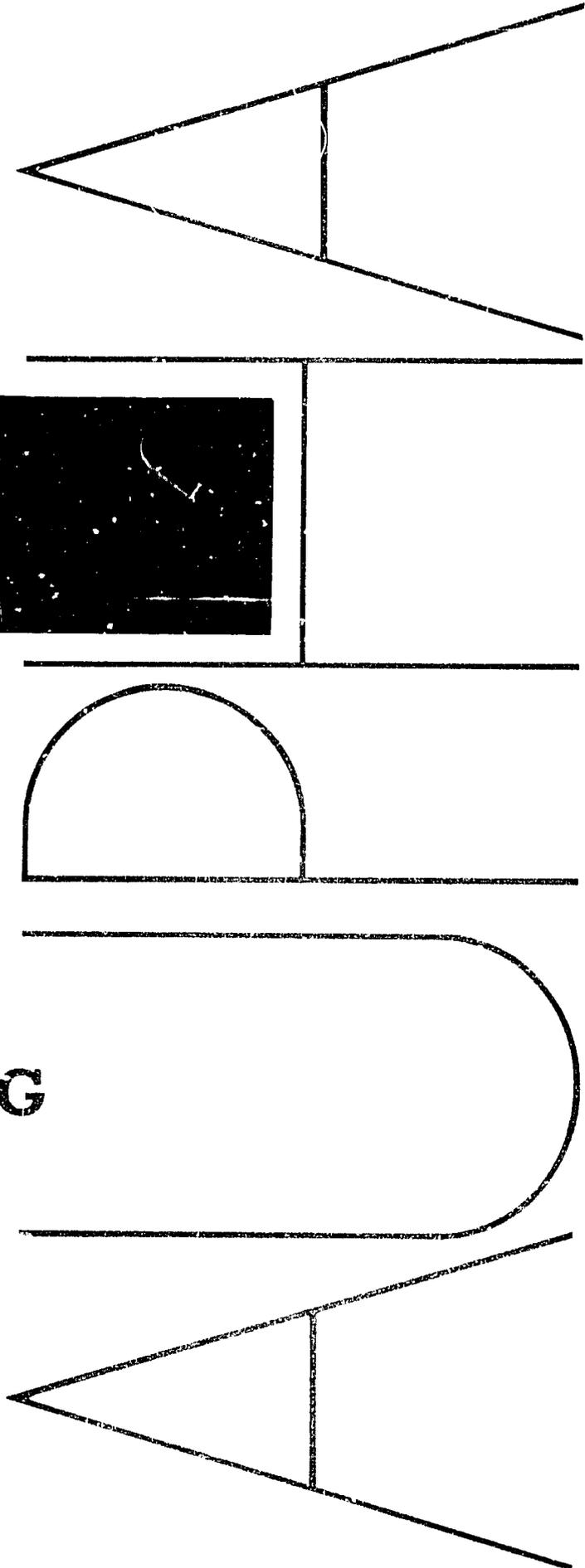




**MAPS**  
**HEALTH**  
**MANAGEMENT**  
**PROBLEM-SOLVING**  
**MODULES**



HEALTH MANAGEMENT APPRAISAL METHODS PROGRAM

JORDAN CASE STUDY

September 1981

AUPHA--THE HEALTH MANAGEMENT EDUCATIONAL CONSORTIUM  
Office of International Health Administration Education  
One Dupont Circle, NW, Suite 420, Washington, DC 20036, USA  
Telex 64148 / Telephone (202) 387-8811 / Cable AUPHA

This case study was written by:

Michael H. Bernhart, Ph.D.

Project Staff:

Robert Emrey, Director  
Margaret Dodd Britton, Associate Director (1980-1981)  
Diane Wilson-Scott, Associate Director (1978-1980)

This report was prepared with the generous support  
of the Office of Rural Development and Development Administration,  
Bureau for Development Support, of the Agency for International Development,  
Washington, DC, USA, under the Health Management Appraisal Methods Project,  
Contract AID/ta-c-1480.

Copyright © 1981, Association of University Programs in Health Administration

## TABLE OF CONTENTS

	<u>Page</u>
Preface	v
I. HEALTH MANAGEMENT APPRAISAL METHODS PROJECT AND THE JORDANIAN SETTING	1
II. DEVELOPMENT OF THE INTERVENTION STRATEGY	8
III. IMPLEMENTATION OF THE STRATEGY	34
IV. EVALUATION	49
V. SUMMARY	59
Appendix	62

## PREFACE

In 1977 officials of the Agency for International Development (AID) approached the Association of University Programs in Health Administration (AUPHA) because AUPHA's mission to promote education in health administration throughout the world seemed appropriate to AID's need for specialized expertise.

A recurring problem was confronting AID in its funding of health, population, and nutrition programs: how could managers of both relatively new and established programs in host country organizations determine areas of managerial weakness, and how could these individuals subsequently improve managerial processes or structures? Members of the AID Office of Rural Development and Development Administration and the AID Office of Health envisioned a project to study, develop, and test methods appropriate for management assessments conducted in developing country health programs, adaptable to the unique circumstances of individual countries.

This project, the Health Management Appraisal Methods Project, was designed to make available to developing country and international donor agency managers a methodology for self-assessment of the management of health services. The assessment tools which grew out of these efforts are the Management Problem-Solving (MAPS) modules.

The MAPS modules were developed through the worldwide consortium of health management specialists affiliated with AUPHA. Field consultations in developing countries in Africa, Asia, Latin America, and the Near East over a two-year period were carried out to meet three interrelated project purposes: identification of methodology strengths and weaknesses, identification of management problems and solutions, and training of participants in the appraisal processes.

The heart of the Health Management Appraisal Methods Project was in the work carried out in the field where consultants worked elbow-to-elbow with host country counterparts in coping with real management problems and their resolution. It is in this environment that the management assessment materials were tried, and from these field applications AUPHA strengthened its methodology. It is the purpose of this case study to describe the work carried out in the field and to state outcomes and generalities to other situations. It is very difficult to document a complete picture but we hope in sharing some of our experiences to provide insight into the needs and uses of health management assessment and some observations on the nature of providing technical assistance to AID-recipient host countries.

The management assessment project documents were prepared as a result of a four-year team effort by the following participants:

The AUPHA International Office Advisory Committee, chaired by Professor Gordon Brown, Ph.D.:

Gordon Brown, Ph.D.

Gary L. Filerman, Ph.D.

Arnold D. Kaluzny, Ph.D.

Peter Sammond

AUPHA International Office project staff:

Robert Emrey, Project Director

Margaret Dodd Britton, Associate Director (1980 to 1981)

Diane Wilson-Scott, Associate Director (1978 to 1980)

Project work was coordinated at the Agency for International Development by project monitors on the staff of the Office of Rural Development and Development Administration: Jeanne F. North (1980-1981), Monteze Snyder (1979-1980), Dr. Kenneth Kornher (1979), and Dr. Charles Briggs (1978). Their support and encouragement were essential to whatever success we had in these efforts.

Other individuals, including many AID and host country health officials, contributed countless hours of work and support on behalf of the project. The collaboration of all these people enriched every aspect of the work and was greatly appreciated by the project staff.

The Jordan consultancy was facilitated especially by the following people--The Hashemite Kingdom of Jordan Ministry of Health officials--His Excellency Health Minister Zuhair Malhas, M.D.; His Excellency Undersecretary of Health Rizk Rashdan, M.D.; and our Health Ministry Project Counterpart, Anwar Bilbeisi, M.D. USAID Mission staff members in Amman: Dr. Edgar Harrell, Mission Director; Lois Richards, Deputy Mission Director; Dr. Sami Khoury, Health Officer; and John Thomas, Deputy Health Officer. AID Officials for the Bureau for the Near East in Washington, D.C.: Dr. William Oldham, Barbara Turner, and Allen Randlov.

AUPHA purposely wanted to keep the number of consultants small in order to maintain continuity and understanding of the project goals. The consultants who (often in the face of difficult logistics and strict time constraints) carried out the Jordan field work are listed below:

Michael H. Bernhart, Ph.D.,  
Gordon Brown, Ph.D.,  
Robert Emrey,  
and Olga Quintana, D.B.A.

Preparation of the final case studies was directed by Margaret Dodd Britton with the assistance of the following team of people: editing for clarity and content by Judith Kelly and for style by Louis F. Stancari; word processor operations and proofreading were done by: Geraldine Hobdey, Gary Logan, and Janie McNeil.

## AUPHA HEALTH MANAGEMENT APPRAISAL METHODS PROGRAM

### JORDAN CASE STUDY

#### I. HEALTH MANAGEMENT APPRAISAL METHODS PROJECT AND THE JORDANIAN SETTING

There are few human activities that could not benefit from improved administration, and that certainly is true of public service programs. However, improved management is often elusive; not only are the improvements hard to come by, but even when there is success it may be difficult to provide credible evidence to that end. This report describes an effort undertaken by the Ministry of Health (MOH) of the Hashemite Kingdom of Jordan to improve internal management with technical assistance from the Association of University Programs in Health Administration (AUPHA). True to the tradition of such reports, this one is no doubt self-serving; nevertheless, there are enough short-term signs of success to encourage candor about the failures and we will attempt to place both in a common framework. All project outcomes cited in this report are necessarily "short term" in that the collaboration between the MOH and the AUPHA is only eighteen months old as of this writing.

In March, 1980, the Jordanian Minister of Health requested AUPHA consultants to study the management problems of the MOH and make recommendations. This activity led to an agreement between the MOH, AUPHA and United States Agency for International Development (USAID)/Amman to continue AUPHA support for one year in a series of one- or two-week consultant visits spaced at two-month intervals. At the end of the year, the agreement was extended for two more visits to follow up on some promising new initiatives.

The AUPHA consultancy did not follow common consulting practice of placing staff in the field for extended periods of time, nor was this

option considered feasible. Further, continuity in the consulting team was selected over specialization. Despite the diversity of talent that an organization such as AUPHA can tap, the same three consultants (one exception) carried out the project. Team members crossed professional lines and worked in somewhat unfamiliar areas, but all felt that the advantages of established rapport and knowledge of the situation outweighed specialized expertise.

#### ORGANIZATION OF REPORT

First, in order of importance and in order of presentation following the introduction, we present our strategy. It is no accident that the AUPHA team went to Jordan with a fairly comprehensive strategy to implement; the Association had been developing that strategy for over two years. We feel that the presence of a comprehensive intervention strategy sets this project apart. We feel it significant that it was not opportunistic, nor reactive or contrived. Although the game plan allowed for pursuit of special opportunities, we always had a ready guide to action.

Second in importance, and in order of presentation, is the implementation of the strategy. Here we will proceed chronologically, going lightly over some activities to illustrate our points.

Third is our evaluation of the structure employed. No one hopes for a pure experiment in field interventions; however, we experienced relatively few unplanned events in the Jordan Ministry of Health work that would have to be considered in evaluating the variables that promoted or impeded management development. We should note that we were not attempting to evaluate the effect of a single variable. We combined as many favorable elements as resources permitted to produce a positive effect. If that worked, and we were given another opportunity to replicate the strategy, we could then eliminate an element that appeared questionable. In the evaluation section, we will assess the impact of the different variables in the strategy.

## A NOTE ON STYLE

Somewhat apologetically, and true to our academic grounding, we confess that the report tends to be rather conceptual in presentation. But it reflects the way we worked, beginning with concepts and then laboriously elaborating them into plans of action. We feel that extensive discussion of these concepts is necessary to understand the development of the project and that they may serve as general reference for others in adopting the more successful project elements. We have borrowed extensively from the successful experience of others; future intervenors might similarly benefit from our trials and triumphs.

## THE SETTING

### Services and Resources

The Ministry of Health of Jordan provides medical care to those elements of Jordan's population on the East Bank who are not served by the private sector nor have access to the military's health facilities. Recent data show that slightly under one million persons are cared for by the MOH. Government employees and their families are part of this population. Additionally, the MOH conducts the standard range of preventive health activities including supplemental feeding programs, vaccinations, school health programs and examinations, health education, and media campaigns. The MOH promotes environmental health and monitors food, air, and water quality. Finally, the MOH licenses and examines health facilities and practitioners and tests pharmaceutical products sold in the country. At the beginning of the AUPHA consultancy, the MOH had 6000 employees, 13 hospitals, over 500 health centers and clinics, and a budget of approximately US \$25 million. Within the budget, 73% went to general curative services and 8 percent to preventive medicine. The Ministry distributed the remainder among special activities such as malaria control, laboratory, education, X-rays, and vaccinations.

Services were concentrated with the population around the capital city of Amman. Though eleven health districts existed, they had only limited administrative functions.

The Ministry of Health programs charge fees for services unless individuals demonstrate need. Fees correspond roughly to costs incurred in delivering the services; an X-ray would cost more than a blood count. Most preventive health services came free of charge. When the consultancy began, the MOH received little international financial assistance. A few commodities and scholarships came from multilateral donors and bilateral assistance was confined primarily to occasional scholarships and short-term technical consultancies.

#### Politics of Health Care

The complex politics of the Kingdom of Jordan, as of any modern nation, cannot be easily described. From the perspective of the MOH, health care was only one of several priority areas that ranked behind defense. The constant threat of war in the region may account for an oversupply of hospital beds as well as projected hospital construction that continues to exceed projected peace-time needs for the nation. Despite the expansion of hospital capacity, Ministers of Health in the mid-and late 1970s had complained that they were unsuccessful in expanding basic health care services at an adequate rate. Budget proposals from the MOH were drastically revised, allegedly by the Ministry of Finance.

This reduced funding of primary care facilities may partly reside in the political attractiveness of providing hospitals to the public as tangible evidence of the government's concern for the welfare of the citizenry. If a medical lobby existed in the country, it could not be counted upon to promote the aims of the MOH since it competed for patients with private sector physicians. A friend in court, literally, was the Crown Prince who took a special interest in social development activities, especially the management of social programs. Generally, however, the political clout of the MOH in Jordan did not differ greatly from sister health ministries in other countries.

The MOH escaped one burden common to the country's public sector: due to high rates of domestic employment and demand for Jordanian labor throughout the region, there was relatively little pressure on the MOH and other ministries to absorb the under- and unemployed. On the contrary, the MOH had to compete for qualified employees in a tight labor market.

### Health Needs

Surveys, estimates, and the health service statistics demonstrated repeatedly throughout the 1970s that women and children were underserved in proportion to their ranking within the morbidity statistics. While cardiovascular diseases dominated the mortality data, gastrointestinal diseases were the primary cause of hospitalization, followed by upper respiratory infections, parasitosis, and accidents. Outpatient data are sketchy but appear to be dominated again by gastrointestinal and upper respiratory problems. A high percentage of the total cases seen or admitted could be traced to water-borne vectors, a predictable problem in a developing and water-short nation.

The health picture changes constantly. Cholera, also a water-borne disease, erupts at nearly annual intervals; when this occurs, the MOH commits heavy resources to contain the disease. Further, a sizeable number of migrant workers from Egypt arrive infested with schistosomiasis; periodic campaigns are necessary to prevent the spread of the vector. Finally, the health profile of the nation is characteristic of many rapidly advancing countries: the degenerative diseases associated with increasing life spans and modernization are taking their place in the statistics along with the acute infections associated with poverty. Jordan has not yet succeeded in eliminating many of the health problems peculiar to underdevelopment, yet is already experiencing those characteristic of wealthy societies.

### Organization of Services

Health services fall into the three familiar levels of care: community care through nurse-staffed clinics, outpatient care through physician-staffed centers, and inpatient care through district hospitals. A fourth level could be added if the central hospital, El Bashir, is considered; it receives not only all of the complex cases, but many health center doctors tend to refer cases to El Bashir when they feel tests are necessary, bypassing the district hospital.

Vertically integrated programs are somewhat divorced from the structure just described. Maternal and child health centers (30 in number) are centrally supervised from Amman; there is little contact or coordination with district level health officials or other nearby facilities. The tuberculosis and malaria programs had become endangered by their success and therefore were orphans in the organization; the new mission of the tuberculosis program, chest diseases, required closer integration into general services than was consistent with vertical program management. Some programs, such as school health, mobile vaccination, and environmental health, operated within a matrix organization, accountable to both the central and district levels.

These variants did not change the overriding administrative feature of the MOH: centralization of authority. In early 1980, the Minister of Health still authorized the absence of the lowest employee (recall that there were 6000 employees) and passed judgment on most hirings. This degree of centralized control appears to be common throughout the government. Within the MOH, it placed heavy clerical and administrative burdens on the Minister and Undersecretary.

Personnel of the Ministry of Health

The manpower of the MOH differed somewhat from other health ministries. The relative abundance of physicians, many of them specialists, contrasted with a scarcity of allied health personnel. At the bottom of the hierarchy, a large group of servants functioned as orderlies or janitors. The ministry critically needed qualified nurses. Auxiliary nurses served in village health clinics and needed preparation for independent (i.e., relatively unsupervised) work.

One hesitates to make evaluative statements about colleagues and collaborators; however, in this instance, there is no possibility that anyone might be offended. The Jordanian health officials were clearly a cut above the average. They worked hard and well on every task; the follow-through was extraordinary.

## II. DEVELOPMENT OF THE INTERVENTION STRATEGY

In this section we deal with what we feel is the most important aspect of our involvement in Jordan, the development of an intervention strategy. Although AUPHA consultants worked in other countries, conditions in Jordan permitted the fullest testing of our general approach.

We will go to some pains to describe that approach. Initially we felt that it would be a simple matter to describe our objectives and process; however, thumb-nail descriptions can lead to misunderstandings. The vocabulary used to describe intervention efforts has become debased through imprecise use and now must be qualified and conditioned. As a consequence, we may tend to over explain and we ask the indulgence of those readers who would grasp a more concise presentation.

We open with a discussion of two popular approaches to management development--the process vs. the systems development schools. We have observed that an intervention cleaves to one approach or the other; the approach selected is contingent upon the management area involved. We then turn to a brief examination of the constraints within which management interventions operate and assess the extent to which these constraints were present in Jordan. This is an important step. A general strategy is convenient to have; however, unless it is responsive to the limitations imposed by a situation, it may not perform well. We list the constraints upon our work that we perceived in Jordan for two reasons: (1) to identify the special factors that influenced the development of our work and (2) to provide a partial list of problems and limitations that other intervenors might consider.

With this background on paper, we began to develop the strategy that was implemented. The discussion addresses the following questions:

1. What are the general areas that we would like to affect?
2. Within those areas, what are the targets for change?
3. What objectives for change should be set?
4. What sequence, if any, should be followed in addressing the areas?
5. What methods should be used in each area to achieve change?

#### Approaches to Management Development

1. The ultimate outcome of a management development exercise in public health should be a better fit between the health needs of the client population and the services offered by the organization. These services should be provided in an increasingly efficient fashion. Unhappily, ultimate outcomes are so distant that an evaluation of an intervention can scarcely wait for an outcome to surface. But by then, it is almost impossible to trace back to specific inputs. As a consequence, most intervenors must settle for immediate outcomes. Two dominant philosophies exist concerning what those immediate results should be. One holds that the key to long-term organizational success is a built-in capacity to adapt and change. They cite inner turmoil and the improbability that systems can be operated by people who do not fully understand them. The focus of the intervention, according to this school, is on people and process.

2. The second school maintains, in often disguised terms, that the answer lies in systems. They note the high turnover in the public sector, the trained incompetence of officials for management, and political pressures that established systems protect against, among others. This group also knows that a redesigned system is tangible evidence that something has been accomplished.

Process consultants, however, have greater difficulty in producing evidence of change for skeptical clients and donors than systems consultants do. The focus of the intervention, according to the former, is on implanting, and sometimes implementing, management systems.

An increasingly common approach is to attempt to bridge the two philosophies. Hence, we hear phrases such as "develop management capacity through collaborative systems design efforts," or "assist members of the organization in identifying problem areas and development and execution of remedial plans of action." In the end, however, the consultant either promises new systems or does not.

We respond, with elaboration later, that the path chosen depends upon the management areas involved. For some functions of management, it is enough to address the system directly and attend to the people only long enough to ensure that they possess the basic skills required to operate the system. In other areas of organization management, the properties of the formal system are less important than the skills and attitudes of its operators; here the major focus must be on process and people. Contrast, for example, the primacy of the "system" in the accounting area with the lesser importance of formal procedures for planning. One cannot just choose system or process. The point we wish to emphasize is that this choice between process and system should not be made for the entire intervention, as is often the practice, but rather the choice must be made for each management area that requires intervention. We will defer further discussion on this until we have described the general framework for its application.

#### Impediments to Change and Constraints

Constraints do condition the operation of any strategy. Some of these constraints are general to the undertaking, as with case interventions in the management of public health bureaucracies. Other constraints are peculiar to the context. The strategy we developed attempted to recognize both types of constraints.

A list of the general constraints will provide familiar reading for those who follow the literature on development administration. Attempts to change public sector administration encounter resistance from two sources: one is the societal culture and the other emanates from an apparent universal antipathy of public bureaucracies to change.

Cultural Impediments to Change<sup>1</sup>

For change of administrative practices to take place, the western model often rests on several unspoken assumptions:

1. It is assumed that doing better is a good thing--it is more fun and more rewarding. However, in many cultures, doing better may place a poor third behind doing things with style or maintaining stability.

2. The intervenor assumes in the final tally that the facts will be friendly. This is an especially weak assumption when avoiding embarrassment is a high cultural priority.

3. The rationale for an intervention is to bring about changes. This implies that change need not be haphazard. Such an assumption finds little support where fatalism runs strong.

4. It is assumed that change and adaptation are required where the environment is turbulent. Where tradition and continuity are valued, such an assumption (although perhaps valid) will be minimally persuasive.

Bureaucratic Impediments to Change<sup>2</sup>

Several characteristics of public sector bureaucracies also minimize planned changes in administration:

1. The absence of clear-cut goals makes it difficult to establish a need for change or to identify priority areas.

2. Self-evaluation may promote change but is scarcely encouraged when personnel are suspicious and capriciously attentive to activities of the agency.

3. The political/administrative interface is volatile; the impact of the evaluation and change of administrative systems upon that relationship is problematical.

4. Public service agencies attempt to promote equity and impartiality of treatment via procedural regularity and routine; this ecosystem is disturbed only at peril.

5. Public sector managers and priorities operate in the time

frame of a yearly budget. Evaluation of systems that may not last seems pointless. Improvements appear futile in a general structure that may soon be changed .

#### Limitations Imposed by the Professional Culture

As a subset of public sector bureaucracies, health organizations may introduce special problems of change:

1. Public health officials are usually medical doctors with primary training that has not concentrated on the allocation of resources. Indeed, any and all resources are brought to bear on curing a single patient. This is antithetical to the public health/managerial orientation that seeks to weigh resource costs against health benefits.

2. Health service providers do not enjoy the reversal of roles and perhaps resist assistance. This would seem to mitigate against intervention approaches of a direct nature.

3. Physicians do, however, have a well-established idea of how professional helping relationships work. The expert diagnoses the problem and prescribes corrective action. That is directive. Consultants who have tried nondirective approaches with health officials (i.e., collaborative) have often been viewed as uncertain, weak, and unprofessional.

4. Finally, physicians frequently do not recognize boundaries on their competence. The intellectual qualities that have made them physicians also make them view themselves as managers, politicians, art critics, or whatever.

In Jordan, relatively few of the above problems arose in our work. We did not encounter the competence-boundary problem. To the contrary, Jordanian MOH officials tended to sell themselves short as managers. The medical culture also offset obstacles to change that could be expected in societal or bureaucratic cultures.

For example, physicians are not fatalistic. They believe that change can be directed and will cause improvement. They are also goal-oriented, covet the truth, however unpleasant, and accept that new skills and techniques must be continuously mastered to keep pace in the medical field.

Thus we found in practice a balance of pro- and anti-change forces working in the societal, bureaucratic, and medical cultures. We also found it useful to anticipate where potential obstacles to or support for change might be found. We skirted some problems by detecting them early. For example, the Jordanian medical culture expects a fairly directive consulting style. When we detected that our hosts had tired of answering our questions--that we had framed to enhance their, not our, understanding of the problems--we immediately offered some minor, but directive, recommendations to prove our professional competency.

For those intervenors who do not wish to catalog every major potential barrier to change, it may be sufficient to note as we often did, that: (a) every system is functional to some degree, (b) Newtonian laws regarding inertia may well apply to administrative procedures and systems; and (c) current systems are a known evil. At a minimum, this helps intervenors to identify those who will defend the status quo.

#### Constraints Specific to the AUPHA Consultancy.

In addition to general constraints, we experienced the following limitations on our approach:

1. Budgetary. The direct costs of the assistance, despite the great amount of travel, were relatively low. The assistance that continued for 18 months cost roughly \$75,000 in fees to the consultants and travel and expenses. If the standard overhead loadings are applied, the total is still low compared to other technical assistance contracts. This self-imposed budgetary limitation demonstrates that the proverbial two million dollars is not a rock bottom figure for technical assistance in health administration.

2. Time. Academic consultants are usually cheap, sometimes good, and always limited in their time availability. The timing of assistance had to follow the academic calendar. This was occasionally inconvenient and the consultants had to petition for release from classroom duties. But, such petitions may be more easily granted to AUPHA activities because it is an educational institution and participates in an accrediting body, and universities see this as a legitimate faculty activity.

3. Disseminability. AUPHA is in the business of disseminating proven innovations in health management education. To satisfy this mandate, new materials had to be developed and tried.

4. Limitations on coverage. When the project began, a contract to provide technical assistance in planning to the MOH was already under negotiation. Officials in AID/Washington (but not in the Amman mission) expressed concern that there might be a duplication of effort. In response, AUPHA agreed to work in all management areas except planning. This arrangement was, at best, awkward; it is difficult to separate planning from general management.

5. Donor expectations and successive termination points. One feature of the AUPHA strategy--the use of successive withdrawal points--gave the Ministry the opportunity to decide whether to continue the consultancy or not at regular intervals. Entering the next phase required that the following conditions were met: successful accomplishment of all tasks up to that point, a climate propitious for moving into the next phase, and the belief that the MOH could move more swiftly with the assistance of the consultants. When the decision was made to proceed, a new request was made to AID for the next phase. We failed to make this aspect of the strategy known at the outset. We may have been overly concerned that we would create the expectation that we would proceed despite unfavorable odds.

6) A single client. We note here the absence of a common constraint, multiple clients. The consultant's nightmare is having to play to several constituencies: the sponsoring firm, the ministry, AID/Washington, or the USAID mission. We usually view the organization to which technical assistance is being provided as the client; problems most often arise when a USAID mission injects its special agenda, usually to resolve a recently noted problem in a related project. This did not happen in the AUPHA consultancy. The Amman mission had only one agenda: service to the MOH. The relevant actors in AID/Washington evinced primary concern that the AID mission be supported. Thus if the Ministry of Health was happy, so was everybody else. We were always very grateful for the intelligence and forbearance shown by AID officials in Amman and Washington for not introducing complications.

## A GENERAL STRATEGY

### Management Functions and Management Orientation

Under the rather grandiose banner of general strategy, we begin with the principles and objectives that guided the intervention. We tended to think of the work in two divisions: efforts directed at improvement in the functional areas of management and activities directed at the orientation of top managers. The distinction might be seen this way:

The functions of management are often labeled in terms such as control, planning, evaluation, or logistics. Academic exercises dating back fifty years or more have attempted to list an exhaustive and nonoverlapping array of management functions. We have no special preference for one list over another but prefer to adopt whatever functional distinctions the client organization utilizes. The whole of management, however, is greater than the sum of the functional parts. Qualities of leadership, or objectives, or policies are key ingredients to organizational success, but are not included in administrative functions. We found it difficult to label that area between the sum of the functions and the totality of management; we use the rather lame phrase of results orientation. A results orientation means that the manager: (a) continually checks the goals of the program against the health needs of the population; (b) continually asks whether an activity makes a contribution to achievement of those goals; and (c) anticipates emerging needs.

(The unspoken fourth task is that the manager takes positive action when needs, goals, and activities become snarled. A results orientation must complement good functional or management systems performance. In the following discussion of the intervention strategy, we will maintain this distinction between development of management functions and encouragement of a results orientation. In practice, however, most activities appear as work on the functional areas. The reason: it is one thing to tell a manager that a functional area can be improved; it is

quite another to say that a personal orientation or outlook needs reshaping. Therefore, we focused on change in the functional areas. To determine the general approach for improving a functional area, we asked three questions: (1) Should we focus on people or procedures? (2) Is the function a frequent victim of unintended externalization? and (3) What methodology is appropriate for each function?

### Improving Management Functions: People or Procedures

We noted earlier the differing philosophies on the best approach to management development--process (or people) versus systems (or procedures). This distinction is particularly important in work with the functional areas of management; after all, that is where the systems are found. Whether people or systems would receive relative emphasis lies in this simple question: "Does the system require constant revision to fulfill its function?" If the system itself is in a constant state of flux, relative emphasis should be on the operators of the system as they must be continually adapting procedures to changing conditions. Conversely, where the system is invariant--analogous to an assembly line--it is less important that the operators be qualified as system architects. We judged that the following three functional areas did not fall into stable systems:

1. Evaluation. A very flexible system to accommodate the variability among projects, users of data, reporting requirements, and time.

2. Supervision. Also subject to shifting demands. While schedules of supervisory visits and inspection checklists are in themselves not bad things, they are hardly the end of the supervisory system. The diverse roles of supervision are easily distorted if the principles are not well understood by all supervisors.

3. Planning. Often isolated in organizations. Work by formal planning units is probably re-planning, usually with partial data, under tight schedules, and amidst vast uncertainty.

Evaluation, supervision, and planning are so volatile that emphasis on procedures and systems appears relatively ineffective. Rather, one would hope that the individuals charged with primary responsibility for these functions would possess a clear understanding of the objectives, purposes, and contribution of their areas and be aware of a broad range of techniques that might be applied as conditions demanded.

In contrast are two management functions that we believe permit a high degree of systematization or routinization:

1. Accounting. Stability and standardization are hallmarks of good accounting systems.

2. Logistics. Similar to accounting, with few design options. Though there are accounting and logistics systems that should be revised, revisions should be rare, and routinization the rule. The relative emphasis is on the system.

Falling between the two extremes above--the volatile and the invariant--are areas such as information systems, that can be routinized in large measure, particularly in the collection and periodic reporting of operating data. But they must also be able to respond to ad hoc requests for different analyses or the one-shot collection of special data. The implication for the intervenor is that system development and behavioral change must both occur.

#### Improving Management Functions: Avoiding Externalization

After we identified functional areas where we could place relatively greater emphasis on system development, we needed to avoid a common error of technical assistance: the unintended externalization of important managerial functions. For example, managers can decide to have some management functions performed outside of the organization. A small firm may contract out its bookkeeping to a Certified Public Accountant (CPA) or its export marketing to a Combination Export Manager (CEM); with growth, such functions often return to the firm as it becomes cost-effective to do so. The decision of the firm to externalize the

function is a conscious one. Unconscious or unintended externalization of management functions takes place when either the responsibility or perceived responsibility for conducting a function shifts outside the organization.

Donor agencies can (and do) promote unintended externalization. Donor zeal for project evaluation may lead the donor to be especially active in specifying criteria and methodology, training investigators, and analyzing the data. Indeed the donor will frequently conduct the evaluation entirely with its own resources. Public health program managers, particularly those with limited management experience, can be pardoned if they come to view evaluation as something alien to their roles. We did not want to fall into the same trap of contributing to an erosion of the role of management, so we asked ourselves which functions are most susceptible to unintended externalization.

#### Externalized Functions

In our somewhat limited experience, we have observed where donor policies and technical assistance have contributed to gradual and unintended externalization. As we noted, the tendency to externalize the evaluation function of management is especially strong especially where donor support is by project. Donors are aware of this and may attempt to strengthen the evaluation capacity of the organization. But even where this is successful the evaluation unit may only do end-of-project investigations rather than the more useful continuous monitoring.

Outsiders also quickly spot deficiencies in the statistics of a health organization's information system when they begin project identification, planning, and evaluation. Outside technical assistance to improve the data system is soon on its way.

Though a laudable degree of project planning is now required by enlightened donors, it is unfortunate that standardization of the planning framework brings a vocabulary and set of procedures foreign to the host organization. The donor's representatives do more of the actual planning and consequently the planning capabilities of the recipient organization may atrophy.

For accounting, the concern is not so much externalization as changed purpose. Donors have special information requirements concerning the use of donated funds. The emphasis is on auditing, not on management control, and control is sometimes sacrificed to satisfy donor needs.

As technical assistants for a major bilateral aid donor/lender, we felt that our systems work should clarify and enhance the manager's role rather than contribute to any erosion of it.

#### Addressing Management Functions

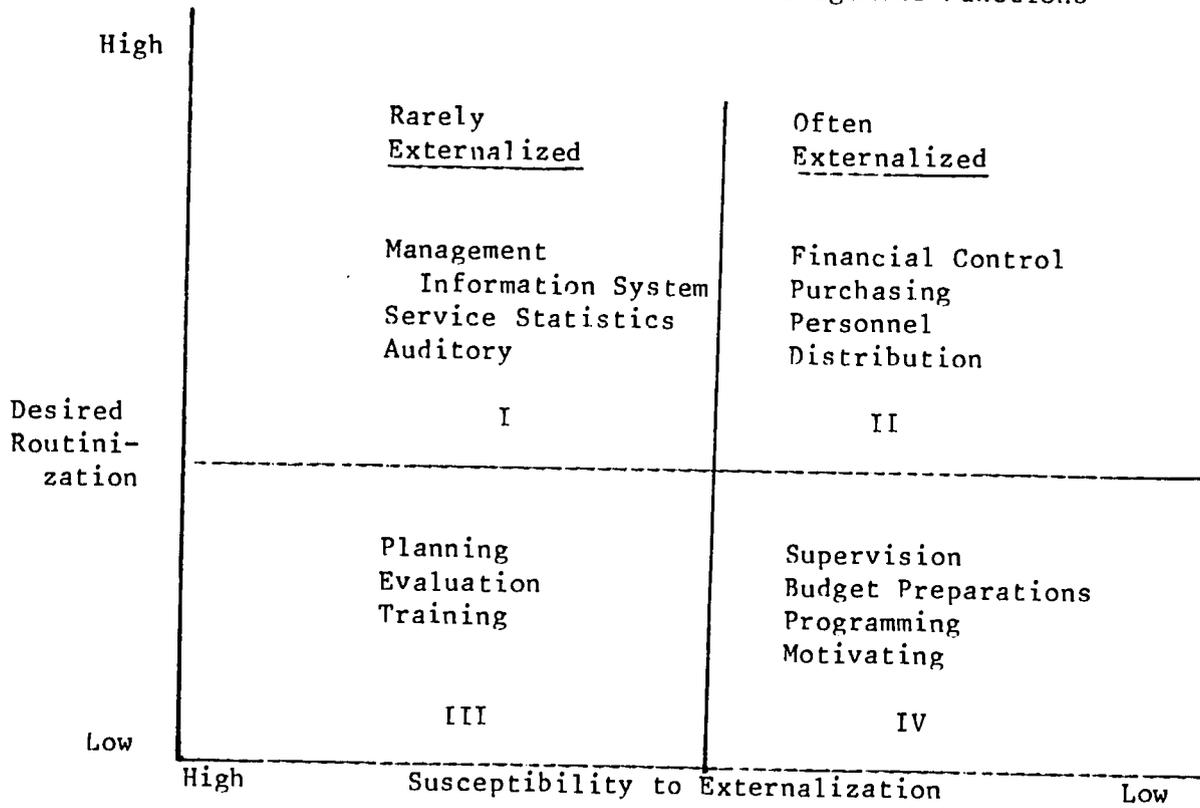
We have suggested that the distinctions between procedures and process as well as the tendency toward externalization affect the way in which one intervenes to promote change in a functional area. There are some obvious implications: for example, if a functional area of management is susceptible to externalization, the intervenor places great emphasis upon motivating use of the system by the organization's officials.

To bring the two issues together, we prepared Table I, which follows. In this two-by-two table one dimension is the susceptibility to externalization of a function and the other is the degree of routinization desired in the functional area. We grant that both of these dimensions are continuous and we have chosen to employ only the end points. However, this provides us with four categories of management functions that dictate four different approaches to promoting change; this is an improvement over the standard single approach. We are aware that some functions of management do not fit comfortably in only one box on the chart, but this categorization is a useful point of departure.

We have filled the table with management functions of the MOH and assigned each one to a category on an a priori basis.

TABLE I

Routinization and Externalization of Management Functions



Before the reader springs to take issue with these assignments, let us enter a disclaimer: the boundaries of a functional area are imprecise in theory. Defining the terms used in the table is a ancient (and decreasingly entertaining) academic sport; personnel, for example, can mean the clerical activities that support recruitment, evaluation, or advancement, or it can encompass the revision of personnel policies at lofty hierarchical levels. The assignment we have given it is consistent with the more restricted definition because that is how the function was cast in the Ministry of Health.

With these initial assignments, we feel the implications for intervention are the following (listed according to quadrant number):

I. If an administrative function falls into the High Routine-Often Externalized quadrant, the task is to develop a system with the client and then motivate the client to use that system. This normally means that the organization's top managers see the system as responsive to their administrative needs. It is emphatically not enough that they participate in the design process; that merely creates transitory interest. They must be convinced of the system's usefulness to them.

II. Functions that lie within the High Routine-Rarely Externalized quadrant are the simplest to deal with. The intervenor need only sell the superiority of the proposed system, using directive techniques.

III. The Low Routine-Often Externalized functions proceed slowly. The personnel within those areas must possess broad knowledge of the purposes and techniques of the area and managers must actively manage and exploit these functions. The common state of isolation of planning, training, and evaluation testifies to how difficult it is to integrate them into program management. This problem is exacerbated when these functions are approached as distinct and separable from management. Our approach, though we had neither the resources nor mandate to work extensively in these areas, focused on the management utilization problems. Our exercises allowed line managers to specify training needs or planning requirements. Although much of our work involved exercises in planning and evaluation, we generally avoided any approach to these

functions as "systems" per se, which, we feared, would only contribute to the perception that these areas were the purview of foreign consultants.

IV. Low Routine-Rarely Externalized functions primarily require increased knowledge of the personnel in the area. Since there is little danger that the function will become externalized it is possible to spend less time on the utilization issues. Our experience in Jordan and elsewhere has been that managers will, for example, supervise more once they have been taught how to do it. Our emphasis when addressing functions in this quadrant was on raising the skill level of the individuals responsible for conduct of the activity.

Table I. contains, as stated earlier, a priori assignments and a point of departure. Circumstances can, and did, modify our approach from that indicated by the table. Most notably, we found that the financial control function received little emphasis in the Government of Jordan. Consequently, not only was system design indicated (quadrant II.) but also financial managers had to be motivated to use the system; the approach needed was closer to that of quadrant I.

We do believe we can offer a broad generalization (that we may later regret) concerning the relationship between the dimensions of routinization and externalization, and intervention approach. As the functional area becomes less susceptible to routine (moving downward in the table), the intervention focuses more on education, less on systems design. And as the functional area is less prone to externalization (moving to the right on the table), the intervenor can become more directive in approach.

### Objectives

We have not stated our objectives, nor have we stated a goal or end point for the intervention. We envisioned a series of end points; if we achieved one, we would consider the next in sequence, as follows:

Objective 1. Problem awareness. The client becomes aware of the general magnitude and location of management problems. This usually, but not always, precedes the invitations to provide assistance.

Objective 2. Problem specification. Close analysis permits the client to specify the areas where changes need to be made. In effect, the client could take control of the change process at this point.

Objective 3. Ability to design solutions. Through training or recruitment of management specialists, the organization gains some ability to design solutions to current problems.

Objective 4. Design of solutions. Appropriate solutions are actually designed.

Objective 5. Knowledge of implementation practices. Designs do not implement themselves; someone has to think through the training needs, incentives, detailed procedures, etc. that are required to move from design to practice.

Objective 6. Implementation of the design.

Objective 7. Evaluation of the new system.

In turn, each of the above became the objective.

Objective 1.	Problem Awareness
Objective 2.	Problem Specification
Objective 3.	Ability to Design Solutions
Objective 4.	Design of Solution
Objective 5.	Knowledge of Implementation
Objective 6.	Implementation of the Design
Objective 7.	Evaluation of the System

Recalling the discussion earlier on directive/product-oriented interventions vs. nondirective/process interventions, we found that distinction bore primarily on the ability to design solutions, and the ability to implement solutions. We found the key variable to be whether a system required frequent revision or could be routinized. In systems where there is no benefit from making constant changes (like accounting or logistics), the requirement to equip those managers with design and

implementation skills becomes less compelling. In contrast, those become very important objectives for areas such as planning, supervision, and goal setting.

Not every intervention follows this sequence. There are many shortcuts. If one aims from the outset at implementation of a system, e.g., planning, it is tempting to recruit a few counterpart officials and give them in-service training on the mechanics of the system. The basic disadvantage of this approach is that if something goes sour along the way and the project falters, virtually nothing is left to the client. In development work, many misfortunes can derail a project: the guarantors can quit, be exiled, or lose interest; the intervenor can lose credibility; the wrong political faction can take offense or alarm; or other events can distract attention.

Our conservative strategy limited us to just what we could handle in the immediate future. This gave withdrawal points that would not embarrass anyone but also ensured that the Ministry would not be left with bits and half-assembled pieces of an inoperable system. We managed this in the accounting area over a rather lengthy process.

There was little MOH awareness that the accounting area required attention; indeed, one needed to be familiar with sophisticated accounting systems to comprehend the improvements that were possible. The original AUPHA report to the MOH, drafted by two consultants without specific expertise in financial management, cited the area as deficient and alluded to general changes that might be required. The MOH discussed and accepted the assessment (objective 1), and the AUPHA team brought in an expert in financial control during the third visit. An in-depth study with the chief accountant, including a questionnaire to all hospitals on the budgeting process, detailed many areas of financial undercontrol and system inefficiencies. The second-level objective had been reached.

The third-level objective is the ability to design solutions. This proved to be a protracted phase as so few people in the MOH had any formal training in financial management. Activities included a seminar held for sixty accountants and an "experiment" in one region to demonstrate that cost data could be captured. The steps in the accounting process were traced in a flow chart by the operators of the

system who formerly had not been aware of the total process. By the end of March, 1981, we could see a cadre of individuals within the MOH who could make useful improvements in the accounting system. We also noted that Jordanian law and practice provide little incentive to tighten financial control. It is quite a permissive system, perhaps a testimony to the basic honesty of Jordanian public officials.

We determined that we could begin work on the fourth-level objective, design of an improved system. The findings of the "experiment" were consolidated, new ledgers were printed and distributed, and each district accountant spent two weeks of in-service training in the central office learning the procedures.

The fifth-level objective is to impart implementation skills to the client. We presented a detailed program to the Ministry that included training by Jordanian agencies. The training programs did not come off and the MOH asked that the AUPHA consultants continue with the implementation. Here we violated our own rules, and skipped the fifth objective and proceeded to implementation.

Implementation activities began in June and August of 1981. We held two seminars to instruct and motivate MOH directors in the use of financial data. We checked the level of compliance with the recording requirements. We also trained regional accountants, but we consider this phase still incomplete, contingent on funding.

As we terminated assistance at the close of any step, the MOH could have proceeded independently. We based our decision to continue on positive answers to four questions:

- Have the necessary tasks in the preceding phase been completed?
- Do conditions remain favorable for continued change?
- Will our involvement accelerate the pace of change?
- Do we have the resources to complete the next phase?

The answer to the last question became less sure later in the project. Funders become justifiably suspicious of requests to continue a project when they believe, as they should, that a logical end-point had occurred. The funding mechanism of most donors would seem to mitigate against projects with a series of go/no-go points. It worked reasonably well this time because the USAID mission was flexible and we had several activities underway with the option of moving resources where needed.

### Addressing Managerial Orientation: Methodology

We have concentrated our discussion on functional management to the exclusion of the results on managerial orientation. We did note earlier that we did not believe it possible to design an activity called "Making you think like a manager." Nevertheless, something similar is often needed. People do fall into routines that survive the purposes that their jobs should accomplish. As we have mentioned, many public health management positions are held by physicians with training that keys on curing a single patient. This is inconsistent with the preventive and cost-benefit perspectives required of the public health official.

We believe the essence of the managerial orientation is that objectives be consistent with needs, and that activities contribute to those objectives. We attempted to frame our strategy around those elements.

### Objectives

The first requirement for addressing managerial orientation is clearly stated objectives. The second is for commitment to those objectives and the third is for communication of the objectives in the form of action directives to operating personnel. Where objectives are absent, as was the case in Jordan, it is necessary to construct mechanisms for their development and dissemination. We employed a method that may be transferable to other situations. We created an exercise that permitted MOH officials to combine information on the prevalence, severity, and managability of diseases into rankings. (For this exercise and others mentioned later in this report, see the separate working paper entitled "Management Development Exercises Used by the Ministry of Health in Jordan.") This exercise led to an unambiguous set of disease priorities.

The second requirement, a demonstration of commitment, is necessarily situational. We felt that in the absence of a formal mechanism to announce objectives, a published article under the

Minister's name would suffice. To that end, an AUPHA consultant coauthored an article with the Minister and Director of Basic Health Care. It described the process, results and implications of the new objectives. The article was submitted to the national medical journal as we felt that this provided the adequate dissemination and differentiated the statements from "politically" inspired announcements of objectives.

The actionability of objectives customarily means that they be translated into numerical goods or targets. This is a difficult step, if for no other reason that it introduces a new level of accountability throughout the organization. We have worked in this area from the start and still have not achieved total success: the exercises on information systems and supervision contained sections that required the specification of indicators that would serve as goals. The exercises on objective setting and programming asked participants to set numerical goals. We completed all the exercises so there is a cadre of officials who are conversant with goals and targets in public health. Further, the information system has been shifted to report goal-related performance. Supervisors' guides include performance checks in these areas, too. What is still lacking at this writing is the numerical target. While the Ministry agrees that rheumatic heart disease is a priority disease, we still have not set numerical targets for its incidence in the future or for activities to control it. It may appear ambitious but goals are such important motivating devices that continued work here seems justified.

### Activities

As part of managerial orientation, we would hope that a manager can determine when activities contribute to goal attainment or when they do not. Almost every activity makes some contribution, but logic has to be stretched. The manager must judge the activity and then interpret performance data. The AUPHA project at no point tried to teach judgment; however, we did feel that we might explore the uses and interpretation of performance information and did so in three short seminars. In the first we worked with data from existing service statistics to demonstrate two points: that data tell nothing until interpreted by the manager, and that existing statistics provide a wealth of information.

The second seminar used an in-basket exercise to teach some data-based decision tools and to examine the decision making style of the directors. The third seminar focused on the use of financial data in decision making. The common thread in all three seminars weighed the costs of a present activity against its demonstrated benefits, and is likely the closest "judgment" activity we tried. These seminars were also about as near to a "managerial orientation" as we felt prudent. In the remainder of the effort we worked on management functions using the methodology described below.

### Improving Management Functions: Methodology

The literature on change and innovation has only recently distinguished between the adoption of an innovation and its utilization. This distinction became evident from studying the adoption process of administrative innovations. If a farmer adopted hybrid corn, researchers sanguinely assumed that the farmer would plant and harvest it. Not so with many administrative systems: we know, for example, that many computerized information systems have been purchased by organizations but not utilized. The same may be said for evaluation, planning units, supervisory reports, and control systems all through the entire lexicon of administrative systems and appurtenances. The tactics employed to gain adoption are different from those to encourage full implementation. We treat the two separately below.

Gaining adoption comes through either one ally inside the organization who can influence the adoption decision or through outside power sources (donors) who can often force grudging adoption. We know, however, that heavy-handed or quick-sell methods used to gain adoption will militate against utilization. To promote adoption in a manner that would not impede ultimate utilization or change, we settled on the following four principles:

1. Novelty. We presented or packaged the changes innovatively. For training, we used role plays, in-basket exercises, workshops, and programmed instruction. The officials of the MOH were unfamiliar with these methods, and the new material motivated a high involvement.

2. New perspectives. Beyond packaging, we stressed that the substance of our approach offered a new perspective on and response to their problems. The client is probably right when stating "We already know our problems and the conventional remedies have been tried." But we hypothesized certain conditions within the process and showed how they would lead to creative solutions and outcomes.

3. Explanation of process. The salesman's adage that you sell the sizzle not the steak is advice that applies primarily to one-time sales. We covered the whole process.

4. Reflections of client concern. Though obvious, it is perhaps slighted in practice. Most, but not all, of the work proposed must bear on areas identified by the clients.

We used the following principles to encourage utilization:

1. Relevance to needs. As just noted, not all of our work was directed to "client concerns." Where not, we described the problems that we saw and how this responded to them.

2. Minimal threat. We regret that our approach to the reduction of threat is buried in the text of this report, since we feel that it was creative and a key to success. In most instances, we attempted to use an exercise that led the officials, step by step, through the design of a particular management system or through the solution of a given problem. We felt that this process enabled the participating officials to gain

insight into the process and gave them a product at the end. We will discuss the design exercises further in the section III., Implementation of the Strategy. We developed the exercises to minimize three categories of threat that might have discouraged their use:

(a) Revelation of poor individual performance. Many written aids and exercises are designed to help managers find problems. There is a limit to how far one should go here. Recall that our second-level objective identified specific areas that could benefit from changes; it was not to amass evidence of guilt. We did not intend to expose specific deficiencies and embarrass anyone. We also did not believe that most systems could be improved by piece-meal fixes to the specific problems unearthed. Once the client organization indicated a willingness to work in an area, we provided design exercises that took the participants through the process of system redesign or problem solution almost as if no prior system existed. Threat of embarrassment to any one person was minimized.

(b) Overload syndrome. Health managers are usually very busy people; they have assigned responsibilities and any collaboration in a change effort is an overload. They need some assurances of the dimensions of the additional job that they are asked to do. We designed our exercises so that they could be accomplished in a short period of time and with an end in sight. Further, when officials completed the exercise, they had a product that was useful in itself and not simply the input to another exercise.

(c) Appearance of ignorance. Most exercises, ours included, require that the participant bring certain information to them. We were generally concerned that we not gauge the exercise at a level above the knowledge of the officials. That did happen once, and it was the only exercise not completed. The participants were critical of many aspects of the exercise, and we expect that it sprung from defensiveness.

Continuing with our list of principles to encourage utilization, we used:

3. Trialability. Utilization is less likely if there is no going back. None of our systems work was irreversible and, as we discussed earlier, there were many points at which work in an area could have been suspended without difficulty.

4. Immediate feedback. Utilization should be enhanced if there is positive reinforcement for the early trials. As noted above, the exercises all produced immediate and usable products.

5. Use of local examples. All materials save one exercise were developed in the field with the Jordanian situation in mind. We assume this promoted perceptions of relevance.

6. Compatibility with existing resources. A change is not likely to survive if it requires other extensive changes to accommodate it and this is especially true if it requires new resources. Our work usually included an analysis of existing resources and constraints on change.

7. Sequencing. Some changes smooth the way for others.

(a) Efficiency before effectiveness. It is easier to gain support for changes if initial changes result in less, not more, work for the organization. Additionally, the resources freed by the efficiency-enhancing changes can then be used in the changes designed to boost effectiveness. For example, in the accounting area the first concrete change we introduced, posting personnel changes, reduced the time required for a task from six weeks to six hours. Our credibility soared with that group and the difficult tasks of improving financial control were undertaken with grace.

(b) The starting point. Conceptually it makes sense to start, as textbooks on public health do, with organizational goals, then objectives, followed by operations, support, or evaluation. However, things are rarely as simple in practice; one chooses a starting point on the basis of expressed needs of the client, opportunities to produce a quick and visible result, the greatest needs of the client as perceived by the consultant, and so on. In our case there was a fortunate coincidence among the client's expressed needs, our perception of the needs, and the theoretically ideal. The MOH recognized that the services provided were not well matched to the health needs of the population.

Thus there was an opportunity to work on objectives, goals and policies. Further, there was longstanding agreement that the Ministry had outgrown its organizational structure and our first assignment entailed redesigning the structure. While no rational outsider relishes the task of redistributing power and resources within an organization, this did provide an opportunity to increase the visibility of new priorities in the organization. It ultimately also provided entry to every administrative system. While we would normally pick almost any task other than restructuring as the initial one, we had little choice. In fact, we stalled for time on the structural issue while attempting to establish a minimal level of credibility.

There may be little benefit in trying to establish a firm strategy in the sequencing of tasks because the intervenor has so little control over the starting point. Once that point is established, the ordering of tasks can readily occur.

Our work divided naturally between operations and support systems:

- On the operations side, we inventoried the total resources of the MOH and their level of utilization. We fed this into operational programming and when the contractor's team responsible for planning arrived, we handed programming over to them. Our attention then turned to translating objectives into unit goals and field supervision.
- On the support side, we began simultaneously on the information and financial control systems. We tied information into goal setting activities and we attempted to link budget preparation to planning. We also provided training on methods of supervision and shepherded the development of a formal supervisory system.

FOOTNOTES

1. Summarized from F. Steele, "Is the Culture Hostile to Organization Development? The UK Example," in P.H. Mirvis and D.N. Berg (eds.) Failures In Organization Development and Change, New York: Wiley, 1977.

2. Summarized from R.T. Golembiewski and D. Sink "OD Interventions in Urban Settings I: Public Sector Constraints on Planned Change," in International Journal of Public Administration, vol 1, #1, 1979.

### III. IMPLEMENTATION OF THE STRATEGY

#### Entry

The Director of AUPHA's international project made his first visit to Jordan in 1974, when he conducted a health sector assessment for the Kingdom. In 1978, after AUPHA's Health Management Appraisal Methods Project had been created, he was again in Jordan to discuss the purposes of the project with the then Minister of Health and USAID officials. That same year a cable to USAID/Amman provided a further, albeit general, description of the project. AUPHA wanted to work in Jordan to test the project; however, since the emphasis was upon the experimental nature of the assistance and this may have deterred interest, no invitation to AUPHA came from Jordan in 1978. The focus of the project was changed during 1979-80 and the emphasis shifted to providing technical assistance in health management as requested by USAID missions; field experimentation with AUPHA's management assessment modules was played down and in early 1980 a second cable went out describing the redefined project. This time there was a positive response from the USAID mission in Amman. The AUPHA International Director spent three days in Amman discussing the aims of our project and how it might meet some of the needs of the Ministry of Health.

The principal actors at that juncture were:

The Minister of Health. He had been appointed only six weeks earlier. His previous experience had been in the private sector and some of his medical training had been in the United States. He had a mandate to revitalize the Ministry and he recognized immediately that the administration of the organization was awkward and perhaps inimical to the objectives of the MOH. He may have felt that the U.S. had a lead in management practices.

The USAID Health Official. This man was a friend of the Minister and widely respected in the Jordanian medical community. He vouched for the competence of the AUPHA representative and urged the Minister to give him a hearing.

AUPHA International Director. During his occasional trips to Jordan over six years, the AUPHA representative had met many MOH officials. Although most of the visits were not part of "high visibility" projects, the health sector assessment had received the blessing and encouragement of His Royal Highness the Crown Prince. Other Ministry officials were heartened by the fact that he knew their situation and, unlike many technical advisors, was not linked to aborted projects, data exports, or condemnatory reports. They had no reason to distrust him and perhaps felt justified in listening to him.

The three days of discussions led to an agreement for AUPHA to examine the administration of the MOH and recommend necessary steps. This was clearly an invitation to make a general proposal and an opportunity to establish credibility within the MOH.

One week later the AUPHA International Director returned, this time in the company of a U.S. management professor who had experience as a consultant to Latin American health programs.

Objective 1. Problem Awareness. Common to most such projects, the first objective had already been met when work started; the Minister and Undersecretary recognized that the Ministry's administrative apparatus was out of date. The officials initially focused on the extreme centralization of decision making: for example, they had to approve leave requests for every employee in the MOH. Information, supervision, and financial control were also cited for deficiencies. Most believed that the administration was inadequate although not every senior official agreed on the same set of solutions. Some felt that nothing could be done without a change in the Civil Service Law.

Objective 2. Problem Specification. Upon entry, we saw three linked tasks awaiting:

- Provide the MOH with a clear and actionable understanding of management areas where they could make improvements (problem specification or objective two);
- Establish credibility in order to accomplish that; and
- Perform our specific assigned task of proposing a new organizational structure so well that our credibility was assured.

However, in the best of circumstances, a restructuring is going to raise anxiety levels and in the end some individuals are going to lose ground. The MOH did not present the best of circumstances: twenty-three officials reported directly to the Minister. That number would have to be pared back. Further, a group of officials had been wrestling with the problem for eighteen months; their inability to move more rapidly testified to the depth of resistance to change. The organization chart that they had finally produced could not be ignored. As an aside, restructuring is always a difficult consulting area if for no other reason than everyone is an expert. It only requires a pencil and straight-edged ruler. We were presented with four different proposed charts the first morning we arrived. We knew that becoming prematurely involved in the debate on structure could lose us credibility forever; we needed to buy time while establishing credibility in other ways. Since the credibility issue is one faced in nearly all technical assistance work, and is frequently a stumbling block, we will first discuss how we approached the problem.

### Building Credibility

There should be no argument that personal credibility is a function of both style and performance. One can distinguish between expert credibility (technical expertise) and trust credibility (non-threatening). In so far as the AUPHA International Director had established a small reservoir of trust credibility over the years of sporadic contact with the MOH, he immediately began to promote the "expert" credibility of his colleagues. He touted credentials, recited slightly garnished reports of previous experience, and artfully suggested integrity and competence.

We enhanced our credibility by asking intelligent questions that demonstrated a genuine interest in assisting the Ministry. Here we found that there was a clear expectation that we provide recommendations to improve situations. These were not broad, general recommendations, but rather specific suggestions to resolve a complaint or problem under discussion. In effect, we had to pay our way on almost a daily basis.

The second device that promoted credibility was a report that we presented at the end of the two-week visit. That lengthy document catalogued the problems of the MOH in gentle and indirect terms and established beyond refute that we had done our homework. We knew the Ministry of Health. The scope and length of the report may have been important in themselves. The MOH officials work very hard and do so for less pay than the consultants received; the report was tangible evidence of many eighteen hour days.

The report was more than a gambit to enhance our standing. It was a key activity in achieving the second objective, specification of the MOH's administrative problems. The report described those problems and in fairly bold language asked: if the Ministry agrees with this assessment, is it interested in the next step of working toward solutions? We expected a positive answer, as we had explored the issues in conversation with the Minister. In effect, the second-level objective had been achieved and we were proposing to move on to the third. We proposed to work with teams of MOH officials to enhance the officials' abilities to improve the functioning of several administrative areas.

### Organization Structure

The initial assignment involved reorganizing the structure. There were evident problems of over-centralization and a broad span of control. Further there was disagreement in the field over the attributions and responsibilities of positions.

The Kingdom as a whole was committed to decentralization to five regions. While the nature of public health services delivery in Jordan was not greatly favored by a regional structure, it appeared to be a surmountable impediment.

The team of MOH officials who had wrestled with the structural question for months prior to our arrival, had focused exclusively on how the organization should be "differentiated," e.g., what labels should be placed on how many boxes in the organizational chart. The other half of the process, integration, consists of connecting the disparate pieces of the organization together.

Objective 3. Learning to Design Solutions. We were not concerned that MOH officials became experts at organizational design; it is a task that need not be undertaken that often. Consequently, we moved quickly through this objective. We made sure they understood the process and could take the lead in one important area, that of clarifying the roles at all upper levels of management. We had observed two phenomena: the widespread disagreement over the authority and responsibility of line officials, and the plethora of standing committees to handle simple, almost clerical, problems. We tried to enhance organizational clarity with the introduction of the Approval Limits Manual. We developed an exercise to identify the bulk of the administrative decisions in the organization.

To address the more traditional issues of restructuring, we made a two-hour presentation to the twenty senior officials of the MOH on the principles involved.

Objective 4. Designing a Solution. At the end of the lecture we unveiled our proposals and solicited comment. In effect, we proposed four staff divisions of curative medicine, basic health care, administration, and planning and training, as well as a shift of line responsibilities from Amman to the five regions. We further described the "integration" work that accompanied this structure. We wanted to enhance the visibility of primary care while simplifying operational management. There seemed to be a favorable response to the proposal with some minor amendments; the fourth level objective had been achieved.

Objective 5. Learning to Implement. Implementation of any structure drags on for years; in the final analysis it may be only partial at best. Three implementation tasks confronted us:

- revision of all of the administrative systems to bring them parallel to the new structure;
- definition of the responsibilities of the principal actors in the new system; and
- preparation of that group to assume those responsibilities.

The definition of responsibilities, we thought, would come out of the approval limits work. It might have, but the initial response to that exercise was so cool that we substituted an approach that did not array the comparative power of individuals in such stark fashion. We fell back on job descriptions, asking for written job descriptions from the occupants of the new positions. Our objective here was for them to think through the job as well as the relationship of their position to others in the organization. The job descriptions were completed with somewhat greater zeal than the approval limits exercise, and the manual provided a neat closure on reorganization activities.

We also needed to prepare individuals, particularly regional directors, for their new responsibilities. The workshops we gave on "managerial orientation" were directed primarily at the region directors. Other training activities focused on the slightly changed roles of central office staff who would need to perform more field supervision. We prepared a seminar on supervision for this group and both groups participated in workshops on programming and information systems.

Objective 6. Implementation. As we said, organizations are always in the process of implementation. Two events, approval of the new structure by the Council of Ministers and completion of the job description manual, might have signaled achievement of this objective level. However, we continued to work throughout the project to improve clarity within the organization and strengthen the management capabilities of the new line managers.

### Objective Setting

When the Minister took office in early 1980 he found that one third of the deaths in the Kingdom occurred to children under five years of age. Yet maternal and child health programs and several other primary care programs shared only 8% of the budget; 73% went to curative services. The Ministry was well aware of the dimensions of the problem, so we entered at objective-level three.

Objectives 3. - 4. The exercise we developed for the MOH led to a new set of rankings of diseases.

Objective 5. The first group to conduct the exercise distributed the instructions to others in the Ministry. We understand that a few people went through the steps but that most just read it over. As part of this step we should make reference to the new organizational structure that reinforced the shift in relative emphasis.

Objective 6. De facto implementation within the MOH of the objectives occurred in 1980. But the old priorities still have some momentum. Further, the MOH has only limited control over its construction budget. We were dismayed to learn that higher governmental authorities had influenced the inclusion of hospital construction monies for the five year plan. It might be technically accurate to say that objective 6 had been achieved; but a broader view of the objective setting process reveals that the situation has been improved, but not in a revolutionary fashion.

### Information

With decentralization comes a desire of top management for more complete and accurate operating information in order to monitor field activities. The basic problem that we perceived in the MOH was not a lack of data, but its under use. In fact, some aspects of the information system were quite good, notably the infectious disease reporting system. Our goal was to put the data users/managers back in control of the information system. In other words they should define their needs and the system that would respond to those user needs.

Objective 3. Learning to Design. We went immediately after our main agenda item and conducted a workshop on information systems. In that workshop we ran through an exercise that emphasized the managers perspective on information requirements.

Objective 4. Design. At the conclusion of the seminar, a team was appointed to carry out the full exercise that would specify the kinds of data the managers wanted. As always, the team faithfully complied. The recommendations seemed unambiguous and actionable.

By this point, the contract for health planning assistance with Westinghouse Health Systems had been negotiated, and a full time technical assistant had arrived, supported by temporary duty experts. We arranged for the merging of our work with theirs. They wanted to begin with a pilot project so the MOH team that had defined information needs agreed to work with the contractor's group that focused primarily on data collection. We thought that this would be the end of our involvement but when the contractor's technical assistant left, we re-entered to maintain the momentum that had been developed.

Objectives 5. - 6. Since the other contractor expected to implement the information system, we tried to maintain progress toward commitments made by the data collection project. We met with the data collectors and managers from the pilot area and finalized forms for both data collection and presentation. We do not know if these have been implemented since our departure; it may be that the MOH is awaiting the arrival of the replacement technical advisor to participate in that aspect of the project.

## Supervision

As with data systems, decentralization produces a desire in the central offices for more "soft" information such as supervisors provide. Our initial assessment showed that supervision was conducted by only a few people and all but one of those tended only small, vertically integrated programs. We also observed a tendency to ignore distinctions between types of supervision; the role model often appeared to be a drill sergeant. We wanted to achieve two things: (1) a substantial increase in central office supervision and (2) separation of supervision of a monitoring nature from that of teaching and motivating.

Objective 3. Learning to Design. As we often did, we began our work in this area with a workshop. In that, we conducted a role play experiment that contrasted three styles of supervision. Such experiences may seem familiar, but it was the first such training activity in the MOH. The results of the experiment were, happily, unambiguous: authoritarian supervision was associated with the lowest performance in all circumstances; affectionate supervision was linked with the highest performance when the supervisor remained with a single work group; a results-oriented style of supervision was associated with the highest level of performance when the supervisor had to move from work group to work group.

These results were not anticipated by many participants and led to animated discussions. Central office supervision went up markedly; and we conclude that the officials were quite willing to supervise once they were confident that they were doing the right thing.

We also wanted better differentiation among the purposes of supervision. In a second workshop, we introduced the participants to three objectives of supervision: to monitor, to teach, and to motivate. An exercise permitted application of these concepts and we brought in more short role plays.

Objective 4. Design of a Solution. We followed up on the exercise used in the second workshop. Once we were satisfied that the objectives of supervision were well understood, we directed three teams to prepare guides, checklists, and goals for supervisors to use. (Here there was a

four-month hiatus since the team assignments had fallen through the cracks. This, miraculously, was the only logistical/communication breakdown between the MOH and us during the consultancy. (This did, however, throw us off schedule and we got no further than objective 4.) We met with each of the teams and they prepared inspection checklists for each operating unit. Teams also established training objectives for health practitioners, and identified indicators of performance for all operating units. These documents were impressive in their breadth and thoughtful detail. They were to be presented for adoption recently; we do not know the outcome of that presentation.

### Financial Control

Imagine that you are the director of a major operating division of an organization. Now imagine that you are not limited by a budget. When you have an idea to carry out, you simply petition for the resources. Your requests are usually granted. Now to complete the dream, imagine that you never have to account for how those or any other resources are spent. Wake up. You have just imagined the sunny circumstances of an MOH regional director. You can perhaps see that these directors would be reluctant to embrace the headaches, additional work, and accountability that accompany budgets and financial controls. We needed to proceed through the objectives towards implementation of an accounting/budgeting system but also to motivate use of that system.

We briefly described earlier how we had pursued change in the accounting area; here we will add only a few details.

Objective 2. Specifying Problems. Unlike the other functional work, there was little initial MOH awareness of problems in the financial control field. The report that detailed problems in other areas made only general reference to financial control. That report was sufficient to raise concern in the Ministry, and the AUPHA financial management specialist, an expert in public sector accounting, joined the team in June, 1980. She had previously worked on the development of an assessment module in financial control for AUPHA. She used a draft of that module to guide her assessment of the Ministry's system. She found

that only one person in the Ministry seemed to understand the entire process. That employee continually threatened to leave for a better paying job in the gulf states. The paucity of documentation to guide any successor left the system vulnerable to collapse. Costs were not recorded by cost center, e.g., regions, hospitals. Although clerk-accountants were to be found in hospitals, health centers, and district offices, their function was to keep track of the fees that were paid by patients. There was a general ledger for the entire Ministry with the usual line items but there were no subsidiary ledgers, nor were there cross references to personnel records.

The immediate task was to document the existing system and spread some of the chief accountant's knowledge to his subordinates. To that end the major routine procedures were flow-charted (for example, budgeting, advances, trust accounts). At this point we entered the process described earlier.

Not yet discussed were the problems of motivating use of the system. We felt that management control of finances had to be conducted at more levels than the overall Ministry. Possible cost centers were regions, districts, hospitals, and, in some instances, programs. We had to balance our desire for a finer breakdown in responsibility centers with knowledge that the "accountants" in the system could not handle too much, and the managers would not take interest in a complex and taxing system.

In light of these circumstances, we modified our basic strategy. Normally we would be fairly directive in working in the accounting area and we would largely ignore objective 3 on learning how to design a system. However, we decided that participating in the design process might pay handsome dividends when it came time to implement the system. The sense of ownership that the officials would feel over the system would encourage their continued participation in it. However, we did not expect the directors alone to design a reasonable system; in fact, their proposals were for a more complex system than the clerks-accountants would be able to support, at least initially. To arrive at a feasible system that satisfied the interests of the directors, both accountants

and directors were brought together in a one-day workshop. This workshop culminated a year-long series of activities.

We first assessed the capability of the accountants and existing records to capture cost data by responsibility center. A pilot or experimental region undertook this for over half a year.

Second, we trained the clerks who would be involved. More than sixty of them attended a seminar that introduced the logic and language of simple accounting systems. Then the head accountant from each district came to the capital for two weeks of in-service training to learn the Ministry's procedures.

Third, the district and regional directors were trained in the management uses of financial data, such as interpretation of variances and cost analysis.

This overview leaves out the changes and refinements that were introduced to the central accounting system along the way. When we felt that we had reached a point where expectations for progress were somewhat in line with capabilities, we brought the regional accountants and directors together to design the decentralized financial control system. The resulting design was not radical by private sector standards but was revolutionary in comparison to what had existed in the MOH.

At the present writing we stand somewhere between objectives five and six (implementation stages). Budgets by cost centers have been prepared for the coming fiscal year and a system for controlling those budgets is in place, though everything is still rather untested. We predict that the budgets will require extensive revision very early in the fiscal year as they were prepared without benefit of historical cost data. This rebudgeting may be a discouraging and arduous process; if there is a single important task remaining in this area, it would be to prepare the MOH for that rebudgeting process. Beyond that we can envision a series of incremental improvements that might be introduced over the years. A finer breakdown of cost centers will probably be requested by the directors; double entry accounts are a distinct possibility; more program budgeting and control will be introduced; and the system already needs a greater degree of mechanization. The key to continued improvements in financial control will be the interest and

commitment of the directors. In the absence of precedents or legal requirements to assume greater responsibility for financial control, their present enthusiasm seems to be sustained by their curiosity about a novel system, their feeling of ownership of that system, the sense that they are pioneers within the public sector, and their general feelings of responsibility to their government, organization, and profession.

### Inventory of Resources

Before any organization can chart a new strategy, it needs a clear idea of its resources. Given the rapid growth of the MOH and the absence of a centralized collection point for information on resources, the new Minister had only an approximate idea of what was in the field and very little definite knowledge of the level of utilization of those resources.

Taking an inventory of resources is a task, not a functional area, and we approached it in that fashion. We emphasized that the Minister needed to know what he had to work with, in terms of people, facilities, equipment, and vehicles. We provided a simple one-page guide and turned the job over to two of the brightest and most energetic officials within the Ministry.

The results were astounding. In two hectic weeks, they not only performed an enumeration of resources, but they went well beyond to assess the level of utilization of a large sample of the personnel and facility resources of the Kingdom. Attached are a few pages extracted from their voluminous report to the Ministry (see Appendix A; the original is in Arabic). We were so impressed by their ingenuity that we rewrote the guide to reflect their approach.

### Programming

Programming in the Ministry came primarily in the vertical programs that had experienced rapid growth. Stable, broadly integrated programs do not lend themselves well to detailed programming. Two changes were occurring in the Ministry that made operational programming more feasible and necessary:

- (1) Rapid growth of the MOH's budget. The new resources offered an opportunity to evaluate how activities might be developed.
- (2) The creation of regions as resource controlling units changed the level of analysis. Previously, the choices had been to program at the central level or at the facility. Since integrated programming at the central level was a near physical impossibility, programming responsibilities were quite decentralized. This resulted in very little coordination among programs and facilities.

We saw an opportunity to change this situation. In pursuit of the second objective, we gave the Ministry some detailed examples of lack of coordination between units. With a new set of objectives, a complete inventory of resources, and a manageable unit of program integration, improved programming became a desirable goal.

Objective 3. Learning to Design. We realized that programming required a flexible set of skills combined with the will to shift resources where indicated. Since the principles of programming are straightforward and the techniques may occasionally tend to the mysterious, we saw the need to link the staff work of programming to operations. Line managers had to participate in the process but could not be expected to master all of the intricacies of the art.

We began by developing an exercise in programming that laid out the concepts and logic of the function and asked three individuals to work through it for a few programs. This they did and one of them proved quite proficient at programming. The presentation to the district directors received mixed reviews. Some quibbled about the demographic data included, but all professed to view this as a useful approach to better management of their districts. (Regions did not formally exist at that time.)

Objective 4. Design. The "programmer" arranged visits in each region to assist in operational planning. Before that could happen, however, the contract for technical assistance in planning began and our programmer was assigned as a counterpart to those contractors. This seems like a natural assignment and we would hope that the operational planning activities can be continued in the near future.

"Casual" Assistance

Consultants often find targets of opportunity which are too attractive to pass up. They may also receive special requests to address a problem that has assumed momentary importance. During the eighteen months of our association with the MOH a few of these tasks arose. Since our agenda was always so crowded with our own work, we did not encourage extra projects. However, we did analyze the financial situation of the University Hospital and the data processing needs of the MOH. We also made small contributions to other functional areas when that was convenient and useful. For example, although we felt that supply was not a problem area that demanded our attention, we did prepare a design exercise on inventory control that was duly followed and incorporated at the warehouse.

On at least one occasion we aborted work when it appeared no longer necessary. As with most public health organizations that we know, the staff perceived themselves to be almost criminally underpaid. We heard constant grumbling about this and viewed a crisis when the government, as part of a general retrenchment policy, reduced the pay of many physicians. Routine work paused within the Ministry as bitter conversations occurred concerning this latest injustice. We had observed that the Ministry had control over several incentives that had not yet been fully exploited and that a broad-ranging review (i.e., beyond tomorrow's paycheck) might be helpful. We developed an assessment exercise to guide such a review and presented the Minister with the proposal. In our framework, we were working on objective 2, specifying the problem.

Shortly thereafter, the pay issue was resolved in part and the challenge of a major epidemic boosted morale within the MOH to new levels. We saw little purpose in stirring up debates on incentives and we let that project drop.

#### IV. EVALUATION

The reader can readily see that we are going to declare ourselves winners. In response to the inevitable "Were you successful?" question, we can immodestly reply, "Yes, more so than we anticipated." We maintained our strategy and it did not fail us. The Minister is pleased with what has happened. And so is the donor. Before, however, we convey an impression of insufferable smugness, we add that we are mindful of a second question, "Can we claim the credit?" The answer is "no"; the Minister can. He took the risks; stayed with our proposals when it might have been more popular to jettison us; advised us, thereby keeping us out of many problems; and he, with only limited assistance from our group, continues to reform the administrative structure of the MOH. We will not lay claim to the role of sole helper either; the contributions of the USAID officials were extremely important, particularly during the first six months of the project. When the key official became ill and could no longer participate, his absence was keenly felt even though he had already assisted us over the more difficult hurdles.

Some major areas remain unanswerable, especially the survivability of the changes made. A second one refers to the process-product dichotomy that we raised earlier: we attempted to change both the processes ("results orientation") of management as well as the formal systems. We can demonstrate the impact upon systems but changes in process are so elusive that we barely trust our own positive assessment.

Perhaps a disinterested evaluator could come to terms with this issue, but we doubt it.

Within the project itself there are several variables that merit closer examination. We will address these and evaluate them as vigorously as the evidence permits; these are elements of the strategy and the methods employed in training, assessment exercises, and design exercises. Before turning to that, however, we would like to explore some issues relevant to the evaluation of technical assistance projects and their bearing on the evidence from this project.

### The Quality of the "Experiment"

Field experiments enjoy only limited scientific credibility. There are two complaints:

- $N = 1$ ; there are many variables at work producing the result and only a single observation. How can meaningful associations be made when there are multiple inputs and only a single result? This is a question of the credibility of the interpretation of the results.
- Uniqueness of field settings. Even if the experiment is, by some miracle, credible, the findings are not generalizable. The complaint runs that every experimental setting is in some way unique and when the settings are as complex as national bureaucracies the differences may begin to overshadow the common elements. Thus, what we learn in the Ministry of Health in Jordan may be meaningless in Ghana.

We do not question the general validity of these two caveats; however, both credibility and generalizability should be extended to field research findings by degree. The argument should hinge on the relative or probable credibility of an experiment. Similarly, we should try to establish how far we may generalize; it, too, is not an "all or nothing" proposition.

Credibility. In addressing the issue of credibility, we must ask if the results obtained may be plausibly traced to the inputs under the intervenor's control. That means eliminating other explanatory variables

that might have promoted the same ends. (This is distinct from significant constants, such as the Minister, that have an impact on generalizability.) Such variables fall into the following categories:

- Other management inputs: During the first nine months of the project, AUPHA provided the only formal management consultancy. When a second project did begin, it was restricted to planning and training. By the end of the AUPHA involvement, it had made significant headway in paramedical training but the planning/management effort had not yet begun in earnest.
- Personnel turnover. A field experiment is easily upset by the injection or withdrawal of key individuals. This did not happen; the MOH upper level staff was unchanged from start to finish.
- Continuity in strategy. Although there was a conscious desire to exploit the best opportunities first, the intervention strategy was never varied. Thus, we are evaluating one strategy, not several. We should add that a key element in that strategy, the design exercises, were tried under a variety of conditions; this helps somewhat in overcoming the  $N = 1$  problem.
- Ministry's agenda. Though we recognize that a recipient organization may implement a funder's project with greater zeal if further donations are expected, in this case the MOH appeared to want nothing further from AID. The MOH rejected one AID project and found their own funding elsewhere when AID's terms for a scholarship were not to their liking. The Ministry did not cooperate with the AUPHA consultancy just to make AID happy.
- Omens and crises. Dramatic events that demonstrate the need for better management did not occur. In general, we did not see major disturbing nor helping events. Change occurred because of the Minister's initiatives and the AUPHA consultants supported these initiatives with their work.

Generalizability. Can the findings from this experience be applied elsewhere? Anticipating the discussion, we will say yes, but we are less sure that they will achieve equal success. The Jordanian MOH was atypical of other health ministries in our experience in the following respects:

- The Minister. At the risk of repetition, this official is bright, aggressive, and politically courageous.
- The USAID health officer. A fine, well qualified man who was the Minister's friend and adviser.
- The administration of the MOH was less systematized than in most health ministries. Several officials were aware of this and hence receptive to improvements.
- The Jordanian MOH is wealthy relative to most other less developed countries' ministries of health. For the population it served, it had US \$20 per capita in its operating budget.
- A well educated, hard working group of top officials.

The Jordanian MOH was typical of other health ministries in the following regards:

- The profile of health problems faced could be drawn from many other countries.
- There was a small group of change minded officials that we connected with.
- The customary political/personal factions existed in the organization.
- They had little experience with management consulting and regarded other consulting efforts as having been underproductive.
- They possessed a vague sense of what was wrong.
- Most of the staff acknowledged the need for change but were skeptical that lasting improvements would be made.

In summation, we feel that the results are credible and that the ADP:IA efforts were a significant catalyst in the process that produced the positive results obtained. However, the talent of the people in the

Ministry, particularly the Minister himself, is somewhat unique and explains why so much could be achieved with modest inputs. We concur with the common observation in organization development that little will happen without involvement and commitment of top management. Thus, no similar effort should be undertaken without clear indications that top officials will support the project. We do regard the support we received as being well above the norm; we estimate that replications of this experiment would be successful but intervenors should not expect as much progress on as many fronts.

#### Evaluation of the Strategy

We are pleased with the general strategy and we recommend it to others engaged in similar work. The multiple or escalating objectives seem prudent for most change efforts, particularly if one acknowledges that development is often a halting, complex process. One may reach a plateau and have to wait for conditions to change before further progress. Our approach permitted us to leave an area, confident that little developed to that point would be lost. Momentum is sometimes important, but that is not the only criterion. As an example of the utility of the escalating objectives, we could turn over the work on information systems to another contractor without concern that our own efforts would be reversed or ignored. As nearly as we can tell, that contractor appeared eager to exploit the base already established.

Secondly, our four-way categorization of management functions served us well. The test would be whether it predicted an appropriate approach to intervening in the functional areas. It did, we believe, with the exception of the accounting area; but the MOH system is so anomalous that we would not expect it to fit into any broad intervention strategy.

The third aspect of our strategy distinguished management functions and managerial orientation. We were reluctant to hit harder on the "results-orientation" theme for fear of offending the directors. Consequently, much of that work was indirect. With the courage that comes after one has left the arena, we now feel we should have been more

direct in our approach. That would mean more training and much more emphasis on goals and goal-setting. We came at the goal-setting issue from three different directions but never forced it on any occasion. The distinction between functions and orientation continued to be a useful one, particularly as we found it easy to become more involved on the functional side. Had we not had the less tangible results-orientation item on our agenda, we might have given it short shrift.

### Methods

We used three definable methods beyond face-to-face consultation in our work. We do not pretend that they carried the project but the design exercises were fairly innovative. The other two methods were training and assessment modules, which we will cover quickly.

Training. The training activities never stood alone so they defy independent evaluation. They were always a cog in a longer process and by the overworked standard of participant satisfaction, all training sessions were successful. We trained at all levels from the Minister to the clerks with the same result. Language posed a formidable barrier; as that barrier grew higher (with lower hierarchy employees), we relied more extensively upon exercises and work groups and less on lectures.

Assessment Modules. We had three exercises similar in design and intent to other AUPHA work on management assessment modules. In fact, two of the modules used in Jordan were early drafts of the AUPHA Management Problem-Solving (MAPS) modules. The Financial Management module was used extensively in Jordan; the other two modules used were Community and External Relations and a draft of a module on information.

Design Exercises. We looked for a vehicle that taught principles, produced a tangible outcome of use to the client, and posed little threat. The design exercise takes the participant through the steps of solving a problem or designing a system while explaining the rationale for each step. We posited some a priori factors that we felt would promote completion of the exercise and utilization of the results.

They were:

- Response to a felt need
- Low threat:
  - End of exercise is always in sight;
  - Participants know required information; and
  - Power is not redistributed by outcome.
- Small teams of officials who control relevant elements of the area being worked on.
- The consultant specifies when and how follow-up will occur.
- Produces an immediate product or solution to a problem.
- Short.
- The consultant has established rapport with the team members.
- Results are trialable; not binding.
- The approach advocated by the exercise is novel.

In the chart on the following page we have evaluated the eight design exercises and added two of the three assessment modules (the third, accounting, was conducted by the finance consultant). For each factor we have estimated whether it was fully met (1), not met at all (3) or partially achieved (2). We added, post hoc, another factor: the degree to which the USAID health official encouraged the completion of the exercise.

The second from the last column is simply a total across each row for each design exercise. The final column contains a letter from A to F which signifies the success of the exercise.

EVALUATION OF DESIGN EXERCISES

Design Exercises	Felt Need	End in Sight	Participants Know Information	Power Not Redistributed	Management Team	Follow-Up	Immediate Product	Short	Report	Triable	Novel Approach	USAID Health Official	Total	Degree of Success
Setting Objectives	1	1	1	2	1	1	1	1	1	2	1	1	14	B
Information System	1	2	1	1	1	1	2	2	1	1	1	3	17	B
Supervisory System	2	2	1	2	2	1	1	2	2	1	1	3	20	C
Decision Limits	3	2	2	3	2	2	2	2	1	2	1	3	25	D
Job Description	1	2	2	3	1	2	1	1	3	2	1	2	23	C
Inventory Resources	1	1	3	1	1	1	1	3	1	1	1	3	18	A
Programming	1	2	1	1	2	1	1	2	1	1	1	1	15	B
Inventory Management	2	1	1	1	1	3	1	2	1	1	1	3	18	A
Accounting Flow Charts	1	1	1	2	1	1	1	1	1	3	1	3	17	B
Environmental Assessment	2	3	3	1	3	3	3	3	3	2	1	3	30	E
Incentives Assessment	2	2	1	1	1	NA	3	3	1	3	2	3	22+	WD

Degree of Achievement

1 = Fully Met  
 2 = Partially Achieved  
 3 = Not Met at All  
 NA = Not Applicable

Degree of Success

WD = Withdrawn  
 F = Didn't Attempt exercise  
 E = Tried but did not complete  
 D = Completed, but under pressure  
 C = Completed Spontaneously  
 B = Completed and asked to proceed to next step  
 A = Completed and took next step on own

We offer this chart as a platform for discussion. There is a close correspondence between the total score on the factors and the success of the exercise; low scores in the penultimate column usually find low scores in the final column. It also would appear that there is no clear indication of a single factor that is necessary for success nor one that is sufficient for success.

This, perhaps, is the way development occurs. We see it as lining up as many positive factors as possible and proceeding. When the opportunities cooled down in one sector, we were able to leave that area alone temporarily and focus our attention elsewhere. Meanwhile we continued to introduce more elements for change.

#### Things That Didn't Work

No doubt we have conveniently forgotten many false starts and mistakes. The following four lessons may prove useful to others in similar projects.

Team Continuity. We always wanted to keep a small group of people working on the Jordan project. The importance of this was brought home when a fourth member was added to the team eight months into the project. The new addition, we felt, would contribute greatly due to seasoned consultant experience. The MOH officials, unfortunately, complained of the time demands necessary to orient a new person. Not enough strong rapport developed in a single visit. The contrast may be between institutions but the collaboration has to be between individuals.

Arbitrary Turf Delineation. We foreswore work in the planning area to leave that field open to another contractor who arrived later. Unfortunately, planning is such an important part of management that it is difficult to ignore when management is the field of action. We finally resorted to the thin disguise of "operational programming" when we felt we could ignore this function no longer. Technical areas with well-defined boundaries may lend themselves to neat parcelization; management does not.

Coordination with Local Institutions. We would like to think that local institutions could become involved and supplement our efforts or supplant us altogether. We failed in collaboration with two local institutions. Since we could not provide the incentives for them to enter enthusiastically. And since we were not a permanent presence, we could not drag them in.

Swimming Against the Cultural Current. The limited work decision did not allow us to fully test the premise, but it was our quick impression that we had attempted to introduce something that threatened the established way of doing things. Alien ideas may survive; inimical ones will not.

## V. SUMMARY

In the welter of words employed to describe the development and conduct of our work in Jordan, some important themes may be slighted or lost from view. As insurance against that possibility, we will summarize the main points for other consultants to consider in their work.

Strategy. The word strategy is overworked and we used it with some trepidation. Too often gimmicks and methods are labeled as intervention strategies. A strategy is a set of objectives and policies that result in certain activities; the methods (activities) are a consequence, not an antecedent.

Objectives. The objectives in our strategy were the six-level incremental objectives:

1. Problem awareness
2. Problem specification
3. Ability to design solutions
4. Design of a solution
5. Ability to implement solution
6. Implementation

The process can be broken into more or fewer steps. An organization may require assistance only on some levels or may not be ready to proceed through all levels of objectives at a particular time. The intervention that either enters at the wrong level (e.g., at defining problems when the client really needs help implementing solutions) or bypasses steps is in immediate trouble. We grant that some funding mechanisms do not lend themselves well to supporting this approach, though USAID/Amman pushed through three separate contracts. However, Indefinite Quantity Contracts (IQCs) are almost naturals for this approach.

Policies. Complementing or constraining the objectives in any strategy are the policies. In this one, costs were a key element. Partly in recognition of our limited resources but more to prove the point, we endeavored to keep the price tag small.

Continuity vs. Specialization. We opted for continuity of consultants during the project. The same three individuals were involved from beginning to end. We do not feel that "topping up" with specialized experts was needed or advisable.

Brief Inputs. In the belief that an organization can absorb only limited inputs we scheduled two to four person-weeks of work every two to three months. On one occasion may have provided too little (August 1981) and on another we perhaps exceeded the saturation point (October-November 1980), but generally we found we were near the mark in providing an adequate amount of impetus and tasks for the MOH.

Functions and Orientation. We attempted to distinguish between the intangible aspects of management and the functional areas of management and addressed both.

Differentiation among Functions. We also attempted to differentiate management functions on the basis of the degree of routinization found in a functional area. This differentiation, coupled with the following policy, dictated the general approach.

Minimize Externalization. Ironically an intervention to strengthen a functional area can weaken the role of management. A primary concern was that our methods not encourage the belief or perception that any of the management areas dealt with were more the province of consultants and donors than Ministry officials.

Host Organization as Client. We established the priority of the Ministry's expectations above all others. Both USAID/Amman and AID/Washington acted throughout the project as if the MOH were the exclusive client.

In development business, the processes of social, economic, political, and even administrative change are so complex and imperfectly understood that success may continue to result only from a fortuitous alignment of factors. We recognize how little of the credit is ours for

the improvements at the Ministry of Health in Jordan. However, those who would intervene in the development process and presume upon the good will of their hosts and funders alike should feel embarrassment if it is revealed that they have prescribed without diagnosing or treated without establishing the objective of the therapy. We harbor no illusions that our approach is the only one: it worked for us and we offer it for the consideration of others. Before we yield the soapbox, we feel convinced of this: A minimum requirement for any intervention approach is that it be comprehensive. The label chosen--strategy, methodology, approach, model, structure, process, plan, or framework--is immaterial if the methods are consistent with predetermined and appropriate objectives and policies. For years, AID has demanded more rigor in its country and sector strategies. AID has also encouraged recipient organizations to think through in strategic fashion the purposes and methods of funding proposals. We would hope that technical assistance contractors be held to the same standards.

APPENDIX

- List of Consultancy Visits to Jordan
  
- Resource Inventory of Health Ministry Field Facilities, by Dr. Anwar Bilbeisi & Khalid al Jadid, 1980. (Pages 1 to 7) translated from the Arabic by Ms. Bilbeisi.

LIST OF CONSULTANCY VISITS TO JORDAN

<u>Dates</u>	<u>AUPHA Team Members</u>
March 1980	Emrey, Bernhart
April 1980	Bernhart
June 1980	Quintana, Emrey, Bernhart
August 1980	Quintana, Emrey, Bernhart
October 1980	Quintana, Emrey, Brown
December 1980	Emrey, Bernhart
March 1981	Quintana, Emrey, Bernhart
June 1981	Quintana, Bernhart
August 1981*	Quintana

\*Note: Bernhart visited Jordan in August 1981 under the AID/Westinghouse Health Systems Division contract in health planning in Jordan

Resource Inventory of Health Ministry Field Facilities,  
by Dr. Anwar Bilbeisi & Khalid al Jadid, 1980. (Pages 1 to 7)  
translated from the Arabic by Ms. Bilbeisi.

Directorate of AL-KarakHealth Man power

Total No. of persons 335  
 No. of technical persons 155  
 No. of administrative and  
 other services "Persons" 180

Differentiation of technical persons:

A) Specialists doctors No. distribution:  
 11

<u>Hosp.</u>	<u>T.B.</u>	<u>MCH</u>
9	1	1

B) G.P. Doctors No. distribution:  
 20

<u>Hosp.</u>	<u>Health centers</u>	<u>Directorate</u>	<u>School H.</u>
8	10	1	1

Health Centers No.  
 11

<u>H.C. Karak</u>	<u>H.C. of AL Rabba</u>	<u>H.C. of Mazar Janoubi</u>
Attached to it MCH and five clinics	Attached to it MCH and five clinics	Attached to it MCH and six clinics

<u>H.C. Ai</u>	<u>H.C. of Ghour Alsafi</u>	<u>H.C. of Mo'ab</u>
Attached to it MCH & four clinics	No MCH . ther, but attached to it six clinics	No MCH but attached to it five clinics

M.C. of Emreh

MCH attached to it and four clinics

H.C. of Om AL-Ghozlan

attached to it MCH and four clinics

H.C. of Al-Moghlar

No MCH but there are four clinics attached to it

H.C. of Al- Gatraneh

No MCH but there are three clinics attached to it

- there are other 3 MCH centers not attached to any H.C. They are MCH of Adr, MCH of Fagooh, MCH of AL-Koser
- No. of villages clinics in this directorate 45 clinics which are visited by the doctor from 2 - 3 times a week. The doctor stays every time in the clinic from 1.5 - 2hrs and average time spent with each patient is 3 - 5 minutes.

So the real working hrs in a center like AL - Rabbah as the following:-

No. of people working in this center are 16

No. of patients seen in the last three months are 3431 pts. of those 2340 seen by the doctors which the other by the practical nurse.

Average daily pts seen by the doctor are 24 pts.

Real working hrs  $24 \times 4 = 96 \text{ min.} = 1.36 \text{ hrs.}$

Recomendation No. 1

1. Lodging for the doctor and his family should be located in or close to H.C.
2. Good transportation will increase the capacity .
3. Increase personnel responsible of control and inspection
4. Motivation: financial and moral like scholarship, residency, and rotation.

C) Pharmacy

Specialist	<u>No.</u>	<u>dist:n</u>	<u>H.C. of Karak</u>
	2		2

Assistant	<u>No.</u>	<u>Dist:n</u>	<u>H.Centers</u>
	15		12

<u>Store</u>	<u>Hosp</u>
2	1

Recomendation No. 2

1. Reorganized the distribution according to the load of work

D) Laboratory

Universities graduate non

Assistant	<u>No.</u>	<u>Hosp.</u>	<u>T.B.</u>
	4	3	1

Recomendation No. 3.

1. one university man should be provided at least.
2. Every Health C. should has one assistant.

E.	<u>Dentists</u>	<u>No.</u>	<u>Dist.n</u>	<u>H.C.K</u>	<u>School H.</u>	<u>H.C.Mazar</u>
		4		1	1	1

No. of  
schools in  
Karak are  
177

Assistants No. in the H.C. of  
Karak both of  
them

F. Anaesthesia

specialists	<u>No.</u>
	Non

Recomendation No. 4.

2 assistants in anaesthesia are needed badly in Karak

G) Physical medicine

specialist	Non
Assistants	<u>No.</u> in the Hosp. 2

H) X- Ray

specialists	Non			
Assistants	<u>No.</u>	<u>dist h</u>	<u>Hosp</u>	<u>T.B.Center</u>
	4		3	1

M) Staff Nurses

<u>No.</u>	<u>Dist h</u>	<u>Hosp</u>	<u>H.C.Karak</u>
8		7	1

Practical Nurses <u>qualified</u>	<u>No.</u> 13	<u>Dist h</u>	<u>Hosp</u> 13
--------------------------------------	------------------	---------------	-------------------

Practical Nurses <u>not qualified</u>	<u>No.</u> 45	<u>Dist.</u>	<u>Villages clinics</u> 45
--	------------------	--------------	-------------------------------

No. of villages clinics 45

N) Midwives

<u>No.</u>	<u>Dist.H</u>	<u>Hosp</u>	<u>MCH s</u>
13		5	8

Recomendation

1. Increasing No. of midwives
2. Establishing school of Health visitors.

O) Health Controlers.

No. 3 of them graduated from  
9.

paramedical school the other 6 local training. Their activities and function is bad because there is no good supervision system in the directorate and there is no public health man to direct them.



4 Physical Resources

a) Vehicles

1. Ambulances	<u>No.</u>	<u>Hosp.</u>	<u>Katrana</u>	<u>Alsafi</u>
	4	2	1	1
2. Land Rover	2 :	Directorat	H. C.	<u>Moab</u>
				1
			H. C.	<u>Al</u>
3. <u>Nissan</u>	<u>No.</u>	for the National H.N		
6 seats	1			
4. <u>Tuta</u>	<u>No.</u>	<u>H. C. Mazar</u>		
6 seats	1		1	
5. <u>Dodge</u>	<u>No</u>	<u>H. C. Al Rabba</u>		
8 seats	1		1	
6. <u>Dodge</u>	<u>No</u>	<u>Hosp.</u> for transportation of Nurses		
12 seats	1		1	
7 <u>Volks V.</u>	<u>No.</u>	<u>H. C. Om AL Ghozlan</u>		
8 seats	1		1	
8 <u>Mazda</u>	<u>No</u>	for National H. V.		
8 seats	1			
9 <u>Tuta bus</u>	<u>No.</u>	<u>Hosp.</u>	transportation for	
9 seats	2	2	nurses and employees	
10. <u>Hinotruck</u>	<u>No</u>	<u>in directorate</u>		
5 tons	1		1	
				for transp. of supply
11. <u>Foztruck</u>	<u>No.</u>	in the directorate		
2 tons	1	( out of order)		
12. <u>Tuta</u>	<u>No.</u>	<u>School H.</u>	<u>Dentist</u>	
8 seats	2	1	1	

Recomendation No. 7

1. Cars of 8 seats or more are used by the person to go clinic or other purposes. If we exchange those with 2 seats of 4 that would economise a lot
2. Maintenance is very bad because every car should go to Amman when any repair is needed.

Other Equipments

1. There are not enough equipments in the hosp. for Orhtopaedic Surgery
2. No mobile X - Ray in the Hosp. or in any Health center.
3. The maintenance of medical equipments is very bad. Ministry of Health should establish amobile team for this purpose.