
December 1-7, 1868. (No detail available).

Rahaman, M.M., Rahman, W., Hare, W.K., and Hare, R.:
Electrolyte and fluid balance in pediatric cholera.

4TH DIVISION MEDICAL CONFERENCE (Pakistan Medical
Association), KHULNA, EAST PAKISTAN, February 2-4, 1969.
(Papers abstracted in Souvenir program, unpaginized.)

Alam, A.K.M.J.: The practical treatment of cholera.

Music, S.: Recent advances in epidemiology and
pathophysiology of cholera.

Nalin, D.R. and Cash, R.A.: Complications seen in
cholera therapy and recent developments in therapy.

Rahaman, M.M.: Problem of diarrhea and malnutrition
in children.

NIH CHOLERA ADVISORY COMMITTEE meeting, National Institutes
of Health, Bethesda, Maryland, U.S.A., March 21-22, 1969.
The meeting was chaired by Dr. John R. Seal and attended
by Drs. Robert A. Phillips, W. Kendrick Hare, W. Henry
Mosley, George T. Curlin, and Stanley Music. The agenda
included the following presentations.

Immunology and Epidemiology

Molla, M., Hirschhorn, N., Gangarosa, E., Mosley, W.H.,
and Martin, W.: Detection of the El Tor and classical
biotypes of Vibrio cholerae in convalescent cholera
patients by purgation. Presented by Dr. Gangarosa.

Martin, W.R. and Burrows: Chemical properties of ileal
loop toxin. Presented by Dr. Martin.

Curlin, G.T., Subong, A., and Craig, J.P.: Antitoxic
immunity in experimental canine cholera. Presented by
Dr. Curlin.

Mosley, W.H.: The role of immunity in cholera.
Presented by Dr. Mosley.

Pathophysiology

Kinzie, J.L., Taylor, J.O., Wallace, C.K., and Iber, F.L.:
Cation flux studies in clinical cholera in experimental
cholera models.

EPIDEMIOLOGIC INTELLIGENCE SERVICE (EIS) CONFERENCE,
ATLANTA, GEORGIA, U.S.A., April 12-20, 1969. (All abstracts
published).

Bart, K.J.: Preliminary observations on the epidemiology
of El Tor cholera in Chittagong (East Pakistan).

Woodward, W.E.: The spectrum of cholera in rural East
Pakistan.

50TH ANNUAL SESSION OF THE AMERICAN COLLEGE OF PHYSICIANS,
PHILADELPHIA, PENNSYLVANIA, U.S.A., April 20-25, 1969.

Nalin, D.R., Cash, R.A., and Phillips, R.A.: A field
trial of oral therapy in cholera. Abstracted in
Medical News of the College, 2: No. 1, November 1, 1969.

3RD INTERNATIONAL CONGRESS ON MEDICAL LIBRARIANSHIP,
AMSTERDAM, HOLLAND, May 5-9, 1969.

Molla, P.: Academic medical libraries in Pakistan.
(This will be abstracted in Excerpta by the Medical
Foundation, Amsterdam.)

Molla, P.: An international biomedical library in Dacca
and the use of worldwide medical information services.
(This will be abstracted also by the Foundation.
Permission has been obtained by the East Pakistan
Library Association to publish the paper in full in
the Eastern Librarian.)

ROSS INSTITUTE OF TROPICAL HYGIENE, PAKISTAN BRANCH,
BALISERA MEDICAL DEPARTMENT, KALIGHAT, SOUTH SYLHET,
EAST PAKISTAN, May 5-11, 1969. (Lectures, unabridged.)

Bart, K.J.: Child welfare and well baby care.

Bart, K.J.: Malnutrition.

Cash, R.A.: Hypertension.

Mosley, W.H.: Communicable diseases.

Mosley, W.H.: Vital statistics.

Northrup, R.S.: Bowel infection.

WASHINGTON UNIVERSITY ANNUAL SCIENTIFIC PROGRAM,
ALUMNI ASSOCIATION OF THE SCHOOL OF MEDICINE, ST. LOUIS,
MISSOURI, U.S.A., June 5-6, 1969. (Lecture, no information
available.)

Phillips, R.A.: International medical research on cholera.

PRESENTATIONS ACCEPTED IN FY69
FOR PRESENTATION IN FY70
(Detailed provided if available)

8TH ANNUAL MEDICAL SYMPOSIUM, JINNAH POSTGRADUATE MEDICAL
CENTER, KARACHI, WEST PAKISTAN, August 8-9, 1969.

(Papers submitted in June. Five additional papers were not accepted. It is practice of JPMC to abstract papers.)

Ahmed, A., Mosley, W.H., and Aziz, K.M.A.: Serological evidence for the identity of the vascular permeability factor and ileal loop toxin of Vibrio cholerae.

Ahmed, S. and Gesche, M.C.: Maternal mortality study in the Matlab area of rural East Pakistan.

Aziz, K.M.S.: Studies on bacteriophage in relation to cholera.

Bart, K.J. and Khan, M.U.: Isolation of Vibrio cholerae from night soil during epidemics of classical and El Tor cholera.

Barui, R.K., McCormack, W.M., and Mosley, W.H.: A study of purging for the detection of inapparent infections in the families of cholera patients.

Chowdhury, A.K.M.A., Aziz, K.M.A., and Mosley, W.H.: Fetal and neonatal mortality in rural East Pakistan.

Huq, M.I., Dey, C.R., and Huq, A.: Sulfa sensitivity in the differentiation of vibrio coma and vibrio El Tor.

Rahaman, M.M., Rohde, J.E., Molla, A.M., and Rahman, W.: Total body water, blood volume, bromide space and body fat in adult East Pakistanis.

Rahman, A.S.M.M.: Clinical comparison between furazolidone and tetracycline in the different doses in the treatment of cholera.

4TH SINGAPORE-MALAYSIA CONGRESS OF MEDICINE, SINGAPORE, SINGAPORE, August 14-17, 1969. (Papers submitted in June. Two additional papers were submitted and later withdrawn. Detail not available.)

Cash, R.A. and Nalin, D.R.: Oral cholera therapy.

Nalin, D.R., Cash, R.A., Reller, B., Rochat, R., and Haque, Z.: Treatment of cholera with fluid replacement and an oral adsorbing agent.

ROUND TABLE CONFERENCE ON VACCINES, INTERNATIONAL ASSOCIATION OF MICROBIOLOGICAL SOCIETIES, BERNE, SWITZERLAND, OCTOBER 9-11, 1969. (Permanent Section of Microbiological Standardization, Panel on Salmonella, Shigella and Vibrio Cholerae. Paper submitted in April and abstracted in "Programme and Abstracts" by the Association.)

Mosley, W.H., and Feeley, J.C.: The relationship of cholera vaccine effectiveness to serological responses in humans and to the mouse protection test.

PROCEEDINGS OF THE MEDICAL RESEARCH SOCIETY, THE ROYAL FREE HOSPITAL, LONDON, ENGLAND, October 17, 1969. (Presented by Dr. Love and abstracted by the Society.)

Love, A.H.G., Rohde, J.E., and Veall, N.: Sodium transport in the human intestine, p.3.

PSCRL
VISITORS LIST
FY69

JULY 1968

Purpose of visit

- | | |
|---|---|
| 1. Dr. Eugene Rosenberg
U.S. Naval Medical
Research Unit No. 2
Taipei, Taiwan, Formosa | Consulted on severe anemia
in Sylhet and Matlab |
| 2. Dr. Sherry Gorback
Johns Hopkins University
Calcutta, India | Discussed research finding
with Clinical Investigation
and Bacteriology sections |
| 3. Dr. R. Bradley Sack
Johns Hopkins University
Calcutta, India | Discussed research findings
with Clinical Investigation
and Bacteriology sections |

AUGUST 1968

- | | |
|---|--|
| 4. Dr. Charles C.J. Carpenter
The Johns Hopkins
University School of
Medicine
Department of Medicine
Baltimore, Maryland USA | Consulted with Clinical
Investigation and Animal
Resources sections discussing
recent research |
| 5. Dr. Theodore E. Woodward
University of Maryland
School of Medicine
Department of Medicine
Baltimore, Maryland USA | Consulted regarding
obscure fever study |
| 6. Dr. J. Thomas Grayston
Chairman, Dept. of
Preventive Medicine
University of Washington
School of Medicine
Seattle, Washington USA | Site visited in conjunction
with University of Maryland
Central for Medical
Research Training Program |
| 7. Dr. G. A. Moore
WHO Senior Malaria
Advisor
Malaria Eradication
Program
Dacca, East Pakistan | Toured PSCRL facilities |

AUGUST 1968

- | | |
|--|--|
| 8. The Honorable C. William Kontos
Director, USAID/Pakistan
Rawalpindi, West/Pakistan | Discussed customs exemption for PSCRL supplies and equipment |
| 9. Mr. Hartley S. Neel
Medical Student
Sponsored by Dept. of Health Education & Welfare's
Childrens Bureau
Washington, DC, USA | Assisted in cholera studies |
| 10. Dr. Adaline P. Satterthwaite
The Population Council
c/o The Ford Foundation
Karachi, West Pakistan | Discussed fertility studies in Matlab |
| 11. Dr. A. L. Furniss
Director, Public Health Laboratory
British Legion Village
Aylesford, Maidstone
Kent, England | Consulted with Bacteriology section |
| 12. Dr. Solianti
Dy. Director General
Health Services
Djakarta, Indonesia | Visited PSCRL Matlab Bazaar field project |

OCTOBER 1968

- | | |
|---|---|
| 13. Lady Pickard and
Mrs. Roy Fox (wife of UKDHC)
British Dy. High Commission
Dacca, East Pakistan | Toured PSCRL |
| 14. Dr. James O. Taylor
Boston City Hospital
818 Harrison Avenue
Boston, Massachusettes
USA | Consultant - 2 months
Continued cholera studies
initiated when he was
assigned PSCRL |

OCTOBER 1968

- | | |
|---|--|
| 15. Dr. T. Paul Schultz
Economics Department
The Rand Corporation
1700 Main Street
Santa Monica, California
USA | Consulted regarding
demographic studies in
Matlab |
| 16. The Honorable Benjamin
H. Oehlert, Jr.
American Embassy
Rawalpindi, West Pakistan | Toured PSCRL |
| 17. Mr. Palmer
Colonel Jenkins
Major Kowaleeski
American Embassy
Rawalpindi, West Pakistan | Toured PSCRL |
| 18. Consul General Leslie A.
Squires
American Consulate
General
Dacca, East Pakistan | Toured PSCRL |
| 19. Consul Frank C. Corry
American Consulate
General
Dacca, East Pakistan | Toured PSCRL |
| 20. Dr. Barth Reller
Bacterial Disease
Section
National Communicable
Disease Centre
Atlanta, Georgia, USA | Epidemic Intelligence
Service Officer, temporary
duty in Dacca, participated
in oral therapy studies
and assisted during cholera
season |
| 21. Dr. Roger Rochat
Acting State
Epidemiologist
Epidemiology Section
Oregon State Board of
Health
Portland, Oregon USA | Epidemic Intelligence
Service Officer, temporary
duty in Dacca, participated
in oral therapy studies
and assisted during cholera
season |

OCTOBER 1968

- | | |
|---|--------------|
| 22. Dr. James M. Shewan
Head of Microbiology
Torry Research Station
Aberdeen, Scotland | Toured PSCRL |
|---|--------------|

NOVEMBER 1968

- | | |
|--|--|
| 23. Dr. William M. McCormack
10 Emerson Place
Boston, Massachusetts
USA | Consultant - 1 month
Follow up and continued
research studies during
cholera season |
| 24. Dr. John C. Stauffer
Pakistan Medical Research
Center
University of Maryland
International Center
for Medical Research
& Training
Lahore, West Pakistan | Studied skin test
mycobacteria of patients
in East Pakistan |
| 25. Mr. S.M. Abdul Hussain
Asst. Radio-TV Officer
SEATO
Bangkok, Thailand | Photographed PSCRL
facilities |
| 26. Dr. W.W. Copeland
Director, Public
Information Office
SEATO
Bangkok, Thailand | Toured PSCRL |
| 27. Dr. Stanley Music
University of Maryland
School of Medicine
Baltimore, Maryland USA | Consultant - 3½ months
Assisted during cholera
season |
| 28. Mr. M. Aquil Khan
Staff Photographer
"Dainik Pakistan"
(Newspaper)
Dacca, East Pakistan | Photographed PSCRL
facilities |

NOVEMBER 1968

- | | |
|---|---|
| 29. Dr. John C. Feeley
Division of Biologic
Standards
National Institutes of
Health
Bethesda, Maryland USA | Consulted with Bacter-
iology and Animal Resources
sections |
| 30. Dr. Robert Llimatainen
Regional Science Attache
American Embassy
Teheran, Iran | Toured PSCRL |
| 31. Dr. D.A.J. Tyrrell
MRC Clinical Research
Center
London, England | Studied non-bacterial
diarrhoeas |
| 32. Mr. Lewis D. Brown, Head
Property and Supply
Sections
National Institutes of
Health
Bethesda, Maryland USA | Assessed requirement for
perpetual inventory
operation for supplies;
consulted with Supply
Management Branch, PSCRL |

DECEMBER 1968

- | | |
|--|--|
| 33. Dr. Colin Macleod
Vice President for
Medical Affairs
The Commonwealth Fund
New York, New York, USA | Attended annual meetings
in Dacca as member of
the Technical Committee |
| 34. Dr. Ziaur Rahman
Dy. Director General
of Health
Government of Pakistan
Islamabad, West Pakistan | Attended annual meetings
in Dacca as member of
the Technical Committee |
| 35. Sir James W. Howie
Director, Public Health
Laboratory Service
London, England | Attended annual meetings
in Dacca as member of
the Technical Committee |

DECEMBER 1968

- | | |
|---|--|
| 36. Dr. Robert Cruickshank
University of Edinburgh
Edinburgh, Scotland | Attended annual meetings
in Dacca as member of
the Directing Council |
| 37. Dr. Mohammed Asiruddin
Director of Health
Services
Government of East
Pakistan
Dacca, East Pakistan | Attended annual meetings
in Dacca as member of
the Directing Council |
| 38. Dr. Jean F. Rogier
Chief Public Health
Advisor
USAID/Dacca | Attended annual meetings
in Dacca as member of
the Directing Council |
| ✓ 39. Dr. John R. Seal
Director of Intramural
Research and Chairman
NIH Cholera Advisor
Committee
National Institutes of
Health
Bethesda, Maryland USA | Attended annual meetings
in Dacca as member of
the Directing Council |
| 40. Mr. David A. Wraight
Deputy Secretary General
South East Asia Treaty
Organization
Bangkok, Thailand | Attended annual meetings
in Dacca as member of
the Directing Council |
| 41. Dr. Nazir Ahmed
Joint Secretary of Health
Government of West
Pakistan
Lahore, West Pakistan | Attended annual meetings
in Dacca as member of the
Clinical Investigation
Committee |
| 42. Dr. A.K. Shamsuddin
Ahmed
Director, Institute of
Diseases of the Chest
and Hospital
Government of East
Pakistan
Dacca | Attended annual meetings
in Dacca as member of
the Clinical Investigation
Committee |

DECEMBER 1968

- | | |
|---|--|
| 43. Dr. Graham Bull
Director
MRC Clinical Research
Centre
London, England | Attended annual meetings
in Dacca as member of the
Clinical Investigation
Committee |
| 44. Prof. D.A.K. Black
Chairman, Department of
Medicine
University of Manchester
Manchester, England | Attended annual meetings
in Dacca as member of the
Clinical Investigation
Committee |
| 45. Dr. Stanley E. Bradley
Director, Medical Service
Columbia University
College of Physicians
and Surgeons
Presbyterian Hospital
New York, New York, USA | Attended annual meetings
in Dacca as member of the
Clinical Investigation
Committee |
| 46. Prof. W.E. van
Heyningen, Master
St. Cross College
University of Oxford
Oxon, England | Attended annual meetings
in Dacca as consultant
of the Technical Committee |
| 47. Prof. Joel Mandelstam
Department of
Biochemistry
University of Oxford
Oxford, England | Attended annual meetings
in Dacca as consultant
of the Technical Committee |
| 48. Dr. A.H.G. Love
Senior Lecturer in
Medicine
Queen's University of
Belfast
Belfast, Northern Ireland | Attended annual meetings
in Dacca as consultant
of the Technical Committee |
| 49. Dr. Alexander Langmuir
Chief, Epidemiology
Section
National Communicable
Disease Center
Atlanta, Georgia, USA | Attended annual meetings
in Dacca as consultant
of the Technical Committee |

DECEMBER 1968

50. Dr. John N. Forrest
Boston Inter-Hospital
Liver Group
Lemuel Shattuck Hospital
Boston, Massachusetts
USA
Epidemic Intelligence
Service Officer, on temporary
duty in Dacca, assisted in
oral therapy study during
cholera season
51. Dr. Elias Abrutyn
National Communicable
Diseases Center
Atlanta, Georgia, USA
Epidemic Intelligence
Service Officer, on temporary
duty in Dacca, assisted in
oral therapy study during
cholera season
52. Mr. Adam Clymer
Chief of Bureau
The Baltimore Sun
(Newspaper)
New Delhi, India
Toured PSCRL

JANUARY 1969

53. Lt. William Beckner
U.S. Naval Medical
Research Unit No. 2
Taipei, Taiwan, Formosa
Consulted on cholera
study
54. Dr. Kenneth D. Quist
Chief
Animal Breeding and
Holding Unit
National Communicable
Disease Center
Atlanta, Georgia, USA
Consulted with Animal
Resources section
55. Dr. Bernhard Anderson
Institute of Biological
Chemistry
University of Copenhagen
Copenhagen, Denmark
Discussed PSCRL set up
for frog skin studies
56. Dr. John S. Moorhead
USAID/Vietnam
Observed recent
developments in treatment
of cholera

JANUARY 1969

- | | |
|--|--|
| 57. Dr. Michael Dear
Lecturer
Department of Medicine
Royal Veterinary College
Beaumont Animals Hospital
London, England | Trained PSCRL Animal
Resources staff on small
animal surgery |
| 58. Mr. Arthur Campbell
Demographer
National Institute of
Health
Bethesda, Maryland, USA | Consulted on population
studies |
| 59. Dr. Philip Corfman
Director
Center for Population
Research
National Institute of
Health
Bethesda, Maryland, USA | Consulted on population
studies |
| 60. Prof. David M. Heer
Dept. of Demography and
Human Ecology
Harvard University
School of Public Health
Boston, Massachusetts
USA | Studied interrelationship
of mortality and fertility |
| 61. Dr. D.A.J. Tyrrell
Harvard Hospital
Common Cold Research
Unit
Wilts, England | Discussed diarrhoeal
problems and field
studies |
| 62. Commander Godfrey S.
Huber
U.S. Naval Medical
Research Unit No.2
Taipei, Taiwan, Formosa | Consulted on toxin
studies with Dr. K.M.S.Aziz |
| 63. Dr. James W. Barry
Rockefeller Foundation
Bangkok, Thailand | Consulted with PSCRL
Librarian |

FEBRUARY 1969

- | | |
|--|---|
| 64. Prof. Orjan Ouchterlony
University of Goteborg
Institute of Medical
Microbiology
Department of
Bacteriology
Goteborg, Sweden | Consultation regarding
laboratory and ward
facilities |
| 65. Dr. Harry L. Smith
Associate Prof. of
Microbiology
Jefferson Medical College
of Philadelphia
Philadelphia
Pennsylvania, USA | Tested media (jejunal
aspirates and GAP) |
| 66. Mr. Gordon Harper
Medical Student
Harvard Medical School
Boston, Massachusetts
USA | Studied nutrition in
infants |

MARCH 1969

A group of ten Russian medical officers (see following list) investigating the efficacy of Russian-made bacteriophage used the Dacca and Matlab facilities of the PSCRL on invitation of Director, Health Services, Government of East Pakistan, Director, Institute of Public Health, Government of East Pakistan and Director, Pakistan-SEATO Cholera Research Laboratory. Studies began March 20 and continued for seven weeks.

67. Dr. L.M. Marchuk, Chief, Especially Dangerous Infections Division, Ministry of Health of the U.S.S.R., Moscow
68. Prof. V.N. Nikiforov, Doctor of Medical Sciences, Chief Infectionist of the Russian Soviet Federative Socialist Republic, Chief Physician of Infectious Diseases Division, Central Clinical Hospital of the U.S.S.R. Health Ministry, Moscow, U.S.S.R.
69. Dr. Yu. F. Tsherbak, Assistant Professor of Infectious Diseases, Central Institute of Post-graduate Medical Training, Moscow, U.S.S.R.
70. Dr. T. A. Levitov, Physician-specialist on Infectious Diseases, S.P. Botkin Infectious Hospital, candidate of medical sciences, Leningrad, U.S.S.R.
71. Dr. (Mrs.) R.I. Kotlyarova, candidate of medical sciences, Chief, Laboratory of Cholera Microbiology, Plague Institute of Caucasus and Trans-Caucasia, Stavropol in the Caucasus, U.S.S.R.
72. Dr. (Mrs.) M.S. Naumshina, candidate of medical sciences, Senior Research worker, Laboratory of Microbiology and Immunology of Cholera, Institute of Microbiology, Saratov, U.S.S.R.

MARCH 1969

73. Dr. D. T. Khokhlov, candidate of medical sciences, Assistant Professor, Consultant-Epidemiologist, Leningrad Plague Station, Leningrad, U.S.S.R.
74. Dr. A.A. Manturo, Epidemiologist, Division of Especially Dangerous Infections, Regional Sanitary Epidemiologic Station, Odessa, U.S.S.R.
75. Dr. S.U. Davydov, Epidemiologist, Plague Laboratory, Moscow, U.S.S.R.
76. Mrs. M.I. Shuvalova, Laboratory Technician, Plague Laboratory, Moscow, U.S.S.R.
77. Mrs. Marie Rose and Toured PSCRL
eight student nurses
from Holy Family
Hospital, Dacca
East Pakistan

APRIL 1969

78. On April 3, Director Francois Moreuil of the French Color TV (ORTF) "Point-Counterpoint" program series and Olivier Todd, a journalist on the staff of le Nouvel Observateur (for a program on BBC "24 Hours" series) toured the Dacca and Matlab facilities. They were accompanied by their own photographers and stated they planned to include in programs on each series a feature article on the PSCRL
79. Mr. G.C. Allen Toured PSCRL
Second Secretary
Australian High
Commission
Rawalpindi, West
Pakistan

APRIL 1969

80. Mr. Martin Taylor Toured PSCRL
 Director
 Pan American Airways
 Karachi, West Pakistan

81. On April 28 and 29, a press tour of the PSCRL Dacca and Matlab facilities by leading Dacca newspaper editors was arranged by the USIS Information Officer, Dacca. The group consisted of editors of both English and Bengali papers. The result was 514 column inches carried among seven daily newspapers on May 1. The articles were accompanied by photos distributed by USIS. The articles all appeared on page 1

MAY 1969

82. On May 13, a group of 54 students of Mymensingh Medical College toured PSCRL and viewed the film "Laboratory Diagnosis of Cholera"

83. On May 17, Dr. K.M.S. Aziz and Dr. Mujibur Rahaman appeared on TV in East Pakistan. They demonstrated with the assistance of an Animal Resources technician studies which are proceeding on ileal loop and gut functions in the cholera disease, using an anesthetized live animal model to illustrate the procedures followed in the studies

JUNE 1969

- | | |
|--|--|
| 84. Dr. Nazir Ahmed
Jt. Secretary of Health
Government of West
Pakistan
Health Department
Civil Secretariat
Lahore, West Pakistan | Reviewed demographic
studies at Matlab |
| 85. Miss Sughra Ahmed
Ministry of Health,
Labour and Social
Welfare
Government of West
Pakistan
Health Department
Lahore, West Pakistan | Reviewed demographic
studies at Matlab |
| 86. Dr. Zahid Husain Khan
Director
Bureau of Laboratories
National Health Centre
Government of Pakistan
Islamabad, West Pakistan | Reviewed toxin research
with Animal Resources
section |
| 87. Commander Frank A. Zaller
U.S. Naval Hospital
Philadelphia, Pennsylvania
USA | Surveyed administration
of PSCRL Supply
Management section |
| 88. Major General Jesus Vargas
Secretary General
South-East Asia Treaty
Organization
Bangkok, Thailand | Toured PSCRL |
| 89. Lt. Colonel Jose L.
Reyna, Jr.
Executive Assistant
South-East Asia Treaty
Organization
Bangkok, Thailand | Accompanied General Vargas
as aide |

JUNE 1969

90. Mr. Nazir Ahmed
Statistician
Ministry of Health,
Labour & Social
Welfare
Health Division
Government of Pakistan
Islamabad, West Pakistan
Consulted with
Epidemiology section on
demographic studies
91. Miss Sughra Ahmed
Statistician
Ministry of Health
Labour & Social
Welfare
Health Division
Government of Pakistan
Islamabad, West Pakistan
Accompanied Mr. Ahmed
92. Dr. Zahid Husain Khan
Director
Bureau of Laboratories
National Health Centre
Government of Pakistan
Islamabad, West Pakistan
Toured PSCRL
93. Dr. A. Zenouzi
Consul General of Iran
in East Pakistan
Dacca, East Pakistan
Called on Director

REPORT OF THE DIRECTING COUNCIL

FY69

REPORT OF THE
NINTH MEETING OF THE DIRECTING COUNCIL
December 5-6, 1969

The Directing Council met one day subsequent to the adjournment of the seventh meeting of the Technical Committee. In attendance were the following members-designate and representatives to the Council:

Dr. Robert Cruickshank
Professor Emeritus, University of Edinburgh, Scotland
Chairman of the Directing Council
Delegate of the United Kingdom

Colonel M. M. Haque
Secretary, Health Department, and
Director, Health Services
Government of East Pakistan, Dacca, East Pakistan
Delegate of the Government of Pakistan

Dr. Jean F. Rogier
Chief Public Health Advisor, East Pakistan (Dacca)
U.S. Agency for International Development, in Pakistan
Delegate of the Government of the United States of America

Dr. John R. Seal
Chairman, NIH Cholera Advisory Committee, and
Scientific Director, NIAID
National Institutes of Health
U.S. Department of Health, Education and Welfare
Public Health Service, Bethesda, Maryland, U.S.A.
Delegate of the Director of the National Institutes
of Health

Mr. S. M. Rizvi
Director, Cultural and Economic Affairs
South-East Asia Treaty Organization
Delegate of the Secretary General of SEATO
Bangkok, Thailand

In attendance throughout the meeting were:

Dr. Robert A. Phillips, Director, PSCRL
Dr. W. Kendrick Hare, Deputy Director, PSCRL
Mr. Patrick G. Talmon, Executive Officer, PSCRL
Mrs. Constance Miccio, Secretary to the Director, PSCRL

Dr. Colin M. MacLeod, Chairman of the Technical Committee, attended one session for presentation of the Report of the Technical Committee, and Dr. Alexander Langmuir, Chief of the Epidemiology Program at the U.S. National Communicable Diseases Center, and Dr. W. Henry Mosley, Chief of the Epidemiology Division of the PSCRL, also attended one session for discussion of the epidemiology program.

Guests to the meeting were:

Mr. Louis Sekutowitz, Consul General
Consulate General for the Republic of France
Dacca, East Pakistan

Mr. J. L. Allen, Deputy High Commissioner
High Commission for Australia, Dacca Office
Dacca, East Pakistan

Mr. Joseph Wheeler, Director
U.S. Agency for International Development, Pakistan
Rawalpindi, West Pakistan

Lt. Col. K. J. Fleming, Medical Officer
South-East Asia Treaty Organization
Bangkok, Thailand

MINUTES AND RESOLUTIONS
OF THE DIRECTING COUNCIL

The ninth meeting was called to order by the Chairman at 0900 on December 5, 1969 with a welcoming address to members and observers.

The Directing Council noted with deep regret the death of Mr. David Wraight on November 4, 1969. Mr. Wraight has been the representative on the Directing Council of the Secretary General of SEATO for five years and has given invaluable service to the work of the Directing Council. The Director of the Laboratory was requested to send on behalf of the Directing Council a letter of condolence to Mrs. Wraight.

The list of Honors and Awards received by members of the Directing Council, Technical Committee, Director and staff of the PSCRL during the past year was noted by the Council.

The following Agenda items were considered:

Item 1. Adoption of the Proposed Agenda.

The proposed Agenda was presented and adopted.

Item 2. Confirmation of the Minutes of the 8th Meeting of the Directing Council held December 11-12, 1968.

The Council reviewed and approved the Minutes of the eighth meeting.

Item 3. Director's Administrative Report.

The Council noted and accepted the report. Of particular concern were the following:

A. The need for river craft, noted in the report of the eighth Meeting, was again highlighted. The total number of sixteen is adequate for the requirement of the expanded area of villages now being utilized in vaccine evaluations, but inadequate for any expansion of demographic studies. Eight of the sixteen boats are listed as being in poor condition. A similar deficit in the number of automotive vehicles in good condition is also documented. In view of the dependence of the Laboratory on transportation of both types in the conduct of its field studies and the major importance of such studies, the Directing Council urges SEATO member nations to make a greater effort to meet these needs.

B. The reorganization of the Laboratory was presented and accepted in principle. The Council questioned the title of the Physiology Division since this Division includes patient care, clinical and therapeutic research and physiologic studies. A more descriptive term, such as Clinical Sciences or Pathophysiology, might be considered. The Director agreed to discuss this suggestion with his scientific staff.

C. The Council noted that practically none of the local professional staff are on foreign training at the present time and understood the fiscal constraints which were responsible. It urged the Director to resume short-term training assignments abroad wherever circumstances permitted. Mr. Rizvi mentioned the existence of SEATO fellowships and the eligibility of the staff of PSCRL to apply for these.

D. The Council noted with pleasure the addition to the staff of Mr. George Eddy, Jr. as Special Advisor to the Director for Supply Management. The need for this position has been well-documented in past meetings of the Council. Mr. Eddy's assistance in the complicated problem of meeting the logistical requirements of the research program has enabled Dr. Hare to be relieved of this burden and will become all the more important after Dr. Hare's departure next summer.

Item 4. Director's Financial Report.

The Council accepted the report.

The Chairman raised the question as to the Government of East Pakistan's contribution for cholera patient-care expenses which in FY69 was Rs.44,000 instead of the Rs.55,000 agreed upon at the last meeting. Discussions pointed out that FY69 had been a major cholera year with 929 cholera patients admitted to PSCRL wards, as compared to 223 cases in FY68. In the first five months of FY70 a total of 489 cholera patients have been admitted. This special patient-care fund was agreed upon two years ago as reimbursement to the PSCRL from the savings to the Government of East Pakistan resulting from the decrease in number of cholera patients admitted to other hospitals in Dacca since nearly all cholera patients are referred to the PSCRL. Colonel Haque, the Government of Pakistan representative, thought that the Government of Pakistan could adhere to the basic amount of Rs.50,000 first agreed to, but the general reduction in Government spending might make any increase beyond that level difficult to obtain.

It was agreed that the report was much better-prepared and presented than last year and Mr. Talmon was commended for his response to the Council's request of last year. The report was approved.

Item 5. Review of the Auditor's Report and the Director's Comments.

The Council reviewed the Auditor's report and endorsed the suggestions therein.

The needs for payment of overtime in a research facility are well-recognized and the level of five per cent of local payroll costs for Pakistani employees would not be considered excessive provided strict controls are implemented to assure that the extra work is needed and that overtime is not used as a device to increase salaries.

The Council was concerned with the large amount of overtime permitted to the Director's secretary during the period April to December 1968. This amounted to an extra ten and one-half days of work per month throughout the period, an amount which is not commensurate with good employee management or practice since it is equivalent to seven-day work weeks over a long period of time. The NIH representative explained that further consideration had been given to the problem and it had been decided by the NIH to allocate a total of 232 hours of overtime per year to meet the needs of the Director's office. This amount is payable by the N.I.H. in dollars and further payments of overtime locally by other monies is prohibited. The decision to raise the limit of 150 hours mentioned in the Audit Report to 232 hours was transmitted to the Director of the PSCRL on May 29, 1969. It appears that this communication was not made available to the Auditor. Any further overtime beyond the limit of 232 hours must be reimbursed by compensatory time off. The NIH representative further noted that there seemed to be widespread resentment among both Pakistani and American staff at the large payment of overtime to the Director's office staff, specially since overtime for other employees has been curtailed. He urged the Director to maintain greater control and to approve only that overtime which actually met the needs of his office. The Council endorsed this action and stated its own view that overtime for administrative and clerical staff needs to be more rigorously justified than did overtime with research departments where the irregular hours of work were more often needed. At the same time it wanted to record its appreciation of Mrs. Miccio's untiring efforts to improve manuscript and other services and also her assistance to the Council in preparation of its report.

Particular note was made of the comments on air travel. The NIH representative cited correspondence with the Director of the PSCRL in October 1969 recording discussions on this matter with the Director in which it was agreed that the policy of PSCRL would be

to issue economy or tourist class tickets to those traveling under its sponsorship, permitting a rest stop of up to twenty-four hours en route if the flying time exceeds eight hours. First class accommodation may be afforded to the members of the Directing Council, Technical Committee and Clinical Investigation Committee on request. First class accommodations may also be issued where there is a valid medical certificate on file with the Executive Officer of the PSCRL certifying the need for such accommodations and to certain other travelers of non-U.S. origin where the age and prestige of a traveler would dictate that such accommodations would be afforded him by his own Government. Persons using first class accommodations are not permitted rest stop-overs at intermediate points other than as may be involved in their scheduling by the most direct route. The reasons for authorizing first class transportation should be fully documented in each case.

The Directing Council endorsed these policies as being necessary both from the standpoint of participant government policies and from the need for fiscal frugality by the Laboratory.

Item 6. Utility Report.

The Council accepted the report and wished to commend Mr. Mark Tucker for the efficient functioning of the workshop and facilities for repair of apparatus and expensive electronic equipment. Since this report was discussed in connection with the Technical Committee Report no further recommendations were considered necessary.

Item 7. Technical Committee Report.

The report of the Technical Committee was presented by its Chairman, Dr. Colin MacLeod, assisted by Dr. Alexander Langmuir, Consultant for Epidemiology. After full discussion of its various sections the Directing Council accepted and approved the report. It agreed with the recommendation that the joint meeting of the Technical Committee and Directing Council, as presently arranged,

should be continued but that the meeting should be held earlier in the year, perhaps the first week in November of 1970.

The Council noted and approved the emphasis on the urgent need to improve and expand the ward space and facilities, either by the construction of a one-storey building adjacent to the present ward or by incorporating additional medical care facilities in the previously-proposed four-story laboratory building.

The Council accepted the need for the establishment of four or five additional scientific posts as listed by the Technical Committee in order to maintain the high quality of research within the Laboratory. However, it doubted if these posts could be filled by American personnel because of the present restrictions on overseas staffing and spending. The possibility of recruiting suitable staff with financial support from other SEATO countries, in particular from the U.K. and Australia, was discussed.

The Council noted with approval the advances that have been made by the staff of the Laboratory in the elucidation of the patho-physiology of cholera and the convincing evidence that oral therapy with suitable fluids could, to a large extent, replace the need for intravenous fluid therapy. The need to popularize oral therapy and to extend this new form of treatment was emphasized.

The Council was impressed with the progress made in assessing the value of prophylactic vaccines against cholera and in the future prospects of testing more effective vaccines. It supported the recommendation that these studies should be continued with the population presently under observation. It also noted with approval the valuable information being derived from intensive studies on the epidemiology of cholera.

Over the past few years accurate and useful demographic data have been collected on the large rural community of some 224,000 persons in the vaccine evaluation program. This information would be most helpful to

the Pakistan Government in its family planning program. The Directing Council supports the recommendation that collaborative studies already initiated with the East Pakistan Research and Evaluation Centre of Dacca University and the U.S. National Institute of Child Health and Human Development (NIH) with the support of U.S.A.I.D. should be continued and expanded. (See item 12.)

Item No.8. Review of PSCRL Budget Plan for 1970-71 and Determination of the Level of the General Operating Fund Contribution.

The Pakistan representative noted that at present the contributions by the Government of Pakistan to the General Operating Fund were planned to be a five per cent increase over last year's (and the special patient care fund).

The Council was informed that the PSCRL is still performing all stool cultures required for pilgrims going to Mecca, but since the pilgrims have not been charged for this service since the 1967 pilgrimage it is no longer a source of funds for the Laboratory's operations. Colonel Haque indicated that he had not known of this before; he would investigate it and was hopeful of reimbursement to the Laboratory for this service.

The Director, PSCRL, noted the fact that a ten to fifteen per cent pay raise had just been granted to employees of U.S. Government offices in Pakistan by the American Ambassador. Although not necessarily applicable to PSCRL local employees, the practice had been to follow as a guideline the pay raises applicable to the local American Consulate General and U.S. A.I.D. mission staff. The Council was informed that any failure to meet the full rupee amounts recorded in the Budget Plan by any of the contributors would probably result in personnel reductions. After review of the present percentage of rupee funds involved in personnel costs and the impact of the prospective pay raise, the Council

agreed that such action might be necessary.

In view of the extreme limitations of U.S. Public Law 104(K) research funds, as well as those of the Government of Pakistan, the Council urged the Director, PSCRL, to observe the strictest economies in all aspects of the implementation of the PSCRL research program.

Item 9. Presentation of Appendices to Personnel Regulations.

The Executive Officer, PSCRL, explained that this Agenda item title was no longer appropriate and that selected PSCRL management policy regulations promulgated by Circulars were being presented to the Council.

PSCRL Circular - General Administration - No. 3, of December 18, 1969, was discussed in relation to an appeal made to the NIH representative by officers of the PSCRL Staff Welfare Association regarding fringe benefits. This appeal was for restoration of transportation privileges and certain medical benefits. The unavailability of local public transportation to the somewhat suburban location of PSCRL was described and the Staff Welfare Association thought the problem could be relieved by obtaining four additional 12-passenger minibuses. The Director explained that the cost of transportation would be more than four minibuses and that PSCRL could not now afford such costs. The Pakistan representative thought the problem might be solved by arranging with the East Pakistan Road Transport Corporation for special bus schedules to PSCRL from a central location in the city. He agreed to investigate this and to confer with the Director of the PSCRL on it later.

The Director and Executive Officer, PSCRL, explained to the Council that there had never been any formally-inaugurated program of providing hospital costs or drugs except in the case of work-related illness or injury. Although individual Section Chiefs had sometimes

authorized expenses for employees for non-work-related illnesses, this had been irregular and on a personal basis. Since salaries were now calculated on a basis to include such fringe benefits offered separately by other employers, the Director did not see how he could accede to the employees' wishes without making a corresponding reduction in salaries to provide the funds to meet such costs. This would place PSCRL in the business of managing a medical insurance program and an employees' motor pool, somewhat similar to the banking practices to which the Auditor had taken exception.

The U.S. representative confirmed the Director's comments regarding fringe benefits in salaries in U.S. Government agencies, the Council reluctantly agreed to the PSCRL decision. The reluctance stemmed from the recognition of the deficiencies in availability of hospital insurance and public transportation and the esteem of the Council members for their loyalty and contributions of the PSCRL employees.

The changes in regard to leave, time and attendance and overtime were noted in connection with comments on these practices in the Auditor's Report and the Council's request of last year for review of a too generous leave policy.

Item 10. Clinical Investigation Committee.

The Director, PSCRL, reviewed the activities of the Clinical Investigation Committee during the year and noted the presence of three of its members at the Technical Committee meeting. The Committee had during the past year approved, by mail, newly-developed guidelines on the use of isotopes in clinical studies at PSCRL.

Item 11. Extension of the US-GOP Agreement.

The Council noted with pleasure that the existing agreement between the United States of America and the Government of Pakistan - governing the Pakistan-SEATO Cholera Research Laboratory - has been extended through June 30, 1977 (FY77).

The U.S. representative pointed out that the negotiations for extension of the U.S. Department of Health, Education and Welfare and the U.S. Agency for International Development agreement for continuation of the SEATO Research Program into the mid-1970's have not yet been concluded. However, the U.S. Bureau of the Budget, with the assistance of an ad hoc scientific advisory group, has made an intensive review of the Program and its accomplishments and prospective costs, and has concurred in principle to a proposed extension, subject to a further review of the program and its fiscal requirements in 1972.

To facilitate this review, to meet the requirements of the Bureau of the Budget of the U.S. Government and to determine the positions of U.S.A.I.D./ Pakistan, the Government of Pakistan and the United Kingdom in support of future PSCRL fiscal and staff requirements, the U.S. representative introduced a motion calling for the Director of the PSCRL to prepare a comprehensive review of the Laboratory's research objectives and proposed programs, including fiscal and staffing requirements, for the period July 1, 1970 through June 30, 1975 (FY75). The report of this review will be presented to the Directing Council at its next meeting.

Item 12. Non-cholera Research Activities.

The U.S. representative recalled that at its eighth Meeting the Directing Council had approved the recommendation of the Technical Committee that the PSCRL should collaborate with appropriate agencies in studies related to demography and reproductive physiology, provided that such studies would not restrict the primary cholera research mission of the Laboratory, would be financed from independent sources, and would have U.S.A.I.D. and Government of Pakistan concurrence.

The Council was pleased to note that steps have been taken by the Director, PSCRL, and his staff to implement this recommendation in areas related to U.S. Government and Government of Pakistan priority programs.

A project has been designed to continue, formalize and expand the descriptive demographic studies now being carried out in the Matlab area by the Laboratory with the collaboration of the Institute of Statistical Research and Training of Dacca University over a period of four years. The project will assure the continuation of the demographic studies in the vaccine field trial area long enough to establish meaningful historical "benchmarks" for the vital processes in the area.

In October 1969 the Pakistan Family Planning Council requested U.S.A.I.D./Pakistan to determine the feasibility of carrying out studies of pregnancy prevalence, wastage, and interval in the Matlab vaccine field trial area. A pilot study covering some 200 women, initiated by a U.S.A.I.D. personal services contract employee, has progressed into an interim project which has been conducted with the assistance of PSCRL staff; the Population Council of New York has supplied testing material. The Pakistan Family Planning Council has issued a check in the amount of Rs.15,000 to cover the pro-rated salary cost for the time spent by regular PSCRL staff on the interim project during the period July - December 1969. The interim project has established the feasibility of conducting a large-scale pregnancy prevalence, wastage, and interval study in the Matlab area. The Council was informed that U.S.A.I.D./Dacca, with the collaboration of PSCRL, has prepared a project proposal for a study to cover a sample of some 3,000 married women, randomly selected from the Matlab area, over a period of 36 months, utilizing PSCRL personnel on a part-time basis, as well as PSCRL transport and laboratory space, and that the proposal has been submitted to the Pakistan Family Planning Council and to U.S.A.I.D./Pakistan for information and funding.

The Council was pleased to learn that the U.S. National Institute of Child Health and Human Development (NICHD) of the National Institutes of Health has agreed to assign a demographer to the PSCRL to assist the Laboratory in the further development and extension of the demographic resource of the Matlab area. The Council welcomes such assistance since it will prove invaluable to the implementation of projects related to population studies, family planning and other U.S.A.I.D./Government of Pakistan high priority programs.

A second development was outlined in Research Protocol 08 70 02 - "Measurement of Nutrient Wastage from Malabsorption in Rural Inhabitants in Puerto Rico, Iran and East Pakistan". This work was requested of PSCRL by the U.S. Department of Health, Education and Welfare and is funded at the level of \$30,000 per annum for two years. It is a pilot project aimed at learning whether there is any major defect in protein absorption from food grains in peoples where the malabsorption syndrome and parasitism is common. If so, there may be a need to reevaluate U.S.A.I.D. policies and practices in supplying food grains in its international nutrition activities. The PSCRL had agreed to accept a contract on June 30, 1969 with the understanding that the work would be done during the non-cholera season. The Director briefly reviewed the work to be done which is fully outlined in the written protocol. The U.S. National Institutes of Health representative explained that the NIH was not wholly satisfied with the manner in which the project was developed and funded in Washington since it is basically an A.I.D. research effort, initially contracted to the U.S. Department of Health, Education and Welfare, and sub-contracted to PSCRL and other participating laboratories. NIH would have preferred direct U.S.A.I.D. support to PSCRL as the beginning of a long-range utilization of the competence of the Laboratory for work in nutrition.

The Council expressed concern that there should be proper accounting for these funds and asked that expenditures be included in the Director's Financial Report in future years. The Council also recommended that they be subject to audit along with the other funds under PSCRL control.

Item 13. Election of Chairman and Vice-Chairman for the Ensuing Year.

Recognizing the advantages of continuity, the Council agreed that there should be no change in the designation for these positions before the next meeting of the Council. Therefore, the representatives of the United Kingdom and the Government of Pakistan will act as Chairman and Vice Chairman, respectively.

Item 14. Selection of the Dates for the 10th Meeting of the Directing Council.

The Directing Council seconded the recommendation of the Technical Committee that a joint meeting of the Directing Council and Technical Committee and advisors and consultants to the Laboratory - with a one-day interval between the meetings, and to be held preferably before the peak of the cholera season - is desirable for future meetings.

The Director of the PSCRL was requested to initiate plans for the next meeting of the Technical Committee and Directing Council to be held during the first week of November 1970.

Item 15. Other Business.

It was moved, and adopted, that the Director of the U.S. National Institutes of Health be asked to communicate the appreciation of the Directing Council to the University of Alabama for their generous contribution in making a four-year leave of absence

available to Dr. and Mrs. (Dr.) Hare to serve at the PSCRL.

Mr. Rizvi, representative of SEATO, indicated SEATO interest in giving greater publicity to PSCRL activities by means of a documentary type of film, to be made at PSCRL, and stated that SEATO could give consultative advice on this. If made, it would be widely distributed in SEATO countries. Mr. Rizvi stated that General Vargas, Secretary General of SEATO, has asked him to assure the Directing Council of the continuing interest and support of the PSCRL by the SEATO.

The Chairman of the Directing Council noted that Dr. Nazir Ahmad, Joint Secretary, Health, Government of West Pakistan (Lahore), had - during the Technical Committee meeting - made the suggestion for greater participation of PSCRL in the study and control of cholera outbreaks in the West Wing. The Director, PSCRL, had indicated the availability of PSCRL to assist medical officials in epidemiologic investigations, training and demonstration projects, or to provide such assistance as staff and funds permitted. The Council endorsed the views of the Director, PSCRL, that restrictions in funds and staff were such that PSCRL could not contemplate setting up a subsidiary facility in the West Wing unless the Government of Pakistan could make a large additional financial commitment to the Laboratory.

The Council expressed its pleasure that Colonel Fleming, Chief Medical Officer, SEATO, had been able to attend the meetings of both the Technical Committee and Directing Council. Colonel Fleming sends a Medical Newsletter monthly to medical departments of all SEATO countries and will publicize PSCRL publications and activities through this channel. The Council expressed the hope that the SEATO Chief Medical Officer would henceforth be a regular attender at these meetings. Colonel Fleming expressed his pleasure at being able to attend, declaring his admiration for the work and

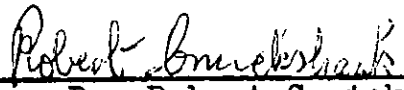
expressing great interest in publicizing the advances in knowledge of cholera within medical circles related to SEATO.

The Council was especially pleased with the attendance of Mr. Joseph Wheeler, Director, U.S.A.I.D./ Pakistan, and his interest in use of the facilities of the PSCRL in programs relevant to family planning.

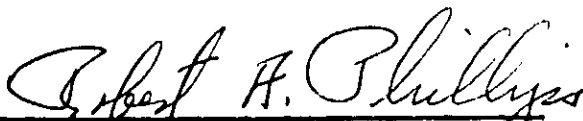
The Chairman also expressed the appreciation of the Council that Mr. Sekutowitz, Consul General for the Federal Republic of France, and Mr. Allen, Deputy High Commissioner for Australia, had been able to attend the Council meeting. He also thanked the PSCRL staff for their assistance with the Council's business.

The meeting of the Directing Council was adjourned at 1400 December 6, 1969.

Signed by the Chairman of
the Directing Council


Dr. Robert Cruickshank

Signed by the Director of
the Pakistan-SEATO Cholera Research Laboratory


Dr. Robert A. Phillips

Dacca, East Pakistan
December 6, 1969