

UNCLASSIFIED

CLASSIFICATION

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE Caribbean Epidemiological Surveillance and Training - 538-0027			2. PROJECT NUMBER 538-0027	3. MISSION/AID/W OFFICE RDO/C
5. KEY PROJECT IMPLEMENTATION DATES			4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <u>538-85-03</u>	
A. First PRO-AG or Equivalent FY <u>79</u>	B. Final Obligation Expected FY <u>85</u>	C. Final Input Delivery FY <u>85</u>	6. ESTIMATED PROJECT FUNDING A. Total \$ _____ B. U.S. \$ <u>2,185,000</u>	
			7. PERIOD COVERED BY EVALUATION From (month/yr.) <u>02/06/81</u> To (month/yr.) <u>02/22/85</u> Date of Evaluation Review <u>02/22/85</u>	

B. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airmgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
CAREC Should:		
1. Improve upon the response time and ability to provide assistance when simultaneous requests for epidemiologist services occur while maintaining infectious diseases control and prevention capability.	CAREC	By PACD
2. Intensify monitoring activities, tailor responses and target resources to address specific problems in individual CMCs. This should maintain progress attained and reflected in current levels of performance (surveillance, outbreak investigations and laboratory).	CAREC	By PACD
3. Intensify efforts for remaining program elements outlined in the food safety program.	CAREC	6/30/85
4. Expedite training of CAREC staff (in-service and continuing education) utilizing opportunities to re-program remaining grant funds.	CAREC	6/30/85

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A. Continue Project Without Change

B. Change Project Design and/or Change Implementation Plan

C. Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

Holly Wise, RHPDO. *HW*
 Darwin Clarke, EO *DC*
 Blaine Jensen, A/PRM. *BJ*
 Terrence Brown, A/DIR. *TB*

12. Mission/AID/W Office Director Approval

Signature: *James L Holtaway*
 Typed Name: James Holtaway
 Date: April 2, 1985

**UNCLASSIFIED
CLASSIFICATION**

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE Caribbean Epidemiological Surveillance and Training - 538-0027			2. PROJECT NUMBER 538-0027	3. MISSION/AID/W OFFICE RDO/C
4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <u>538-85-03</u>				
<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION				
5. KEY PROJECT IMPLEMENTATION DATES A. First PRO-AG or Equivalent FY <u>79</u> B. Final Obligation Expected FY <u>85</u> C. Final Inout Delivery FY <u>85</u>	6. ESTIMATED PROJECT FUNDING A. Total \$ _____ B. U.S. \$ <u>2,185,000</u>	7. PERIOD COVERED BY EVALUATION From (month/yr.) <u>02/06/81</u> To (month/yr.) <u>02/22/85</u> Date of Evaluation Review <u>02/22/85</u>		

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIC, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
5. Commence expansion of technical capability in support of chronic diseases and changing disease patterns.	CAREC/CMC	7/31/85
6. Initiate implementation of a hospital infections reporting system and control program for the region.	CAREC/CMC	7/31/85 (Contingent on extension of PACD)
7. Develop and implement a traffic injury surveillance system and injury control program.	CAREC/CMC	6/30/85 (Contingent on extension of PACD)
8. Resolve the issue of funding from PAHO or other sources to provide support for a training officer and Secretary at CAREC. A training officer is a critical position for this institution which provides the bulk of epidemiologic and public health laboratory training for the region.	CAREC/PAHO	6/30/85

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A. Continue Project Without Change

B. Change Project Design and/or Change Implementation Plan

C. Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

12. Mission/AID/W Office Director Approval:

Signature _____

Typed Name _____

Date _____

2

13. Summary

CAREC is a highly successful regional institution. During its 10 years of existence and six years of using USAID funds to support its programs, CAREC has provided direct technical assistance to its member countries (CMC's)*, worked with them to develop their own capabilities and trained their staff in many relevant subjects.

The USAID grant has been well invested with training of over 3,400 these participants (represents some repeated attendance), including national epidemiologists, laboratory directors, statisticians, public health nurses, public health inspectors, laboratory technicians, medical students, hoteliers, food industry personnel and others.

CAREC's capacity to produce and provide appropriate training materials has been greatly increased during the project. There has been improvement in both surveillance and laboratory capabilities in the CMC's during the grant period. Efforts to further develop West Indian middle management at CAREC have been successful.

CAREC is a unique institution both within the West Indies and in many respects worldwide. It has become the model of a regional epidemiological resource with a reputation for work of a high standard and responsiveness to local needs. It has responded rapidly and effectively to CMC's for epidemiological and laboratory requests for assistance and the fact that CMC's have regularly paid their quota contributions is testimony to their very positive view of the Centre. By emphasizing service and high scientific standards, CAREC has been able to enjoy the respect of the international public health community and the confidence and support of its regional consultants.

With the AID training grant support, CAREC has been able to expand its own abilities and increase its effectiveness while transferring new abilities to the CMC's. The CMC's have had a measureable and significant improvement in their own capabilities in surveillance, outbreak investigation and laboratory work. Given the obstacles to regional program development which include economic limitations, physically separated populations, high rates of staff attrition and constraints in salary and promotion in government services, it is remarkable that such improvements in public health abilities have been achieved and sustained.

-/*There are 19 CAREC member countries of whom 17 are supported by the AID Training Grant (Trinidad and Bermuda are not).

14. Evaluation Methodology

The AID assistance to CAREC for epidemiological surveillance and training began in 1979 and was evaluated in January/February 1981. The project is due to be completed in June, 1985. With six years of AID assistance and four years since the last evaluation, this current evaluation permits an overview of how the grant has been used and to what effect.

This is the final evaluation of the Project as called for in the Project Paper. The methods used for this evaluation included: a review of all CAREC quarterly reports from 1979 to the present, a review of all pertinent training materials; course descriptions; participant lists; etc. interviews with CAREC staff and CMC health officials; and a survey of training activities and their outcomes in CMCs. The survey used a specially designed questionnaire which was mailed to the CMC's and collected by CAREC in January, 1985. The evaluation has been conducted by staff from the Centers for Disease Control (Dr. Koplan, Dr. Essien, Mr. Cox) with the counsel and assistance of AID (Ms. Wise) and the staff of CAREC. CDC staff were supported in this evaluation by a D/HHS RSSA, at no cost to the Project. This evaluation studies the accomplishment of outcomes proposed in the evaluation plan of the original Project Paper and recommendations from the mid-term evaluation.

The "Evaluation Plan" from the original project paper lists the following parameters by category:

A. Surveillance Training

1. Number of participants in workshops and courses for:
 - a) Epidemiologists
 - b) Deputy epidemiologists
 - c) Traineeships for medical officers, statisticians, etc.
 - d) Others
2. Materials provided/information disseminated for course/workshops.
3. Written feed-back from course participants.
4. Reporting system.
 - a) Measure timeliness and completeness
 - b) Review quality and quantity of graphic and tabular materials.
5. Outbreak investigations - determine "levels" from 1979 to 1985.

Level	I -	Outbreak not recognized by national staff but recognized by CAREC.
-------	-----	--

- Level II - Outbreak recognized by national staff and CAREC informed.
- Level III - Outbreak recognized and investigated by national staff; CAREC provides on-site assistance.
- Level IV - Outbreak recognized, investigated and controlled by national staff; CAREC provides phone or cable communication liaison.

6. Surveillance quality - determine "levels" from 1979 to 1985.

- Level I - Simple collection, collation and tabulation of communicable disease data.
- Level II - Collection of above data with interpretation but without additional investigational capacity.
- Level III - Capability for collecting and presenting all types of data.
- Level IV - Collection of all types of data with interpretation and initiation of investigation.
- Level V - Recognition of need for surveys and capability of performing them.

B. Laboratory Training

1. Number of participants in workshops and courses; material covered, etc.
2. Number and types of consultations from CAREC to CMC's.
3. Summary of annual proficiency testing results.
4. Evaluate laboratory-capability by category:
 - Level I - No culture work, can do gram stains; unable to identify pathogens of public health importance (shigella, staphalococcus, salmonella, streptococcus).
 - Level II - Limited culturing and identification of most common pathogens.
 - Level III - Moderate culturing capability and identification (can identify and group common pathogens such as salmonella and shigella).
 - Level IV - Full culturing and identification capabilities anaerobic capacity; TB culture capability; uses CAREC as virologic reference.

15. External Factors

During the course of the grant, there has been considerable overall political stability in the region (except Grenada and Suriname). Economic conditions have been stable but slightly depressed. The decrease in petroleum prices has retarded Trinidad's economic growth. The CMCs have continued to explicitly stress the importance of improved health to their national development and the important and useful role CAREC plays in their health programs.

At the Ninth Conference of Ministers Responsible for Health, the Ministers expressed their continuing support for the Centre. They have signed the Multilateral Agreement through 1987 and have committed that the Centre should be an ongoing regional institution with expressed intention of PAHO continued management through 1990. The ability of the Centre to function effectively as a regional resource is highly dependent on its being part of an international health agency which can look beyond national interests.

Other external factors which affect health care and public health in particular in the Caribbean region are the frequent turnover of personnel and the difficulty in identifying and retaining West Indian epidemiologists to work in CMC's.

16. Inputs

No problems have affected the completion of the project. There are recurrent delays in shipping and customs clearance but these have been overcome by early anticipation of needs and advance ordering.

During the first two years of the Project, a major problem was experienced in trying to set up a computerized system for handling surveillance data. Following consultations between staff at PAHO Washington and at CAREC including an evaluation of equipment which was thought to be suitable and technically supportable in Trinidad, and IBM Series I minicomputer was purchased for use primarily by the Surveillance Unit. Original specifications also envisioned some routine administrative uses for this hardware. Major problems with appropriate scientific programming, high recurring costs for software rental, and lack of programming capability at CAREC combined with dramatic advances in microcomputer technology made continued attempts at using the IBM Series I impractical and inefficient. Following discussions between USAID, PAHO/Washington, CAREC, and an evaluation by an expert from the Centers for Disease Control, the IBM was sold to the Seismic Research Unit of the University of the West Indies in 1984.

A lack of appropriate support in Trinidad for the original equipment undoubtedly contributed to this problem as well as staffing changes at CAREC after the initial order had been placed.

Computerization of CAREC's surveillance data was accomplished using a microcomputer and software loaned to CAREC by the Centers for Disease Control while the CDC assignee was working in the Surveillance Unit. CAREC was able to benefit from the CDC's experience with microcomputers and software and later purchased an NCR microcomputer which is currently used by the statistical group.

17. Outputs (See # 18 - Purpose)

The mid-term evaluation done in early 1981 indicated that CAREC was on schedule in providing the training to health personnel outlined in the original Project and in building up its core capabilities to produce and provide technical materials for health training in the Region. Since then training efforts have been intensified at the in-country level, focussing on training needs identified by CAREC staff and health professionals from the CMC's. This has been accomplished while continuing regularly scheduled workshops and meetings for designated epidemiologists, laboratory directors, statistical surveillance officers, deputy designated epidemiologists, and laboratory technicians on an annual basis. In addition to the above mentioned health professionals which include medical officers, public health nurses and public health inspectors and statistical officers, CAREC courses have provided training to veterinary public health technicians, medical students, port health authorities, and a variety of workers in the food service industries. During the years of the Project, CAREC has provided over 3,429 individual course contacts ranging from lectures and short courses to extended training assignments at the Centre. These individuals have in many cases been provided with appropriate CAREC produced training materials which have then been shared with other members of their in-country staff.

CAREC's Surveillance staff has been strengthened by the addition of two medical epidemiologists, a nurse-epidemiologist, and a statistical officer, all West Indians who have replaced international staff originally assigned to the Unit. They will be supported in future training activities by a core training unit which will continue to have the capacity to support their needs for training materials. Additionally, CAREC local staff are benefitting from an in-house training program which is supported by the Project, giving the Centre the opportunity to provide training for key CAREC personnel. These personnel are ineligible for PAHO-supported training. Thus, were it not for these opportunities, they would be deprived of any continuing education or career development potential. As needs are identified, staff are sent for speciality courses thus ensuring the continued high quality of the Centre's scientific services. As of the time of this evaluation, 31 staff members have received some type of training related to their current and anticipated job related activities.

The improvement of surveillance and laboratory services in the CMC's has been a major Project element from the beginning. Table 3, Performance Levels for Surveillance, Outbreak Investigations, and Laboratory by CAREC Member Countries, summarizes capabilities in the CMC's from 1979 to 1985. Almost 50% of the surveillance units show an improvement in their outbreak recognition capabilities while 84% of the laboratories have improved service capabilities. While these numbers must be interpreted with care because the presence or absence of a key individual may greatly effect performance levels, especially in the smaller LDC's, they do suggest that the training provided during the Project has had a positive impact on the performance of health personnel in the Region.

Several unresolved issues and activities to be undertaken were listed in the 1981 Project Evaluation Summary Annex 2. The results of these issues/activities are as follows: CAREC has intensified TB surveillance and EPI activity and all courses are evaluated on completion. Suitable certification for trainees has not been developed. On-site training tailored to country specific needs has been performed. CAREC has instituted a continuing education program for CMC staff and for its own staff. Training of replacement personnel has occurred regularly. Not only have nurses been involved in surveillance training, but a nurse-epidemiologist has been added to the CAREC Surveillance Unit.

18. Purpose

The purpose of the project was "to improve CAREC central and CMC local epidemiological services", with the following sub-purposes:

- to increase CAREC capability to assist CAREC member countries in laboratory and surveillance activities (See Table I).
- to improve the accuracy and efficiency of CMC laboratory identification and surveillance of communicable disease.
- to further develop West Indian middle management at CAREC.

Overall, CAREC is now in a stronger position to assist CMCs in laboratory and surveillance work; the CMCs have improved in laboratory and surveillance functions and CAREC has developed West Indian managers. In 1979, 11 of 20 (55%) of middle and top level managers were West Indians. In 1985, 17 of 20 (85%) of these positions are staff by West Indians, an increase of 30%.

The establishment of a training unit at CAREC has been a major project element from the conception of this project. During the last four years the technical capability of the unit has progressed from making basic overhead transparencies and printed materials to having on-site resources able to produce 2 x 2 slide sets from high quality camera ready copy which is prepared in-house. The printing capacity has been increased so that CAREC-designed training manuals, surveillance reports, laboratory and surveillance training aids, epidemiologic field guides and any other needed information can be mass produced and distributed to the CAREC member countries.

Thanks to regular attention to operation and maintenance, all equipment provided by the grant is in good working order. Some supplies and materials are on hand in bulk thus ensuring the production means for the immediate future. The audio-visual technician's position is scheduled to be supported by CAREC after the grant expires. CAREC has not been able to identify support for the two other grant funded positions - the Training Officer and Secretary.

This remains an outstanding issue as the original grant projected these positions to become part of the CAREC core budget supported by PAHO. As training has continued to be a major part of the services offered by the Centre to the CMC's, PAHO's failure to fund these posts after this extended period of extra budgeting support is inconsistent with the Centre's responsibilities and productivity.

Because the basic arrangement has been for the training unit to provide technical support to scientific staff responsible for the course/workshop content, this evaluation indicates that CAREC will retain the capacity to continue production of materials after the grant is completed, but at a diminished level both in terms of volume and in terms of undertaking new projects. This capacity would be even more severely hampered if the incumbent Audio Visual Technician was not in the post as he has grown more technically competent from training received while working at CAREC.

Using the parameters outlined in the original project paper and #14, the "evaluation methodology" above, we will describe the end of project status and what the training grant achieved.

A. Surveillance Training

1. 36 national epidemiologists, deputy epidemiologists, and 27 statistical officers have participated in CAREC training, some of them more than once. This training has included yearly workshops and continuing education courses.
2. Materials provided/information for courses - See Table 2 - Summary of project elements.
3. Written feedback from course participants - (1985 Survey of Trainees). CAREC member countries were surveyed in January 1985 by written questionnaire to determine the effect and value of training received by their health staff from 1981 to 1985. Fifteen of seventeen CMCs to whom questionnaires were sent responded with questionnaires completed by 81 of their staff who had received training at CAREC. The non-respondents may be more likely to have left the Government health services and conclusions based on the data collected should take this bias into consideration.

The survey results can be summarized as follows:

- 80 of 81 (99%) respondents felt their training had been worthwhile and useful for their work.
- 7 of 81 (9%) felt that their CAREC training had contributed to their receiving a job promotion"
- 46 of 81 (57%) of respondents had used knowledge/techniques, etc learned in a CAREC course to train in turn their colleagues in their home countries. The average number of persons receiving such training from CAREC course participants was 51 but it ranged from 1 to "hundreds".
- 27 of 81 respondents (33%) have changed jobs since receiving their training but remained in governmental health services. For 14 of these 27 (52%) this job change represents a promotion.
- 70 of 81 respondents (86%) state that their training remains useful in new positions or old ones.

- A striking finding is that respondents indicate they get very little training from sources other than CAREC. For example, only two (2) laboratory trainees received training elsewhere and for the remaining 28 laboratory trainees, CAREC was their only source of continuing education.
- 4. Reporting system - considered as part of surveillance performance.
- 5. See Tables 4 and 5 for summary of outbreak investigation and surveillance performance levels. The performance "levels" represent major differences in national capabilities. It requires considerable effort just to maintain Level III capability for surveillance and epidemiology (i.e., capability of collecting and presenting all types of data and national staff ability to recognize and investigate an outbreak). Thus for 63% of CMC's to improve surveillance performance and almost half to improve investigative ability is a major improvement in CMC capabilities.

B. Laboratory Training

- 1. Number of participants and material covered (See Table 2 - Summary of Project Elements).
- 2. Number/type of consultations from CAREC to CMCs: Table 5 lists specific consultations but does not reflect full level of technical assistance by telephone, letter and on-site visits for multiple purposes.
- 3. Summary of proficiency testing (See Table 6)

Performance evaluation data obtained in proficiency testing surveys have been useful for the purpose of problem identification. Where major skill deficiencies have been identified, training courses have been developed and conducted. In addition, on site technical assistance and written consultation have been provided in response to individual requests for technical assistance. The success of coordinated proficiency testing, training and technical assistance services is reflected in improvement in level of service and performance as measured by proficiency testing. (See Tables 4, 5 and 7).

- 4. Evaluation of laboratory capability

Overall the services provided by CMC laboratories were improved by over one "Performance Level" (See Tables 3 and 4). In addition, the survey of course participants provided further information, pertinent to the EOPS, of how training was used both by the individuals trained and by their countries. Thirty (30) respondents from 9 countries completed evaluation questionnaires for 55 CAREC sponsored laboratory training courses. The 30 course participants represent approximately 50% of the total personnel providing public health laboratory services within the respective nine countries.

Nine of the 30 course participants trained an additional 47 persons after returning from CAREC sponsored courses. For 28 of the 30 course participants, CAREC-sponsored training courses represented the only source of continuing education for the year 1981 - 1984.

19. Goals

The goal of this project was to "improve the health status of Caribbean populations through a reduction in the incidence and prevalence of communicable diseases".

Due to changing patterns of disease and relative improvements in surveillance, it is difficult to compare incidence and prevalence rates of 1979 and 1985. With improvements in surveillance, a greater percentage of cases are probably now reported. However, our perception and that of the CMCs is that the AID training grant to CAREC has contributed towards communicable disease control and prevention in the Caribbean.

20. Beneficiaries

The direct beneficiaries are the 17 AID grant-supported CAREC member countries, their Ministries of Health and, through them, their citizenry, particularly in terms of communicable disease control and prevention and other public health areas.

The indirect beneficiary is CAREC which has been strengthened as a regional resource, particularly in training--both epidemiological and laboratory. This improved training capability of CAREC, for example, library facilities, training exercises, printed materials and audiovisual aides, will continue to permit effective training to be given in the region.

21. Unplanned Effects

An unplanned effect has been the influence of CAREC's training program in food safety on the private sector, government agencies, other regional institutions, etc. Surveillance activities have identified water quality and water-borne illness as considerable regional problems and the results have encouraged CMCs to study and improve water supplies.

22. Lessons Learned

For other West Indian institutions, CAREC has demonstrated that even in difficult economic times, member countries will financially support a regional resource that they perceive is providing them with a useful, timely, and high quality service.

To undertake such an intensive level of regional training activities, it is vital to have a facility with appropriate printing, reproduction and audiovisual production capacity. It is also important to have a training officer with appropriate educational background and experience.

Experience has shown that selecting public health nurses to be trained as deputy epidemiologists has been more cost effective than selecting trainees from other job categories, e.g. public health inspectors.

The ability of CAREC to communicate directly with its member countries via designated epidemiologists and laboratory directors without involvement of a third party has greatly facilitated successful performance.

Computer needs must be carefully considered with special attention to local issues: compatibility with CMC's and other regional health institutions; the availability of relevant software; and maintenance resources.

A major lesson learned is that given the unremitting pressures of disease and regional economic and personnel constraints, there is a need for constant intensive effort just to maintain public health control and prevention activities. The constant threat of diseases such as dengue, malaria, polio and gastroenteritis and the emergency health problems of motor vehicle injuries, chronic disease and occupational/environmental hazards mean that there will be a continued need for a regional epidemiological institution and one that is capable of adjusting to new needs while continuing to support existing control and prevention efforts.

23. Special Comments

Table 1 - Reference services

2 - Summary Description of Project Elements/Outcome

3 - Performance Levels

4 - Level of Performance Summary

5 - Responses to requests for Technical Assistance

6 - Proficiency Testing Data

Annex: 1. CAREC-produced epidemiologic Manuals/Exercises/Teaching Aids

2. 1981 Project Evaluation Summary

Addendum: There is likely to be a portion of the grant funds remaining at the current termination date of the project. We recommend the Mission consider extending the PACD by six months to further strengthen some grant funded projects.

Annex 1

CAREC - produced epidemiologic Manuals/Exercises/Teaching Aids.

Too voluminous to reproduce. Available in RHPDO's Office.

7/12/82

CLASSIFICATION

PROJECT EVALUATION SUMMARY (PES) - PART I

ANNEX 2
Report Symbol U-447

1. PROJECT TITLE Epidemiological Surveillance and Training			2. PROJECT NUMBER 538-0027	3. MISSION/AID/W OFFICE RDO/C
4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY)				
<input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION				
5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING	
A. First PRO-AG or Equivalent FY <u>79</u>	B. Final Obligation Expected FY <u>80</u>	C. Final Input Delivery FY <u>83</u>	A. Total \$ <u>1,578,000</u>	7. PERIOD COVERED BY EVALUATION
			B. U.S. \$ <u>1,160,000</u>	From (month/yr.) <u>09/01/80</u>
				To (month/yr.) <u>02/05/81</u>
				Date of Evaluation Review <u>01/26/81-02/05/81</u>

B. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
To be implemented by CAREC immediately:		
1. intensify surveillance and EPI activity.	CAREC	04/81
2. improve evaluation procedures for training.	CAREC	04/81
3. provide certification for trainees.	CAREC	04/81
To be addressed in Year III (09/01/81-08/21/82) workplan.		
1. training to be tailored more to country specific needs.	Work to be approved by RDO/C	09/81
2. begin continuing education program.		
3. begin training of replacement personnel.		
4. begin involving nurses in surveillance training		
Long Term		
1. develop a career structure for deputy epidemiologists	PAHO, CAREC & Co-operating countries	Continuing
2. further define causes of morbidity and mortality.	CAREC	"
3. develop new approaches to treating gastroenteritis.	PAHO/CAREC	"
4. develop plans for operations research in prevention and control		"
5. devote additional resources to run-communicable diseases	CAREC Council (co-operating countries)	"

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS			10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT	
<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify)	A. <input checked="" type="checkbox"/> Continue Project Without Change	
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____	B. <input type="checkbox"/> Change Project Design and/or	
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify)	<input type="checkbox"/> Change Implementation Plan	
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____	C. <input type="checkbox"/> Discontinue Project	
11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANT'S AS APPROPRIATE (Names and Titles)			12. Mission/AID/W Office Director Approval	
Mark J. Laskin, RPHA Darwin Clarke, SPS			Signature	
			Typed Name	
			Date	

15

TABLE 1

REFERENCE SERVICES - NUMBER OF SPECIMENS
REFERRED FROM CAREC MEMBER COUNTRIES
TO CAREC

	<u>VIROLOGY</u>		<u>BACTERIOLOGY *</u>
	<u>Diagnostic</u>	<u>Survey</u>	(Cultures only)
1981	850	470	68
1982	1363	1116	197
1983	1123	445	323
1984	1106	154	459
	_____	_____	_____
TOTALS	4442	2185	1047

* Cultures only

TABLE 2

USAID EPIDEMIOLOGICAL SURVEILLANCE AND TRAINING PROJECT
 SUMMARY DESCRIPTION OF PROJECT ELEMENTS*/OUTCOMES
 (Status 14 February, 1985)

<u>PROJECT ELEMENT</u>	<u>STATUS AND COMMENTS</u>
I <u>Training Unit</u>	
(a) Training Officer	Position filled by qualified West Indian since August, 1980. Funding for continuation/support of this post beyond July, 1985 not yet identified or confirmed at time of evaluation.
(b) Audio-visual Technician	Position filled by an individual with graphics, photography and related skills which has been enhanced by additional training. Support for position to be continued as CAREC local position after completion of the grant.
(c) Training Secretary	Position filled by qualified individual since initiating grant. Position scheduled for termination at completion of grant.
(d) Medical epidemiologist	Position filled with CDC assignee until June, 1984.
(e) Non-Medical Epidemiologist	Position filled by nurse-epidemiologist since June, 1983. Position to be continued as CAREC local position after completion of the grant.
II <u>Training</u>	
A. <u>Surveillance/Data</u>	
<u>Utilisation</u>	
(a) Continuing Education Workshops for Deputy Epidemiologists.	CAREC surveyed CMCs to determine if CAREC-trained deputy epidemiologists were functioning in positions appropriate to (1) use skills acquired during training

*Project elements as described in original grant, mid-term review, and extension documents.

17

PROJECT ELEMENT

STATUS AND COMMENTS TABLE 2 Continued

	(2) need continuing education in related areas. Survey determined 13 of 42 originally anticipated candidates appropriate for continuing education workshop held January 1985. Other funds reprogrammed allowing 11 new nurses to receive basic deputy epidemiologists course in November - December 1984.
(b) Surveillance Statistical Officers Workshops	Workshops held as planned; schedules adjusted and reported as necessary. Continued work in individual CMCs planned as part of ongoing CAREC program of technical cooperation.
(c) Designated Epidemiologist Workshops	Workshops held as planned. Future workshops dependent on funding but no source of support identified.
(d) Workshops for Nurse Tutors	Two workshops held as scheduled (CAREC/Trinidad and Jamaica).
(e) On-site Surveillance Training	Workshops held in country for appropriate personnel in Antigua, Bahamas, Dominica, Grenada, Guyana, St. Christopher, Saint Lucia St. Vincent.
B. <u>Laboratory</u>	
(a) 5-day Laboratory Technology Training.	Courses held on selected subjects identified by CMCs/CAREC. Schedule adjusted following damage to facility in 1983 but all work scheduled during project is completed.
(b) Laboratory Director's Workshop	Held as scheduled annually. No funds identified for future efforts.
(c) On-the-bench laboratory training	Training provided as scheduled. See narrative for description of results of proficiency testing, training utilization by countries.

PROJECT ELEMENT

STATUS AND COMMENTS

C. Zoonoses

- (a) Epidemiology for Animal Health Assistants and Veterinary Public Health assistants

Course modified from original plan to interact with Veterinarian Workshop . Completed July 83 in Jamaica.

D. Attachments

- Medical Officers; Medical Students
- Electives;
- Others: PHIs, PHNs, SSOs, etc.

Attachments completed on schedule:
3 medical officers; 7 medical students on electives;
2 statistical officers; one veterinarian.

E. CAREC Staff Development

- (a) Laboratory Management Equipment Maintenance.

- (b) Comprehensive Staff Training Program

Maintenance technicians received specific training on refrigeration, autoclaves, and centrifuges. Training applied to maintenance of CAREC equipment.

Program developed and implemented for staff at all levels (see attached).

III Special Activities

- (a) Sexually Transmitted Diseases (STD)

Assessment of CMC needs in STD training completed. Laboratory course on STD diagnosis held for lab technicians to assist/ support other aspects of STD control. Courses for public health personnel held in-country in Belize, Cayman Islands, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, St. Christopher, St. Vincent and Turks and Caicos during 1983/1984

PROJECT ELEMENT

STATUS AND COMMENTS

B. Data Processing Capabilities

Following initial hardware and software problems with an IBM Series I minicomputer, adjustments have been made using an NCR Decision. Mate 5 allowing surveillance data to be computerized, PAHO is continuing support of this process and has on order an IBM Personal Computer to supplement and expand current capacity.

Special Activities

C. Food Safety

Food safety has become a major project element during the last year of the project. In country courses for public health inspectors and food inspectors as well as individuals in the food service industry have been developed or are in final developmental stages. Several courses have been held both at CAREC, and in Jamaica, Suriname, the British Virgin Islands. Course materials are being produced to continue this program after the project completion data as part of CAREC's regular program. No anticipated delays yet identified.

20

TABLE 3

PERFORMANCE LEVELS FOR SURVEILLANCE, OUTBREAK INVESTIGATION AND LABORATORY BY
CAREC MEMBER COUNTRY, 1979-1985

COUNTRY	SURVEILLANCE LEVEL		OUTBREAK INVESTIGATIONS		LABORATORY		LEVEL OF PARTICIPATION IN PROFICIENCY TESTING
	1979	1985	1979	1985	1979	1985	
ANGUILLA	--	1		1	1-2	2	1+
ANTIGUA	3	3	2	2	2	3 4*	4+
BAHAMAS	2	4	3	4	3	4	4+
BARBADOS	4	4-5	4	4	4	4	3+
BELIZE	2	4	1	2	2	4	1+
BERMUDA	4	4-5	3	4	3	4	4+
BRITISH VIRGIN IS.	4	3	3	3	2	3	4+
CAYMAN IS.	2	3	2	3	2	4*	4+
DOMINICA	2	4	2	4	3	4	4+
GRENADA	2	3	2	2	2	3	2+
GUYANA	4	4	4	4	3	4	2+
JAMAICA	4	2	4	3 4	4	4	4+
MONTSERRAT	1	1	2	1	2	3	4+
ST. KITTS/NEVIS	1 2	3	2	2 3	1-2	4*	4+
SAINT LUCIA	3	3	3	3	2	4*	1+
SURINAME	2	3	3	3	3	4	3+
ST. VINCENT	1	4	1	4	2	4*	4+
TRINIDAD & TOBAGO	3	4	3	4	4	3	2+
TURKS & CAICOS	1	1 2	1	2	1	1-2	0

KEY:

Routine Reporting & Surveillance Capability

- Level 1: Simple collection, collation & tabulation of communicable disease data.
 Level 2: Collection of above data with interpretation but without additional investigative capacity.
 Level 3: Capability for collecting and presenting all types of data (acute and chronic disease, morbidity and mortality data, water quality, etc.)
 Level 4: Collection of all types of data with interpretation and initiation of investigation
 Level 5: Recognition of Need for surveys and capability to perform them.

Outbreak Recognition Capability

- Level 1: Outbreak not readily recognized in early stages by national staff.
 Level 2: Outbreak recognised by national staff, CAREC performs investigation.
 Level 3: Outbreak recognised and investigated by national staff, CAREC provides onsite assistance.
 Level 4: Outbreak recognised, investigated, and controlled by national staff CAREC provides phone or cable communication liaison.

Laboratory Services Capability

- Level 1: No culture work, able to do gram stains; unable to identify pathogens of public health importance such as Shigella, Salmonella, Streptococcus, staphylococcus.
 Level 2: Limited culturing and identification of most common pathogens (can identify for example Staphylococcus, Shigella, Salmonella).
 Level 3: Moderate culturing capability and identification (can identify and group common pathogens such as Salmonella, Shigella).

- Level 4: Full culturing and identification capabilities; anaerobic capability; TB culture capability; uses CAREC as virology reference (to identify dengue, hepatitis, yellow fever, arthropod borne, arboviruses, influenza, poliomyelitis, leptospirosis, rabies, etc.)

*No Mycobacteriology cap

12

PROJECT ELEMENT

STATUS AND COMMENTS

IV Equipment /Supplies

(a) Immunization Program Equipment

Following assessment of needs by CAREC staff and EPI managers, equipment needed to improve cold chain was provided to BVI, Dominica, Grenada, Guyana, St. Christopher /Nevis, St. Vincent, Jamaica, Belize, Bahamas and Suriname.

(b) Audio-Visual Printing Supplies

Bulk purchases of supplies has contributed to keeping materials needed for course work available without interruption. Manuals, C.S.R., epidemiologic exercises, etc. have been produced as needed. Final drafts on STD manual and CARIBA data sets almost completed. This element can be expected to be completed by end of project. (Examples in Annex).

(c) Epidemic Emergency Supplies

Stocks maintained as planned for shipment in emergency situations.

(d) Proficiency testing and laboratory Course Materials

Materials provided or on hand as needed for proficiency testing or training programs.

22

TABLE 4

LEVEL OF PERFORMANCE FROM
1979 to 1985 for
19 CAREC MEMBER COUNTRIES

Level of Performance	Surveillance No. of Countries (%)	Outbreak Investiga- tions No. of Countries (%)	Laboratory No. of Countries (%)
No Change	5 (26)	8 (42)	2 (11)
Improved	12 (63)	9 (47)	16 (84)
Worsened	2 (11)	2 (11)	1 (5)
Mean Level of Change	+ .7 (improved by .7 of a level)	+ .5	+1.15 (improved by 1.15 levels)

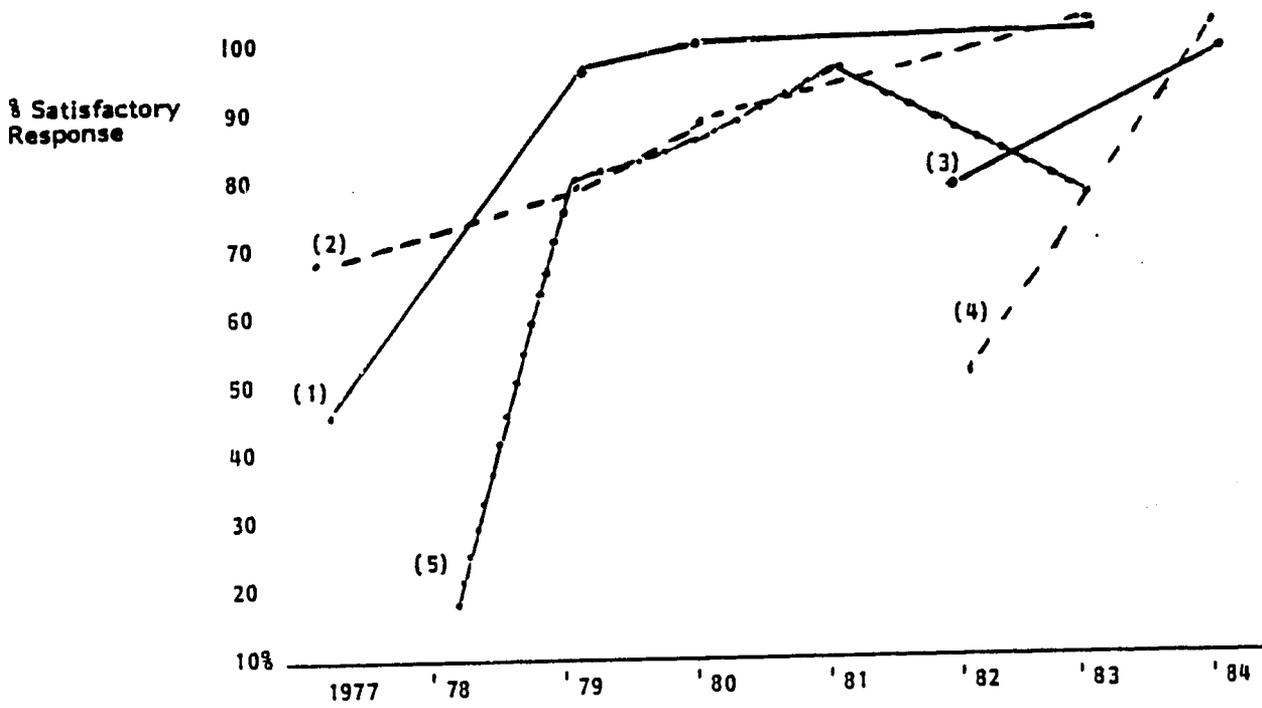
TABLE 5

RESPONSES TO REQUESTS FOR LABORATORY TECHNICAL ASSISTANCE
OR CONSULTATION ON SITE

	<u>COUNTRY</u>	<u>TOPIC/PROBLEM</u>
1981	Bahamas	Malaria outbreak
	Antigua	Schistosomiasis
	Montserrat	
	Saint Lucia	Faecal parasite survey
1982	Jamaica	Review of decentralized laboratory services
	Bahamas	Malaria Surveillance
	Grenada	Faecal parasite survey
1983	Grenada	Filariasis
	BVI	Laboratory Management
	Suriname	Status of national virus laboratory
	BVI	Faecal parasite survey
1984	Antigua	Water Quality
	Jamaica	Campylobacter in tourists

TABLE 6

PERFORMANCE AS MEASURED BY PROFICIENCY TESTING DATA
FOR SELECTED INDICATORS



	1977	1978	1979	1980	1981	1982	1983	1984
<u>Shigella (1)</u>								
# correct	6		12	16			21	
# participants	13		13	17			22	
<u>Salmonella (2)</u>								
	9		12	15			15	
	13		15	17			15	
<u>Staph (3) Aureus</u>								
						12		19
						16		20
<u>Staph (4) Aureus Antibiotic Sensitivity patterns</u>								
						6		19
						12		19
<u>Giardia (5)</u>								
		3	15	12	14		6	
		18	19	14	15		8	

25