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**OPERATIONS-LEVEL MANAGEMENT DEVELOPMENT PROJECT**

**FINAL REPORT**

Reporting Period

August 31, 1987 - March 31, 1992

COOPERATIVE AGREEMENT NO.: AFR-0471-A-00-7060-00

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## I. BACKGROUND

The Operations-Level Management Development Project (called the District Management Improvement Project in the field) began operations August 31, 1987 with a \$6,100,00 centrally-funded Cooperative Agreement. The project operated in Botswana and Lesotho with support from The MEDEX Group's Honolulu office staff. The original completion date of the project, August 31, 1991, was extended through two successive no-cost extensions through March 31, 1992. An evaluation of the project was conducted in October, 1991.

In the original approved project design, this Cooperative Agreement was to be the first of two phases. Phase II was to finalize the development of the technology and to disseminate the methods and materials. Near the end of the first phase of the project, AID/W indicated that even though they had accepted the original project design, they were not prepared to fund a Phase II.

The project used a conceptual framework identified as the MEDEX Management Development program, which is a six-stage program:

1. Establishing and Maintaining a Receptive Framework
2. Management Needs Assessment
3. Management Analysis
4. Decision-Making and System Redesign

5. Implementation and Training
6. Monitoring Evaluation

This program, which had been designed and previously tested in Liberia and elsewhere, was refined during the project. All major outputs were achieved during the life of the project.

### Goal

The goal of the Project was *to strengthen capabilities to implement and sustain health programs in Africa through improved management support for primary health care programs, especially those which include child survival interventions.*

### Objectives

The project objectives were:

1. *to conceptualize, design, and field-test a comprehensive, prototype management development technology for strengthening operations-level management of health programs throughout Africa, and*
2. *to institutionalize this management development technology within the ministries of health of two anglophone African countries.*

## Outputs

The project outputs included:

1. *Comprehensive operations level management development process implemented and institutionalized in two countries*
2. *Four innovative management technologies developed and field tested:*
  - *Critical Incident Technology*
  - *Case Study Technology*
  - *Distance Learning Technology*
  - *Resource Allocation Technology*
3. *Simple and appropriate management systems in place at the operations level supporting PHC activities, and health personnel trained to use these systems*
4. *Functioning supervisory system, linked to an ongoing program of in-service training, providing regular, supportive supervision of PHC activities at the operations level*

5. *Twenty reproducible prototype manuals, modules, workbooks, and other materials field tested in two countries, for use in implementing management development in Africa*

## II. SUMMARY OF PROJECT OBJECTIVES

### A. Objective One

Objective One of the project was to *"to conceptualize, design, and field-test a comprehensive, prototype management development technology for strengthening operations-level management of health programs throughout Africa."* The project completed the development and initial field testing of the MEDEX Management Development Program and production of 100 sets of the prototype materials.

The MEDEX Management Development Program as designed and developed is a comprehensive system to analyze and redesign management support required for decentralized delivery programs. The features that distinguish the MEDEX Management Development Program from other approaches to management change are:

- 1) Special techniques for establishing, and then maintaining, a receptive framework for management change, i.e., awareness, understanding and commitment by senior and mid-level managers to the management development program
- 2) Emphasis on decentralization and management improvements at the operational level (districts, health centers, communities) where the bulk of services are actually delivered, and also where management is frequently the weakest

- 3) Innovative management needs assessment technique which results in an assessment based primarily on facts (actual management events) rather than personal biases and opinions
- 4) Management needs assessment method which gives equal attention to an organization's management strengths and weaknesses, thus permitting the organization to build on its strengths as well as to attack its management problems
- 5) Five-week management analysis training course (including a supervised internship) which produces an in-country cadre of management analysts
- 6) Management studies conducted by local management analysts, thus reducing dependency on foreign management consultants
- 7) Prototype management system manuals which are adapted to create practical, decentralized management systems and support structures; these prototypes are available in the management areas of personnel, patient information and referral, transportation, training, facilities and equipment maintenance, finance, supervision, general supplies, drugs and medical supplies, health information, and communication

- 8) Implementation strategy which uses senior managers as facilitators for implementation workshops/management training at the operational level
- 9) Management cases which encourage health staff to "think like managers" and to integrate management improvements into existing work routines; a set of 16 prototype cases with instructor's notes and discussion guides are provided for adaptation
- 10) Monitoring and evaluation system which is generated by the program itself and which provides continuous feedback on the progress of the management development program
- 11) Balanced approach to management development which emphasizes the creation of tools (redesigned management systems and procedures), skills (management competence and leadership) and opportunities (through decentralization of authority) which allows the application of these tools and skills by managers at the operational level

The following prototype materials were developed by The MEDEX Group under this Cooperative Agreement:

- Management Analysis Manual  
Management Analysis Training Workbook  
Management Analysis Instructor's Guide
- Prototype Systems Manuals (designed to be adapted and serve as guides for revised management systems):

<b>Supervision</b>	Supervision, guidance, and support of personnel at all levels of the health system
<b>Personnel</b>	Manpower planning, recruitment, employment, training, and performance evaluation of health workers
<b>Health Information</b>	Collection, organization, reporting, storage, and use of data for planning and managing health care services
<b>Training</b>	Planning, arranging, conducting, and monitoring the various types of training programs for health workers:

pre-service, continuing education, distance learning, workshops, on-the-job training, overseas training, etc.

<b>Drugs and Medical Supplies</b>	Procurement, storage, distribution, and control of drugs and medical supplies
<b>Transportation</b>	Procurement, protection, and control of transportation resources needed to move health workers, patients, and supplies
<b>Communication</b>	Usage, protection, and control of communication resources which link health workers to each other, to their supervisors, and to patient referral centers
<b>Facilities and Equipment</b>	
<b>Maintenance</b>	Protection of facilities and equipment from deterioration, and prolonging their useful life through regular preventive maintenance and repair
<b>Finance</b>	Planning, budgeting, procurement, control, disbursement, and accounting of financial resources

<b>General Supplies</b>	Procurement, storage, distribution, and control of administrative, office, fuel and other supplies and equipment
<b>Patient Referral</b>	Usage, storage, and control of basic patient records; systems and procedures for the effective referral of patients

- Distance Learning Materials (a self-instructional program to support and strengthen the implementation of revised management systems). The following distance learning workbooks were produced:
  - Equipment Maintenance
  - Introducing Improvements
  - Problem Solving
  - Qualities of a Good Supervisor
  
- Case Studies in Management Training (a set of cases with case notes and participant's discussion guidelines). The 16 cases are:
  - "Clearing the Grounds"
  - "Delayed Rations"

"Enrolled Nurse Nellie and Staff Nurse Idlet"  
"Medical Records Management"  
"Robbers at Mangetis Health Center"  
"Village Health Workers in Winneba Province"  
"Transfer of Professional Staff"  
"Management Training on a Ward"  
"Salary Review and Upgrade"  
"Paying the Bill at St. George's Hospital"  
"Outpatient Department"  
"The Acting Principal"  
"Medical Records at Nanya Hospital"  
"The Administrator and the Senior Nursing Officer  
at Nyanza Hospital"  
"Staff Appraisal at St. Celia Hospital"  
"The Blood Bank at Java"

- Evaluation/Monitoring Materials  
Student Text  
Instructor's Manual

## **B. Objective Two**

Objective two of the Cooperative Agreement was to *"institutionalize this management development technology within the ministries of health of two anglophone African countries."*

At the start of the Cooperative Agreement, an exploratory visit was made to five anglophone African countries (Kenya, Tanzania, Botswana, Lesotho, Zimbabwe) where the USAID missions had expressed interest in the objectives of the Cooperative Agreement.

Comprehensive assessments and in-depth meetings were conducted with government officials and USAID personnel in each of the countries visited. The result of these assessments were the selection of Lesotho and Botswana as the two project countries. A brief summary of project activities for each of the project countries follows. Refer to the Cooperative Agreement semiannual reports for a description of activities (Appendix A).

### Summary Lesotho

The Supervision, Maintenance, Transport and Training Systems were implemented in all 18 Health Service Areas (HSAs) of the country. Monitoring of the new management systems in eight of the HSAs was carried out as planned prior to the end of the project, with significant progress in the implementation of the implemented systems occurring by project completion.

Implementation of the Personnel System was pending at project completion waiting for a final decision by the Ministry of Public Service.

Sixteen (16) case sessions were conducted in four HSAs. The case teachers lead the first five cases in each of the three HSAs, i.e., Mants'onyane, Mafeteng and Leribe. One case was facilitated at Roma HSA. The remaining six cases were scheduled to test "leaderless" case sessions, i.e., case sessions conducted without an outside facilitator. This method seemed difficult to the participants.

During the month of August 1991, two additional HSAs expressed interest in participating in the case program; however, the Project staff felt it would be unwise to start with a case program that close to the project end. The Ministry of Health (MOH) does not have the resources to continue the case program on a formal basis (paying case facilitators from NUL), but the cases developed by the project will be used for continuing education within the MOH.

Cycle III of system redesign and implementation began in February 1991 with the training of four new management analysts. Two of the analysts were from Lesotho (one each from the Ministry of Public Service - Management Services Unit and the Ministry of Finance - Audit Unit); the other two were from Botswana. The Management Analysis Training was conducted exclusively by staff from the Institute of Development Management (IDM), a regional management training institute with campuses in Lesotho, Swaziland and Botswana.

The two Lesotho analysts studied the Health Information System (HIS) with their report presented in October 1991 to the consultant (funded by a World Bank project) who was to prepare the HIS Manual.

The Communication Manual was prepared with technical assistance from the World Health Organization for presentation to the Ministry of Health and the Private Health Association of Lesotho (PHAL).

The Finance Manual was prepared, but it was limited to the government system (PHAL procedures excluded).

The Lesotho project counterpart (Ms. Mannete Ramaili') took charge of day to day project management and administration in January 1991. Institutionalization of the project into the Office of the Director General of Health Services was completed in December 1991.

The MEDEX long-term advisor departed Lesotho on October 19 immediately after the external AID/W evaluation of the program.

Summary Botswana

Management Analysis Study Reports for the Health Information and Referral, Drug Supply System, General Supplies, Supervision, Personnel and Facilities and Equipment Maintenance Systems were completed during the life of the project.

A total of 13 management analysts were trained during the life of the project. In the final cycle, two more Botswana management analysts were trained on behalf of DMI by the Institute of Development Management. One of these analysts conducted a management analysis study of the cold chain component of the drug supply system.

The Management Analysis Study Reports for the Health Information and Referral systems were completed and distributed to all of the District and Town Council Health Departments. The reports were then reviewed in detail at a National Seminar held in March 1991.

Based on feedback provided at a National Seminar, the project developed draft operations manuals for the Health Information and Referral Systems.

Based on feedback received from the District and Town Council Health Departments regarding the draft operations manuals for the Supervision and Communication Systems, DMI decided to pursue the introduction of improvements in these systems with the Councils.

An orientation session for District Medical Officers (DMOs) was held to introduce them to the use of management cases for discussion and in-service training purposes in their Health Departments. A number of DMOs reported using some of the cases for these purposes.

A series of five regional workshops were held to introduce management improvements in the Supervision, Communication, Health Information and Patient Referral Systems.

Approximately 120 representatives from Council Health Departments, Primary Hospitals and Hospitals participated in these workshops.

### III. SUMMARY OF PROJECT OUTPUTS

#### A. Comprehensive operations level management development process implemented and institutionalized in two countries

The MEDEX six step process was implemented in each of the project countries. There were three cycles of management analysis, study and redesign in Lesotho and two cycles in Botswana. The **receptive framework** step began from the first visit of the MEDEX team to each of the project countries. After the arrival of the long-term advisors (LTAs), a series of meetings and presentations were held to inform MOH and other Ministries staff of the plans of the project. As part of the data gathering for the needs assessment, visits were made to all HSAs (Lesotho) and districts (Botswana) in each country. During these visits, informative meetings were held with MOH staff and district leads to inform them of the project and its goals.

The "nominal group" and "management events" methods were used for the **needs assessment** step in both countries. Both methods revealed similar systems in urgent need of redesign (personnel, supervision, finance, transport). The nominal group method was used to identify and prioritize the management systems to be analyzed. Management events were used to characterize and document the strengths and weaknesses of each system and the nature of the problems that managers were encountering.

The **management analysis** step takes four to six months to complete if starting with untrained management analysis. During the life of the project, 24 analysts were trained: 11 in Lesotho and 13 in Botswana. In Lesotho, eight management systems were analyzed (Supervision, Transport, Communication, Personnel, Health Information, Drug Supply, Maintenance, and Training). In Botswana, seven systems were analysed: Personnel, Health Information, General Supplies, Patient Referral, Maintenance, Communication, and Supervision.

The results of the management analysis step are reviewed and revised and approved in the **decision-making and design** step. In Lesotho, there were three management system design workshops. In Botswana, there were two national PHC management forums. In Lesotho, 8 manuals were written, finalized, approved, printed (500 copies) and distributed. In Botswana, four manuals were written. These manuals were for the systems: Supervision, Communication, Health Information, Patient Referral. These were under the direct control of the Ministry of Health. Other systems in Botswana fell under the Ministry of Local Governments, Lands and Housing and in a October 1990 decision, it was decided that the project, since it was housed in the MOH, would only focus on management systems that fell under the purview of the MOH.

The **systems implementation and training** was well under way at project end in Lesotho under the direction of the project counterpart. She developed a systematic timetable to cover all HSAs with the eight revised systems that were being implemented. In Botswana, all four

of the revised systems were introduced beginning in July 1991 to representatives from all 20 district and town council health departments and primary hospitals and hospitals.

A complete evaluation system (Student Text and Instructor's Manual) was prepared by The MEDEX Groups's evaluation expert for the **evaluation** step of the process. The country counterparts who were continuing the program after the departure of the MEDEX LTAs planned to conduct monitoring and evaluation at the appropriate point in the implementation of the revised systems. AID/W's failure to fund Phase II of the project precluded The MEDEX Group from following-up on the evaluation step in the two project countries.

**B. Four innovative management technologies developed and field tested**

- **Critical Incident Technology**
- **Case Study Technology**
- **Distance Learning Technology**
- **Resource Allocation Technology**

Each of the four technologies was tested in the two project countries. See Appendix B for a brief summary of the four. The **critical incident/management events technology** contributed directly to the management development process. It served important functions in setting priorities, building a useful database and helping to create interest and understanding of the project in each HSA/district. The AID evaluation concluded: "Management events can be an

effective technique for assessing needs if the extensive data are objectively analyzed and the findings used."

Management events/critical incident was found to be an effective way of reinforcing the receptive framework step. The data gather also could be used in the management analysis step and serve as important examples during the preparation of management analysts.

A total of 16 Cases were produced during the life of the project. Twelve were written and edited in a series of case training workshops. An additional four were written by the trained case team now resident at the University of Lesotho. The cases were developed to be used in the standard case training method, under the direction of a case instructor. A truly innovative method of "leaderless" case learning was also developed and tested during the life of the project. This method relied upon a series of programmed instructions that served to guide a case learning group through the process. Once again, the failure of AID/W to fund Phase Two of the projects resulted in this innovative technology failing to be fully developed.

The cases were used for management training in 8 HSAs in Lesotho and all 20 districts in Botswana. Ten participants from Lesotho and six from Botswana received training as case writers in the two three week seminars conducted during the project. The AID evaluation team concluded that the cases and accompanying notes are very well written and were effective in raising awareness of managers about management problems and in teaching management concepts.

A total of 6 **Distance Learning** workbooks were produced, 14 participants in Lesotho, and 8 in Botswana were trained as distance learning tutors. During the trial period, 45 managers participated as distance learners in Lesotho and 32 in Botswana. It was determined during the project that a distance learning program in health was not viable unless it was part of an on-going distance learning program in the country. It was not cost effective to have only a health distance learning program. Because no distance learning program existed in either country, it was necessary to discontinue the training prior to the end of the project.

The **resource allocation** technology is a method of identifying villages and communities with a willingness and ability to participant in development projects. Pilot studies of the technology were conducted in 82 villages in Lesotho and 50 in Botswana. Results from the pilot studies showed that the technology held promise, but additional larger studies are necessary to fully develop the technology.

**C. Simple and appropriate management systems in place at the operations level supporting PHC activities, and health personnel trained to use these systems**

The revised management systems were implemented through a series of workshops in each project country.

### In Lesotho

Lesotho held implementation workshops on the supervision, maintenance, finance, general supply, drug supply and communication systems, training, and transport systems in all 14 Health Service Areas.

In workshops in Lesotho, major emphasis was placed on each system's forms and procedures.

Senior staff from the Health and other ministries served as facilitators in training workshops of the systems that they managed. One HSA had not seen a senior central-level staff member for over three years until one came to facilitate one of these workshops. They felt that a major benefit of the DMI process would be the opening up of better lines of communication between the center and the periphery.

New management systems were introduced by HSA personnel who attended workshops. The procedures and forms were well-received, particularly by those who already have some management skills.

Although the training system was not considered to be in much need of improvement during the Needs Assessment, the procedures in the Lesotho training system manual have been implemented most fully of all the manuals at both the HSA and Central levels. The maintenance system improvements in Lesotho proved difficult to implement, because few

HSAs had a technician who could be given the responsibility for managing the system and because staff had not yet been trained to look for, recognize and report problems with tools, equipment and other things in their work environment.

### In Botswana

In July and August of 1991, Botswana held five regional workshops to introduce four management systems to district PHC managers. Representatives from hospitals were also invited to participate. One hundred and twenty (120) people were trained in these one-week workshops.

The implementation workshop content included discussions of the concepts of management, supervision, leadership, and in-service training and the district manager's roles in these areas. The procedures and forms in the four draft manuals were reviewed. The project staff considers this draft stage as a step in the consultative process that must take place before agreement and finalization.

Monitoring, supervision and consultancy visits will be made by the project counterparts after the completion of the project to insure continued implementation of the revised systems. In both project countries, prior to departure of the MEDEX team, the mechanisms were in place to insure continued implementation of the revised management systems. As part of the planned Phase Two of the project, several follow-up visits were scheduled by MEDEX staff

to monitor, encourage and assist the on-going implementation. This is another item that will be left undone due to lack of funding for the second phase.

**D.           Functioning supervisory system, linked to an ongoing program of in-service training, providing regular, supportive supervision of PHC activities at the operations level**

Supervision was one of the priority systems identified for analysis and redesign in both countries. The revisions of other supervisory systems resulted in lively often heated discussions during the management redesign workshops. Supervision manuals were written and introduced in each country. Neither country had such materials prior to the start of the project. Supervision was a key focus of the distance learning workbooks and the cases.

**E.           Twenty reproducible prototype manuals, modules, workbooks, and other materials field tested in two countries, for use in implementing management development in Africa**

The materials listed below were completed by the end of the end of the project. One hundred copies each of the items marked with an asterisk (\*) were printed and distributed. See Appendix C for names and addresses of recipients.

The MEDEX Management Development Program:

Overview\*

Management Analysis Texts:

Manual for Improving Health Management Systems\*

Training Workbook\*

Instructor's Guide\*

Operations Manuals for Decentralized PHC Management Systems

Supervision System\*

Personnel System\*

Health Information System\*

Training System\*

Drugs and Medical Supplies System\*

Transportation System\*

Communication System\*

Facilities and Equipment Maintenance System\*

Finance System\*

General Supplies System\*

Patient Referral System\*

Distance Learning Texts:

Introducing Improvements  
Qualities of a Good Supervisor  
Maintenance Inspection  
Overcoming Resistance to Change  
Introduction to Supervision  
Preventive Maintenance

Cases:

"Clearing the Grounds"  
"Delayed Rations"  
"Enrolled Nurse Nellie and Staff Nurse Idlet"  
"Medical Records Management"  
"Robbers at Mangetis Health Center"  
"Village Health Workers in Winneba Province"  
"Transfer of Professional Staff"  
"Management Training on a Ward"  
"Salary Review and Upgrade"  
"Paying the Bill at St. George's Hospital"  
"Outpatient Department"  
"The Acting Principal"

"Medical Records at Nanya Hospital"

"The Administrator and the Senior Nursing Officer at Nyanza Hospital"

"Staff Appraisal at St. Celia Hospital"

"The Blood Bank at Java"

Evaluation/Monitoring Materials:

Student Text\*

Instructor's Manual\*

#### IV. EXTERNAL EVALUATION

An external evaluation of the project was not included in the original project design. However both AID/W and The MEDEX Group believed it was an important component of the overall project and would contribute to project operations and objectives in each country and to the dissemination of the prototype materials. The evaluation was first scheduled for October 1990 a little beyond the mid point of the project. This time was identified by both MEDEX and AID/W as ideal for fine tuning of project implementation and guiding the last part of Phase I of the project. Unfortunately, AID/W was unable to solidify the contractual arrangements with an outside evaluation firm.

The evaluation was rescheduled twice in early 1991; the first date fell during the Gulf-War-related moratorium on travel. By the second date, May 1991, the total moratorium had been lifted. Travel was permitted if the USAID country missions determined it was essential. This approval was granted by the Botswana USAID mission by not by the Lesotho mission. It made no sense to evaluate just one country, so the date was moved again.

The time that the evaluation was finally conducted (October 1991) fell into a never never category of not mid-point evaluation and not an end of project evaluation. Nevertheless, the evaluation was completed by a team of three; one AID/W representative, and two external evaluators. The executive summary from the evaluation appears as Appendix D.

## V. CONCLUSIONS

Poor management continues to be the albatross around the neck of developing countries. This has been shown for years in Africa and Latin America and is now evident in the former communist countries of Europe. Scholars (Attachment E) are now identifying decentralization as the only way of returning power to the people so they may develop themselves out of poverty. In the MEDEX Management Development Series, USAID has a resource of significance. While not perfect, it can serve as the tested basics for the comprehensive overall of management systems. The MEDEX Management Development Program is a template for installing a decentralized, self-supervising management system.

The MEDEX prototype manuals are available in print form and on computer disks (Wordperfect 5.1). Unfortunately, it appears that this resource is not going to be utilized. As this report is being written, approximately six months after completion of the prototypes, the only known application of some of the materials are in Egypt, India and the Commonwealth of the Northern Mariana Islands. Yet, AID/W continues to reinvent the wheel with management projects that do not even start their development on the base provided by the MEDEX Management Development Program. Will we ever learn?

Honolulu, Hawaii

December 1992

## APPENDICES:

- A. Semi-Annual Project Reports
- B. Description of Technologies
- C. Names and Addresses of Recipients of the MEDEX Management Development Program Sets
- D. Executive Summary of External Project Evaluation
- E. "How Africa Ruined Itself"
- F. Final Financial Statement

**APPENDIX A**  
**SEMI-ANNUAL PROJECT REPORTS**

OPERATIONS-LEVEL MANAGEMENT DEVELOPMENT PROJECT

BIANNUAL PROGRESS REPORT

REPORTING PERIOD:

SEPTEMBER 1, 1987 - FEBRUARY 29, 1988

COOPERATIVE AGREEMENT NO.: AFR-0471-A-00-7060-00

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## BACKGROUND

The goal of the Operations-Level Management Development Project is to strengthen capabilities to implement and sustain health programs in Africa through improved management support for primary health care programs, especially those which include child survival interventions. The project objectives are to: (1) conceptualize, design, and field-test a comprehensive, prototype management development technology for strengthening operations-level management development technology for strengthening operations-level management of health programs throughout Africa; and (2) institutionalize this management development technology within the ministries of health of two anglophone African countries.

## OVERVIEW

Activities during the first six months of the grant focussed on the selection of the two project countries and development of country plans. Initial discussions were held with consultants working on the technologies to be developed by the project and plans were laid for the project implementation conference scheduled for May, 1988 in Honolulu, Hawaii.

## PROJECT STAFFING

Staffing for all but one of the project positions was completed during the period. One of the two management development positions in Honolulu is currently vacant. A candidate has been selected for this position and will join the project in August 1988 when his current contract expires. During the planning stage of the project this vacancy has not delayed or disrupted activities. It will be important to fill the position promptly in August however, so that field activities which begin in early August can be adequately backstopped.

## COUNTRY SELECTION

In October 1987, an African wide cable was sent to USAID missions summarizing the project and asking missions with interest in the project to respond to AID/W. An assessment visit was conducted by a team of four management specialists plus the project director in November and December 1987. This team visited Botswana, Tanzania, Zimbabwe, Lesotho and Kenya. The team met with a great deal of interest in the project. Individuals, both within and outside ministries of health, stated that improvement of management capabilities was sorely needed by the ministries. Unfortunately in two countries, Kenya and Tanzania, conditions were not right with either the Ministry of Health (Kenya) or the USAID Mission (Tanzania) for the project. In Zimbabwe, another group was working in district level management and the Ministry of Health felt it

would be unwise to have two groups working in the same field. The USAID mission in Malawi and Sudan expressed interest in the project. However, they were not able to schedule visits until well after the time the project needed to have selected the two project countries.

In Botswana and Lesotho, the team met with solid interest and support in the project from both the Ministries of Health and the USAID Mission. The team recommended the selection of Botswana and Lesotho as sites for project implementation. The team believes that these two countries will be excellent areas in which to develop prototype management materials and to develop the four technologies detailed in the project.

#### COUNTRY PLANS

Work on the country plans for Botswana and Lesotho was scheduled to begin in early January. Unforeseen circumstances in both countries delayed the arrival of the two teams to work on the country plans. The teams departed in late February and anticipate completing the country plans by the end of March, 1988.

#### EVALUATION PLAN

As part of the development of the evaluation plan for the project, the five outputs listed in the project grant have been analyzed and expended to obtain a detailed list of activities associated with

each project output. The draft list is attached. These outputs and activities will be further reviewed in light of the completed country plans and will serve as a baseline against which to monitor and measure project progress.

#### BUDGET

The project expenditures for the first six months were:

Salaries	\$147,154
Fringe Benefits	\$27,467
Consultant Fees	\$11,989
Travel and Transportation	\$34,841
Allowances	\$20,197
Other Direct Costs	\$17,364
Equipment, Materials and Supplies	\$1,433
Indirect Cost	\$62,506

Expenditures for the first six months were under projections for several reasons: 1) the vacant position described above resulted in significantly lower salary and fringe costs; 2) the delay in the country plan development pushed the costs (consultant fees, travel and allowances) for this activity into the start of the second biannual period; 3) The MEDEX Group has a policy of being as conservative as possible with expenditures at the beginning of a project to allow for the many unplanned expenses that develop during the life of a project.

It is anticipated that during the second six months of the project expenditures will increase significantly. The May implementation conference, the field staff's deployment to the field, the purchase of office equipment and a vehicle in each country, will result in a dramatic increase in expenditures.

DRAFT

PROJECT ACTIVITIES

The District Operations Management Improvement (DOMI) Project is expected to achieve the following activities:

1. An increased number of central and district-level MOH personnel who understand and effectively utilize the project's management development process.
  - 1.1 Conduct meetings with senior policy makers and personnel from collaborating institutions in order to explain DOMI and the
    - a. potential advantages of Operations Level Management Development (OLMD)
    - b. six steps of OLMD
    - c. resources and time needed for first cycle of management development process
  - 1.2 Conduct a one day workshop for senior officials and other collaborators in order to get a commitment of support for DOMI and to formally establish a project guidance group.
2. A comprehensive description of PHC management development needs which exist at the district level.
  - 2.1 Develop plan for conducting management needs assessment at district level including:
    - a. instruments for data collection and analysis
    - b. assessment methods to be used
    - c. travel itinerary, timetable, and resources
  - 2.2 Data collection, including visits to all the districts.
  - 2.3 Data analysis and preliminary draft management needs assessment report which integrates data and conclusions of the critical incident technique (see activity 3 below).
  - 2.4 Meetings with selected central and district health personnel to review and revise draft report.
  - 2.5 Prepare final report which describes PHC management development needs at the district level.
3. An increased number of MOH and local management institute personnel capable of using the critical incident technique for carrying out PHC management needs assessment.

- 3.1 Adapt and use the critical incident technique for district-level PHC management needs assessment which includes:
  - a. developing an incident gathering instrument and training university students to use it
  - b. gathering critical management incidents based on the actual work experiences of health personnel
  - c. categorizing and analyzing the data collected
  - d. preparation of a management needs assessment report based on the critical incident data
- 3.2 Conduct a seminar for MOH and IDM personnel on the critical incident technique and its usefulness in PHC management needs assessment.
4. Detailed guidelines and tools for using the critical incident technique to assess PHC management needs at district level.
  - 4.1 Prepare a self-instructional Guide on how to use the critical incident technique for PHC management needs assessment.
  - 4.2 Arrange for WHO, IDM or another health organization to field test the Guide in a third country.
  - 4.3 Prepare final draft of "Self-Instructional Guide for Conducting PHC Management Needs Assessment Using the Critical Incident Technique."
5. A group of health personnel trained as management analysts who are able to analyze management problems within the PHC systems and offer practical solutions.
  - 5.1 Interview and recruit management analysis trainees from within the health system.
  - 5.2 Plan and conduct a management analysis training workshop (2 weeks).
  - 5.3 Arrange and carry out a supervised internship (one month) for the newly trained management analysts.
6. Written management studies of priority PHC management support systems including recommendations for improvements.
  - 6.1 Select priority PHC management systems and assign one system to each analyst.
  - 6.2 Data gathering, analysis and conclusions written in draft study report.

- 6.3 Review of draft reports by DOMI staff and preparation of final reports by management analysts.
7. Written management operations manuals which describe the policies, procedures and forms to be used in the redesigned district-level PHC management support systems.
  - 7.1 Conduct decision making workshop for central and district-level health personnel where management study reports are reviewed and a consensus reached on the system changes required at district-level.
  - 7.2 Prepare policy guidelines for each management system based on consensus reached during the workshop and have senior MOH officials formally approve these guidelines.
  - 7.3 Conduct meetings and seminars with district health personnel to discuss new policy guidelines for each management system.
  - 7.4 Prepare draft management operations manual for each system.
  - 7.5 Conduct a series of workshops around the country to review and revise the draft management operations manual prior to finalization.
  - 7.6 Finalize the management manual, get final central MOH approval, and then proceed with implementation of the new management systems.
8. Competency-based management training program to prepare district-level personnel to work within the redesigned management support systems.
  - 8.1 Assign management roles and responsibilities to district health personnel.
  - 8.2 Complete management task analysis for district-level positions.
  - 8.3 Define management training needs.
  - 8.4 Develop management learning objectives.
  - 8.5 Develop the management training instructional program.
  - 8.6 Implement management training for district-level personnel.
9. Distance learning program for management training of district-level PHC supervisors, including a set of distance learning materials.
  - 9.1 Select a local institution as the home for the distance learning program.

- 9.2 Assess training needs of district-level PHC supervisors; determine which of these needs can be met through a distance learning program.
  - 9.3 Develop and field test distance learning materials.
  - 9.4 Plan and implement a distance learning program for PHC supervisors.
  - 9.5 Evaluate the distance learning program and make necessary adjustments.
  - 9.6 Print a set of distance learning materials and distribute copies through WHO to other PHC programs in Africa.
10. An increased number of MOH and local management institute personnel who are capable of both developing and using case studies for management training.
    - 10.1 Select trainees to participate in a program of management case writing and case teaching; select local institution as the home for the case methodology.
    - 10.2 Plan and carry out a case writing workshop (3 weeks).
    - 10.3 Write draft cases based on actual work experiences of newly trained case writers; drafts revised under supervision of consultants in case methodology.
    - 10.4 Plan and carry out a case teaching workshop (3 weeks).
    - 10.5 Integrate case method and materials into the overall management training program described under Activity 8.
  11. A volume of case studies (with teaching notes) which can be used for management training of district-level health personnel.
    - 11.1 Review drafts of management cases developed under Activity 10 and write detailed case notes for each of the cases.
    - 11.2 Write a process manual which describes how to write management cases based on work experiences and how to teach management using the case method.
    - 11.3 Edit and finalize a volume of management cases including case notes and a process manual on how to develop and use cases for management training of district-level health personnel.
  12. An increased number of district-level health personnel who are capable of using the "Willing And Able Model" for allocation of health resources to communities.

- 12.1 Select faculty members from local universities to participate in the development of the willing and able model.
  - 12.2 Develop and field test a set of indicators that can predict community behavior with regard to resource utilization.
  - 12.3 Prepare written, self-instructional guidelines (with sample indicators) for use by district health personnel in allocating PHC resources using the willing and able model.
  - 12.4 Train district health personnel to use the willing and able model, including supervised field work in selected districts.
13. Improved organization and functioning of priority PHC management support systems.
    - 13.1 Establish a "PHC management team" in each district.
    - 13.2 Plan and implement the improved management systems from Activity 7.
    - 13.3 Monitor the new systems to ensure that they are functioning as planned.
14. An increased number of district-level health personnel who are capable of evaluating a management development program.
    - 14.1 Develop and field test an evaluation system, including indicators of efficiency and effectiveness, for district-level management systems.
    - 14.2 Plan and implement the evaluation system, including the training of district-level personnel to use the system.
15. Increased use of formal evaluation data in management decision-making at district-level.
    - 15.1 Develop data collection system at district-level and integrate this system into the existing health information system.
    - 15.2 Write guidelines to assist district-level personnel in using the data collected in their management decision making.
    - 15.3 Conduct a series of workshops for district-level personnel on using evaluation data in management decision making.

OPERATIONS-LEVEL MANAGEMENT DEVELOPMENT PROJECT

BIANNUAL PROGRESS REPORT

REPORTING PERIOD:

MARCH 1, 1988 - AUGUST 31, 1988

COOPERATIVE AGREEMENT NO.: AFR-0471-A-00-7060-00

The MEDEX Group  
John A. Burns School of Medicine  
University of Hawaii  
1833 Kalakaua Avenue, Suite 700  
Honolulu, Hawaii 96815 U.S.A.

## BACKGROUND

The goal of the Operations-Level Management Development Project is to strengthen capabilities to implement and sustain health programs in Africa through improved management support for primary health care programs, especially those which include child survival interventions. The project objectives are to: (1) conceptualize, design, and field-test a comprehensive, prototype management development technology for strengthening operations-level management of health programs throughout Africa; and (2) institutionalize this management development technology within the ministries of health of two anglophone African countries.

## MAJOR ACTIVITIES DURING THIS REPORT PERIOD

ACTIVITY	STATUS	
	<u>Lesotho</u>	<u>Botswana</u>
1. Country plan prepared and approved by MOH and USAID	Completed	Completed
2. Memorandum of agreement entered into between MEDEX and MOH	Completed	Completed
3. Country plans reviewed and approved by AID/Washington	Completed	Completed
4. Evaluation plan prepared and approved	Approved by AID/W	
5. Pre-Implementation conference conducted in May, Honolulu	Two reps. of MOH attended	One rep. of MOH attended
6. LTAs deployed to field	Completed	Completed

ACTIVITY	STATUS	
	<u>Lesotho</u>	<u>Botswana</u>
7. Counterparts identified and working with LTAs	Completed	Original counterpart withdrew. Currently no counterpart in place. Recruitment for replacement underway.
8. Management needs assessment conducted (step 2 of 6 step management development process)	Completed	20% complete by 31 August. Anticipate 100% complete by mid-October
9. Prototype of management events technology prepared and field tested	Completed	Same as #8

PROJECT PROGRESS DURING PAST SIX MONTHS (NARRATIVE OF KEY AREAS)

The two project LTAs arrived at their posts (Lesotho and Botswana) in June, 1988. The project in Lesotho is off to a fast and smooth start with the Ministry of Health counterpart doing a highly competent job. All nineteen health service areas in Lesotho have been briefed about the project and a management needs assessment conducted in each health service area. In Botswana the project has encountered some start up problems. The individual first selected to be the project counterpart declined to take the position. To date, a replacement has not been selected. Also, it is taking much longer to visit the districts in Botswana because of the greater distances involved and the complexities of making arrangements

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without a counterpart. Due to the slow start in Botswana, a decision was made to postpone the management analysis training workshop from November to early 1989.

Work began this period on development of the first of the four technologies in the project. A management events study was conducted in Lesotho and Botswana. Data was gathered and a preliminary assessment made in Lesotho. Data gathering has begun in Botswana; it is anticipated that by mid-October the study will be completed. Prototype questions, data gathering techniques, and computer analysis have been prepared for this technology. The project collaboration with the Institute of Development Management (IDM) is off to a good start with IDM staff playing a key role in the management events study.

#### PROJECT NAME CHANGE

The working name of the project was changed from District Operations Management Improvement Project (DOMI) to District Management Improvement (DMI) at the May conference. The participants from Botswana at the May 1988 Pre-Implementation Conference in Honolulu indicated that DOMI was pronounced the same way as one of the political parties in Botswana. The conference consensus was that it would be better to avoid any change the name of the project and thereby eliminate any possible confusion over the acronym.

## BUDGET

The project expenditures for the first year were:

	Expenditures Inception Through <u>2/29/88</u>	Expenditures 3/01/88 Through 8/31/88 <u>8/31/88</u>	Total Expenditures Through <u>8/31/88</u>
Salaries	\$147,154	\$126,611	\$273,765
Fringe Benefits	27,467	27,487	54,954
Consultant Fees	11,989	43,345	55,334
Travel and Transportation	34,841	104,892	139,733
Allowances	20,197	38,005	58,202
Other Direct Costs	17,364	29,569	46,933
Equipment, Materials and Supplies	1,433	36,256	37,689
Indirect Cost	<u>62,506</u>	<u>89,080</u>	<u>151,586</u>
TOTAL	\$322,951	\$495,245	\$818,196

There were several significant expenditures during the last six month period: 1) the LTAs and their families were deployed to the field resulting in significant travel and transportation expense; 2) all consultant cost associated with the country plan preparation and the development of the management events technology were charged to this report period; 3) one of the two project vehicles was purchased during the past six months; 4) the salary category continues to run under budget because the fourth management development specialist did not join the project until September 1988; 5) finally, there was a slight reduction in the salary and related fringe benefit cost for this report period due to the manner in which the cost of these items were allocated between the first and second report period.

## IMPORTANT IMPLEMENTATION ACTIONS FOR NEXT SIX MONTHS

<u>Action</u>	<u>Comments</u>
Counterpart located and on the job	Botswana only
Management Analysis Training courses conducted	October in Lesotho Early 1989 in Botswana
Management Analysis Studies begun	Lesotho only
Based upon field work first draft of management events technology produced	Work in Honolulu

OPERATIONS-LEVEL MANAGEMENT DEVELOPMENT PROJECT  
BIANNUAL PROGRESS REPORT

Reporting Period

September 1, 1988 - April 30, 1989

COOPERATIVE AGREEMENT NO.: AFR-0471-A-00-7060-00

The MEDEX Group  
John A. Burns School of Medicine  
University of Hawaii  
1833 Kalakaua Avenue, Suite 700  
Honolulu, Hawaii 96815 U.S.A.

## BACKGROUND

The goal of the Operations-Level Management Development Project is to strengthen capabilities to implement and sustain health programs in Africa through improved management support for primary health care programs, especially those which include child survival interventions. The project objectives are to: (1) conceptualize, design, and field-test a comprehensive, prototype management development technology for strengthening operations-level management of health programs throughout Africa; and (2) institutionalize this management development technology within the ministries of health of two anglophone African countries. To ensure compatibility with AID/Washington format, this report is presented in tabular format.

## PROJECT PERFORMANCE

COMPONENT/ ACTIVITY	TARGET	IN PROGRESS	COMPLETED THIS PERIOD	COMPLETED %
PURPOSE INDICATORS				
Comprehensive operations-level management development process developed, implemented and institutionalized	2 countries	Botswana Lesotho	none	10 of 38 mos. of in-co. activity = 26%
OUTPUT INDICATORS				
Management technologies developed and fieldtested:		Needs assessment Botswana Lesotho		
1. Critical Incident	1	Prototype study completed (both countries) Manual preparation		80% (130/1200)
2. Distance Learning	1	Both countries, conducting study on how to implement distance learning program		15
3. Case Study	1	0		0
4. Resource Allocation	1	Indicators developed being fieldtested in both countries		20
Appropriate management systems used by trained health personnel:				
Management analysts trained	16-24 Lesotho 16-24 Botswana	4 Lesotho 8 Botswana		25% 50%
Health personnel trained counterparts	2/co.	Lesotho Botswana		16 of 76 PM (21%)
others	72 no.			0

COMPONENT/ ACTIVITY	TARGET	IN PROGRESS	COMPLETED THIS PERIOD	COMPLETED %
Functioning supervisory system linked to ongoing in-service training program:				
% facilities with 1 sup. visit during last mo.	? %		0	0
% supervisors with in-service training during last 6 mos.	? %		0	0
Prototype manuals, modules, workbooks & other materials developed, fieldtested and published	20 each	5 drafts		25%



First draft Management Events Manual - completed February 1989  
 Develop country-specific evaluation  
 plan - completed/Lesotho April 1989

#### ACTIVITIES FOR THE NEXT 180 DAYS

1. May 1989 Management Analysis Decision Makers Workshop - Lesotho
2. Sept. or Management Analysis Decision Makers Workshop - Botswana  
Oct. 1989
3. June-Aug.  
1989 Redesign of 3 management systems - Lesotho
4. Aug.-Sept. Implement redesigned management systems - Lesotho  
1989
5. July 1989 Develop evaluation plan - Botswana
6. June 1989 Finalize agreement with IDM to handle future management  
analysis training
7. Aug. 1989 Initiate discussions with MOHs outside of project countries  
interested in project outputs
8. Aug. 1989 Train trainers for Distance Learning Technology-Botswana
9. Aug. 1989 Train writers for Distance Learning Technology-Lesotho
10. Sept.- Writers prepare Cycle I Distance Learning Materials-Lesotho  
Jan. 1990
11. Aug.- Revised management analysis workshop manual  
Sept. 1989
12. June 1989 Counterpart departs country for one year masters program -  
Lesotho

ISSUES/PROBLEMS RESOLVED DURING THIS PERIOD

Receptive framework building has started to show positive signs in Botswana. Top officials in the MOH mention the DMI Project to others as an example of a "successful" project.

The Botswana counterpart joined the project and has proven to be an enthusiastic and capable team member.

An appropriate and relevant evaluation plan was developed for Lesotho that should serve as a model for Botswana and overall project evaluation.

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## BUDGET

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Item	Budget	Expenditures Inception Through 3-31-89	Encumbrances* Inception Through 3-31-89	Balance as of 3-31-89
Salaries	1,729,099	508,440	0	1,220,659
Fringe Benefits	312,857	98,475	0	214,382
Consultant Fees	429,446	138,750	33,656	257,040
Travel and Transportation	897,324	227,883	6,484	662,957
Allowances	504,019	145,012	18,491	340,516
Other Direct Costs	733,806	110,737	964	622,105
Equipment, Materials and Supplies	193,363	125,320	3,013	65,030
Participant Training	154,354	38,721	11,276	104,357
Indirect Costs	1,145,732 =====	292,205 =====	15,652 =====	837,875 =====
TOTAL	6,100,000	1,685,543	89,536	4,324,921

\*Encumbrances refer to outstanding purchase orders.

OPERATIONS-LEVEL MANAGEMENT DEVELOPMENT PROJECT  
BIANNUAL PROGRESS REPORT

Reporting Period

May 1, 1989 - December 31, 1989

COOPERATIVE AGREEMENT NO.: AFR-0471-A-00-7060-00

The MEDEX Group  
John A. Burns School of Medicine  
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Honolulu, Hawaii 96815 U.S.A.

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## BACKGROUND

The goal of the Operations-Level Management Development Project is to strengthen capabilities to implement and sustain health programs in Africa through improved management support for primary health care programs, especially those which include child survival interventions. The project objectives are to: (1) conceptualize, design, and field-test a comprehensive, prototype management development technology for strengthening operations-level management of health programs throughout Africa; and (2) institutionalize this management development technology within the ministries of health of two anglophone African countries. To ensure compatibility with AID/Washington format, this report is presented in tabular format.

PROJECT PERFORMANCE

COMPONENT/ ACTIVITY	TARGET	IN PROGRESS	COMPLETED THIS PERIOD	COMPLETED %
<b>PURPOSE INDICATORS</b>				
Comprehensive operations-level management development process developed, implemented, and institutionalized	2 countries	Botswana Lesotho		34 of 72 mos. of in-country activity = 47%
<b>OUTPUT INDICATORS</b>				
Management technologies developed & field tested:				
1. Critical Incident	1	Prototype study completed (both countries) Manual preparation		80%
2. Distance Learning	1	Both countries, conducting study on how to implement distance learning program		25
3. Case Study	1	Joint workshop conducted draft cases being prepared		40%
4. Resource Allocation	1	Indicators developed being field-tested in both countries		30
Appropriate management systems used by trained health personnel:				
Management analysts trained	16-24 Lesotho 16-24 Botswana			4 Lesotho 25% 8 Botswana 50%
Health personnel trained counterparts	1 per co.		28 of 72 PM (39%)	
others	72 no.		0	

COMPONENT/ ACTIVITY	TARGET	IN PROGRESS	COMPLETED THIS PERIOD	COMPLETED %
Functioning supervisory system linked to ongoing in-service training program:				
% facilities with 1 sup. visit during last mo.	TBD		0	0
% supervisors with in-service training during last 6 mos.	TBD		0	0
Prototype manuals, modules, workbooks & other materials developed and fieldtested	20 volumes	6 drafts		30%

MAJOR ACTIVITIES COMPLETED THIS PERIOD

<u>Scheduled Date</u>	<u>Activity Description</u>	<u>Completed</u>
Sept. or Oct. 1989	Management Analysis Decision Makers Workshop - Botswana	Delayed until March '90
June-Aug. 1989	Redesign of 3 management systems - Lesotho	Final approvals pending
Aug.-Sept. 1989	Implement redesigned management systems - Lesotho	Pending
July 1989	Develop evaluation plan - Botswana	Rescheduled to April '90
June 1989	Finalize agreement with IDM to handle future management analysis training	31 Dec. 89
Aug. 1989	Initiate discussions with MOHs outside of project countries	Pending
Aug. 1989	Train tutors for Distance Learning Technology-both countries	Nov. 89
August 1989	Train writers for Distance Learning Technology-Lesotho	Aug. 89
Sept.-Jan. 1990	Writers prepare Cycle I Distance Learning Materials-Lesotho	Dec. 89
Aug.-Sept. 1989	Revised management analysis workshop manual	1 Dec. 89
30 Sept. 89	Management Analysis Reports completed (personnel, supervision & communications)-Botswana	30 Sept. 89
30 Sept. 89	Complete Resource Allocation Pilot Study/both countries	6 Dec. 89
30 Sept. 89	Determine USAID/Lesotho's interest in buy-in	To be completed by AID/W
01 Nov. 89	Begin redesign of 3 management systems-Botswana	Delayed to March '90
01 Nov. 89	Begin Cycle II, Management Analysis Training-Lesotho	Delayed to 15 Jan '90
30 Nov. 89	Analysis of Resource Allocation Study & revise methodology	6 Dec. 89
15 Dec. 89	Case Study Writing Workshop/both countries	15 Dec. 89

ACTIVITIES FOR NEXT 180 DAYS

16 Feb. 90	Second group of Management Analysts complete training and ready to begin management studies-Lesotho	IDM & GOL
28 Feb. 90	Distance learning program operating in 9 HSAs-Lesotho	UH & GOL
15 May 90	DMI evaluation plan finalized	UH
25 May 90	By May 25, 1990, Management Analysis reports completed for drug supply, training and transportation systems-Lesotho	IDM, UH
31 May 90	Case Method Technology developed, field tested and 14 cases ready for use in DMI Programme. Lesotho/Botswana	UH
30 June 90	Draft management manuals prepared (drugs supply, training, and transportation)-Lesotho	
30 June 90	Implementation Supervision, Personnel, and Maintenance systems underway in 4-6 HSAs-Lesotho	GOL, UH
14 Mar 90	Management Analysis Decision Making Forum-Botswana	GOB, UH
6 Apr 90	Second group management analysts trained in Botswana	IDM< UH
18 May 90	Redesign of three systems (personnel, supervision, communication) completed-Botswana	UH
30 June 90	Distribution of first phase Distance Learning Modules-Botswana/Lesotho	GOB, GOL
30 June 90	Preparation of final draft of management analysis training modules	UH

## OUTSTANDING ISSUES/PROBLEMS

The elections in Botswana in October, 1989 resulted in postponement until March 1990 of the Management Analysis Decision making workshop. This will result in further delay in the implementation of revised management systems in Botswana.

In Lesotho problems have developed obtaining final approval of the first three revised management systems. It appears decision makers earlier had failed to fully comprehend the meaning of certain decisions. After reviewing the impact of these decisions they are having second thoughts and thus delaying the implementation of the first three management systems.

In both project countries the difficulty locating skilled writers in-country continues to be a problem. The lack of skilled writers has now impacted the preparation of the distance learning materials. The amount of editing required of materials written in-country is excessive, it may be more practical to prepare the materials elsewhere and then have them edited/adapted in-country to local conditions.

The data gathering for the resource allocation technology is proving to be more time consuming and complicated than originally planned. Unlike in previous instances (Thailand) where data has been gathered, village headmen are not as knowledgeable about demographic or investment behavior in their village. This means many more interviews must be conducted to gather the data.

ISSUES/PROBLEMS RESOLVED DURING PERIOD

To insure continuity of project activities in-country will extend LTAs until July 1991.  
Thus permitting overlap with counterpart who are away for training.

To compensate for weak writing skills of management analysis providing additional guidance  
in data summarizing and report writing skills during data gathering and report writing.

D M I  
Expenditure Report  
As Of 12/31/89

Item	Budget	Expenditures Inception Through 12-31-89	Encumbrances* Inception Through 12-31-89	Balance as of 12-31-89
I. Salaries	1,729,099	858,891	34,446	835,762
II. Fringe Benefits	312,857	161,446	0	151,411
III. Consultant Fees	429,446	276,297	225,892	(72,743)
IV. Travel and Transportation	897,324	364,402	22,202	510,720
V. Allowances	504,019	201,780	15,287	286,952
VI. Other Direct Costs	733,806	176,339	4,909	552,558
VII. Equipment, Vehicles Materials & Supplies	193,363	145,383	757	47,223
VIII. Participant Training	154,354	73,662	0	80,692
IX. Indirect Costs	<u>1,145,732</u>	<u>510,808</u>	<u>29,857</u>	<u>605,067</u>
TOTAL	\$6,100,000	\$2,769,008	\$333,350	\$2,997,642

\*Encumbrances refer to outstanding purchase orders and accumulated vacation.

Note: The deficit in consultant fees is a result of charging the entire amount of the Institute of Development Management (IDM) subcontract to this category. Shortly, we will request a cooperative agreement amendment to create a new budget category; subcontracts. At that time, the amount of the IDM subcontract will be transferred to the new budget category.

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**OPERATIONS-LEVEL MANAGEMENT DEVELOPMENT PROJECT  
BIANNUAL PROGRESS REPORT**

Reporting Period  
January 1, 1990 - June 30, 1990

COOPERATIVE AGREEMENT NO.: AFR-0471-A-00-7060-00

The MEDEX Group  
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## I. DISCUSSION OF ACTIVITIES THIS REPORT PERIOD

The goal of the Operations-Level Management Development Projected (called the District Management Improvement Project in the field) is to strengthen capabilities to implement and sustain health programs in Africa through improved management support for primary health care programs, especially those which include child survival interventions. The project objectives are to: (1) conceptualize, design, and field-test a comprehensive, prototype management development technology for strengthening operations-level management of health programs throughout Africa; and (2) institutionalize this management development technology within the ministries of health of two anglophone African countries.

### Status Report Lesotho

In May the District Management Improvement (DMI) Project in Lesotho completed the data gathering phase of the second cycle of management development. Three analysts studied three systems (Training, Transport, and Drugs and Medical Supplies). Implementation of the three redesigned systems from the first cycle is to begin in August.

The Facilities and Equipment Maintenance System and the Supervision Manual have been reviewed and approved, and the manuals are being printed. The Personnel Manual underwent extensive review by the Ministry of Public Service. Their report on areas in the Manual that conflict with Public Service was received in late April. A meeting to determine the final contents of the Personnel Manual was held in late May. The project was very pleased by the outcome of this meeting in that substantial authority in the area of personnel will be delegated to the HSAs.

The Distance Learning Programme is under way in half the Health Service Areas (HSAs) in the country. The DMI coordinator for the distance learning programme is to retire the end of July 1990. The coordinator for other MOH continuing education activities is based at the National Health Training Centre (NHTC). It is hoped that when the current DMI Distance Learning Coordinator retires her responsibilities can be assumed by NHTC.

The Resource Allocation Technology is receiving its most substantive test in Lesotho. In cooperation with the MOH's Rural Sanitation Programme, data has been collected from over 100 villages. The aim is to develop a set of indicators to determine which villages will be better acceptors of development initiatives. The Rural Sanitation Programme hopes to use resource allocation indicators to select villages for latrine construction and other sanitation projects.

Lesotho involvement in the Case Technology Development was represented by 7 participants in the Case Writing Workshop held in April-May in Maseru. There were two participants from Lesotho Institute of Public Administration (LIPA), four from the National University of Lesotho at Roma (NUL) and one from the Ministry of Health. Future plans call for one of the institutions providing participants, possibly NUL with assistance from LIPA, to develop cases specifically tailored to the eleven redesigned management systems.

Early in the project, the MOH realized it suffered from a shortage of management personnel in the HSAs. A decision was made to hire eight District Health Administrators. The DMI sponsored management analysis training serves as an extensive part of the induction training for the District Health Administrators. Two of the positions have been filled. The successful candidates participated in the second cycle of management analysis training.

#### Status Report Botswana

The management analysis reports produced by the first group of management analysts were completed in September 1989. Regional seminars were held in October 1989 for the purpose of validating the findings and conclusions in the reports and also getting feedback on the soundness of the recommendations. Representatives from all twenty District and Town Councils attended the two regional seminars.

The seminars revealed that the reports for the personnel and communication systems were quite accurate and contained sound recommendations. The supervision system report was extremely contentious and many areas remained unresolved at the end of the two seminars.

The National Forum to discuss the management analysis reports was originally scheduled for November 1989 but because of conflict with national events including the general elections, it had to be delayed until early 1990. Then, scheduling conflicts for the District and Town Councils in February and March 1990 meant that the dates for the Forum had to be established in April. The Forum was held 17-20 April with all districts in the country represented. The recommendations for change to the three systems were discussed at length

and consensus reached on changes to be made. The value of the public review of the analysis reports was underscored when the existence of a personnel manual being developed by Ministry of Local Government and Lands was addressed. The analysts studying the personnel system knew of the existence of the manual but had not ascertained the reluctance of the MLGL to DMI producing a Health specific personnel manual. As a result of the Forum discussion the project will produce an appendix to the MLGL manual that addresses MOH-specific personnel areas.

DMI Botswana has felt a good deal of pressure from the Ministry of Health to conduct management training. The DMI management development approach, however, employs training as a step following management system renewal. This is so that the training can be made relevant to the management system improvements. DMI Botswana has conducted a few management workshops on general topics, but as far as a nation-wide management training effort is concerned, DMI plans this for after the management system renewal/design phase. It is apparent that in this regard, DMI Botswana will need to continue to emphasize the role training plays in the management development process so that the Ministry of Health understands when management training will occur.

The Distance Learning Technology is progressing well in Botswana. Eight tutors were trained from four different Councils. There are 35 learners participating in the Pilot Programme. An Interim Evaluation of the Pilot Programme has been conducted. Based upon the results of the evaluation, the Project will decide whether to expand the Distance Learning Programme to additional Councils. A Distance Learning Coordinator has not yet been identified. The difficulty in this respect still lies in the lack of clarity as to where the

Distance Learning Programme will eventually be located -- in the Ministry of Health or in the Ministry of Local Government and Lands. This question relates specifically to another question regarding which Ministry has the responsibility for in-service training of Council-level health workers.

The Resource Allocation Technology has been put on hold in Botswana. DMI is still looking for a project to which the Resource Allocation Study could be attached.

Nine individuals from training institutions in Botswana attended the case writers Workshop conducted in Gaborone in November-December 1989. Six of the nine produced cases that were to be used in the Case Teachers Workshop in Maseru. Two of the case writing participants are from the Institute of Development Management (IDM) and it is hoped that they can form the nucleus of a case writing team to assist in the development of cases for training in the revised management systems.

#### Status Report Hawaii

The two project officers based in Hawaii spent extensive periods of time in Lesotho and Botswana during the period 1 January - 30 June, 1990. Their main focus during these field visits was to support the development of the four technologies. From now till the end of the project, their efforts will shift to the production of prototype materials. This will mean they must spend extended periods of time at the home office drafting and revising materials.

The home office staff is also responsible for the dissemination of information on the project and the distribution of prototype materials. They are concentrating on dissemination activities in two areas: a) informing management institutions, especially those based in Africa, about the DMI Project and the materials to be developed; and b) briefing international organizations, WHO, World Bank and selected NGOs working in health about the DMI Project. An international panel of authorities in the field of primary health management is being constituted to review the prototype materials as they are produced.

The home office staff worked with AID/Washington to develop a scope of work for the external evaluation of the project scheduled for October 1990.

#### Status Report – Institute for Development Management (IDM)

The MEDEX Group and the Institute for Development Management Botswana, Lesotho, Swaziland in January 1990 entered into a contract, whereby IDM is to conduct management analysis training, supervise data gathering, conduct decision-making workshops, and redesign certain management systems. This contract covers the period January-December 1990.

In Lesotho, IDM completed in early July the first management analysis training, system studies, report writing and decision-making conducted totally by their staff. The IDM country director for Botswana worked on the redesign of the Training system and presented the system at the decision-making workshop in early July.

In Botswana, IDM conducted the second management analysis workshop and internship. They are to supervise the data gathering, report writing and presentation of reports to be conducted in September-October.

The IDM effort has been lead by Dr. Ponny Walakira, Senior Consultant. Mr. Thespo Taolo, a Junior Consultant with IDM, has been serving as a counterpart to Mr. Gregory Miles, DMI advisor in Botswana. Mr. Taolo assisted Dr. Walakira with the management analysis training in Lesotho and took a key role in the management analysis training conducted in Botswana in June. Two other IDM staff are involved in DMI activities: Ms. Margaret Kobue and Mrs. Joyce Thobega. Mrs. Kobue is a member of the case writing/teaching group and Mrs. Thobega is working with the management analysis training and supervision of data gathering.

#### Status Report – DMI Management Development Process

The training materials used in the management analysis phase of the management development program have undergone extensive revision as a result of the three cycles of training conducted to date by the project. The student guide has been divided into two volumes. The first volume contains the description of the management analysis process. The second serves as a workbook during training. There is an Instructor's Manual. A guide for use by the supervisor of the data gathering, data summarization, and report writing phases of management analysis has been prepared. The management analysts are now required to prepare as part of their training the questions they will use in the data gathering phase. The use of prepackaged questions has been eliminated. Also ways of linking the management

events technology which is used in needs assessment with the data gathering for management analysis are being explored.

The second management development cycle in Lesotho was conducted differently than the first. After the analysts have completed their study reports technical advisory committees were formed for each of the three systems. These committees reviewed the study reports and worked with a system redesign consultant to prepare a draft of the operations manual for the system (Training, Transportation or Drugs and Medical Supplies). The decision making forum discussed the basis of the decisions that resulted in the changes in the systems. The forum also reviewed the draft operations manual begin recommended by the technical advisory committee. By the end of the forum, all three manuals were reviewed and, with minor changes, each approved and ready for implementation.

As part of the implementation of the redesigned systems, the distance learning and case technologies show great promise. The distance learning materials are being received favorably and appear to be a cost-effective means to deliver management training to health workers spread over a wide geographic area. At the conclusion of the case writers workshop, there were a critical mass of 12 cases that can be used to deliver management training. In addition to these two technologies, more traditional training will be done in the revised management systems. Training sessions in both countries will usually take the form of small group sessions lasting a couple of days. Participants will work with the procedures and forms contained in the manuals.

The MEDEX Group evaluation specialist is nearing completion on materials to form the basis of the evaluation phase of the management development program. These materials are to be designed to be used by staff with no formal training in evaluation and be a means to rapidly assess the strengths and weaknesses of a redesigned management system. A prototype of the evaluation materials will be ready for review by early August 1990.

## II. PROJECT PERFORMANCE

COMPONENT/ ACTIVITY	TARGET	IN PROGRESS	COMPLETED THIS PERIOD	COMPLETED %
<b>PURPOSE INDICATORS</b>				
Comprehensive operations-level management development process developed, implemented, and institutionalized	2 countries	Botswana Lesotho		46 of 72 mos. of in-country activity = 64%
<b>OUTPUT INDICATORS</b>				
<b>1. PHC management process developed:</b>				
a) Needs Assessment	1/co			100%
b) Analyze & redesign system				
- management analysts trained	16-24 Botswana 16-24 Lesotho		4 5	12 75% 9 56%
- decision-makers workshops	3/Botswana 3/Lesotho	1	1	33% 33%
c) Implementation of new system	10/Botswana 10/Lesotho	3 3		15% 25%
d) Develop internal evaluation system	1/co	1/co		40%
<b>2. Management technologies developed &amp; field tested:</b>				
a) Management Events	1	Prototype study completed (both countries) Manual preparation		80 %

COMPONENT/ ACTIVITY	TARGET	IN PROGRESS	COMPLETED THIS PERIOD	COMPLETED %
b) Distance Learning	1	Both countries, conducting study on how to implement distance learning program		60%
c) Case Study	1	Joint workshop conducted draft cases being prepared		80%
d) Resource Allocation	1	Indicators developed being field-tested in Lesotho		50%
3. Prototype manuals, modules, workbooks & other materials developed and field tested	20 volumes	8 drafts		30%
4. Functioning supervisory system linked to ongoing in-service training programs:				
% facilities with 1 sup. visit during last mo.	TBD		0	0
% supervisors with in- service training during last 6 mos.	TBD		0	0
5. Private sector training institute	1	1		80%
6. Health personnel trained counterparts	1 per co.			40 of 72 pm (55%)
other	72 pm of in- country training			0

### III. MAJOR ACTIVITIES COMPLETED THIS PERIOD

June 90	Second group of Management Analysts (5) completed training and conducted management studies -- Lesotho	IDM & GOL
	Distance learning program operating in 9 HSAs -- Lesotho	UH & GOL
June 90	DMI evaluation module (step 6 in management development process) drafted	UH
25 May 90	Management Analysis reports completed for drug supply, training and transportation systems -- Lesotho	IDM & UH
May 90	Case Method Technology developed, field tested and 12 cases ready for use in DMI Programme. Lesotho/Botswana	UH
June 90	Draft management manuals prepared (drugs supply, training, and transportation) -- Lesotho	UH
Mar 90	Management Analysis Decision-Making Forum -- Botswana	GOB & UH
June 90	Second group management analysts trained in Botswana	IDM & UH
May 90	Redesign of three systems (personnel, supervision, communication) completed -- Botswana	UH
June 90	Distribution of first phase Distance Learning Modules -- Botswana/Lesotho	GOB & GOL & UH
June 90	Preparation of final draft of management analysis training manuals	UH

#### IV. ACTIVITIES FOR NEXT 180 DAYS

##### Hawaii

1. By 31 July 1990, produce a first draft of an evaluation module.
2. By 30 September produce a draft for circulation of the Management Analysis Training Module, Training Workbook and Instructor's Guide.
3. By 30 September 1990, finalize twelve cases and accompanying envelopes. Cases will be distributed to project countries for implementation.
4. By 30 July 1990 finalize and dispatch to the field the Lesotho Personnel Manual.
5. August 1990 assist with the review and revision of the Supervision and Communication Manuals for Botswana.
6. By 2 November 1990 an external evaluation of the project will be conducted by AFR/TR/HPN.
7. By 7 December 1990 the first internal review of prototype materials will be completed (review to be held in Botswana).

8. By 31 December 1990 prototypes suitable for review of the following materials will be completed:

Communications Manual

Supervision Manual

Personnel Manual

Management Events Module

Evaluation Training Module and Instructor's Guide

#### Botswana

1. By 31 December 1990, additional efforts will have been made to build a solid foundation of awareness, understanding and commitment to management development and the DMI Project.
2. By 15 August 1990, a final evaluation of the DMI Distance Learning Pilot Programme will have been completed in order to determine the viability of using distance education as a means of providing management training to district level health managers.
3. If the evaluation of the DMI Distance Learning Pilot Programme is favorable, conduct tutor training for phase 2 of the Distance Learning Programme. Phase 2 will extend the Distance Learning Programme to five additional Councils beyond the four pilot Councils.

4. By 31 October 1990, a coordinator for the DMI Distance Learning Programme will have been identified and placed.
5. By 30 September 1990, final drafts of policy and procedure manuals for supervision and communication systems will have been developed. In addition, a Health Personnel Attachment to the ULGS Personnel Handbook will have been developed.
6. By 15 October 1990, a DMI Monitoring and Evaluation Plan will have been developed. This evaluation plan will result from (1) an assessment of management information needs existing at the central and council levels with respect to management system improvements and (2) those provided for in the three operations (policy and procedure) manual.
7. By 9 November 1990 a training programme to prepare a National Management Training Support Team will have been carried out.
8. By 30 November 1990, trainers from 9 district and town councils will have been trained to conduct management improvement workshops in their Councils.
9. By 15 October 1990, three management analysis studies of the general supplies, health information and facilities and equipment maintenance systems will have been completed.

10. By 31 October 1990, an external evaluation of the DMI/Botswana Project will have been completed and DMI and Botswana Government officials will have been briefed on the results. This evaluation will be carried out under the auspices of the Africa Bureau of USAID.
11. By 31 October 1990, the third DMI Intercountry Conference will have taken place. The purpose of this Conference will be to review the future direction of DMI/Botswana and DMI/Lesotho as a result of the USAID external evaluation scheduled for October.
12. By 31 December 1990, the Botswana Case Method Resource Group will have developed at least two more PHC management cases and will have provided at least two training events on the development and use of cases.

#### Lesotho

1. By 31 July 1990, draft Procedures Manuals for HSA Drug Supply, Training & Transportation Systems completed and ready for final review by MOH and PHAL.
2. By 15 August 1990, implementation of new supervision, personnel & maintenance systems underway in GOL HSAs.
3. By 31 August 1990, Distance Learning Program institutionalized at NHTC; programme extended to PHAL HSAs.

4. By 31 August 1990, management training using cases underway in HSAs.
5. By 31 October 1990, sections of HSA Manual on Drug Supply, Training & Transportation approved, printed and ready for distribution.
6. By 15 November 1990, implementation of new drug supply, training and transportation systems underway in GOL HSAs.
7. By 30 November 1990, external evaluation of DMI completed by USAID, plus the 3rd DMI Inter-country Conference held at Gaborone.
8. By 31 December 1990, DMI Counterpart will have been appointed to a position within the Ministry, and she will have assumed day-to-day management of the project.

OPERATIONS LEVEL MANAGEMENT PROGRAM  
SUMMARY OF INPUT INDICATORS

Category	Budget	Expenditures 9/1/87-6/30/90	Balance
Long-Term Technical Assistance	\$3,342,825	\$2,418,386	\$ 924,439
Short-Term Technical Assistance	991,585	713,924	277,661
Participant Training	190,052	104,706	85,346
Training In-Country	494,911	205,237	289,674
Commodities	0	0	0
Support Costs	1,080,627	500,590	580,037
TOTAL:	\$6,100,000	\$3,942,843	\$2,157,157

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Expenditure Report  
As Of 6/30/90

Item	Budget	Expenditures Inception Through 6-30-90	Encumbrances* Inception Through 6-30-90	Balance as of 7-1-90
I. Salaries	1,729,099	1,115,213	39,014	574,872
II. Fringe Benefits	312,857	214,217	0	98,640
III. Consultant Fees	429,446	359,628	216,200	(146,382)
IV. Travel and Transportation	897,324	482,476	6,755	408,093
V. Allowances	504,019	297,748	6,778	199,493
VI. Other Direct Costs	733,806	252,107	9,473	472,226
VII. Equipment, Vehicles Materials & Supplies	193,363	151,944	257	41,162
VIII. Participant Training	154,354	82,691	2,711	68,952
IX. Indirect Costs	1,145,732	681,789	23,842	440,101
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
TOTAL	\$6,100,000	\$3,637,813	\$305,030	\$2,157,157

\*Encumbrances refer to outstanding purchase orders and accumulated vacation.

Note: The deficit in consultant fees is a result of charging the entire amount of the Institute of Development Management (IDM) subcontract to this category. Shortly, we will request a cooperative agreement amendment to create a new budget category; subcontracts. At that time, the amount of the IDM subcontract will be transferred to the new budget category.

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**OPERATIONS-LEVEL MANAGEMENT DEVELOPMENT PROJECT  
BIANNUAL PROGRESS REPORT**

Reporting Period  
July 1, 1990 - December 31, 1990

COOPERATIVE AGREEMENT NO.: AFR-0471-A-00-7060-00

The MEDEX Group  
John A. Burns School of Medicine  
University of Hawaii  
1833 Kalakaua Avenue, Suite 700  
Honolulu, Hawaii 96815 U.S.A.

## I. DISCUSSION OF ACTIVITIES THIS REPORT PERIOD

The goal of the Operations-Level Management Development Projected (called the District Management Improvement Project in the field) is to strengthen capabilities to implement and sustain health programs in Africa through improved management support for primary health care programs, especially those which include child survival interventions. The project objectives are to: (1) conceptualize, design, and field-test a comprehensive, prototype management development technology for strengthening operations-level management of health programs throughout Africa; and (2) institutionalize this management development technology within the ministries of health of two anglophone African countries.

### Status Report Lesotho

In September 1990 the Lesotho Project began the implementation of the first of eleven management systems. The Supervision System was implemented in eight Health Service Areas (HSAs) through a series of four workshops. Follow-up visits to four of the HSAs indicate significant progress in implementing the Supervision System.

The revised Maintenance System was implemented in five HSAs in November with two workshops. The introduction of a country-wide inventory system by the Central Maintenance Department is the first indication that this system is having a meaningful impact on management practices in Lesotho.

In November 1990 the revised Transportation System and the Training System were implemented in five HSAs. The Training System in particular is seen as bringing order,

fairness and new learning opportunities to HSA level staff. As part of this system, a central level training division has been created. All central level, regional and external training opportunities are now announced at all levels of the health delivery system establishing the opportunity for health staff, even in the most remote facility, to apply. Prior to introduction of the DMI created Training System, health workers at remote locations were seldom aware of these training opportunities.

The revised Drug Supply System was introduced in November at the QE II Hospital Pharmacy. Since introduction of the system, the entire pharmacy has been reorganized with a rationalized inventory and control system. A pre-printed order form was implemented as part of the revised Drug System. The order form facilitates ordering and reduces ordering errors -- hand written orders were difficult to read leading to numerous errors. Because the only pharmacist in the country is located at the QE II Pharmacy, the revised Drug System will be implemented in each HSA only after the pharmacy technician located at the HSA has the chance to rotate through the QE II Pharmacy and learn the system.

The Personnel Manual has been completed but there continues to be problems in obtaining final approval for the revised system from the Ministry of Public Service (MPS). The MPS is having difficulty permitting the MOH to implement personnel policies that differ even in relatively minor ways from those followed by other Government of Lesotho ministries. It is hoped that these issues will be resolved and the MPS will let the MOH be the ministry to "pilot" new personnel policies.

The case technology is being used to assist in the implementation of the revised systems, especially Supervision. A Case Resource Group (four lecturers from the National University) have been conducting case sessions for HSA Management Teams since September 1990. They are introducing a case learning system that, after an initial introduction to an HSA, does not require outside facilitators. Indications to date are that the system has potential to become an on-going training activity for the HSAs.

As a means of determining the usefulness of the resource allocation technology, data on 100 villages were collected. These data are being analyzed by a project consultant to determine if indicators of success can be identified. Results are expected in early 1991.

A significant concern of the project in Lesotho is the failure, to date, to institutionalize the DMI project counterpart position within the MOH. The position is currently funded by a World Bank project with no date established for the MOH to assume funding. The position currently reports to the Director of PHC, but no permanent "home" within the MOH organizational structure has been identified.

#### Status Report Botswana

The project has trained a total of eleven management analysts, three during this reporting period. They have analyzed seven management systems: personnel, communications, supervision, health information, general supplies, facilities and equipment maintenance and patient records and referral. Reports, including recommendations for improvement, have been completed for all seven of these systems.

Project consultants, with assistance from management analysts and district level advisory groups, have completed manuals for the redesign of the Supervision and Communications Systems. These redesigned systems are currently awaiting review by the Primary Health Care Co-ordinating Committee.

The distance learning technology was evaluated by a consultant from the Distance Education Unit of the Institute of Adult Education at the University of Botswana. The distance learning program was tested in 4 districts with over 30 council-level health personnel participating. The evaluation indicated that the learners enjoyed the materials and felt they filled a void in their training opportunities. The learners indicated that they would welcome additional training materials, but first wanted an overall training plan and answers to their questions concerning incentives for undergoing the training.

During this reporting period the question of where to house the project, Ministry of Health or Ministry of Local Governments and Lands (MLGL), was resolved. At the third intercountry conference, representatives of the MOH and MLGL discussed the merits of the project remaining in the MOH or moving to MLGL. While MLGL is responsible for the staff at district level, the MOH is responsible for technical guidance in the health field and has a PHC support unit. The DMI Project has now been officially included in the PHC support unit of the MOH. This is significant because it insures a permanent position for the DMI counterpart when she returns from overseas training in May 1991.

## Status Report Hawaii

Project staff in Hawaii began work on prototype, generic versions of the eleven management systems required to support PHC. The first system, Personnel, is nearing completion. A time table for completion of the remaining systems has been developed and it is anticipated they will all be completed by the end of calendar 1991. The three volumes that constitute the management analysis training materials were completed with the two volumes used by students professionally edited. The Instructors Manual has been significantly revised during 1990 and incorporates many of the suggestion proposed by facilitators from the Institute of Development Management.

It was determined in early August 1990 that one way to disseminate information about the MEDEX Management Development Process would be to hold a course that would use the Process as a learning template. The course is scheduled for February 1991. Even with the uncertain situation created by the Gulf Crises, a respectable number of course participants are expected. Unfortunately it appears unlikely that there will be any participants from sub-Saharan Africa.

It was anticipated that in October 1990 AID would conduct an external evaluation of the project. Unfortunately, due to a number of reasons, the evaluation was postponed. It is now scheduled for March 1991. The project staff is extremely anxious to have the project evaluated. It is felt that outside evaluators will be able to provide useful input to project activities and be able to independently validate the utility of the MEDEX Management

Development Process. It is important that any evaluation occur while significant time remains in the project so that suggestions from the evaluation team can be implemented.

The Hawaii staff participated in the third DMI intercountry conference held in Gaborone, Botswana in November. After the conference, project staff gathered in Gaborone to develop plans and time tables for the balance of the project. It is anticipated that at the current end of the project (August 31, 1991) there will be funds remaining. It was decided at these meetings to request from AID a five or six month extension. The prime reason for the extension will be to permit completion of the prototype materials that have fallen behind schedule because of implementation problems in the two project countries.

## II. PROJECT PERFORMANCE

COMPONENT/ ACTIVITY	TARGET	IN PROGRESS	COMPLETED THIS PERIOD	COMPLETED %
<b>PURPOSE INDICATORS</b>				
Comprehensive operations-level management development process developed, implemented, and institutionalized	2 countries	Botswana Lesotho		58 of 72 mos. of in-country activity = 80%
<b>OUTPUT INDICATORS</b>				
<b>1. PHC management process developed:</b>				
a) Needs Assessment	1/co			100%
b) Analyze & redesign system				
- management analysts trained	16-24 Botswana 16-24 Lesotho			12 75% 9 56%
- decision-makers workshops	3/Botswana 3/Lesotho			33% 66%
c) Implementation of new system	10/Botswana 10/Lesotho	3 5		15% 50%
d) Develop internal evaluation system	1/co	1/co		40%
<b>2. Management technologies developed &amp; field tested:</b>				
a) Management Events	1	Prototype study completed (both countries) Manual preparation		80 %

COMPONENT/ ACTIVITY	TARGET	IN PROGRESS	COMPLETED THIS PERIOD	COMPLETED %
b) Distance Learning	1	Both countries, conducting study on how to implement distance learning program		60%
c) Case Study	1	Lesotho - cases in use to support new systems		80%
d) Resource Allocation	1	Data being analyzed		70%
3. Prototype manuals, modules, workbooks & other materials developed and field tested	20 volumes	8 drafts		35%
4. Functioning supervisory system linked to ongoing in-service training programs:				
% facilities with 1 sup. visit during last mo.	TBD		0	0
% supervisors with in- service training during last 6 mos.	TBD		0	0
5. Private sector training institute	1	1		100%
6. Health personnel trained counterparts	1 per co.			50 of 72 pm (72%)
other	72 pm of in- country training		15	21%

### III. MAJOR ACTIVITIES COMPLETED THIS PERIOD

Aug '90	Evaluation of the DMI Distance Learning Pilot Programme.	GOB
Sept '90	Draft Procedures Manuals for HSA Drug Supply, Training & Transportation Systems completed.	UH GOL
Sept '90	Management training using cases underway in HSAs.	UH GOL
Oct '90	First draft of an evaluation module completed.	UH
Oct '90	15 October 1990, a DMI Monitoring and Evaluation Plan developed.	UH
Nov '90	Six of twelve cases and accompanying envelopes finalized.	UH
Nov '90	Final drafts of policy and procedure manuals for supervision and communication systems developed.	UH GOB
Nov '90	Third DMI Intercountry Conference held.	GOB GOL, UH
Nov '90	Implementation of revised supervision, maintenance systems and drug systems underway.	UH GOL
Nov '90	Implementation of new Training System underway.	UH GOL

Dec '90	Draft for circulation of the Management Analysis Training Module, Training Workbook and Instructor's Guide.	UH
Dec '90	First internal review of prototype materials completed.	UH
Dec '90	Prototypes suitable for review of the following materials completed:	UH
	Management Analysis Training Package (3 manuals)	
	Personnel Manual	
	Evaluation Training Module	
Dec '90	Management Analysis studies of the general supplies, health information and facilities and equipment maintenance systems completed.	UH GOB

#### IV. ACTIVITIES FOR NEXT 180 DAYS

##### LESOTHO

January - February	Cycle III Management Analysis Training
February	Evaluation of the First Five Systems (Supervision, Training, Transportation, Maintenance & Drugs & medical Supplies)
February	Final MOH decision on institutionalization of DMI Counterpart position
February - March	Cycle III Data Gathering
March	External Evaluation of the DMI Project by USAID
April - May	National Implementation of Cycle I & II Systems
June	Cycle III Management Analysis Reports Finalized

##### BOTSWANA

January	District studies of health information and referral systems for review.
February - March	Conduct two Regional Seminars to validate findings and conclusions in the management analysis studies.
March	Based on feedback from the two Regional Seminars, develop final management analysis study reports.
March	External evaluation of DMI/Botswana conducted by AID/Washington.
April	National PHC Management Forum on recommendations for the health information and referral systems.
April - May	Develop policy and procedure manuals for health information and referral systems.
June - August	Implement Health Information and Patient Referral Systems.

##### HAWAII

January '91	Finalize generic prototype of Training System.
February '91	Complete editing, illustrating and final layout of Cases 7-12.
February '91	Conduct four week course on the MEDEX Management Development Process.
March '91	Participate in the AID/Washington external evaluation of project.

March - April '91	Draft, in country, Botswana Health Information System Manual.
March - April '91	Draft, in country, Lesotho Finance System Manual.
June '91	Finalize generic prototype of Health Information Manual.
June '91	Finalize generic prototype of Communication Manual.

**OPERATIONS-LEVEL MANAGEMENT DEVELOPMENT PROJECT  
BIANNUAL PROGRESS REPORT**

Reporting Period

January 1, 1991 - August 31, 1991

COOPERATIVE AGREEMENT NO.: AFR-0471-A-00-7060-00

The MEDEX Group  
John A. Burns School of Medicine  
University of Hawaii  
1833 Kalakaua Avenue, Suite 700  
Honolulu, Hawaii 96815 U.S.A.

## I. DISCUSSION OF ACTIVITIES THIS REPORT PERIOD

The goal of the Operations-Level Management Development Project (called the District Management Improvement Project in the field) is to strengthen capabilities to implement and sustain health programs in Africa through improved management support for primary health care programs, especially those which include child survival interventions. The project objectives are to: (1) conceptualize, design, and field-test a comprehensive, prototype management development technology for strengthening operations-level management of health programs throughout Africa; and (2) institutionalize this management development technology within the ministries of health of two anglophone African countries.

### Status Report Lesotho

The Supervision, Maintenance, Transport and Training systems were implemented in 14 of the 18 Health Service Areas (HSAs) (77% of the country) during the period. The remaining four HSAs are to be covered in late 1991. Monitoring of the new management systems in eight of the HSAs was carried out as planned, with significant progress in the implementation of these systems occurring by August 1991.

Implementation of the Personnel System continues to be delayed pending a final decision by the Ministry of Public Service.

Sixteen (16) case sessions were conducted in four HSAs. The case teachers lead the first five cases in each of the three HSAs, i.e., Mants'onyane, Mafeteng and Leribe. One case was facilitated at Roma HSA. The remaining six cases were scheduled to test "leaderless" case

sessions, i.e., case sessions conducted without an outside facilitator. This method seemed difficult to the participants.

During the month of August, two additional HSAs expressed interest in participating in the case program; however, the Project staff felt it would be unwise to start with a case program since the project is nearing an end. The MOH does not have the resources to continue the case program on a formal basis (paying case facilitators from NUL), but the cases developed by DMI will be used for continuing education within the MOH.

Cycle III of system redesign and implementation began in February with the training of four new management analysts. Two of the analysts were from Lesotho (one each from the Ministry of Public Service - Management Services Unit and the Ministry of Finance - Audit Unit); the other two were from Botswana. The Management Analysis Training was conducted exclusively by staff from the Institute of Development Management (IDM), a regional management training institute with campuses in Lesotho, Swaziland and Botswana.

The two recently trained analysts studied the Health Information System (HIS) with their report is scheduled to be presented in October to the consultant (funded by a World Bank project) who will prepare the HIS Manual.

With technical assistance of the World Health Organization, the Communications Manual was prepared for presentation to the Ministry of Health and the Private Health Association of Lesotho. The first technical committee meeting is planned for 10 September 1991.

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A second draft Finance Manual limited to the government system is currently in the hands of Ministry of Health officers for editing. Once the editing is complete, the Manual will be presented to the Ministry for approval.

The DMI counterpart (Ms. Mannete Ramaili') took charge of day to day project management and administration in January 1991. Institutionalization of the project into the Office of the Director General of Health Services is scheduled for completion by December 1991.

In August, the project completed arrangements for financial support in Lesotho from the Cooperative Agreement through December 1991. This extension will cover the cost of implementation workshops and the photocopying of several of the Management Systems Manuals. The MEDEX long-term advisor will depart Lesotho on October 19 immediately after the external AID/W evaluation of the program.

#### Status Report Botswana

Management Analysis Study Reports for the General Supplies and Facilities and Equipment Maintenance Systems were completed and submitted to the Ministry of Local Government, Lands and Housing.

Two more Botswana management analysts were trained on behalf of DMI by the Institute of Development Management. One of these analysts conducted a management analysis study of the cold chain component of the drug supply system.

The Management Analysis Study Reports for the Health Information and Referral systems were completed and distributed to all of the District and Town Council Health Departments. The reports were then reviewed in detail at a National Seminar held in March.

Based on feedback provided at the National Seminar, DMI developed draft operations manuals for the Health Information and Referral Systems.

Based on feedback received from the District and Town Council Health Departments regarding the draft operations manuals for the Supervision and Communication Systems, DMI decided to pursue the introduction of improvements in these systems with the Councils.

An orientation session for District Medical Officers was held to introduce them to the use of management cases for discussion and in-service training purposes in their Health Departments. A number of DMOs have since reported using some of the cases for these purposes.

A series of five regional workshops were held to introduce management improvements in the Supervision, Communication, Health Information and Patient Referral Systems. Approximately 120 representatives from Council Health Departments, Primary Hospitals and Hospitals participated in these workshops.

Status Report Hawaii

Staff in Hawaii continued work on the prototype, generic versions of the 11 Management Systems Manuals. The Personnel, Health Information, Transportation and Training Manuals have been completed. Twelve cases with accompanying case notes have been prepared and are in final form. The Evaluation Student Guide and Instructor's Manual underwent extensive revision, and the final prototypes are expected to be completed by the end of September.

AID Washington approved a five month no-cost extension to the project. The new ending date is January 31, 1991. In the original conceptualization of the project, the current Cooperative Agreement was to be the first of two phases. Phase II was to finalize the development of the technology and to disseminate the methods and materials. During this reporting period, AID/W indicated that even though they had accepted the original project design, they were not prepared to fund a Phase II.

The AID external evaluation that had been postponed several times was postponed again. The Lesotho Mission did not believe that the evaluation travel fell into the "essential" category imposed during the aftermath of the Gulf War, so it was necessary to further delay the evaluation until September-October 1991.

In the midst of the Gulf War, the project staff in Hawaii conducted a very successful PHC Management Course. The MEDEX Management Development Program served as the template for the course design. The 11 participants (none from sub-Saharan Africa) were very

enthusiastic and felt that the process had great applicability to their work situations. One participant (from Bolivia) has indicated an interest in working with The MEDEX Group to implement the management development process to strengthen the management of a group of NGOs working in Bolivia.

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## II. PROJECT PERFORMANCE

COMPONENT/ ACTIVITY	TARGET	IN PROGRESS	COMPLETED THIS PERIOD	COMPLETED %
<b>PURPOSE INDICATORS</b>				
Comprehensive operations-level management development process developed, implemented, and institutionalized	2 countries	Botswana Lesotho		72 of 72 mos. of in-country activity = 100%
<b>OUTPUT INDICATORS</b>				
<b>1. PHC management process developed:</b>				
a) Needs Assessment	1/co	Botswana	Lesotho	100% Lesotho 100% Botswana
b) Analyze & redesign system				
-management analysts trained	16-24 Botswana 16-24 Lesotho		2 2	13 (81%) 11 (69%)
-decision-makers workshops	3/Botswana 3/Lesotho		1 1	66% 100%
c) Implementation of new system	10/Botswana 10/Lesotho	4 4		25% 75%
d) Develop internal evaluation system	1/co	1/co		60%
<b>2. Management technologies developed &amp; fieldtested:</b>				
a. Management Events	1	Prototype study completed (both countries) Manual preparation		80%
b. Distance Learning	1			60%
c. Case Study	1	Lesotho-cases in use to support new systems  Botswana-cases being used for council level in-service training	4 new cases prepared	90%

		Data being analyzed	Analysis of data from Lesotho completed	
d. Resource Allocation	1			80%
3. Prototype manuals, modules, workbooks & other materials developed and fieldtested	20 volumes	9 drafts		35% 45%
4. Functioning supervisory system linked to ongoing in-service training programs:				
% facilities with 1 sup. visit during last mo.	90% Botswana 100% Lesotho			75% Botswana 80% Lesotho
% supervisors with in-service training during last 6 mos.	80% Botswana 100% Lesotho			40% Botswana 100% Lesotho
5. Private sector training institute	1	1		100%
6. Health personnel trained counterparts	1 per co.			72 of 72 pm (100%)
- other	72 pm of in-country training		15	21%

### III. MAJOR ACTIVITIES COMPLETED THIS PERIOD

January 1991	Handing over of project administrative activities in Lesotho to counterpart completed	GOL, UH
February 1991	Four additional management analysts trained	IDM
February 1991	Course, "Improving the Management of PHC Services" conducted	UH
May 1991	Finalize last six cases and accompanying envelopes. Cases will be distributed to project countries for implementation.	UH
May 1991	Project counterpart in Botswana successful complete and return to resume position	MPH, GOB
May 1991	Obtain five-month no-cost extension to Cooperative Agreement	UH, AI D/W
May 1991	First draft of Finance System Manual prepared	GOL, UH
June 1991	First draft of Health Information System prepared	GOB, UH
June 1991	Prototype Personnel Manual	UH
July 1991	Prototype Training System Manual	UH
July 1991	Prototype Transportation System Manual	UH
August 1991	Prototype Health Information System Manual	UH
	Communication System Manual	UH
August 1991	Revision and redesign of Evaluation Training Manuals	UH

**IV. ACTIVITIES SCHEDULED FOR PERIOD OUTSTANDING  
AS OF AUGUST 31, 1991**

Hawaii

1. External evaluation of project conducted by AFR/TR/HPN.
2. Prototype suitable for review of the following materials completed:
  - Communication Manual
  - Finance Manual

Lesotho

1. Finalization of DMI counterpart position by MOH.
2. Approval received from Ministry of Public Service to proceed with implementation of revised Personnel System.

**V. OUTSTANDING ISSUES AND PROBLEMS**

1. External evaluation of project yet to be conducted.
2. Counterpart for Lesotho project to be appointed to an established position.

3. Resources located to continue case training after project termination (Lesotho).
4. Implementation of Personnel System in Lesotho still being delayed pending go ahead from Public Service Commission.

## VI. ISSUES AND PROBLEMS RESOLVED DURING THIS PERIOD

1. Implementation of communication and supervision system in Botswana at council level.
2. Format and design of prototype materials.

## VII. ACTIVITIES UNTIL END OF AGREEMENT (JANUARY 31, 1991)

1. Complete generic prototypes of following documents:

The MEDEX Management Development to Support PHC: An Introductory Text

Communication System Manual

Drugs and Medical Supplies System Manual

Facilities and Equipment Maintenance System Manual

Finance System Manual

General Supplies System Manual

Patient Referral System Manual

Supervisory System Manual

2. Complete implementation of redesigned systems in Lesotho.
3. Prepare redesigned Health Information and General Supplies Systems Manuals (Lesotho).

D M I  
Expenditure Report  
As Of 8/31/91

Item	Budget	Expenditures Inception Through 8/31/91	Encumbrances* Inception Through 8/31/91	Balance as of 8/31/91
I. Salaries	1,729,099	1,756,232	6,258	(33,391)
II. Fringe Benefits	312,857	335,535	0	(22,678)
III. Consultant Fees	429,446	486,589	1,581	(58,724)
IV. Travel and Transportation	897,324	628,516	0	268,808
V. Allowances	504,019	401,256	3,538	99,225
VI. Other Direct Costs	733,806	394,410	3,503	335,893
VII. Equipment, Vehicles, Materials & Supplies	193,363	178,769	354	14,240
VIII. Participant Training	154,354	114,324	0	40,030
IX. Indirect Costs	1,145,732	1,010,530	3,758	131,444
	=====	=====	=====	=====
TOTAL:	\$6,100,000	\$5,306,161	\$18,992	\$774,847

\*Encumbrances refer to outstanding purchase orders and accumulated vacation.

OPERATIONS LEVEL MANAGEMENT PROGRAM  
SUMMARY OF INPUT INDICATORS

CATEGORY	BUDGET	EXPENDITURES AND ENCUMBRANCES 9/1/87 - 8/31/91	BALANCE
Long-Term Technical Assistance	\$3,342,825	\$3,592,193	(249,368)
Short-Term Technical Assistance	991,585	629,568	362,017
Participant Training	190,052	118,306	71,746
Training In-Country	494,911	302,805	192,106
Commodities	0	0	0
Support Costs	1,080,627	682,281	398,346
<b>TOTAL:</b>	<b>\$6,100,000</b>	<b>\$5,325,153</b>	<b>\$774,847</b>

D M I  
Expenditure Report  
As Of 6/30/91

Item	Budget	Expenditures Inception Through 6/30/91	Encumbrances <sup>*</sup> Inception Through 6/30/91	Balance as of 6/30/91
I. Salaries	1,729,099	1,663,847	5,893	59,359
II. Fringe Benefits	312,857	312,544	0	313
III. Consultant Fees	429,446	483,202	9,709	(63,465)
IV. Travel and Transportation	897,324	615,499	200	281,625
V. Allowances	504,019	386,480	2,055	115,484
VI. Other Direct Costs	733,806	373,081	4,977	355,748
VII. Equipment, Vehicles, Materials & Supplies	193,363	161,271	952	31,140
VIII. Participant Training	154,354	114,324	0	40,030
IX. Indirect Costs	1,145,732	968,133	5,884	171,715
	=====	=====	=====	=====
TOTAL:	\$6,100,000	\$5,078,381	\$29,670	\$991,949

\* Encumbrances refer to outstanding purchase orders and accumulated vacation.

OPERATIONS LEVEL MANAGEMENT PROGRAM  
SUMMARY OF INPUT INDICATORS

CATEGORY	BUDGET	EXPENDITURES AND ENCUMBRANCES 9/1/87 - 6/30/91	BALANCE
Long-Term Technical Assistance	\$3,342,825	\$3,420,012	\$(77,187)
Short-Term Technical Assistance	991,585	636,744	354,841
Participant Training	190,052	114,306	75,746
Training In-Country	494,911	295,697	199,214
Commodities	0	0	0
Support Costs	1,080,627	641,292	439,335
<b>TOTAL:</b>	<b>\$6,100,000</b>	<b>\$5,108,051</b>	<b>\$991,949</b>

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**APPENDIX B**  
**DESCRIPTION OF TECHNOLOGIES**

# CRITICAL INCIDENT TECHNOLOGY

## BACKGROUND

The Critical Incident (Management Events) Technology involves eliciting and analyzing work-related events as a precise tool for assessing management needs. It looks at both positive and negative events that have occurred recently.

The Management Events Technology was used during step two in The MEDEX Management Development Program to prepare a needs assessment of the priority management systems.

## SUMMARY OF ACTIVITIES

Dr. John D. Montgomery from the John F. Kennedy School of Government at Harvard served as the consultant for this technology. In August 1988 he visited both project countries and conducted a management events study in each. Questions were prepared, events collected and data analyzed over a three week period. A member of the management staff at the National University of Lesotho supervised the data analysis and prepared a report on the findings for the Lesotho study. In Botswana a researcher from the Institute of Development Management supervised and assisted with the data entry and worked with the MEDEX advisor to prepare the Botswana report.

The reports were presented to the key decision makers in each MOH and met with a favorable reception. The MOH staff were particularly impressed by the listing of what management systems; procedures were working well. The listing of what was working well was unique for a management needs assessment report. The reports also detailed the areas needing improvement.

## FUTURE USES OF TECHNOLOGY

This technology holds great promise to contribute to the management development process. The results generate a very creditable needs assessment document. The results can also form the bases of the monitoring system and for the generation of questions used in the data gathering stage of management analysis.

Unfortunately, since both Management Events studies were conducted at the beginning of the project, it was impossible to test them again incorporating the lessons learned. It is felt that based on the results from this project the best document that can be produced is a very rough draft procedure manual with suggested questions. This would need to be tested in at least one more country before the technology could be considered ready for dissemination.

# RESOURCE ALLOCATION TECHNOLOGY

## BACKGROUND

The allocation of scarce resources is a chronic problem facing managers. As a way to rationalize the process involved in deciding how to allocate available resources, the DMI project has experimented with the Resource Allocation Technology. In the context of rural health development, the issue has been deciding which villages or communities receive certain resources (health facilities, services, water supplies, etc). *Need* is, of course, important in making such decisions, but the *ability* and *willingness* of communities to take advantage of resources are equally important. Resource Allocation Technology attempts to provide managers with a tool to characterize communities according to their ability and willingness to utilize resources.

## SUMMARY OF ACTIVITIES

A study was conducted in Lesotho under the supervision of two researchers from the American Institutes of Research, Drs. Robert Krug and Eric Lang. Data on 78 villages, which covered various indicators of willingness and ability, were matched against the relative success of such villages in their participation in a latrine construction program.

Results of the study suggest that composite indices of willingness and ability can be constructed that have high internal reliability. These indices are positively related to a health outcome (the degree to which villages have supported improved latrine construction as introduced by a national rural sanitation program).

From the study, variables that are reliable indicators of community *willingness* in Lesotho are: number of children born in the health clinic, number of households producing knitting for sale or trade, number of primary and secondary students, number of residents not residing in the community. Variables reliably indicating *ability* are: distance to an all-weather road, distance to an electric power line, distance to a secondary school, number of households farming with tractors, number of households owning radios.

## FUTURE USES OF THIS TECHNOLOGY

Although the results of the study are encouraging, the technology must not be considered fully developed until it is applied to the prediction of other outcomes in a larger sample of villages. The recommendation is that an additional study be mounted to further investigate the potential of the technology as a reliable predictor of successful utilization of resources.

# CASE TECHNOLOGY

## BACKGROUND

The Case method is used extensively for high-level professional training in the health and management fields; however, it is rarely used in the developing world at the operations level. In this project cases were prepared in-country by locals trained to use actual experiences as the basis for the case. The case technology was used in the implementation phase of the management development process.

## SUMMARY OF ACTIVITIES

Dr. and Mrs Rolf Lynton were the consultants selected to train a group of participants from the project countries. The Lyntons have been working in India for many years training individuals to write and teach using cases. Approximately 15 participants were trained in a series of two workshops to find case leads, gather data, write a case and then teach it. A total of twelve cases with accompanying case notes were prepared by the case writers.

In the development of this technology the difficulty in providing a trained case instructor in ever setting in which the cases could be used was recognized. The idea of programmed guidance in how to discuss the case was developed to address the problem of insufficient case instructors. A series of 4 or 5 envelopes designed to be opened approximately every twenty minutes in sequence was developed for each case. The envelopes would be used after a management team or other group of trainees had worked though at least one case lead by a trained case instructor. This method of using the cases has been tested in Lesotho and has met with some success. Additional testing and refinement of the envelope system of case training guidance is required.

## FUTURE USES OF TECHNOLOGY

There is a paucity of cases specifically written to address operations level management concerns. The twelve cases developed during the case writing workshops and four additional ones currently being prepared by a case team from the National University of Lesotho (all former participants from the case writing workshop) will fill a great need. It is anticipated that the cases will be utilized by management training institutes in their management training courses. The Institute of Development Management which participated in a World Bank funded project to strengthen management institutes that included a case training component has selected the case methods used in the DMI Project as superior. One of the case writing participants is from the IDM and he has been asked to train other IDM staff in the case training techniques presented as part of the project.

# DISTANCE LEARNING TECHNOLOGY

## BACKGROUND

Providing continuing education for busy rural health workers has typically been problematic. Supervisors have difficulty providing on-the-job training due to logistical problems; pulling health workers out of their work places to attend workshops disrupts their ability to provide patient care. In an attempt to find an alternative method of providing needed continuing education, the DMI Project has been experimenting with the use of distance learning methods.

## SUMMARY OF ACTIVITIES

In both Botswana and Lesotho, distance learning workbooks were created in collaboration with local professionals. The workbooks covered the topic of Supervision, which is one of the key management support systems addressed by the DMI project. After pretesting, these workbooks were used in several locations in each country. The administration of the distance learning workbooks was overseen by trained distance learning tutors. The experience gathered over a six month period was evaluated by the Lesotho Distance Teaching Centre and the University of Botswana. The evaluation provided a description of problems and successes and made recommendations for possible future use of the distance learning technology.

Lessons learned in testing the Distance Learning technology:

- A strong national commitment to the use of this technology is required.
- The training and support of full-time district level tutors is essential to success.
- Incentives need to be provided to motivate learners to participate in distance learning activities: promotion, pay increase, etc.
- Distance learning materials must be very carefully prepared and geared to the specific audience in terms of language level and technical qualifications.

## FUTURE USES OF THIS TECHNOLOGY

This technology has great potential in countries willing to invest sufficient resources in developing it as an effective alternative to group training events (workshops). Resources required include funds to support the production of materials and personnel to serve as tutors. Effective coordination of international donors is also required, since such donors are often the impetus for the large number of workshops conducted in developing countries.

**APPENDIX C**

**NAMES AND ADDRESS OF RECIPIENTS**

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**APPENDIX D**

**EXECUTIVE SUMMARY OF**

**EXTERNAL PROJECT EVALUATION**



**EVALUATION REPORT  
OF THE  
OPERATIONS LEVEL MANAGEMENT PROJECT**

*implemented by*

*The MEDEX Group*

*The John A. Burns School of Medicine,  
University of Hawaii*

*from September, 1987 through January, 1992*

A Report Prepared for the Agency for International Development  
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## EXECUTIVE SUMMARY

### Background

The MEDEX Group is a unit of the John A. Burns School of Medicine at the University of Hawaii. It has been involved in primary health care, training, and management development in developing countries since 1972. Through its extensive involvement in health care delivery programs in many countries, MEDEX recognized that managerial problems, and weaknesses in management support systems, are a significant limiting factor in sustaining service delivery at the district level. It developed a 6-step structured approach to systematically analyze and upgrade these management systems. In 1986 MEDEX submitted an unsolicited proposal to AID for funding to further develop and test this approach. At AID's request, the original 2-phase, 5-year, \$10.8 million project was reduced to a single-phase, 4-year, 6.1 million project. It was awarded non-competitively as a Cooperative Agreement for implementation from March, 1987 to August, 1991. A later no-cost extension was given until Jan. 31, 1992. Assessment visits to six countries led to the selection of Lesotho and Botswana as implementing partners. This project, called "Operations Level Management Development" by AID, was called "District Management Improvement" in the field, and is referred to as DMI in this document.

### The Basic DMI Process

The core, or heart, of the DMI project was the application of a structured, 6-step process for the analysis, redesign, installation, and evaluation of new or upgraded managerial systems. These systems included those for supervision, personnel, transport, drugs/medical supplies, finance, communications, health information, patient records and referral, maintenance, and training. The six steps in the process were: 1) Establishment of a Receptive Framework, 2) Management Needs Assessment, 3) Management Analysis, 4) Decision Making and System Redesign, 5) System Implementation and Training, and 6) Evaluation. The project recruited and trained ministry personnel as management analysts, supervised them in the study of the various systems, held decision making workshops to determine the content of the redesigned systems, wrote manuals to document the new systems, trained district level personnel in the use of the systems, and was to have evaluated the final impact and effectiveness of the systems.

### Goal, Purpose, and Outputs

DMI's goal was "to strengthen capabilities to implement and sustain health programs in Africa through improved management support for Child Survival and other primary health care (PHC) programs." It had two purposes: (1) "To conceptualize, design, and field test a comprehensive, prototype management development technology for strengthening operations-level management of PHC programs throughout Africa"; and (2) "To institutionalize this

management development technology within the Ministries of Health in Lesotho and Botswana."

The project's five specific outputs were:

- Output 1: "Comprehensive operations level management development process implemented and institutionalized in two countries."
- Output 2: "Four innovative management technologies developed and field tested: 1) Critical Incident Technology, 2) Case Study Technology, 3) Distance Learning Technology, 4) Resource Allocation Technology."
- Output 3: "Simple and appropriate management systems in place at the operations level supporting PHC activities, and health personnel trained to use these systems."
- Output 4: "Functioning supervisory system, linked to an ongoing program of in-service training, providing regular, supportive supervision of PHC activities at the operations level."
- Output 5: "Twenty reproducible prototype manuals, modules, workbooks, and other materials field tested in two countries, for use in implementing management development in Africa."

### Major Findings and Conclusions

1. Despite implementation delays experienced in both countries, The MEDEX management development process appears to work, and to show potential for further development and application in other areas. The process succeeded reasonably well in Lesotho, and ran into difficulties in Botswana, in part because of problems of interministerial coordination. Significant learnings occurred which could improve the probability of success if this approach were tried in other countries. The project successfully demonstrated that a ministry can be engaged in an analytical and decision making process resulting in redesigned management systems and manuals to document those systems. What was not demonstrated by this project, mainly because they ran out of time, was that the improved systems can be put in place at the district level and made to work in support of the delivery of more and better services. Almost everyone interviewed believes the manuals to be well written and useful, but they are worried about implementation and follow-through. The revised systems, recently introduced, have not been in place long enough to take root. It is simply too early to measure or judge the ultimate impact or effectiveness of the redesigned systems.
2. This project was not able to complete everything it set out to do. The project intended not only to design and field test an innovative approach to management improvement, which it did do, but also to institutionalize the process in the ministries of health in the two countries, which was partially accomplished. As important, it was to put improved management systems "in place at the operations-level." This has not yet happened: new systems have been introduced, but they are not yet functional at the district level. According to the original project implementation schedule, the "system implementation and training" step (Step 5 of the six-step process) was to have

been initiated by month 14 of the project. This step was actually begun in month 35 in Lesotho and month 43 in Botswana. Because of these delays, there is little evidence currently available to say that improved systems are in place, that personnel have received adequate training to operate the systems, and that the systems are positively affecting the quantity or quality of Child Survival or PHC services being delivered. MEDEX made a conscious decision to give priority to the development and testing of the full range of technologies knowing that this might impact the implementation and evaluation stages of the project.

3. MEDEX originally proposed a 5-year project. At AID's request, the project was reduced in scope and price into a 4-year project. The evaluation team believes that the project's scope and implementation schedule were not appropriately adjusted to fit the shorter time frame and reduced budget. This, along with implementation delays, prevented the project from achieving some of its major objectives: putting the revised systems in place at the operations level; installation of an improved supervisory system linked to an ongoing program of in-service training; and the full institutionalization of the DMI process in the ministries of health.
4. The DMI approach and process works well in the following ways:
  - a. An entire project focusing specifically on management strengthening sends a powerful message that "management" is important, and deserving of independent efforts aimed at its improvement.
  - b. The approach provides an organized, structured framework for data gathering, analysis, presentation of findings, participative decision-making, and documentation of the redesigned systems in the form of manuals which are then used to train workers to implement the new systems.
  - c. The process trains and involves local people in data collection, analysis, the formulation of recommendations, decision-making, and in the implementation of the new systems. There is limited reliance on outside experts.
  - d. The process is visible, open, democratic, and possesses valuable elements of bottom-up involvement in decision-making.
  - e. When completed, the process builds capacity at the local level and supports the decentralization of decision making and service delivery.
5. The evaluation team supports the contention that it is the DMI process itself, and not just the final product, that is important. Any country desiring to improve its own management systems must start from a thorough analysis of its own situation, problems, resources, patterns of behavior and bureaucratic organization. A properly structured process, such as that developed by MEDEX, can effectively organize and support this process of self-examination, leading to decision-making, manual preparation, and implementation planning. It is this process that builds understanding, skill, and commitment to implement and use the new or redesigned systems. To simply hand out a "prototype" manual could short-circuit or undercut the less tangible but important benefits of going through the process. However, well written manuals can also serve as models that illustrate the level of detail and other characteristics of effectively functioning systems.

6. Where no systems or very weak systems existed, the DMI process worked well to create them, and ran into little resistance. Where reasonably well developed systems were already in place, more resistance and delays were encountered. Additional criteria, including "political volatility" and "interministerial impact" are needed as selection criteria for systems to be redesigned. Addressing less contentious systems first could build skills, experience, and credibility before taking on the more controversial systems.
7. A distinguishing characteristic of the MEDEX approach is that it focuses specifically on management improvement: it creates a "critical mass" of talent and resources focused on that important goal. Once a ministry has gone through the process under the guidance of MEDEX, it has the skills, methods and materials to continue the management improvement process independently and at relatively low cost.
8. The time, resources, and energy devoted to the development and testing of the four technologies, particularly in the early phase of the project, was a distraction to the main thrust of the project. Only one of the technologies, Critical Events (also called Management Events), proved directly useful or relevant to the core management development process. The case study and distance learning activities could have contributed more to the training and implementation step of the process, but appear to have been used in relative isolation.
9. "Establishing a Receptive Framework" is not just the first step of the DMI process: it is a major ongoing activity which, if neglected, can seriously compromise the whole effort. Understanding, commitment and participation in the process needs to be constantly rebuilt, renewed, or reestablished, particularly at the central level. Project staff went to great lengths to do this, but agreed that more could have and should have been done.
10. This project had three main areas of work: 1) the development and testing of the 6-step process and the four supportive technologies (see Chapter 5), 2) the analysis and redesign of the management systems culminating in written manuals, and 3) the training, installation, and evaluation of the systems at the district level. In this third area, the project lacked a carefully articulated training plan to install the new systems in the districts through the teaching of specific skills and competencies to operations level personnel. The original plan called for a "competency-based management training program developed and carried out to prepare district-level personnel to work within the re-designed systems." This competency based training (CBT) training was to have been based on detailed job analyses. In the view of the evaluation team, much more work is needed to design and deliver skill, concept, and competency building activities targeted at individual workers, that will result in better understanding and use of the new management systems.

**Recommendations:** Please see Chapter XII for additional, and more detailed recommendations.

1. The MEDEX DMI Project demonstrated that its management improvement process works successfully for the analysis and design of new systems. It is unfortunate that implementation delays and lack of time prevented the demonstration that the systems can be made to work at the operations level. This last, critical step needs to be made and evaluated. MEDEX fielded excellent personnel, and developed very good materials. The process shows potential for further development, and is probably transferable to strengthen vertical programs as opposed to general systems.
2. Any new project should give much higher priority to installing, testing, and evaluating the systems at the operations level to insure that they are improving effectiveness and increasing the quality and quantity of health care services being delivered. It should have a carefully articulated plan to install the new systems at the district level by teaching specific skills and competencies to operations level personnel. Effective supervision, training, consultation, adaptation, and evaluation will be required to assure that the new systems are in place and functioning.
3. The installation of new systems, and the integration of new behaviors at the district level takes substantial time and effort. Five (or more) years is a more appropriate time frame for a project seeking to train analysts, conduct studies, redesign systems, write manuals, and then put those systems in place at the district level. In addition, a project like this needs two long term advisors, one to lead the systems redesign process, and the second to lead the training and systems implementation efforts.
4. Additional project design elements and tactics are needed to achieve and sustain the "receptive framework", i.e. the continued support and involvement of central level personnel. This could be done through "special" short courses for senior level managers, technical review committees, stronger advisory groups, mentors for the management analysts, and involvement of central level officials in training, implementation, monitoring, and evaluation.
6. Installation and use of the new systems now depends on the work of the project's counterparts over the next year or two. Unless these counterpart positions are created so that implementation activities can continue, the real potential payoffs of this project will not be realized. Serious questions exist about establishment of these positions, at promised grade, and salary levels. The MEDEX Group and the USAID Missions may want to explore how they can persuade or assist the ministries to establish the posts and provide minimal operation funds for travel and workshops. Other donors are interested in supporting the work of this project. The WHO Representative in Lesotho views the work of this project as central to WHO's agenda in the country. Additional donor coordination could result in additional payoffs from investments already made.

## ACRONYMS

CHN	Community Health Nurse
CS	Council Secretary
CBT	Competency Based Training
DHCCC	District Health Care Coordinating Committee
DL	Distance Learning
DMO	District Medical Officer
DPS	Deputy Permanent Secretary
DPSM	Directorate of Public Service Management
ES	Establishment Secretary
FHD	Family Health Division, MOH
HSA	Health Service Area (Lesotho)
IAE	Institute of Adult Education (Univ. of Botswana)
IDM	Institute of Development Management
MCH/FP	Maternal and Child Health/Family Planning
MLGLH	Ministry of Local Government, Lands and Housing (formerly MLGL)
MOH	Ministry of Health
NHI	National Health Institute
PHAL	Private Health Association of Lesotho
PHC	Primary Health Care
PHCCC	Primary Health Care Coordinating Committee
PHC/SD	Primary Health Care Support Division
PS	Permanent Secretary or Principal Secretary
RAT	Resource Allocation Technology
SGDO	Supervisory General Development Officer
SIAPAC	Social Impact and Policy Analysis Corporation
SNS	Senior Nursing Sister
UB	University of Botswana
ULGS	Unified Local Government Service (Botswana)

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## CHAPTER 1: BACKGROUND

### A. The MEDEX Group and Its Approach to PHC

The MEDEX Group is a unit of the John A. Burns School of Medicine at the University of Hawaii. It has been involved in Primary Health Care (PHC) since 1972 providing technical assistance and implementing PHC programs in several countries: Training mid-level health workers in PHC in Micronesia (1973-74 and 1979-80), Thailand (1974-76), Guyana (1976-79) and Pakistan (1977-80); training nurse clinicians in Lesotho (1978-84), and training management analysts and assisting in developing an integrated PHC program in Liberia (1984-88).

During this period, MEDEX developed a new approach to PHC consisting of methods and material for use in developing more effective PHC programs with a specific focus on mid-level health workers, training of supervisors and community health workers, and improving management systems. This approach culminated in the publication of a 35 volume MEDEX Primary Health Care Series, currently used in 82 countries and translated into 33 languages.

Implicit in the MEDEX Approach is the need for improved management support of PHC systems; e.g., that there must be a strong, well-organized management system to support and maintain health staff and health care operation, and that provision of training or commodities is futile, unless there exists a management infrastructure capable of supporting PHC workers. In MEDEX' view, the conventional approach of focusing on increasing skill levels of local managers through in-country workshops and training abroad is ineffective, because when managers return with upgraded management skills, they often find their efforts to improve the management of their organizations' resources frustrated by an unsupportive and dysfunctional management environment. Recognizing this problem, MEDEX has developed a methodology which is a new way of improving the management system in which managers operate.

The concept of management analysis first published in the Series provided for training of management analysts at the district level. These techniques were field-tested and applied in Liberia where 21 MOH officials were trained as management analysts. Encouraged by the Liberia experience, MEDEX embarked on a project to field-test and refine materials and methods for PHC management improvement, beginning with what MEDEX saw as the first phase of the DMI project.

### B. AID - MEDEX Relationship

AID has collaborated with MEDEX since 1974. This collaboration includes early inter-departmental arrangements between AID and the previous Department of Health,

Education and Welfare (HEW) as well as centrally-funded and bilateral AID-funded contracts. A brief overview of central grants includes:

1. MEDEX Resource Services, Phase I and II (1972 - 1977), funded by HEW, developed the MEDEX concept for use in the U.S. A system for training and deploying mid-level health practitioners was developed and implemented in nine medical schools across the U.S.
2. MEDEX PHC Support Project (1974 - 78), funded by AID, included prototype training modules, assisting MOH setting guidelines for health sector planning, implementation and evaluation, and providing technical assistance in health sector analysis, project design and project documentation in Guyana\*, Thailand and Pakistan.\*
3. MEDEX Primary Health Care Systems (1978-83) completed the development of the MEDEX Primary Health Care Series and provided technical assistance to Pakistan, Lesotho and Guinea in design and operation of improved PHC systems.
4. Lesotho Rural Health Development Project (1979-84) developed a complete training and development system for training of nurse clinicians and community health care workers.
5. MEDEX Support (Dissemination and Utilization) Project (1983-88) funded the printing and dissemination of 200 sets of training modules and related teaching materials (The MEDEX PHC Series.) MEDEX also assisted MOHs and other health organizations interested in utilizing the Series. (The project also included two training courses for nurses in management and clinical practice in Botswana in 1987.)
6. Southeast Region Primary Health Care Project (1984-89) funded the development and PHC management systems in two counties in Liberia.
7. Operations Level Management Development (1987-91) provides assistance to MEDEX to refine, test and apply a methodology for improving operations level health care management systems. This project is the subject of this evaluation report. At the field level, the project is called the "District Management Improvement" (DMI) project. It will be referred to as "DMI" in this report.
6. MEDEX Nurse Care (1988-93) is developing training systems for pre-service and in-service training of nurses with special emphasis on Child Survival.

\* Funded by USAID Missions

Most of the above projects were evaluated. These external evaluations were consistently positive, recommending a continued relationship with MEDEX.

### C. DMI's Original Project Proposal

1. Project Development: In June 1986, MEDEX submitted an unsolicited proposal entitled "Operations Level Management: A Proposal to Strengthen and Sustain Health Programs in Africa." The original proposal was for a seven-year effort over three phases with an initial implementation plan of five years (Phase I and II) at an estimated cost of \$10.8 million. AID/W technical reviews concluded that the proposal was too ambitious in terms of scope, timetable and cost, and MEDEX was advised to redesign the project to cover an initial implementation period of four years at a cost of approximately \$5 million, and linking project activities to AID's child survival efforts. MEDEX revised the proposal, requesting \$6.1 million over a four year period and resubmitted it to AID/W in April 1987.
2. Issues: Technical reviews were held in May 1987 and the proposal was conditionally approved subject to resolution of several issues such as (a) development of a more detailed implementation planning phase into overall design, (b) country selection, (c) budget review to assure that adequate resources would be provided to the field and not to MEDEX headquarters in Hawaii, (d) more collaboration with regional management institutes and (e) efforts to work with the private sector. MEDEX was also asked to provide an evaluation plan and focus their project in child survival emphasis countries.
3. MEDEX Response: In response to these concerns, MEDEX provided an addendum to its proposal which was reviewed by AID/W and approved. Essentially, MEDEX agreed to add a more explicit pre-implementation planning stage to the project during which two countries would be selected and detailed country plans would be developed. These plans were reviewed and approved by the respective Missions involved and by AID/W. MEDEX would also secure written host country approval of country plans. In addition, MEDEX agreed to provide a more detailed evaluation plan during the initial implementation period. For any issues that were not fully resolved, language would be included into the MEDEX agreement which would provide the necessary assurances required by AID/W.
4. Country Selection: Potential project countries had originally included CS emphasis countries such as Kenya, Malawi, Nigeria and Sudan as well as non-CS emphasis countries such as Ghana, Lesotho, Swaziland and Zambia. After AID/W sent a world-wide cable to USAID Mission, and followed up by individual visits by MEDEX, only Lesotho, where MEDEX had previous work experience through its six-year Lesotho Rural Health Development Project (RHDP), and Botswana, where MEDEX also had conducted a previous Nurses Training Project, responded positively. An AID/W evaluation in Lesotho in October 1986, two years after project termination, found the RHDP training program to be successful.

5. MEDEX Request for a Phase Two Extension and AID/W Response: MEDEX originally saw the project as divided into two phases:

Phase I had a two-pronged approach: 1) To institutionalize a comprehensive Operations-Level Management Technology within the MOH in two African countries, and 2) to conceptualize, design and field-test operational-level management technologies resulting in reproducible prototype manuals, modules, workbooks and other management materials.

MEDEX also envisioned a Phase II which would use the Operations-Level Management Technology to support health programs in three additional African countries; publish a comprehensive, adaptable, prototype Operations-Level Management Technology for Africa, and transfer it throughout Africa; as well as assist African countries in the adaptation and use of this prototype management technology.

The original PACD for the DMI project (Phase I) was August 31, 1991. To be able to finalize the prototype material, MEDEX asked, and was granted, a five-month no-cost extension, extending the PACD to January 31, 1992. However, AID was unwilling to fund another phase of the project, and instead encouraged MEDEX to bilateralize, emphasizing that "future activities . . . be negotiated through agreements/contracts with USAID Missions interested in the MEDEX management technologies."

6. AID Involvement During Implementation: AID/W's backstop responsibilities during the LOP experienced a lot of instability; no fewer than 5 different project officers backstopped the DMI project over the four year project span. USAID Missions, for the most part, practiced a cordial, but hands-off policy to project implementation.
7. Evaluation An external evaluation was scheduled and postponed at least three times (Oct. 1990, March 1991, May 1991). These postponements had a negative impact on the project implementation, especially in Botswana, which had reached an impasse with its implementing agencies and could have used the external evaluation report and recommendations to address the problems. This, however, should not have precluded MEDEX from undertaking an independent action or an in-house evaluation that could have recommended alternatives to speed up implementation and solve bottlenecks.
8. Relevancy of DMI to AID Goals in the Health Sector: The DMI project is relevant to AID's policy of strengthening governments' abilities to build and sustain health services. Section 3 (a) and (b), Delivery of Child Survival Services, of AID's Policy Paper on Health Assistance (Revised) (1986) states that "in countries with high infant and child mortality . . .and where government infrastructure are lacking or very

weak . . . strengthening of the government service delivery capability are important to building and sustaining child survival services." It also says that "Improvements in essential management systems required to implement child survival service delivery such as improved information systems, training, supervision, drug/vaccine procurement and logistics systems are necessary."

## CHAPTER 2: PROJECT DESCRIPTION

In March of 1988, the District Management Improvement (DMI) Project was established in Botswana and Lesotho, and work began. The project was originally expected to end on August 31, 1991, but MEDEX requested a five month unfunded extension so work could continue in country until December 31, 1991. The final Project Activity Completion Date (PACD) is January 31, 1992.

### A. Project Goal, Purpose and Outputs

1. Goal: The goal of the DMI project is "to strengthen capabilities to implement and sustain health programs in Africa through improved management support for Child Survival and other primary health care (PHC) programs."

2. Purpose: MEDEX had two purposes to accomplish during this project:

- a. To conceptualize, design and field test a comprehensive, prototype management development technology for strengthening operations-level management of PHC programs throughout Africa; and
- b. To institutionalize this management development technology within the Ministries of Health in Lesotho and Botswana.

3. Outputs: The project had five specific outputs:

Output No. 1: "Comprehensive operations-level management development process implemented and institutionalized in two countries." This output refers to the DMI 6-step process (see Chapter 4).

Output No. 2: "Four innovative management technologies developed and field tested: 1) Critical Incident Technology, 2) Case Study Technology, 3) Distance Learning Technology, 4) Resource Allocation Technology."

Output No. 3: "Simple and appropriate management systems in place at the operations level supporting PHC, and health personnel trained to use these systems."

Output No. 4: "Functioning supervisory system, linked to an ongoing program of in-service training, providing regular, supportive supervision of PHC activities at the operations level."

Output No. 5: "Twenty reproducible prototype manuals, modules, workbooks, and other materials field tested in two countries, for use in implementing management development in Africa."

4. End-of-Project Status: At the end of the project, it was expected that 1) four management technologies would be developed; 2) a comprehensive operations-level management development process would be implemented and institutionalized in Lesotho and Botswana; 3) simple and appropriate management systems would be in place which support PHC/CS activities, including trained personnel able to use these systems; 4) a functioning supervisory system linked to an on-going in-service training program and 5) reproducible prototype training manuals, workbooks and other materials developed and field-tested for use in Africa.

- B. Discussion of Project Plan: The six-step management development process was conceived as the cornerstone of MEDEX's proposed project. Parts of the process had been developed and used successfully in other countries, but this was MEDEX's first opportunity to go through the entire process from establishing a receptive framework to evaluation. The MEDEX Group believed that project activities would produce managers with improved management skills operating redesigned management systems in their districts. MEDEX also intended to complete management systems manuals, manuals instructing others how to improve management systems, and other materials both for continued use in Botswana and Lesotho and as prototypes for use in other African countries.

Because of their complexity, the five outputs are described here in more detail:

Output No. 1: "Comprehensive operations-level management development process implemented and institutionalized in two countries."

This output refers to the six-step process that constitutes the core activity of the project. The six steps are:

1. **Establish Receptive Framework.** To create understanding of the goals of the project and build commitment to the DMI process, a number of activities were carried out. They included meetings with key policy-makers, workshops and seminars with senior staff to keep them abreast of project progress, and individual meetings with senior-level staff.
2. **Management Needs Assessment.** Needs were to be identified by using: a) the critical incident (or management events) technique; b) documentation by managers in daily diaries; c) interviews; and d) observation.

3. **Management Analysis.** This was to be accomplished by systematically analyzing the operations-level organizational structure and management systems and then developing recommendations for new systems or to address weaknesses in existing systems.
4. **Decision Making and System Redesign.** Large, national level meetings were to be held to debate recommendations, discuss proposed new systems, and formalize decisions on changes that would be made. Management analysts and consultants would then develop manuals to document the new systems.
5. **System Implementation and Training.** MEDEX planned to provide competency-based management training for all operations-level personnel to support the implementation of the action plans, using case studies, distance learning, and other training methods.
6. **Evaluation.** The plan was to assess the effectiveness of the improved systems and practices in meeting the needs identified in Step 2. Evaluations were to be carried out at six-month intervals.

**Output No. 2: "Four innovative management technologies developed and field tested: 1) Critical Incident Technology, 2) Case Study Technology, 3) Distance Learning Technology, 4) Resource Allocation Technology."**

1. **Critical Incidents (later, Management Events).** This is a needs assessment method in which managers are asked to describe a recent positive event and a recent negative event pertaining to a particular management system.

In this project, district managers would be asked to describe a positive and a negative incident related to the management systems used in the health care sector, such as transport, drug supplies, supervision, maintenance, personnel, patient records, etc. The method was to be used by project staff to identify operations-level management needs (Step 2 of the DMI Process). MEDEX planned to refine the technique for future use by district managers.

2. **Case Studies.** The case study method uses a written description of a realistic situation in which there are a number of problems that learners are asked to identify, analyze and resolve.

MEDEX planned to develop local capabilities in writing, editing, adapting and teaching cases. The cases were to deal with dispute settlement, conflict resolution, management of limited resources, and other management problems and were to be used during the training and implementation phase (Step 5) of the DMI Process.

3. **Distance Learning.** This term refers to any educational endeavor in which the teacher and learner are separated by space.

Distance learning was to be used to provide management training for geographically isolated operations-level health staff in order to support the supervision process. It was to be used in the training and implementation phase and later as an in-service training and supervision tool.

4. **Resource Allocation.** This is a method for selecting communities toward which to direct resources by identifying those with the greatest willingness and ability to support primary health care interventions.

A set of indicators was to be developed which operations-level managers could be taught to adapt and use for allocating resources to communities where they would be likely to have the highest success. This tool was to be used in the training and implementation phase.

**Output No. 3:** "Simple and appropriate management systems in place at the operations level supporting PHC, and health personnel trained to use these systems."

This output is closely related to Output No. 1, the management development process, and should be an outcome of that process. By the end of the project, these systems were to be in place in the districts, and operations-level health staff were to be trained to use them. In the cooperative agreement this training was described as "competency-based results-oriented training . . . which focuses on the development of essential job-related management skills."

**Output No. 4:** "Functioning supervisory system, linked to an ongoing program of in-service training, providing regular, supportive supervision of PHC activities at the operations level."

In its proposal, MEDEX made supervision a separate project output in order to emphasize its importance in the health care system. Improved supervision was believed to be "crucial to the success of the project" because it is "the 'glue' that holds a PHC program together." MEDEX intended to: a) include supervision among the systems to be analyzed and redesigned in both countries; b) identify the skills and approaches that were being used by effective local supervisors; and c) train "large numbers of operations-level health personnel to use these same skills and approaches", thereby creating a "critical mass" that could generate interest in supervision among their peers.

**Output No. 5: "Twenty reproducible prototype manuals, modules, workbooks, and other materials field tested in two countries, for use in implementing management development in Africa."**

MEDEX proposed to prepare prototype manuals based on the materials used in the project's management development efforts in Lesotho and Botswana and to make these prototype, or generic, materials available to other African countries.

## CHAPTER 3: ADMINISTRATION OF THE PROJECT

### A. Long-Term Advisors

The project was originally designed for two Long-Term Advisors in each country, but one position was cut when the proposal was revised and the budget was reduced. That left only one long-term expatriate advisor in each country.

The Long-Term Advisors were responsible for managing the project in their countries and taking the technical lead in initiating and carrying out the DMI Process. Perhaps the most time-consuming of their duties was establishing a climate that was receptive to the DMI Process and continuing to keep commitment to the project strong at both the central and district levels. They also conducted seminars, workshops and other meetings, designed and facilitated group training, and developed many of the materials that were used during the project.

MEDEX/Hawaii technical staff were also closely involved with the project spending an average of five person months a year in Botswana and Lesotho.

To get the work done, MEDEX relied heavily on short-term consultants, both expatriate and local. For example, in Lesotho, 40 individual consultant trips totaling approximately 30 person months of technical assistance time, was provided by expatriate consultants. This included backstopping trips by Hawaii-based staff.

Both countries needed a second full-time advisor to finish the work that MEDEX set for itself, even if the counterparts (see below) had not left for graduate studies in the U.S. This would have allowed more to have been done to implement the improved management systems at the district level.

### B. Counterparts

Each of the Long-Term Advisors had a full-time counterpart who took on many project responsibilities and who would be assigned to take over activities after the termination of the project. The counterparts were particularly important in helping to establish a receptive framework in the ministries, the Private Health Association of Lesotho (PHAL), other donors and organizations. Once trained, they were also able to carry out essential functions of the DMI process, such as the conduct of management analyses, supervision, case writing, and group training.

During the project each of the counterparts completed master's degree programs in health administration at Harvard and Boston Universities. While this helped to increase their knowledge and skills and their credibility within the ministries, their absences for more than a year essentially cut full-time project staff in half.

The absence of the counterparts caused delays in implementing some parts of the project and cut the informal lines of communication that they had established with key decision-makers. However, when they returned they could demonstrate new credentials and reestablished relationships fairly quickly.

In Botswana, a Project Associate from the Institute for Development Management (IDM) functioned almost as a full-time staff member for a two-year period, helping to fill the gap caused by the counterpart's studies abroad. He was trained in management analysis and case study writing during the project and is now teaching these and other DMI procedures at the Institute of Development Management, a training institution with programs in Swaziland, Lesotho, and Botswana.

At the end of the project, the placement of the counterparts in ministry positions in which they can continue the management development process continues to be a problem. No appropriate unit exists in either MOH and it is difficult to establish a new unit and a post for the counterpart for a variety of reasons, including structural adjustment rules which prohibit the creation of new posts, bureaucratic sluggishness, and personal rivalries. To date, the issue is still outstanding in both countries, not only causing hardships for the counterparts but also for the Long-Term Advisors who hope to see the new operational management posts in place and functioning before the contract ends.

## CHAPTER 4: THE MANAGEMENT DEVELOPMENT PROCESS

This chapter discusses the extent to which the DMI management development process (Output No. 1) was implemented in the two countries. The next four chapters will address Outputs 2 through 5. Then Chapters 9 and 10 will address the related issues of institutionalization and sustainability.

**Output No. 1: "Comprehensive operations level management development process implemented and institutionalized in two countries."**

### A. The Six Step Process:

The six-steps of the DMI management development process were:

- Step 1: Establish Receptive Framework
- Step 2: Management Needs Assessment
- Step 3: Management Analysis
- Step 4: Decision Making and System Redesign
- Step 5: System Implementation and Training
- Step 6: Evaluation

#### Finding

- o The DMI project fully completed steps 1, 2, and 3, only partially completed steps 4 and 5, and did not complete step 6.

### B. Establish Receptive Framework (Step 1)

To establish the receptive framework, the project carried out extensive briefings, workshops, meetings, and consultations with a broad spectrum of individuals and groups at both the central and district levels, as well as with donor and private organizations. The objective of these activities was to build awareness of the importance of management strengthening, to explain the objectives of the project, to describe the process to be used, to build interest and commitment, and to create an awareness of the nature of the changes that would result from project activities.

#### Conclusion

- o The evaluation team agrees with project staff that "Establishing a Receptive Framework" is not just one step in the process: it is major ongoing activity which, if neglected, can seriously compromise the whole effort. Understanding, commitment and participation in the process needs to be constantly rebuilt, renewed or reestablished, particularly at the central level. Project staff went to great lengths to do this, but agreed that more could have

and should have been done. In both countries we spoke with central-level personnel who felt that they had been left out, were uninformed, or uninvolved in the process. Their support and involvement is critical to the ultimate adoption and use of the new systems.

In one country (Lesotho) an important innovation was successfully tried which should be considered as a formal element in the process. They created "technical committees" at the central level which included persons who would be involved with or affected by the new systems. These committees would review the findings and the management analysis reports prior to the large decision-making workshops. By reviewing and discussing the findings and recommendations in advance, many of these central-level individuals came to understand and become advocates for the recommended changes. Many of them later became "facilitators" in the implementation workshops done at the district level.

#### C. Management Needs Assessment (Step 2)

To carry out the Needs Assessment, two methods, the "Nominal Group" technique and the "Management Events" (also known as Critical Incidents) technique, were used to assess management needs. The nominal group technique is a structured group analysis and decision making methodology where group members are asked to individually analyze a situation or rank problems before the group as a whole is asked to reach consensus on the rankings or priorities. This Nominal Group Technique was used with health care workers and managers to identify and prioritize the management systems to be analyzed. Management Events was used to characterize and document the strengths and weaknesses of each system and the nature of the problems that district managers were encountering. (The Management Events technique is discussed further in Chapter 5 of this report.)

##### Finding

- o The Management Events technology proved to be directly applicable to the core DMI approach and to be useful in two ways. First, it helped to identify those management systems most in need of improvement. Second, it created a database of positive and negative management events that was used in the Management Analysis step that came later.

#### D. Management Analysis (Step 3)

The process of management analysis (Step 3) is seen by MEDEX as the cornerstone of the management improvement process. The analysis of a single system takes four to six months to complete, and includes:

- Development of criteria for selection of management analysts.

- Recruitment and selection of analysts. In Lesotho, most of the people selected were relatively junior officers from the central level of government. In Botswana, they were also relatively junior staff, but mostly from the district level.
- Analyst training and internships. A total of 24 analysts were trained-- 11 in Lesotho and 13 in Botswana. They were given an intensive three-week training program followed by a two-to-four week internship during which they studied a system or sub-system in a local business or ministry. The Manual for Improving Health Management Systems, Training Workbook, and Instructor's Guide were used in the training programs and subsequently to guide the analysis.
- Data collection. Following the structured process described in the Manual, analysts designed study questions, developed interview guides, selected a sample of districts, conducted interviews, studied documents and observed management practices in the sample districts. They also collected data at the central level.
- Data analysis and preparation of management analysis reports. The reports presented the findings, conclusions, and recommendations of the studies.

In Lesotho, eight management systems were analyzed (Supervision, Personnel, Maintenance, Transport, Drug Supply, Training, Communication, and Health Information).

In Botswana, seven systems were analyzed (Supervision, Personnel, Communication, Health Information, General Supplies, Maintenance, and Patient Referral). In addition, one component (the Cold Chain) of another system (Medical Supplies) was analyzed.

### Findings

- o The management analysts selected in both countries tended to be fairly junior officers from the lower rungs of the system. This did not cause a problem in Lesotho. In Botswana, the findings, reports and recommendations contained in the management analysis reports were sometimes questioned or rejected by senior level officials because the analysts themselves were considered to be too junior or too inexperienced to make these types of recommendations. The evaluators and the DMI staff believe, however, that more senior level people are not available for the up to six month period required for training, planning, conduct of the study, data analysis, formulation of recommendations, decision making, and manual writing.

- o Many of the management analysts interviewed reported that the three-week training course in management analysis was too intense, too short, and too stressful. Some reported that they would not repeat the process. Project staff and consultants from the Institute for Development Management, who carried out most of this training, agreed that the course should be modified to somewhat decrease the pressure. Otherwise, the management analysts felt that the training and the experience of writing the report was useful, taught valuable skills, and had been beneficial to their careers.

#### E. Decision Making and System Redesign (Step 4)

Step 4 consisted of holding national "Management Systems Design Workshops" (in Lesotho) and "National PHC Management Forums" (in Botswana) to bring together personnel from all levels in the system for the purpose of receiving the management analysis reports, debating the recommendations and making decisions about policies and procedures to be included in manuals that would document the redesigned systems. These were large meetings (one had 120 participants) which used smaller working groups to analyze the reports and make recommendations that would be debated, accepted, modified or rejected in large plenary sessions. Before the national forum, Botswana held two regional seminars for all of the district and town councils to review management analysis reports and to build commitment at this level to the change process.

After the workshops, consultants (approximately 50% expatriate/50% local) were hired to write the manuals, which were based on the management analysis reports and decisions taken at the decision making workshops.

#### Findings

- o In Lesotho, eight manuals were written, reviewed, finalized, approved, printed in volume (500 copies) and distributed to personnel in the Health Service Areas (HSAs).
- o In Botswana, four manuals were written: Supervision, Communication, Health Information, and Patient Referral. These were the four systems selected when it was decided in October of 1990 that DMI would only work on management systems for which the Ministry of Health was primarily responsible. Further development work was dropped on other systems that were more the responsibility of the Ministry of Local Government, Lands, and Housing (MLGLH).
- o In Lesotho, the Ministry of Public Service, which is responsible for the civil service, would not allow the Ministry of Health to implement a revised personnel system for the MOH only. Their judgement was that the proposed changes to policies and

procedures in one sector would create undesirable consequences across the entire civil service. This effectively blocked the implementation of this system within the MOH.

The Finance system was not subjected to a management analysis because it was a newly created system: the DMI project simply documented the system into manual form. DMI did not prepare a manual for the Health Information System because it was decided that it would be prepared in 1992 by a World Bank project. These were appropriate decisions that saved resources or involved other organizations in the DMI process.

- o In Botswana, the four manuals that were distributed to the districts are still in draft form. The evaluation team tried, but was unable to determine whether the manuals would be approved by the two ministries (MOH and MLGLH) or whether they would be printed and distributed by the government. Some district-level personnel, such as the Senior Matron in Francistown, were unwilling to use the manuals because they had not yet been approved: others were already using the manuals and said that central office approval was not required.
- o Some management analysts reported that it was not necessary to hire outside consultants to write the manuals, since the outsiders do not know the system, the bureaucracies, or the culture. Judgement must surely be used in the choice of manual writers, but consideration should be given to utilizing more host country personnel to write the manuals.

F. System Implementation and Training (Step 5)

This is the point where district level personnel receive training in the concepts and skills required to actually use and implement the new systems. The original intent was to ". . . use competency-based results-oriented training for operations-level personnel . . ." [and that this] ". . . management training must be integrated with the supervisory and continuing education systems . . ."

The original implementation schedule called for Step 5 to begin in month 14 of the project. In Lesotho this step began in month 35 (November 1990) of the project; in Botswana it started in month 43 (July 1991) of the project. At the time of this evaluation, October 1991, four out of nine new or redesigned systems had been introduced into 14 of 18 Health Service Areas (HSA's) in Lesotho. Four more systems were to be introduced during November 1991. In Botswana, all four of the developed draft manuals were introduced beginning in July 1991 to a total of 120 personnel representing all 20 District and Town Council Health Departments and Primary Hospitals and Hospitals.

## Conclusions

- o Because the implementation and training step began so late in the life of this project, the evaluation team was able to detect little evidence that improved management systems are now in place at the district level, that personnel have received adequate training to operate the systems, and that the systems are positively affecting the quality or quantity of primary health care services being delivered. On the other hand, the Ministries liked the DMI process, believe the manuals to be useful and well-written, and believe that the implementation or use of the manuals will contribute to better functioning management systems in the future. Many persons interviewed, however, were worried about implementation and follow-through. Until more training, adaptation, supervision, and followup takes place it will be too early to measure or judge the impact or effectiveness of the redesigned systems.
  
- o Perhaps related to the "last-minute" implementation of the manuals at the district level was the lack of a carefully articulated training plan to teach specific skills and competencies. The grant proposal submitted by MEDEX called for a "competency-based management training program developed and carried out to prepare district-level personnel to work within the re-designed management systems." This CBT training was to have been based on detailed job analyses. Much of the training actually provided involved rapid overview-type introductions (three or more systems in a one-week workshop) that focused on how to use the forms in the manuals. In the view of the evaluation team, more work is needed to design and deliver skill and competence building exercises, targeted at the individual level, that will result in adoption and use of the new management systems. Unfortunately, the project ran out of time to do this.

### G. Evaluation (Step 6)

This step of the DMI project was to have included the evaluation of the short-term and long-term effectiveness of the improved management systems, the results of the project, and its impact.

#### Finding

- o This step was not reached during the project. Indicators have been developed in Botswana that will measure the extent to which the new systems are being used, and plans are in place to collect this data in the future. In Lesotho a simple monitoring system has been developed that will provide Yes/No

answers to such questions as, "Has the office set up a filing system?", "Are supervision reports available for review?", or "Does the hospital have a preventive maintenance schedule for major equipment items?" No project evaluation activity (other than this evaluation) has been developed to measure overall impact or the status of the management systems which were to be "in place at the operations level supporting PHC activities . . ." by the end of the project. An instructor's manual and a student text on evaluation were developed; it appears that these may be for the use of district-level health managers rather than for MEDEX.

Conclusions related to the overall six-step process:

- o The overall MEDEX management development process appears to work and to show potential for further development and application in other settings. The project demonstrated that a ministry can be successfully engaged in an analytical and decision-making process resulting in redesigned management systems, manuals to document those systems, and training activities to put those systems into operation. The DMI approach in this project focused on the redesign and upgrading of general management systems, such as supervision, maintenance, training, or transport. Various people in both countries expressed an interest in applying the DMI approach to vertical programs, such as EPI, Family Planning, or AIDS. The evaluation team believes that the process is transferable and that consideration should be given to testing the approach at the program level.
- o The major disappointment of this project, from a research and development point of view, was its inability to actually install the systems at the operational level and then to evaluate their impact on the efficiency and effectiveness of service delivery. This was caused, in the opinion of the evaluation team, by a number of implementation problems, and flaws in the project design. The design was unrealistically ambitious, delays were caused by the unanticipated year-long absences of the two counterparts, and the training/implementation phase of the project probably deserved the attention of a second full-time advisor. Nevertheless, significant learnings occurred which could improve the probability of success if this approach were tried in other countries.
- o In both countries, high priority was given to the redesign of the personnel, transport, and supervision systems, all of which are contentious, sensitive, and "political." It is interesting to note that in neither country was a redesigned personnel system implemented: changes in this area were blocked or delayed because they would have implications across the whole civil service. Proposed changes in supervision and transport also had interministerial implications. Perhaps "political sensitivity" and "interministerial implications" should be included as explicit selection criteria for establishing the priority or sequence

in which the various systems will be studied and redesigned. Consideration should be given to analyzing and redesigning some of the less contentious or less difficult systems earlier in the process. This would allow the project to build skills, gain experience, establish credibility, and show useful results before the "tough nuts" are tackled.

## CHAPTER 5: THE FOUR TECHNOLOGIES

This chapter analyzes project outputs and successes related to the development and testing of four technologies (Output No. 2)

**Output No. 2: "Four innovative management technologies developed and field tested: 1) Critical Incident, 2) Case Study, 3) Distance Learning, and 4) Resource Allocation."**

### A. Critical Incidents/Management Events

This strategy was used to assess health management needs. The process included:

- 1) Development of a questionnaire asking managers to describe a positive and negative event in each system.
- 2) Data Collection. All districts were canvassed in Lesotho. Both the management events and nominal group techniques were used in seven of the 18 Health Service Agencies (HSAs) there. Only the nominal group technique was used in the other HSAs. In Botswana all 20 district and town councils were canvassed using the management events technique.
- 3) Analysis of data. The management events data revealed the areas in which health workers felt they had the greatest management skills and those in which they were weakest. In Lesotho, the systems ranked in order of priority for improvement were:

- |                               |                                  |
|-------------------------------|----------------------------------|
| 1. Personnel                  | 6. Transport                     |
| 2. Supervision                | 7. General Supplies              |
| 3. Maintenance                | 8. Communication                 |
| 4. Finance                    | 9. Health Information            |
| 5. Drugs and Medical Supplies | 10. Patient Records and Referral |

In Botswana, the order of priority was:

- |                  |                           |
|------------------|---------------------------|
| 1. Transport     | 6. Maintenance            |
| 2. Supervision   | 7. Health Information     |
| 3. Personnel     | 8. Drugs/Medical Supplies |
| 4. Communication | 9. General Supplies       |
| 5. Finance       | 10. Patient Referral      |

## Findings

- o Personnel and Supervision were ranked among the top three priorities in both countries, yet in neither country was a redesigned personnel system implemented because of interministerial turf battles and policy disputes. The ministries responsible for the civil service felt that it was not MOH's responsibility to address personnel and supervisory policies, but theirs. While supervisory skill training needs were eventually addressed by the DMI project in both countries, it was done so only after a great deal of discussion. (See Chapter 7 for more details.)
- o "Training" was not included in either ranking, although in Lesotho the system was analyzed and a manual written, apparently in order to have an example for prototype development.
- o The research findings from the analysis of the Management Events were presented to central-level decision makers. They appreciated the fact that this methodology identified what was working well, not just what was wrong.
- o The Management Events technique was useful not only for identifying priority management needs of operations-level managers. The findings also served as a database for carrying out the Management Analysis studies.

## Conclusions

- o Both project staff and evaluators agree that this technology contributed directly to the main activity of the project, the DMI Process. It served important functions in setting priorities, building a useful database and helping to create interest in, receptivity to, and understanding of the project in the districts. An important characteristic of the technique is that it carefully identified strengths as well as weaknesses. This built motivation by identifying and building upon what was being done well.
- o Management events can be an effective technique for assessing needs if the extensive data are objectively analyzed and the findings used. A user's manual would help by describing the analysis process, as well as design and data collection steps, and how to use the findings. If, however, one simply wants to rank management systems in order of priority, a faster and less expensive method, such as the nominal group technique, makes more sense.

## B. Case Studies

Ten participants from Lesotho and six from Botswana received training as case writers in two three-week seminars.

A total of 12 cases were developed during the workshops, and four more were developed later by a Case Resources Group formed at the University of Lesotho. Case topics included dispute settlement, resource allocation, and other management issues.

The cases produced by the local writers were used to conduct management training in eight Health Service Areas in Lesotho. In Botswana, they were part of the manual implementation workshops, so health management team members from all 20 District Councils have been exposed to them. Also in Botswana, District Medical Officers have attended a workshop on the use of cases as a tool for in-service management training.

In addition to the case notes for the instructor that accompanied each case, a separate technique was tried for use in situations where no instructor was available. These "leaderless" case materials were tested in Lesotho, but were not entirely successful. MEDEX believes that more developmental work is needed to refine the use of cases in a "leaderless" setting.

#### Findings

- o The Case Resource Group at the National University of Lesotho is using cases in their classes, attracting the attention of other teachers who want to learn the method.
- o Representatives of the Institute of Development Management, which operates in both countries and in Swaziland, intend to use the DMI cases in its curriculum and to train Institute staff in how to use cases.

#### Conclusions

- o The case studies and accompanying notes are very well written and were used to raise awareness of managers about management problems and to teach management concepts.
- o The case studies can and should be more fully integrated into the DMI process by using them in implementation workshops and management skills training seminars.
- o At present, each case with its instructor's notes is packaged separately from the other cases. There is no manual available to advise potential users on how to choose cases for teaching, how to sequence them, what to do before and after teaching a case, etc. Such a manual is needed so that more people might have access to the learnings in these excellent cases.

### C. Distance Learning

One-week distance learning tutor training workshops were held for 14 participants in Lesotho and 8 in Botswana.

Approximately 45 persons participated as distance learners in Lesotho and 32 in Botswana.

Three workbooks on supervision were written in Botswana; these were adapted for use in Lesotho. Three additional books have been prepared since the pilot test.

Evaluations of distance learning carried out during the project in both countries were generally positive, and evaluators recommended that the process be continued. (MEDEX has the evaluation reports in its files.) However, DMI project staff and ministry colleagues realized that a Distance Learning program in the area of health management would need to be a part of a larger and viable distance learning system. Because no such system could be found in either country, distance learning was discontinued.

### Conclusion

- o The three workbooks developed for the pilot test are excellent. As with the case studies, these materials could be used to facilitate management development if they were used more integrally in implementing the systems. In this project, to an even greater extent than the case studies, they seem to have been used in isolation, and thus we feel that much of their potential value was lost.

### D. Resource Allocation

The Resource Allocation Technique is a methodology designed to identify villages and communities with a willingness and ability to participate in "development" projects. It is hypothesized that investments in health and other programs in these villages is more likely to have a payoff. Pilot studies of the resource allocation technology were conducted in 82 villages in Lesotho and 50 in Botswana. Results showed that the technique was promising, but MEDEX believes that it needs to be replicated in new and larger samples before it can be considered fully developed. Work on resource allocation was stopped when the pilot studies were complete.

## Conclusion

- o In retrospect, at least, it is difficult to see the connection between this technique and the primary purpose of the project. We feel that it did **not** help to facilitate the process and may in fact have hindered it by distracting project staff. We think that they would have liked to see the Resource Allocation Technology (or RAT, as they called it) just go away.

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## CHAPTER 6: THE MANAGEMENT SYSTEMS

This chapter discusses the extent to which the project put redesigned management systems in place at the operations level in the two countries (Output No. 3)

Output No. 3: "Simple and appropriate management systems in place at the operations level supporting PHC activities, and health personnel trained to use these systems."

### Finding

- o "Implementation workshops" were the major mechanism for introducing the new management systems at the district level in both Lesotho and Botswana. These were followed up by monitoring and consultation visits by project staff. Additional visits are planned, and more will be required in order for the systems to be in place and in use at the district level.

### In Lesotho

- o Lesotho has held implementation workshops on the supervision, maintenance, training, and transport systems in 10 of the 14 Health Service Areas. Workshops on the finance, general supply, drug supply and communication systems will be held for all HSAs in November 1991. Also in November, the four HSAs that missed the earlier workshops will be introduced to the other four systems. Approximately 235 people have attended the implementation workshops in Lesotho to date.
- o In workshops in Lesotho, major emphasis was placed on forms and procedures: attention to broader topics and concepts of management, supervision, and leadership has been limited.
- o Senior staff from the Health, and other ministries served as facilitators in training workshops of the systems that they managed. One HSA had not seen a senior central-level staff member for over three years until one came to facilitate one of these workshops. They felt that a major potential benefit of the DMI process would be the opening up of better lines of communication between the center and the periphery.
- o New management systems are being introduced by Health Service Area (HSA) personnel that have attended workshops, and some of the forms from the manuals are being used. The procedures and forms have generally been well-received, particularly by those who already have some management skills. In at least one HSA, forms in the manuals have even been adapted to meet the staff's needs. This is a sign of thoughtful use, whereas complaints that the forms don't fit the data or that there are too many forms indicate that not all health staff are prepared with organizational and planning skills to use the systems for their own benefit.

- o Although the training system was not considered to be in much need of improvement during the Needs Assessment, the procedures in the Lesotho training system manual have been implemented most fully of all the manuals at both the HSA and Central levels. On the other hand, maintenance system improvements in Lesotho have been difficult to implement, apparently because few HSAs have a technician who can be given the responsibility for managing the system and because staff have not yet been trained to look for, recognize and report problems with tools, equipment and other things in their work environment.

#### In Botswana

- o In July and August of 1991, Botswana held five regional workshops to introduce four management systems to district PHC managers. Representatives from hospitals were also invited to participate. One hundred and twenty (120) people were trained in these one-week workshops.
- o The implementation workshop content included discussions of the concepts of management, supervision, leadership, and in-service training and the district manager's roles in these areas. The procedures and forms in the four draft manuals were reviewed. The project staff considers this draft stage as a step in the consultative process that must take place before agreement and finalization.
- o Since the workshops, monitoring visits have been made by Botswana project staff to assist in the implementation process. The counterpart plans to continue these visits after the project ends, if the appropriate approvals for her position come through, and if she obtains the support of MOH and MLGLH to travel to the districts.

#### Conclusions

- o In both countries, more time was needed during the implementation workshops to introduce the new management systems to district-level managers and to prepare them to train peripheral-level staff in the new management procedures. However, manuals and training alone are not enough to install management system improvements and to integrate them into daily practice. Monitoring, supervision, and consultative visits should take place, especially in those places having difficulty, in order to fine tune, support, and sustain the continued use of the systems.

While the intent of the project staff was for workshop participants to return to their districts and introduce improvements to their colleagues and staff, very little has yet been done in the districts to implement the four systems. In some of the districts we visited, the procedures outlined in the manuals are just beginning to be put in place, but in most, those who attended the workshops did not feel they have had time to begin system improvements or to train their

staffs. In some cases, staff were not willing to use the draft manuals until they receive final approval from the MOH, MLGLH, or both.

- o Involving senior central-level staff as facilitators in the implementation workshops for "their" systems is a good way of involving the central level and getting their support.
- o It appears that, for some, a clear distinction has not been made between "forms" and a "management system." Not everyone understands that management tools should make their units more effective, or that they may need to adapt the tools to fit their needs. For example, when a district-level manager says that she can't use a form because it has fewer spaces than the number of health clinics that she supervises, one wonders whether a management system is in place.
- o The manuals themselves do not represent complete management systems, but they codify those parts of the system upon which agreement has been reached. They may leave out important areas that are still being researched, developed or tested. Nevertheless they serve to document standards, protocols, procedures, or guidelines where none may have existed before. If used they become a tool for training, supervision, and reference. Just as important, they define what is desired or expected, and form a basis for assessment, quality control, and evaluation.
- o In any case, the manuals are an important step toward putting "management systems in place." They can provide uniformity and structure where there may have been little or none before. However, to put those systems in place and make them work, another series of activities is required: development of curricula, extensive implementation efforts, sustained competency-based training, followup, and evaluation. It is many of these latter activities that this project did not have time to accomplish.

## CHAPTER 7: IMPROVEMENT OF SUPERVISION

This chapter discusses Output No. 4 of the project: the extent to which a redesigned supervisory system, linked to in-service training, was in place at the district level in the two countries.

**Output No. 4: "Functioning supervisory system, linked to an on-going program of in-service training, providing regular, supportive supervision of PHC activities at the operations level."**

### Findings

- o In both countries, various aspects of supervision were identified as weaknesses, and supervision was selected as a priority need in the Needs Assessment step. Management analyses were carried out, and the findings and recommendations were presented for discussion at decision-making workshops. Discussions tended to be heated: some people felt that their own supervisory practices were being criticized or took offense for other reasons. Eventually, supervision manuals were written for both countries. Other recommendations for changes in supervisory policies and procedures that were not included in the manuals are still being considered.
- o The manuals contain descriptions of the supervisory structure in the country, supervisors' duties and responsibilities, and sample forms and procedures. The manual produced in Botswana also includes an extensive section on how supervisors should carry out their duties. These guidelines are intended to be used as the basis for supervisory training to be carried out by Unified Local Government Services (ULGS) and the Primary Health Care Support Division sometime in the future.
- o In addition to the manuals, case studies dealing with supervision issues were written and are being used by DMOs, university faculty, and others. In Botswana, implementation workshops for the supervision system effectively used case studies as a means of introducing new concepts in supervision, as well as other information.
- o The Distance Learning workbooks also dealt with supervision. Almost 80 nurses from both countries participated as learners. The three workbooks reviewed by the evaluators contain two or three short lessons each and are oriented toward increasing knowledge about supervision.

## Conclusions

- o Because the implementation phase of this project started so late, there is little evidence presently available to conclude that "a supervisory system, linked to in-service training, providing regular, supportive supervision" is in place and functioning in either country. The evaluators were impressed with the level of supervisory knowledge and skill demonstrated among Matrons and Senior Nursing Sisters in Botswana, but few of these nurses would attribute their skills to the DMI project. On the contrary, some of them considered the DMI materials to be "too basic" and more appropriate for use in pre-service training or in-service training of junior nurses.
- o Good tools (the case studies, Distance Learning workbooks, and the Botswana supervision manual) were developed for improving supervision skills, but these were not used in any systematic fashion to train "large numbers" of district or peripheral-level supervisors.
- o Because supervision was such a contentious issue, getting consensus on policies and practices that needed revision was a slow, sometimes painful, process. A tactical solution to dealing with this sticky subject might be to separate the policy and personnel-related issues from the strictly procedural or "how to" issues of supervision and deal only with the latter. In other words the manual would deal with the skills and process of supervision while avoiding the more contentious subjects of discipline, salary administration, promotion and transfer.

## CHAPTER 8: MATERIALS

This chapter reviews project performance relative to Output No. 5, the production of manuals, reports, and other materials.

**Output No. 5:** "Twenty reproducible prototype manuals, modules, workbooks, and other materials field tested in two countries, for use in implementing management development in Africa."

A. **Prototype Materials:** MEDEX has prepared (or is in the process of preparing) the following prototype materials:

1. The MEDEX Management Development to Support PHC: An Introductory Text (unavailable for review at the time of evaluation)
2. Three Management Analysis Manuals: 1) Manual for Improving Management Systems, 2) Training Workbook and 3) Instructor's Guide
3. Eleven Operations Manuals (also referred to as "prototype" or "generic" manuals) for Decentralized PHC Management Systems:
  1. Communication
  2. Drugs and Medical Supplies
  3. Facilities and Equipment Maintenance
  4. Finance
  5. General Supplies
  6. Health Information
  7. Patient Referral
  8. Personnel
  9. Supervisory System
  10. Training
  11. Transportation

(Not all of these were available at the time of the evaluation.)

4. Six Distance Learning Workbooks (three of which were available for review)
5. Twelve Case Learning Sets, which include a case study, case notes, and instructor's notes
6. Two Evaluation/Monitoring Materials: Student Text and Instructor's Manual

B. **Lesotho Specific Materials:** In addition, materials were developed for use in each of the countries. Among the most notable were the Management Analysis Reports and Systems Manuals.

1. Management Analysis Reports were developed for:

Supervision	Drug Supply
Personnel	Training
Maintenance	Communication
Transport	Health Information

2. Systems manuals were developed for:

Supervision	Training
Personnel	Communication
Maintenance	Finance
Transport	General Supply
Drug Supply	

The Personnel Manual was not distributed to Health Service Agencies because the Ministry of Public Service, which governs personnel policies for all civil servants, has not approved its release. Since the government was just introducing new systems for Finance and General Supply, these systems were not analyzed, although manuals were prepared to document the new policies and procedures. The Health Information System was analyzed, but a World Bank Project will write the manual for it in 1992. The counterpart, in her new post in the MOH, will participate in the implementation of the systems.

C. Botswana Specific Materials:

1. Management Analysis Reports were developed for:

Supervision	General Supplies
Personnel	Maintenance
Communication	Patient Referral
Health Information	The Cold Chain Component of the Drug Supply System

2. Systems manuals were developed for:

Supervision  
Communication  
Health Information  
Patient Referral

Manuals for Personnel, General Supplies, and Maintenance were not developed in Botswana because this work was perceived as duplicative of the work being carried out by MLGLH for all sectors in the district and town councils. A cold chain

management manual was not developed because materials already exist that cover the subject adequately.

### Conclusions

- o Materials development was an area in which MEDEX met, and even exceeded, the goals they had set for the number of manuals and other documents to be produced. The quality of these materials is generally quite good and often excellent.
- o The materials prepared in Lesotho and Botswana were products of the DMI Process; and we think that the process was at least as important as the products. The Management Analysis Reports, while remarkably well-written documents in themselves, are even more important because they resulted from a process that we believe will have a lasting impact on those who participated. The manuals could make the work of district-level managers more effective; but it is too soon to tell whether they will be used and what impact they will have on improving management.
- o The prototype materials reviewed are for the most part, simple, clear, comprehensive, and useable. We feel that those who may adopt the DMI Process in other countries will find the materials describing the process itself most useful. These materials should include the Introductory Text to Management Development and the Management Events Manual, which we have not seen, and the Management Analysis Texts, which are excellent. Should other countries wish to use case studies and/or distance learning, the workbooks and case sets may be applicable, but, unfortunately, no manuals have been prepared to help new users of these materials.
- o The materials on the subject of Evaluation and Monitoring appear to be the least useful because their intent is unclear, and the writing does not meet the high quality of other products. To our knowledge, they have not been tested in either country.
- o The utility of the eleven prototype systems manuals is more difficult to assess. Their quality is very good, but we would not recommend their adoption without a process of analysis, problem solving, and debate. It may be that the intense, often contentious, often painful, experience of self-examination had more impact on participants' thinking and learning about management than the manuals themselves. However, the manuals can serve as useful prototypes for the management support systems that are needed in many settings. They can serve as the starting point in a process of learning, adaptation, and application.

## CHAPTER 9: PROJECT IMPACT AND SUSTAINABILITY

This chapter and Chapter 10 (Institutionalization) address questions included in the evaluation team's scope of work. The questions deal with the effectiveness of project implementation, the project's impact, sustainability, and the project beneficiaries, which was not asked about directly but we know is of interest to AID. Questions on institutionalization are addressed in Chapter 10.

### A. The Effectiveness of Project Implementation

One objective of this project was to develop and evaluate MEDEX's six-step approach to management improvement. The DMI Process generally seemed to work as MEDEX intended, although with some minor modifications. They discovered, for example, that the establishment of the Receptive Framework is not just one step in their overall six-step process, but a continuous activity that begins on the first day of the project and continues after its end. Remarkable efforts were made to meet with, inform, explain to, obtain commitment from, and otherwise involve decision-makers at both the central and district levels. But because new issues were constantly arising, new faces appearing in decision-making posts, and different project phases beginning and ending throughout the project, constant attention was needed to maintain the receptive environment that the project required.

An issue related to the implementation of this project was the speed, or efficiency, with which analysts could be trained, systems analyzed, decisions made, manuals written, personnel trained, and systems made to function at the district level. This project carried out these activities in three cycles. A "cycle" included the recruitment and training of a small group of analysts, the conduct of studies on three or four systems, the holding of a "decisionmaking workshop", and the writing of manuals. Because of problems and delays in implementation, and because the project was also working so hard to develop and test the four technologies, they ended up with all three cycles running simultaneously. This situation made the project very difficult to manage, and probably contributed further to the delays that were experienced.

At the time of this evaluation, the all-important step of implementation and training was progressing, but more slowly than intended. The continuation of these activities after the termination of the contract was in doubt because of uncertainty over the establishment of suitable positions for the two counterparts. This is unfortunate because the real payoff phase of the project---the installation of the new systems at the operations level--- has just been reached. Implementation and followup services could be inexpensively provided by the counterparts at this point, and could make a real difference in the adoption and use of the new systems. Their continued presence can be critical to the sustainability of the potential gains of this project.

## **B. Project Impact**

It is too early to determine what impact this project has had or will have in either country. We cannot say that the project has reduced infant, child, or maternal mortality or morbidity, which is one measure of the impact of a health-related project, nor can we say that the quality or quantity of health service delivery has increased as a result of the project, although that is its ultimate goal.

We would like to say that district-level health management is better now in Lesotho and Botswana than it was four years ago, but, as a whole, we think that managers at that level have not worked with the redesigned management systems long enough to integrate them into their routines. They have probably not discussed the new management systems or their implications enough nor had the opportunity to consult frequently enough with a project counterpart or other knowledgeable person to have made significant improvements in the target systems.

Nevertheless, some managers in the districts, and at the central level, are using the manuals. Not all managers are using the manuals and not all are using them well, but some manuals are in use, and this is a first step toward improving management.

The project has had other important impacts as well. Senior- and junior-level health personnel have benefitted from participation in the project as management analysts, as decision-makers in regional and national management conferences, as case writers, and as participants and facilitators in workshops. They have learned that:

- o Local people can identify and analyze their own management problems and can propose workable solutions. Expatriate consultants are not needed to do this.
- o A structured, systematic approach to problem solving works. Better results are obtained when based on careful and complete data gathering and analysis.
- o Good decisions can be made in an open, participative, democratic forum. Such decisions often better understood and supported.
- o Management is an important, separate area of professional activity that can be improved.

## **C. Sustainability**

Once a ministry in a country has gone through the DMI Process under the guidance of MEDEX, we believe that other ministries, private organizations, vertical programs, and other entities in that country can repeat it with relatively little additional cost and little or no contractor involvement. This assumes, of course, that the ministry uses the resources that

the project has left behind. These include: the counterpart and other individuals in the MOH who are familiar with the whole process, the management analysts, the manuals that describe the process, the country-specific or prototype systems manuals, the regional management development institute, and other human and material resources.

One major advantage of the MEDEX approach is that it focuses specifically on management development, and management improvement; it creates a "critical mass" of talent and resources focused on that goal. A country can continue the management improvement process (i.e. conduct needs assessments, carry out management analyses, and redesign systems) relatively inexpensively once the basic skills, methods, and materials are in place. A major unknown, however, is the level of effort and cost of the training, support, and supervision required to install the new systems and assure that they are functional.

Both Botswana and Lesotho have highly competent counterparts who are well qualified to continue the implementation phase, and plans have been made for them to do so. These plans include, but are not limited to: monitoring visits to all districts, management skill training for both district- and central-level staff, and evaluation of the extent to which management improvements have been made. All of which involve costs. In Lesotho, which is undergoing structural readjustment, the government may not be able to afford the travel, per diem, office supplies, and workshop costs associated with continued implementation. It has applied to donors for financial assistance. Botswana, which is not operating under structural adjustment constraints, will be able to support the activities financially, if it chooses to do so.

#### **D. Project Beneficiaries**

The beneficiaries of this project include all persons in Lesotho and Botswana receiving primary health care services. The more direct beneficiaries, many of whom attended more than one event, include:

- o Two project counterparts
- o One project associate
- o 24 management analysts
- o 18 case writers
- o 16 case teachers
- o 22 distance learning tutors
- o 77 distance learning students
- o 420 national decision-making workshop participants
- o 36 central-level workshop participants (Lesotho)
- o 100 regional workshop participants (Botswana)
- o 356 implementation workshop participants
- o 17 DMOs in Botswana trained to use case studies
- o 85 management workshop participants (Botswana)

## CHAPTER 10: INSTITUTIONALIZATION OF THE MANAGEMENT DEVELOPMENT PROCESS

### A. The Counterparts

In both countries, project staff believe that "institutionalization" is predicated on the establishment of regular full-time positions for the counterparts in the Ministries of Health. The counterparts themselves are exceptionally well trained, experienced and committed. While MOH officials in both countries stated that positions would be established, serious questions remain. It is unclear whether commitments to create the positions at promised grade and salary levels will be fulfilled or whether the two individuals concerned will accept or remain in those positions. It is also unclear whether budget line items will be established to support ongoing implementation and training activities, or to create additional positions in the newly established "management development units."

In Lesotho, the evaluation team was told that the position had been approved at the grade 12 level, whereas the counterpart had previously been told, in writing, that it would be at grade 14. Efforts are now underway with the support of WHO and the World Bank to see that the position is upgraded or to top up the salary. If these efforts are unsuccessful, it is likely that further follow-up and implementation activities will cease. Conversely, if the position is filled, the ministry will have a person who is well-qualified, experienced, and capable of conducting management analysis studies and providing training. She will be the key person who will continue the DMI process and who will monitor the implementation of the new systems. There are also 11 trained analysts in Lesotho, many of whom are still available to carry out further studies or to assist with implementation. To a considerable extent, the Ministry of Health knows and understands the DMI process. The framework is in place for smaller groups of individuals to carry out studies, write management analysis reports based on carefully collected data, meet to decide on new policy, and write new manuals.

In Botswana, the situation is both similar and more complex. The counterpart position is still "up in the air" in terms of salary and grade level. In addition, the decision to retain the focus of management development efforts in the Ministry of Health means that the project will continue to concentrate most of its implementation and follow-up activities on those systems directly controlled by that ministry. It is unclear whether the project, which is perceived as an "MOH baby", will enjoy effective support from the MLGLH which is directly responsible for health care service delivery at the district level. It is paradoxical that personnel at the district level are the most enthusiastic supporters of DMI, but their own ministry seems unsupportive of the project.

## **B. The Regional Management Development Institute**

Many of the "higher level" skills associated with the DMI process have been institutionalized in the Institute of Development Management, IDM, which conducted many of the management analyst training courses, supervised the analysts as they carried out the studies, and participated in the decision-making workshops. Two individuals at IDM are fully capable of teaching the management analysis course which, we were told will become a regular offering in the new IDM course catalogue.

## **C. Management Analysts**

If the assumption is made that the counterpart positions and modest supporting budgets are established in both Ministries of Health, then the minimum would be in place to continue the introduction of the manuals through training workshops and other follow-up activities. If greater levels of funding were to become available, the two counterparts, plus the two IDM staff members, would be capable of training new analysts and supervising them as new management analysis studies are carried out. In addition, at least some of the already-trained analysts are still available to assist with additional studies and/or implementation. Therefore, the elements are at least potentially in place to sustain management development activities in these two countries without a great deal of outside technical assistance. In Lesotho, the WHO Representative is actively seeking the means to carry on the work of the DMI project.

## **D. The Impact on Decentralization**

Many developing countries throughout the world are presently engaged in efforts aimed at governmental and program decentralization. Botswana and Lesotho are two such countries. A relevant question, therefore, is the extent to which the DMI process contributed to the decentralization of PHC service delivery. One clear requirement for decentralization to succeed is that personnel at lower levels must acquire the technical and managerial skills needed to operate programs and deliver services. The DMI process can potentially upgrade management systems and teach personnel at lower levels to use them. Unfortunately, the process remains unfinished in Lesotho and Botswana so little can yet be said about whether managerial skills and systems in these two countries were, in fact, upgraded. Two District Medical Officers we met in Serowe, Botswana said that the DMI project had facilitated the process of decentralization in their districts, not because of enhanced skills or systems, but because it had provided a forum in which decentralization issues and problems could be surfaced and discussed. This appears to have been an unintended positive by-product of the project. Had the DMI projects in Lesotho and Botswana been able to run their course to the point of "simple and appropriate management systems in place at the operations-level" (Output 4) there is little doubt that a positive impact on decentralization would have been observable.

## CHAPTER 11: GENERAL CONCLUSIONS

This chapter summarizes the more important general findings and conclusions of this evaluation report. For the reader who has not had time to read the full report, this chapter captures the key points. It repeats or encapsulates some, but not all, of the findings and conclusions from earlier chapters.

### A. Project Incomplete

It is unfortunate that this project was not able to finish what it set out to do. The original intent was to develop and test a new approach to management improvement; to institutionalize the process in two ministries of health; to develop at least 20 manuals, guidebooks or other materials; to create an improved supervisory system linked to an in-service training program; and to install up to 10 new or redesigned management support systems at the district level in Lesotho and Botswana.

In terms of accomplishments the project developed and tested its new approach with positive results. Nine manuals documenting new or redesigned management support systems were introduced in Lesotho: four draft manuals were introduced in Botswana. Twenty-three management analysts were trained. The project produced more manuals and other documents than originally called for and the quality of these materials is generally very good. The redesign of the supervisory systems in both countries was politically sensitive and controversial, especially in Botswana. Therefore, it cannot be said that the project fully achieved its objectives of having "a supervisory system, linked to in-service training, providing regular, supportive supervision" in place in either country.

Because of implementation delays and other problems, the projects in both countries arrived at the "training and implementation" step (Step 5) very late in the life of the project. This step was to have started in month 14 of the project according to the original implementation schedule. It began in month 35 in Lesotho and in month 43 in Botswana. Because of these delays, there is little evidence currently available to conclude that improved management systems are in place, that personnel have received adequate training to operate the systems, and that the systems are positively affecting the quantity or quality of Child Survival or PHC services being delivered.

### B. Process Works To Redesign Management Systems

Nevertheless, this project successfully demonstrated that it is possible to engage a ministry in an analytical and decision making process that results in redesigned management support systems, and manuals to document those systems. This alone is a significant accomplishment. While the manuals themselves do not represent complete management systems, they do codify the areas upon which agreement has been reached. They potentially serve to document standards, protocols, procedures or guidelines where none may have existed before. If used, they become a tool for

training, supervision, and reference. Just as important, they define what is desired or expected, and form a basis for assessment, quality control and evaluation.

C. **Systems Not Put In Place At The District Level**

A major shortcoming of this project, however, was that it did not demonstrate that revised management systems can be put "in place at the operations level." In both countries workshops were held at the district level to introduce manuals documenting the new systems. In some cases, up to four systems and manuals were covered in a single, week-long workshop, with emphasis placed on the use of the forms in the manuals. In the opinion of the evaluation team, at least equal emphasis should be placed on the understanding of management concepts, the rationale for their use, and on skill building exercises that teach how-to-do-it. The project lacked a carefully articulated training plan to install the new systems at the operations level. The original plan called for a "competency-based management training program developed and carried out to prepare district-level personnel to work within the re-designed systems." This CBT training was to have been based on detailed job analyses. Much more work is needed to design and deliver skill, concept, and competency building activities targeted at individual workers, that will result in better understanding and use of the new management systems.

D. **Quality Personnel**

The competence and commitment of both long-term advisors made this project work effectively under the most difficult of circumstances. They were both purposeful and flexible, which the evaluation team believes contributed to the project's achievements. Similarly, the counterparts are highly competent people who have demonstrated their commitment to the project and to the DMI process in a variety of ways. Their knowledge and skills, if suitably placed in the ministries, and if supported by senior-level personnel, could ensure that management improvement continues.

E. **Potential For Further Development**

Despite implementation difficulties in both countries, the DMI management development process appears to work and to show potential for further development. Significant learnings occurred which could improve the probability of success if this approach were tried in other countries. In both countries, and within MEDEX, there is interest in applying the DMI process to vertical programs, such as EPI or AIDS, as opposed to general management systems. The evaluation team believes that the process is transferrable and that consideration should be given to testing the approach at the program level.

**F. Overambitious Objectives And Implementation Schedule**

The original MEDEX proposal called for a 5-year Phase I project to field test the approach and develop support materials. This was to be followed by a Phase II project that would extend the process to other African countries. At A.I.D.'s request, the project was scaled back into a single-phase, 4 year long project. When this happened, the evaluation team believes that the project's scope and implementation schedule were not appropriately adjusted to fit the reduced 4 year time frame. In essence, this prevented the project from accomplishing two of its five outputs: 1) implementation and institutionalization of the DMI process in the ministries of health, and 2) putting the revised systems in place at the operations level. One consequence of the scale-back was that the number of long term advisors in each country was cut from two to one. Had the second training advisor positions been retained, we believe that the projects would be further along in getting the systems in place and getting them used at the district level.

**G. Large Number of consultants**

The large number of consultant visits, (40 in Lesotho alone), each of which had to be managed by the Long-term Advisor or his counterpart, took their time away from the technical work of the project.

**H. Institutionalization And The Critical Role Of The Counterparts**

Almost everyone interviewed believed the manuals to be well-written and useful. They think that the implementation of the new systems will contribute to better functioning management systems in the future. However, there is a concern about implementation and follow-through. What happens will depend largely on what the counterparts do in the next year. In both countries there are serious concerns regarding the establishment of permanent positions for the counterparts at acceptable grade and salary levels. Unless these counterpart positions are created so that implementation activities can continue, the real potential payoffs of this project will not be realized.

**I. The Process Itself Is Important**

The evaluation team supports the contention that the DMI process itself, and not just the final product, is important. Any country wanting to upgrade its management systems must start with an analysis of its own situation, its problems, its resources, patterns of behavior and bureaucratic organization. A properly structured process, such as that developed by MEDEX, can effectively organize and support this process of self-examination. This can lead to democratic decision-making, documentation of the new systems into manuals, and the use of the manuals for training and action planning. It is this process that builds understanding, skill, and commitment to

implement and use the new systems. To simply hand out a "prototype" manual might short-circuit or undercut the less tangible but critically important benefits of going through the process.

**J. The DMI Process Works Well In The Following Ways:**

1. An entire project focusing specifically on management strengthening sends a powerful message that "management" is important, and deserving of independent efforts aimed at its improvement.
2. The approach mobilizes a critical mass of talent and energy to address management problems and needs. It provides an organized, structured framework for data gathering, analysis, presentation of findings, participative decision-making, and documentation of the redesigned systems in the form of manuals, which are then used to train workers to implement and use the new systems.
3. The process trains and involves local people in data collection, analysis, generation of recommendations, and decision-making, as well as in the implementation of the new systems. Once the basic process and skills are taught, there is limited reliance on outside experts or consultants.
4. The process is visible, open, democratic, and possesses valuable elements of bottom-up involvement in decision making.

**K. The Four Technologies**

The time, resources and energy devoted to the development of the four technologies (Management Events, Case Study, Distance Learning, and Resource Allocation) was a distraction from the main thrust of the project. A quite large proportion of MEDEX management, personnel and consultant time was devoted to the development and testing of these four technologies, particularly in the early phase of the project. This investment of time and resources probably reduced the effectiveness and speed of implementing the core six-step process. Only one of the technologies, Management Events, proved directly useful to the core process. The Case Study and Distance Learning technologies could contribute to the training and implementation step of the process in future projects: in this one they appear to have been used in relative isolation. The Resource Allocation technology was tested but found not useful to the purposes of this project.

**L. Receptive Framework Not A Step In The Process**

The evaluation team agrees with project staff that "Establishing a Receptive Framework" is not just the first step in the DMI process: it is a major ongoing activity which, if neglected, can seriously compromise the whole effort. Understanding, commitment, and participation in the process needs to be constantly rebuilt or re-established. Project staff went to great lengths to do this, but agreed that more could have and should have been done. In both countries we spoke with

central-level personnel who felt left out, uniformed, or uninvolved in the process. Their support and involvement is critical to the ultimate adoption and use of the new systems.

**M. Interministerial Issues In Botswana**

The project in Botswana appears, in some sense, to have been the victim of the environment in which it was implemented. The delivery of health services at the district level in Botswana is the responsibility of the Ministry of Local Government, Lands, and Housing (MLGLH), not of the Ministry of Health. Botswana has long been involved in a process of decentralization whereby District and Town Councils (who report to the MLGLH) take over direct local responsibility for service delivery in all sectors. When the DMI project began, Ministry of Health personnel at the local level were being transferred to become employees of the local government units. Upon transfer, they came under the administrative supervision of the MLGLH. The DMI project, however, was housed in the Ministry of Health, which was and is responsible for standard-setting and the technical supervision of health personnel. Unsurprisingly, the project got caught in the politics between the two ministries, and there was no effective third-party to arbitrate the differences. In retrospect, almost everyone (including the Permanent Secretaries of both MLGLH and MOH) agreed that the project should have been placed in the MLGLH, so as to have better and continuing access to its real clientele: health workers in the districts. They also stated, however, that the original placement of the project in the Ministry of Health was understandable, and that the project had been overtaken by events beyond its immediate control.

## CHAPTER 12: RECOMMENDATIONS

The following recommendations are made to A.I.D. and/or to the MEDEX Group should opportunities arise to apply the same, or a similar approach in other countries or in other programs.

1. This project succeeded in designing new management systems, but because of lack of time, was not able to finish putting them in place at the operations level. Any new project must focus much more attention on installing, trouble-shooting, using, revising, and evaluating the systems at the operations level to assure that they are making a functional improvement in operations and health care service delivery.
2. Any project with scope and ambition similar to this one should have two long term advisors, one to lead the systems redesign process, and a second to lead the training and systems implementation efforts.
3. Training of analysts, system redesign, and implementation at the operations level takes more time than originally estimated. Five (or more) years is a more appropriate time frame for a project of this scope which seeks to redesign management systems, put them in place, and institutionalize the process in the ministry.
4. Additional project design elements and tactics are needed to insure continued understanding and support from the central level. These might include 1) special short courses for senior level personnel to teach the management analysis and management improvement process, 2) technical committees at the central level to review findings and recommendations before decision-making workshops are held, 3) establishment of mentoring relationships between senior level personnel and the more junior management analysts, 4) the creation of more active and viable advisory groups to guide project strategy and implementation, and 5) greater involvement of central level personnel in systems training, implementation and monitoring.
5. Where no systems or very weak systems existed, the DMI process worked very well to create them, and ran into little resistance. Where reasonably well developed systems were already in place, more resistance and delays were encountered. Additional criteria, including "political volatility" and "interministerial impact" should be included for selecting and prioritizing systems to be redesigned. The selection of less controversial and more implementable systems for development in the early phase of the project could allow for the analysis, redesign and installation steps to move ahead more quickly. This would enable the project to build skills, experience, and credibility before tackling more contentious problems and systems.

6. When politically sensitive systems, such as personnel or supervision, are chosen for study and redesign, it is suggested that the more controversial aspects of the systems (salary determination, promotion, discipline, transfer policies, etc.) be treated separately from the more technical or how-to-do-it skills. This may allow for the upgrading of supervisory and personnel management skills without getting hung up on interminable policy debates.
7. During the implementation and training step of the process, no more than two new systems and manuals should be introduced at the same time, and it should be done within a broader context of management skill building. This will require the development of more and better competency- and skill-building exercises based on careful job analyses and a firm understanding of the practical constraints faced by front line workers.
8. In both countries, installation and use of the improved management systems will depend largely on what the counterparts do in the next year. The MEDEX Group, and The USAID Missions may want to explore how they can persuade or assist the ministries to establish appropriate posts for the counterparts within appropriate units of the ministries. There is interest among other donors, especially WHO in Lesotho, in supporting and extending the work of this project. A minimal investment in followup and donor coordination could result in substantial payoff from investments already made.
9. Of the four technologies developed by this project, only "Management Events" proved to be directly applicable to the core DMI process. It helped to identify and prioritize systems most in need of development, and it created a database of events that was useful in the analysis and redesign steps of the process. An important characteristic of this technology is that it focusses on strengths to be built upon as well as on weaknesses that need to be rectified. It is recommended that manuals be developed to make this technology available to other potential users.
10. The management analysis training course and internship needs to be longer and less stressful.
11. Consideration should be given to using more local consultants to write systems manuals. These individuals know the systems, the culture, and the bureaucracies better than outside consultants, and with adequate support and supervision could effectively write the manuals.
12. Considerable interest exists to apply the MEDEX management development approach to upgrade specific programs, such as EPI, Family Planning, or AIDS. The evaluators believe that the approach is transferrable and could be used effectively for this purpose.

13. The case study methodology can and should be more fully integrated into the management improvement effort during the training and implementation step of the process. A manual is needed to advise potential users on how to choose cases for teaching, how to sequence them, and what to do before and after teaching a case.
14. Good tools, in the form of case studies, Distance Learning workbooks, and supervision manuals, were developed for improving supervisory skills, but these were not used in any systematic fashion to train "large numbers of district and peripheral level supervisors." The evaluators agree that the strengthening of the supervision system should be a high priority in any district-level management improvement effort. It is recommended that redesign efforts be focused on the skills and the process of supervision, while avoiding the more difficult areas of salary, promotion, discipline, and transfer.
15. There is a value in well written "prototype manuals" as models for management systems. They document standards and procedures where none may have existed before, and can provide examples of simple, effective tools for use at the district level. The quality of the MEDEX-developed materials is good. Nevertheless, we do not recommend that these materials be adopted and used "as is" in new countries. There is value in going through a process of self-assessment, systems analysis, and the design of solutions to one's own problems. It may be that the intense, contentious, painful experience of self-examination and problem solving has more impact on thinking and learning than any manual, no matter how well designed and written.

## NAMES OF PERSONS INTERVIEWED

### LESOTHO

October 8-15, 1991

#### Ministry of Health

Mr. Makhaola, Principal Secretary  
Mr. Petlane, Deputy Principal Secretary  
Dr. Moji, Director General/Health  
Ms. Matsau, Chief Planner  
Ms. Phalatsi, Financial Controller/Health  
Ms. Ntholi, PHC Director (project liaison)  
Ms. Chabane, Chief Nursing Officer  
Ms. Khali, Principal Personnel Officer  
Ms. Seipobi, Continuing Education Coordinator  
Ms. Mabitle, Chief Tutor and Head of Nurse Clinician Program  
Ms. Malapo, Head of MCH/FP  
Mr. Baholo, Head of Maintenance Services

#### USAID

Mr. Towery, Director  
Ms. Meadowcroft, Supervisory General Development Officer  
(SGDO), responsible for DMI  
Mr. Kasozi, Assistant SGDO

#### Private Health Association of Lesotho (PHAL)

Mr. Makara, Executive Director  
Mr. Maja, Finance Manager  
Ms. Schedulay, Community Health Nurse

#### WHO

Dr. Rojas, Country Representative  
Dr. Siwale, Special Advisor

#### UNICEF

Dr. Camanor, Advisor on Family Health

#### UNDP

Mr. Chicanot, Management Advisor to the Ministry of  
Public Service

#### Institute of Development Management

Mr. Baholo, Lesotho Country Director  
Dr. Ponny Walakira, Chief Consultant

Others in Maseru

Mr. Monaheng, Transport Manager, government vehicle pool  
Dr. Raditapole, Pharmacist (Drug Supply Manual author)  
Mr. Nteso, Auditor at Ministry of Finance (management analyst for Health Information System)  
Mr. Makhetha, Private Consultant involved in Resource Allocation Technology Study

Scott Health Services Agency - Management Team

Mr. Mohapi, Hospital Administrator  
Health Assistant  
Senior Nursing Officer  
Nurse Clinician  
Public Health Nurse  
Primary Health Care Administration  
Deputy Director for Community Health Care  
Senior Pharmacy Technician  
Maintenance and Transport Officer  
Administrative Assistant  
Two Nursing Assistants at a health center in Scott HSA

Mokhotlong Health Services Agency

Dr. E. Kamphorts, District Medical Officer  
Mrs. Moliki, Nurse  
Palesa Mofosi, Health Inspector  
P. K. Maputla, Nursing Officer, Acting Matron  
Aaron Morato, Assistant Laboratory Technician  
Mallope Doti, Administrative Assistant

Butha-Buthe Health Services Agency

Ms. Letebele, Senior Nursing Officer  
S. Makhabane, Principal Pharmacy Technician  
L. E. Mabusane, Public Health Nurse  
F. M. Okobele, Hospital Administrator  
L. A. Mohlabe, Dental Assistant  
M. Lethunya, Nursing Officer Mental Health  
Dr. T. S. K. Lyimo, Medical Officer  
Dr. Jan Roest, Medical Officer

Leribe Health Services Agency

Dr. Edward Olusola, District Medical Officer  
J. Masupha, Medical Officer  
Mr. Molapo, District Health Administrator  
C. M. Maile, District Senior Nursing Officer  
F. K. Makotoko, Senior District Public Health Nursing Officer

National University of Lesotho: Case Reserve Group

Mrs. S. Hoohlo, Lecturer in Public Administration

Dr. I. Kimane, Lecturer in Sociology

Mrs. Mr. Lesema, Nurse Clinician at University Clinic

BOTSWANA

October 16-28, 1991

Ministry of Health

Dr. E. Maganu, Permanent Secretary

Dr. John Mulwa, Deputy Permanent Secretary

Mrs. Winnie Manyeneng, Assistant Director for Primary Health Care Services

Dr. P. Mmatli, Head of Primary Health Care Support Division

Mr. G. Moalosi, Coordinator, Family Health Project

Mrs. M. Tselayakgosi, Senior Planning Officer

Ministry of Local Government, Lands and Housing

Ms. P. Venson, Permanent Secretary

Mr. Peter Siele, Established Secretary, Unified Local Government Service

Ministry of Education

Mr. P. Molos, Permanent Secretary

USAID

Howard Handler, Director

David Mandel, Deputy Director

Scott Stuart, Program Officer, responsible for DMI

WHO

Dr. J. Namboze, Resident Representative

UNICEF

Dr. I. Ndombi, Principal Programme Officer

Social Impact and Policy Analysis Corporation (SIAPAC)

David Cownie

Elizabeth Blake

Kgatleng District Council Health Department, Mochudi

Dr. Rumisha, District Medical Officer  
Mrs. Rachel Mosinyi, District Health Education and  
Nutrition Officer  
Mrs. Bongiwe Rantwa, Nurse in Charge, Boseja Clinic

Southern District Council Health Department, Kanye

Dr. A. S. Lembariti, DMO  
Dorcas K. Letlola, Matron  
Grace Banda, Senior Nursing Sister  
Senatla J. Rutherford, Health Inspector

Town Council Health Department, Francistown

Dr. T. Hlangabeza, DMO  
Mrs. D. Saleshando, Matron  
Mrs. T. Oitsile, CHN  
Mrs. A. Gulubane, Nurse  
Mrs. P. Mahole, Nurse  
Sister B. Tema, Botswelelo Clinic

Town Clerk, Francistown

Mr. D. Phillime

Deputy Town Clerk, Francistown

Mr. P. Modisenyane

Central District Council Health Department, Serowe

Dr. B. B. Sarpong, Senior DMO  
Dr. T. Hetland, DMO, Bobirwa Sub-district  
Ms. Ntebolang, Senior Matron

Council Secretary, Central District Council

Mr. V. Mogotsi

City Clerk, Gaborone City Council

Mr. G. Gaetsewa

National Health Institute

Dr. Jens Pedersen

Institute of Development Management

Mr. Tshepo Taolo

SIPU

Mr. Hans Nareskog, Organization and Methods Advisor

## TEAM MEMBERSHIP

This evaluation was carried out by the Research Triangle Institute under its IQC contract number PDC-59219-I-00-0108--00, Task number 004. The work was carried out from Sept. 16-20, 1991 in Washington D.C. and the University of Hawaii, Oct. 8-15 in Lesotho, and Oct. 16-28 in Botswana. The members of the team were:

1. Robert M. Hollister (Team Leader), Senior Health Research Analyst, Center for International Development, Research Triangle Institute, PO Box 12194, Research Triangle Park, North Carolina 27709-2194. Phone (919) 541-6839
2. Ms. Kristina Engstrom, Independent Consultant, 80 Wayland St., North Haven, CT 06573
3. The team was accompanied by Ms. Vicky Kunkle, AFR/ONI/TPPI, A.I.D., Department of State, 320 21st N.W., Washington, D. C. 20523. The team is grateful for her authorship of Chapter 1 of the report.

**APPENDIX E**

**"HOW AFRICA RUINED ITSELF"**

# How Africa Ruined Itself

By GEORGE B.N. AYITTEY

Prompted by the horrific combination of starvation and predatory violence, the West is now intervening in Somalia. But there are many African leaders for whom nothing the West does is enough — even a massive and dangerous humanitarian effort. For such leaders the West, if it acts at all, acts badly in Africa (or too late), and thereby bears a large share of the responsibility for Africa's problems. This view is demonstrably wrong.

The rhetoric of victimization and blame was very much on display in late September, when President Abdou Diouf of Senegal addressed the U.N. General Assembly, before Somalia's condition had reached its current crisis point. Mr. Diouf, who is chairman of the Organization of African Unity, chastised the West for ignoring Africa. He was echoing the sentiments of other African leaders, for whom "marginalization" is the new term of abuse. The abandonment of Africa by the West for Eastern Europe, they all warn, will vastly impede their efforts to alleviate Africa's squalor. The Clinton administration should ignore these rantings.

It is true that the tribulations of Africa and the solicitations of its leaders have at times been greeted with charitable indifference in world councils. But the constant whining of Africa's leaders now draws cynicism and yawns in Africa itself. The truth is: Africa has been marginalized by African leaders themselves.

## Laggards Insisting on Foreign Aid

While Eastern Europe, Latin America and Southeast Asia have been steadfast in reforming their economies, African leaders have remained laggards, insisting on massive inflows of foreign aid to underwrite almost every reform. Even the devastation of African war — in Angola, Ethiopia, Mozambique, Namibia and now Somalia — has not been enough to prompt action within Africa itself. "People are dying in droves daily from bullets and starvation," laments Mahmoud Farra, a Somali refugee in Britain, "yet African leaders are doing nothing to stop the war." How can the world take Africa seriously when its own leaders and elites are not serious about tackling its problems?

After years of mismanagement, most African countries today are poorer than they were when they achieved their independence in the 1960s. This is not a justification for colonialism but a statement of fact. Between 1965 and 1987, the average annual growth rate of gross domestic product per capita was 1.1% for all of Africa and 0.4% for sub-Saharan Africa — 0.1% if Nigeria is excluded. Between 1986 and 1991 real GDP fell by 0.7% a year (including

Arab North Africa, but not South Africa).

The performance of sub-Saharan or black Africa has been the worst in the Third World. Between 1980 and 1989, black Africa's real GDP per capita contracted by an average of 1.2% while East Asia grew by 6.2% and South Asia by 3%.

According to Africa's own elites, including such veteran African leaders as Julius Nyerere and Kenneth Kaunda, the causes of Africa's problems are forever external: Western colonialism and imperialism, the effects of the slave trade, exploitation by multinational corporations, the injustice of the international economic system, inadequate flows of foreign aid — and now "marginalization."

But a new and angry generation of Africans reject this claptrap and lay

national Monetary Fund arrived too late. The state treasury had already been "privatized" by the elites.

By concentrating so much political power at the center, the state also became an irresistible prize for which all sorts of groups and individuals compete. Once seized, the instruments of state power are used by these groups and individuals to enrich themselves and further the interests of their own ethnic groups or professional class. All others are excluded.

It is this fight for state power that has been the source of Africa's inane civil wars and chronic political instability — not colonialism or Western "exploitation" or "marginalization." In almost all African systems, the peasants, the real people of Africa and producers of its real wealth,

*Somalia is not the exception. Angola, Liberia, Mozambique, Sudan, Uganda and Zaire now lay in ruins and other countries are heading down the same path.*

greater emphasis on *internal factors*: misguided leadership, systemic corruption, economic mismanagement, senseless civil wars, tyranny, flagrant violations of human rights and military vandalism.

These internal factors are themselves products of defective economic and political systems established and retained by many African leaders after independence. Most of these systems are characterized by an extreme concentration of economic and political power in the hands of the state — and ultimately one individual.

In Africa, the state reserves for itself the right to intervene, plan and restructure almost every conceivable aspect of Africa's economy and society. Socialism may be dead but statism lives in Africa. State hegemony in the economy has now become the bane of Africa's development, suffocating and devouring its productive base.

The centralization of economic power in Africa has turned the state into a huge patronage machine and bred elite cronyism. Lucrative state jobs have been parceled out to friends and government largess doled out to loyal supporters. In Africa's pork-barrel politics, avaricious elites have absconded with the goods, leaving the people to starve.

The labyrinth of controls and regulations instituted by the state have provided ruling elites with the chance for illicit enrichment. To help the unwary navigate the maze of regulations, ministers demand bribes and "commissions." In many African countries, the World Bank and Inter-

national Monetary Fund arrived too late. The state treasury had already been "privatized" by the elites.

have been abused by the state and excluded from the political process. In many African countries, those who took over the reins of power after independence were worse than the colonialists they replaced. In Somalia, the civilian administration that assumed power in 1960 was hopelessly corrupt and incompetent. It was overthrown in a coup (in October 1969) by Major General Mohammed Siad Barre, who adopted socialism along with the designation "Jalle" or "Comrade." Government was centralized under a Supreme Revolutionary Council and Somalia turned to the Soviet Union for tutelage.

By 1979, the economy was in tatters. Socialist policies had failed to engineer economic development, and foreign loans and credits only earned Somalia the title "The Graveyard of Aid." For two decades, 1965-87, GDP per capita grew at a miserable 0.3% annual rate, and food production per capita declined an average of 2% per year from 1975 to 1985.

An increasingly unpopular and corrupt Barre regime resorted to brutal force to remain in power. Torture, mass executions and pillage were the order of the day. Entire regions were devastated by a regime in combat with its own people. The "liberators" who drove Barre out in January 1991 were little better, fighting among themselves and causing further carnage.

Sadly, Somalia is not the exception. Angola, Liberia, Mozambique, Sudan, Uganda and Zaire now lay in ruins. More distressing, many other African countries are heading down the same path of corruption and self-destruction.

Libya, for example, ought to have one of the highest per capita incomes in the world, with a population of only four million and vast oil wealth estimated at \$10 billion in 1990. But mismanagement, foreign exploits and corruption have so eroded the country's economic base that Libya sometimes defaults on its foreign bills and some government employees go unpaid for months.

In Algeria a former prime minister, Abdelhamid Brahimi, said recently that officials of the ruling Front de Liberation National had pocketed \$26 billion in bribes and commissions on foreign contracts. The current prime minister called the charge "grossly exaggerated" but did not deny its gist.

In Sierra Leone a special commission recently detailed how the ruling elites have plundered that country's resources with impunity. Former Inspector General of Police James Bambang Kamara, for example, owns 37 pieces of land, with the most expensive valued at 7.5 million leones (the country's unit of currency), while his salary is about 182 leones a year. His three bank accounts include one in London.

## Freeloaders and Patronage Junkies

Under various programs, the World Bank, IMF and other international agencies have been nudging African governments toward reform. But the commitment to genuine reform within Africa itself has been supercilious and slow. Freeloaders and patronage junkies fiercely resist a dismantling of the statist behemoth. In 1990, the former deputy agriculture minister in Sierra Leone told the BBC's "Focus on Africa" program that he "won't give up his present privileged position for the sake of a multiparty system." And why should he, or anyone other corrupt official on the receiving end of Western largess? Such ministers oversee the disbursement of over \$12 billion in annual foreign aid

One solution is to take power away from the center, or the state, and give it back to the people (decentralization). Another is to monitor foreign aid much more closely, or to direct it only where free-market reform is a visible reality. The best solution, however, may have been expressed by Amina Ramadou, a Zairean peasant woman. "We send three sacks of angry bees to the governor and the president, and some ants which bite," she suggested. "Maybe they eat the government and solve our problems."

Mr. Ayittey, a Ghanaian, is associate professor of economics at American University in Washington, D.C. His new book is "Africa Betrayed" (St. Martin's).

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# OPERATIONS LEVEL MANAGEMENT PROGRAM

## ESTIMATED EXPENDITURES

AS OF 3-31-92

	Item	Budget*	Estimated Expenditures As of 3-31-92	Balance
I.	Salaries	\$1,729,099	\$2,112,381	(\$383,282)
II.	Fringe Benefits	312,857	399,393	(86,536)
III.	Consultant Fees	429,446	495,993	(66,547)
IV.	Travel and Transportation	897,324	720,904	176,420
V.	Allowances	504,019	443,005	61,014
VI.	Other Direct Costs	733,806	491,738	242,068
VII.	Equipment, Vehicles, Materials & Supplies	193,363	185,837	7,526
VIII.	Participant Training	154,354	114,324	40,030
IX.	Indirect Costs	1,145,732	1,136,425	9,307
	TOTAL:	\$6,100,000	\$6,100,000	Ø

\*A written request was made to the U.S. Agency for International Development by the University of Hawaii for a two-month no-cost extension and a revised budget. Although the University of Hawaii received the amendment for the two month no-cost extension in March, 1992, the amendment granting the revised budget is still outstanding.

**OPERATIONS LEVEL MANAGEMENT PROGRAM**

**SUMMARY OF INPUT INDICATORS**

<b>Category</b>	<b>Budget</b>	<b>Expenditures 9/1/87-3/31/92</b>	<b>Balance</b>
Long-Term Technical Assistance	\$3,366,552	\$4,222,009	(\$855,457)
Short-Term Technical Assistance	998,622	632,253	366,369
Participant Training	167,690	119,224	48,466
Training In-Country	498,423	327,161	171,262
Commodities	0	0	0
Support Costs	1,068,713	799,353	269,360
<b>TOTAL:</b>	<b>\$6,100,000</b>	<b>\$6,100,000</b>	<b>0</b>

\*