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PN 37910

EVALUATION REPORT
of
PROJECT 931-11-540-239

TEACHING COMMUNITY MEDICINE, PHASE III
under
CONTRACT AID/ta-c-1355
with
THE CENTER FOR EDUCATIONAL
DEVELOPMENT IN HEALTH,
BOSTON UNIVERSITY

Study undertaken by:

Medical Service Consultants, Inc.
2420 Wilson Boulevard, Suite 100
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EVALUATION REPORT

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EVALUATION REPORT

INTRODUCTION:

This is the report of the end-of-project evaluation study of Project 931-11-540-239, Teaching Community Medicine, Phase III, supported by AID under Contract/ta-c-1355 with the Center for Educational Development in Health (CEDH) at Boston University. The project was designed to respond to requests from LDCs to teach a methodology for applying modern educational technology using a systematic course design in training the trainers of health professionals, paramedicals, and auxiliaries. The project was initiated in September 1976 and terminates in September 1979.

The evaluation study was undertaken by a two-person team organized by Medical Service Consultants, Inc. of Arlington, Virginia, under Work Order No. 21, Contract No. AID/afr-C-1133. The objective of the study was "to provide an evaluation of the effectiveness of Project 931-11-540-239, to determine reasons for successes of failures, including Contractor's performances and adequacy of original project design, and to provide a final report which will be of assistance to AID in developing any further follow-on projects."

MAJOR FINDINGS:

Of the six tasks designated under project objectives in the contract, the Contractor has successfully carried out each of them in a commendable and effective manner.

The major findings, categorized by "task," are as follows:

TASK I: Training courses in curriculum design and teaching methodology were conducted in LDCs by the Contractor which satisfactorily met the quantitative requirements of the contract and which were, qualitatively, well-conceived, developed and implemented. The successful outcome of this task, however, begins to throw light upon the dimensions of a need for a continuing input further to develop and strengthen teaching methodologies in LDCs.

TASK II: A simplified version of the manual "Systematic Course Design for the Health Fields" was developed in accordance with the contractual requirements, was field tested and is to be published prior to the termination of the contract. A French language edition is being prepared and a Spanish language edition has been published.

TASK III: A "Leader's Guide" to accompany the above manual has been researched, developed and field-tested; it is to be published in September 1979.

TASK IV: The Contractor provided assistance to LDCs in curriculum content and revision in a manner fully consistent with and, indeed, clearly exceeding, the terms of the contract.

TASK V: Specialized short-term training, tailored to the specific needs of the individuals involved, was provided to LDCs requesting such assistance in full accord with contractual obligations.

The mangement of the project by the Contractor was carried out in a commendable fashion. All respondents during field visits to three participating LDCs were favorably impressed by the Contractor's handling of the project; no significant complaints were expressed and such problems as did arise resulted from local host-country constraints and limitations.

While the Statement of Work in the original contract was fully adequate to the need that then presented itself, the evaluation team offers some observations that might be considered in future follow-on projects, if any.

The Systematic Course Design (SCD) methodology has demonstrated a clear and impressive multiplier effect in the countries selected for on-site visits by the evaluation team.

The following observations are offered by the evaluation team for consideration by the planners/designers of any continuing, on-going efforts by AID, if any should be undertaken.

The SCD methodology (or"model") has been demonstrably suitable for preparing "units of instruction" and "courses" for all levles of health personnel likely to be employed in LDCs within the traditional personnel categories of most health ministries. The SCD model, however, may be lacking in a fully-developed technique for identifying service-level priorities and health program intervention points when applied to a total curriculum. The data does not permit conclusions to be drawn upon this issue at this time, but it is

suggested that consideration be given to the incorporation of an increased public health technical input when entire curricula are being developed or revised.

Similarly, while the SCD model has clearly demonstrated its applicability to all categories of trained health workers from the most peripheral health unit to the most complex service facility, its appropriateness to the task of training the next-lower level of (unpaid) village level volunteers has not been demonstrated (nor was it even inferentially understood to be a possible outcome of the AID/CEDH project). However, AID should, in the opinion of the evaluation team, seek to acquire further experiential evidence as to the degree of applicability of the SCD model to the training of such village-level health volunteers. (Terminology in this area is ambiguous: the writer refers to the village health worker who is based peripheral to the health system's outermost health post or health unit, howsoever it be called.) Should such evidence indicate that curricula for VHW's can be developed following the SCD methodology, then a second major question arises: What is the best teaching methodology for such VHW's?

Should the evidence show that the SCD model can successfully be applied to the training of VHW's in the rapidly-expanding, worldwide PHC movement, a marriage of the PHC concept with the SCD model might fruitfully be arranged in future AID-supported projects.

EVALUATION METHODOLOGY:

The evaluation team reviewed relevant project documentation in the offices of AID/DSB/Health, CEDH, Boston, and AID/Bolivia, AID/Honduras and AID/Nepal. On-site visits were made to three LDCs selected jointly by AID/W and the Contractor (MSCI) as being representative of participating countries which had received services and assistance from CEDH through the project. Interviews were conducted with AID and host country officials, project field directors and participants and other appropriate individuals; structured interviews and questionnaires were utilized (see Annex A for interview checklist, Annex B for Questionnaires used with field directors and participants, and Annex C for a list of all people contacted and institutions visited). Manuals prepared by CEDH were reviewed and their appropriateness and effectiveness in field situations were assessed by interviews with field directors and participants.

The Statement of Work, as described in the original Contract and its several amendments formed the framework for the evaluation study and is reflected in the organization of the material in this report.

The selection of Bolivia, Honduras and Nepal as the countries to be the locales for on-site visits by the evaluation team is deserving of further elaboration. Over the 3-year life of the project, CEDH has visited and worked in 23 countries; the services offered to each, while following the same basic format, have

manifested local variations. AID/W and the Contractor MSCI) jointly selected three LDCs that represented, in their professional judgment, the major "forms" of these variations.

OUTPUT MEASUREMENTS:

The project objectives described in the original contract (i.e., "to teach an innovative educational methodology for trainers of health professionals and paraprofessionals in developing countries in order to enable those trained to be more responsive to the health needs of their population") was devided into six tasks under the heading "Statement of Work." The evaluation team has chosen to group its output measurements under the same headings and in the same chronological order.

TASK I

"The Contractor . . .shall organize and conduct training courses in curriculum design and teaching methodology for LDC teachers in countries selected by AID. Fifty to one hundred teachers shall be trained on site each year. This training shall be accomplished by LDC Field Directors in close collaboration with the Contractor. The Field Directors shall be selected by the Contractor, in consultation with the Cooperating Government. The Contractor may provide short-term training for Field Directors, if required." (Ref. A, Annex. Contract)

A contract amendment/modification signed 9/27/78 amended the statement of work to require that the Contractor shall train 25 - 30 field directors on location in various LDCs; a PIO/T dated 6/21/78 indicates that these field directors will be trained in the third year . . . rather than 4 - 6 as earlier programmed.

The following table, showing the numbers of LDC teachers trained, by project year, in 23 countries, indicates that the quantitative requirements of Task I were fully attained. In the following paragraphs will be found a series of observations and impressions based upon site visits to three participating countries; no attempt has been made to assign priorities to these items, nor does their grouping reflect any special significance. Items 1 - 15 are based upon visits to Bolivia and Honduras, while item 16 refers to observations and impressions gathered during the visit to Nepal. Item 17 groups data from all three countries.

ITEM 1.

The "classical pattern" of Reconnaissance Visit, Workshop and Follow-up Visit was utilized in one country (Bolivia) with evident success: of 32 participants who attended the Workshop, three quarters of them are currently still using the SCD model; at a subse-

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TABLE I: NUMBER OF TEACHERS TRAINED BY YEAR AND COUNTRY BROKEN DOWN BY FIELD DIRECTORS (F.D.) AND PARTICIPANTS (P.)

April 24, 1979

COUNTRY	YEAR					
	01		02		03	
	F.D.	P.	F.D.	P.	F.D.	P.
Bangladesh					3	
Bolivia	2	22	6	29		
Brazil			6			
Chile			1			
Colombia			8			
Ecuador			1			
Egypt					3	65
El Salvador			3			
Fiji					1	
Honduras	1	28	4	35		
Indonesia					7	
Malaysia					2	
Nepal	13	9	19	21	30	3
Nicaragua			3			
Nigeria			1			11
Papua New Guinea					2	
Peru			4			
Philippines					6	27
S. Korea					3	
Thailand					5	
Togo					25	
Tonga					1	
Venezuela			2			
TOTAL	16	59	58	85	88	106

quent nursing conference the methodology was used to develop new job descriptions and curricula for two categories of auxiliary nurses (urban and rural); it is now the official policy of the MOH to use the method throughout all future training programs for health personnel.

That the "classical pattern" is not an essential component of the SCD methodology, however, is evidenced by an equally-successful outcome in Honduras, with a most impressive multiplier effect. which was based on locally-organized and conducted workshops and programs which required no outside (i.e., CEDH) technical assistance during Phase III of the project.

ITEM 2.

The SCD model has enabled decision makers and nursing school teaching staffs to identify and describe new categories of rural health workers. For example, in Bolivia, the categories of health promoter, auxiliary nurse I and auxiliary nurse II have been created --- and job descriptions and curricula developed---- in a situation which had previously failed to generate a critical mass of professional and administrative support. By using a systematic approach to problem solving, health personnel were successful in working together toward a common goal. Implicit in this statement are

the related by-products of: (a) specialization/differentiation of function among several categories of periferal/rural health workers, (b) the need for a team approach by such workers, and (c) recognition of the need to "meld" the curative and preventive approach at village/health post level.

ITEM 3.

The SCD methodology, once introduced to the host country, with trained and experienced field directors in place, with the SCD manuals and with in-country workshop experience, is reasonably self-sustaining and replicable thereafter. However, although continuing backstopping and technical inputs from CEDH (of other similar backstopping unit) is not an absolute requirement, a continuing relationship is desired by most respondents in order to:

a) provide moral support for SCD "practitioners" during a period of change and adjustment within a MOH or teaching institution,

b) extend the SCD methodology to additional institutions or geographic areas,

c) introduce new and as-yet-untried subject matter into the health training and delivery system. Specifically, interest was expressed in having SCD-type

workshops to help in developing a model for peripheral, rural health supervisory systems, to prepare training manuals and teaching aids in supervision, and to organize training programs.

ITEM 4.

The most recent versions of the overseas edition of Systematic Course Design for the Health Fields and Leaders Guide (preferably the Spanish version) should be distributed to all field directors and workshop participants who have not already received copies.

ITEM 5.

Somewhat surendipidously (or, in the evaluation jargon, as an "unplanned effect"), the use of the SCD model successfully brought together people from the central, MOH level with people engaged in innovative, Primary Health Care-type activities working in peripheral areas (example: the MOH/Montero Project combination in Bolivia.) One could debate whether it is the SCD model, itself, which accomplishes this result, or whether it is that the techniq-e brings together health personnel as a workshop "captive audience" for a critical length of time while the SCD approach is used --- whatever the explanation, the "unplanned effect" is clearly apparent.

ITEM 6.

At a critical juncture in the decision making process, an outside expert attending an in-country workshop can bring enormously effective prestige elements to bear upon a (locally) intractable problem. For example, in Bolivia, the influence of Dr. Dieter Koch-Weser, a physician, North American, and a Harvard professor, was instrumental in swinging the Bolivian nursing group away from a previously-held prejudice against a new category of auxiliary nurse, and to bring them to endorse and support the formation of such a new category of health worker.

ITEM 7.

The process of selection of field workers and participants was successful and effective. In general, field directors were identified by MOH and AID Mission officials (some having previously been spotted by CEDH staff members during a reconnaissance visit). Participants were largely selected on the basis of their roles as teachers, instructors, as supervisors or as program officials concerned with the graduates of such institutions. Formal, written criteria were not used to a significant degree, nor were they needed. A more structured or formal selection process would not appear to be worth the additional effort required to put it into effect.

ITEM 8.

From the viewpoint of an overall country health delivery system strategy, the SCD methodology, although applied to the training component of a health program, is capable of promoting, developing and strengthening a primary health care concept. It lends itself admirably to the task of focussing attention upon the actual health needs of people at the community level and upon the interventions that can be introduced by peripheral workers. The evidence from Honduras and Bolivia is strongly suggestive that the SCD methodology at workshops encouraged participants to identify the desirability of a rural-oriented, preventive-curative combination, team work concept in which village-level health promoters interact with the most peripheral of MOH auxiliaries. Expressed differently, it would appear that the systematic approach to problem-solving exemplified by the SCD model encourages participants to arrive at conclusions without the head-on collisions that often occur among groups of health personnel with entrenched positions.

The observation moted above leads the evaluation team to suggest that this "unplanned effect" be consciously introduced into future P.H.C. projects receiving support from AID.

ITEM 9.

The evidence is clear that the SCD model can be used to train --- or to develop training programs for --- health workers of low educational levels. It would appear to be equally as appropriate for use in preparing courses for a semi-literate rural villager as for a hospital laboratory technician. (N.B. An alternative viewpoint will be found in the report of the visit to Nepal plus an "observation" that brings together these different viewpoints).

ITEM 10.

Although time constraints did not allow a direct analysis of the "fit" between the job descriptions and training course outlines of peripheral health workers on the one hand, and their actual day-to-day activities on the job, there is abundant circumstantial evidence that the "fit" is appropriate. In all interviews and discussions it was apparent to the evaluation team that health promoters, auxiliaries and their teammates were performing their work in a manner fully congruent with that suggested in the WHO P.H.C. concept.

ITEM 11.

A few respondents noted that the SCD approach focusses upon a "unit of instruction" while a total "cur-

riculum revision" may be the broader need. Is was suggested that a solid block of, say, three months' time would enable a teaching faculty, working with the the SCD model, to revamp an entire curriculum. While this is, perhaps, and unrealistic aspiration (since few, if any, training institutions could be effectively "closed" for such a long period), it is an interesting idea. The short-term consequences might be disruptive and expensive, but the long-range consequences, in terms of an improved and more focussed curriculum could conceivably outweigh them. One respondent suggested that 3-4 workshops could be developed "in tandem" in such a way that a CEDH advisor could attend the opening of one workshop, move on to open a second, return to close the first, and so on.

ITEM 12.

Opinions are nearly universal that participants should, whenever possible, attend a workshop as a group from their teaching institutions. In this way, when workshop graduates return to their home institutions, each can give and receive support from his colleagues when and as new methods are introduced. It avoids the situation in which a workshop participant returns home, alone and unsupported, to batter away at the walls that resist change.

ITEM 13.

An excellent example of effective post-workshop follow-up is the work done in Bolivia by John Massey. Massey remained for 4½ weeks after the workshop to help finish up the curricula for health promoters and auxiliary nurses #2. Subsequently, the Bolivian nurse group, itself, has completed a similar assignment for auxiliary nurses #1.

ITEM 14.

Woman in Development: In Montero, it has been advocated that the health promoter be a woman, married, with a "stable personality" between 30-40 years of age. A woman can make home visits more easily than a man, and the fact that the salary is low is of lesser significance since it serves to supplement the earnings of her husband.

In key categories of rural health workers in Bolivia such as health promoter and auxiliary nurse #1, there is no sex preference in selection or training; both men and women are recruited, trained and employed. However, the position of auxiliary #2 should be male: the job requires attendance, frequently, at night meetings in distant villages; he is away from home a great deal, and he must travel by motorcycle over poor roads.

ITEM 15.

Kudoes are offered for whoever selected two of the Bolivian field directors. One, Mrs. Millan, is a high MOH official who can influence decision makers and can help to insert the SCD system widely throughout the country. The other, Mrs. de Crespo, is a teacher in a project that looks toward the problem of rural health needs. One is central, the other peripheral. One (de Crespo) did the spadework in preparing for a workshop; the other (Millan), as an authority figure, gave it full support. It was a good selection!

ITEM 16.

In Nepal, there are ten categories of paramedical health workers --- five for the health posts which provide a health-promotive, disease-preventive approach to rural health care, and five for the more curative-oriented hospital-based health network. Training for all categories is carried out by the Institue of Medicine (IOM) on thirteen (13) campuses (4-5 in Kathmandu) whose graduates are subsequently employed by the MOH. Training activities are handicapped by large entering classes with an exceptionallly high dropout rate, a shortage of teachers, crowded facilities, a rapid turnover of teaching staff, and because the formation of the five basically

health-oriented workers is lacking of any established model for a rural health delivery system. Plans are being prepared for the creation of a cadre of community physicians for the rural areas of Nepal; if accepted, this new type of physician would provide leadership to the auxiliary-based comprehensive care health delivery system.

Two of the above ten categories of health workers --- the Auxiliary Health Worker (AHW) and the Community Medicine Auxiliary (CMW) --- follow the competency-based, SCD curricula design concepts and processes of CEDH. The AHW and CMW's represent a significant proportion of the people trained under the IOM: the five-year plan 1979-1984 projects training needs for 1400 CMA's and 700 HA's.

Unlike the pattern observed by the evaluation team during its other on-site visits (to Bolivia and Honduras), the CEDH/IOM effort in Nepal seeks to revise/develop entire curricula for these two categories of health workers (as contrasted with "unit of instruction" and/or "single course" preparation).

In Nepal, the "classical pattern" of Reconnaissance Visit, Workshop and Follow-up was inadequate to the task of meeting the teacher training needs of the IOM: the first workshop in 1975 was succeeded by an innovative arrangment whereby CIDA, HMG and AID/Nepal

gotiated a follow-up contract with CEDH under ich a vastly-enhanced CEDH input was possible. ee Annex F)

The SCD model as applied in Nepal demonstrates e following:

a) The model can be helpful in giving a sense of order and a methodological approach to a highly complex training situation.

b) The training application of the model in a LDC with more than its share of handicapping and frustrating elements can be accomplished, but only with an input of significantly large dimensions. This input has required 1½ manyears of TA from CEDH and a separate funding arrangement within Nepal from 1975-1979.

c) The SCD methodology applied to the problem of developing total curricula in an LDC such as Nepal cannot be handled by a handful of field directors employing a cookbook process: it is a highly complex and difficult undertaking.

d) If Nepal has successfully developed new curricula for two, essentially new categories of health workers by using the SCD model, it would seem to be a fair assumption that the model is applicable in just about any other conceivable LDC situation.

e) To attempt to evaluate the success of Task I in Nepal by focussing upon a "multiplier effect" would be erroneous. While a large number of IOM teacher-trainers have been exposed to the SCD methodology, only a fraction of these are still employed as IOM teacher-trainers utilizing the model. A more useful and appropriate measure of output would be: how many curricula courses have been approved by the IOM faculty board for implementation by teacher-trainers? The answer: two major curricula (HA and CMA) finished or nearly finished, with a spill-over effect into the curricula of X-ray and lab technicians and pharmacy technicians.

ITEM 17.

Training courses in curriculum design and teaching methodology for teachers and/or field directors in Bolivia, Honduras and Nepal were organized and conducted by CEDH in an effective manner. Workshop participants (including field directors) who were interviewed in the three countries reported a high degree of satisfaction with the instructors as well as with the instruction received; they indicated that they had gained knowledge that was not only new to them but, more importantly, was valuable and useful in

their roles as health teachers and curriculum developers. The high quality of the training courses was further attested to by Ministry of Health officials in Bolivia and Honduras, and by the Dean of the Institute of Medicine in Nepal.

The major weakness noted by participants was that the workshops would have been more effective if they had been scheduled over longer periods of time. Conceptually, they said, the SCD is a difficult process to absorb, considering the rather "unsophisticated" systems that had existed in their countries; further, it is a developmental process which needs time so that concepts can be internalized. Nevertheless, despite the time constraints, participants felt that the essential content was presented in a meaningful manner.

Other strengths of the workshop effort were:

1) appropriate participants (those who were going to use the training) were selected for the training

2) participants were actively involved in the sessions, by developing their own units of instruction and by working in small groups

3) the language used for instruction was appropriate to the countries - Spanish in Bolivia and Honduras (in the person of John Massey) and English in Nepal,

where all health instruction at the Institute of Medicine has traditionally been given in that language and

4) the perceptions of participants about curriculum development and about teaching methodology were greatly changed in the direction of more appropriate course content as well as in more effective teaching/learning techniques.

It is important to point out that workshop participants in the three countries visited were university-educated people, for the most part --- physicians, nurses, sanitarians, etc. --- who may or may not have been teaching before they were trained in the SCD methodology. (In Nepal, for example, physicians or lab technologists who had been working in hospitals were frequently re-assigned to teaching positions, as needed, for instruction in the HA program.) In Bolivia and Honduras, workshop participants were nurses and physicians; in Nepal, they were physicians, health educators, and sanitarians. After training, these professionals became the actual curriculum developers. Subsequently, the courses were taught, or are being taught, by either themselves or by other teachers (who had not been workshop participants but who would teach the course as developed).

It is also important to point out that the high turnover in teaching staffs in Nepal meant that most

of the original workshop participants were no longer in teaching roles; they were replaced by other persons, necessitating frequent informal "workshops" of a continuous nature conducted by those participants still remaining. Also, CEDH held a second, formal-type workshop for new faculty during the project's second year and continues to provide individualized assistance on their visits. Nevertheless, faculty attrition and replacement has caused an obvious, albeit administrative, problem vis-a-vis training in the SCD methodology in Nepal.

In summary, the evaluation team believes that the organization and conduct of the training sessions by CEDH was effective, significant, and efficient, as local conditions would permit, in Bolivia, Honduras and Nepal.

TASK II

"A simplified version of the Manual Systematic Course Design for the Health Fields...shall be researched and developed in the first year. The text shall be simplified and adapted to serve health teachers with lesser educational background and with a poorer understanding of English than professionals. More illustrative material shall be developed which is representative of training problems in LDCs. The

simplified manual shall be field tested during the second year and published during the third year."

Table II shows the activities that were carried out by CEDH over the three years of the project in the process of preparing a simplified version of the Manual (Task II) and in developing a Leader's Guide (see Task III, below).

OBSERVATIONS AND IMPRESSIONS RELATING TO TASK II

The simplified version of the manual "SCD for the Health Fields" has, indeed, been simplified. This is evidenced in the following ways:

1) from the original manual of almost 400 pages, it now contains less than 200 pages;

2) the original version was designed to be used as the basic text for courses on curriculum design in health fields; thus it contained theoretical as well as practical information. The simplified version presents only a method for designing courses, a method for designing courses, a method which can be used by health teachers;

3) terminology has been greatly simplified by removing all evidence of educational jargon (which would be appropriate, perhaps, for Harvard students) and substituting appropriate sixth-grade level vocabulary and sentence structure;

SIMPLIFIED EDITION OF THE MANUAL ON
SYSTEMATIC COURSE DESIGN AND A LEADER'S GUIDE

Simplified Edition	Write	Developmental Test	Field Test	Revise	Publish
Systematic Course Design (SCD)	6/77 - 4/78 Boston CEDH	6/78 - 7/78 Washington, D.C. University of the District of Colombia	9/78, 11/78 Beersheva, Israel Ben Gurion University School of Health Science 1/79 - 2/79 Offa, Nigeria School of Health Technology 2/79 Manila, Philippines Ministry of Health	5/79 - 8/79 Boston CEDH	9/78 Boston CEDH
Leader's Guide SCD	9/76 - 9/77	9/77 Kathmandu, Nepal Institute of Medicine	11/77 Kuala Lumpur, Malaysia Institute of Public Health	1978	9/78
*Leader's Guide Simplified Edition	12/78		1/79 - 2/79 Offa, Nigeria School of Health Technology	5/79 - 8/79 Boston	9/79 Boston
*Spanish Edition SCD					June 1978 LiMusa Pub. Co., Mexico
*French Edition SCD Simplified Edition	1/79 - 4/79 (translate)		6/79 Lomé, Togo Teacher Training Ctr		

* Not required by Contract

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4) illustrative materials shown and discussed are more specifically focussed at the non-physician population in LDCs, in contrast to the original version of SCD which included mini-cases such as "Hospital Quality Control System" and "Industrial Hygiene" and an extended case called "Health Care Principles for Day-Care Directors."

5) references to books, journals and annotated bibliographies have been eliminated. This is particularly desirable because such sources are neither generally nor easily available in LDCs.

6) technical terms, examples and passages have been generally eliminated. For example, the simplified version makes no reference to such concepts as item analysis, frequency distribution, criterion-referenced grading systems, the Thurstone method or Likert scales, etc. as found in the original manual;

7) references to generally-unavailable media and resources such as films and filmstrips, programmed instruction, individualized instruction, etc. (explained in detail in the original version of SCD manual) have been generally eliminated in the "Methods" section.

As evidenced above, the revised version of the SCD Manual has been simplified in several dimensions, and has thus been strengthened for use by trainers of health professionals at the non-physician level in LDCs. The

manual has been further strengthened by the inclusion of a glossary of often-used words such as "objective, design, duplicate, performance," etc.

The major weakness of the simplified manual seems to be in the section called "Examples". It is here that too many references to non-available resources (one workshop participant in Nepal called them "American resources") are still suggested. Examples of in-class activities include the use of audio-visual aids such as slides, film projectors, and tape recorders, which are not easily or generally available in LDCs. This is particularly true in Nepal, where teachers report that, even for preparation of necessary student handouts, there are insufficient funds.

Workshop participants in Bolivia, Honduras and Nepal had generally little or no difficulty with the original SCD manual in terms of its English language (as explained in an earlier part of this report). But the evaluation team believes --- and workshop participants agreed with the hypothesis --- that, with the simplified version now available, health teachers with lesser educational backgrounds and with a poorer understanding of English will be able to understand, learn and apply the SCD methodology. A university education is no longer an implicit requisite, and there should be minimal problems if future workshop participants possess normal intelligence and a sixth-grade

understanding of English.

Nevertheless, it is important also to consider the language of instruction which future teachers will use with their students. For example, all instruction in Nepal is to be conducted in the native language within 5-6 years, according to the government plan; even now, the CMA program at Birgunj is taught in Nepali, for the most part, from a curriculum which is written in English. Careful thought, then, must be given to the question "Can, and should, the SCD manual be translated into the native language of each country selected?" Is it feasible, practical, desirable, necessary to do so? Or should only Spanish- or French-speaking countries be selected for future projects, since the translated versions of the manual are already available? Or should bilingual instructors be employed? The problem of translation should be considered not only in terms of the ability of trainees to comprehend English but also in terms of the language of instruction they will use with their students, presently and in the future.

The simplified edition of SCD was field tested in Israel, the Philippines and Nigeria. In 1978, it was tested with 2 groups of Israeli nurses who used English as a second language. The language and structure of the manual was found to be too complex, and revisions were

made. Other field tests were made in the Philippines and Nigeria and further revisions are being made.

Selection of specific sites for field testing was based on the following stated criteria:

1) there must be an identifiable group who is responsible for designing courses for training of health workers.

2) there must be one individual who is charged with overall responsibility and coordination of the course design effort

3) the group is to be prepared to work intensely for 2-3 weeks and

4) there must be group commitment to completing the course design work and sharing all the developed products with CEDH by a specific, later date.

The above criteria, plus one more --- the fact that CEDH was working closely with people responsible for course design projects in Israel and Nigeria --- led to the selection of sites.

It appears that the field tests were planned in a highly professional manner: the stated criteria for selection were met, a range of possible outcomes was identified, options for control of participant variables were developed, and the mode of instruction was determined. (Based on previous experience with foreign countries, a task-oriented group effort situation was chosen.)

In Israel, 2 separate workshops were held for 5 days each, directed and taught by 3 senior faculty members of the School of Allied Health Professions at Ben Gurion University who had received prior intensive training in SCD. Participants included physiotherapists, a medical-social worker, and a majority of nurses in various fields. English was a second language for all but one person.

In addition to the many specific suggestions for improving the SCD manual made by participants, three important observations emerged:

1) there was considerable variability in the quality of units of instruction produced

2) the length of the workshop was viewed by participants as too short, but

3) participants gained a new self-confidence and a commitment to the SCD methodology.

It would seem, therefore, that

a) workshops should be of longer duration and

b) participants should be taught how to continue to increase their technical competencies in an independent learning mode upon completion of the workshop.

In Nigeria there were fewer participants (11) in only one workshop. Some modifications based on the Israel field test were implemented in Nigeria (e.g. - the duration of the workshops was longer), but the process and the results were much the same as in Israel. Data and informa-

tion on the Philippines field test are not yet available for analysis.

The evaluation team believes that the field tests

a) were planned and conducted properly and in highly professional manner and
b) emphasized the acceptance and general applicability of the SCD.

Finally, the question of technical and cultural appropriateness should be addressed. The SCD was designed to be a self-instructional methodology for course development (after a short period of training). The SCD was designed to be a self-instructional methodology for course development (after a short period of training). In fact, this was found to be generally true in Bolivia and in Honduras, where the technology was effectively transferred to course development and is continuing to be used with very little contractor assistance. In Nepal, because of political/administrative concerns, such transfer has been delayed. But it should be remembered that whole new curricula --- the HA and the CMA programs --- are being developed, not individual courses as in the two other countries. And it must be pointed out that Nepal has, despite the constraints, made great strides in its curriculum development efforts, having already produced a large portion of its planned output. This was not accomplished,

however, without a substantial time and energy expenditure by CEDH, which will probably have to continue for another year. After that, it is possible that Nepal will be able to continue its curriculum development efforts with minimal outside technical assistance.

As for cultural appropriateness, it should be stated that the SCD is essentially a neutral technology, not culturally linked to the U.S.. The methodology is wholly neutral with respect to content, which is a responsibility of the trainee. Any course (or curriculum) developed via the model will reflect the cultural, political and economic conditions of the country or setting, simply because that is the nature of the SCD technology. The SCD teaches trainees how to design courses/curricula for health personnel, based on task analysis of a specific health position in the local task analysis --- that makes SCD culturally acceptable and replicable in different countries.

TASK III

"A Teachers Manual to accompany the Manual SCD in HF shall be researched, developed and field tested during the first year. This manual is intended to assist Field Directors and others using the text to teach SCD methods. As in the simplified text, the Teachers Manual shall include LDC specific excercises

and examples. The Teachers Manual shall be published during the second year."

OBSERVATIONS AND IMPRESSIONS RELATING TO TASK III

The Teachers Manual was field tested in Nepal and Malaysia. It is now called "Leader's Guide." It contains a typical workshop program which identifies activities, assignments and teaching approaches for each individual training session, as well as "Resources/Reminders" for the instructor; in addition, a section on "Evaluation Materials" includes forms for biographical data, evaluation of participant products and participant evaluation of the workshop. It is an excellent leader's guide which can facilitate the delivery of workshops with or without the intervention of CEDH personnel.

TASK IV

"The Contractor shall provide assistance to LDCs in curriculum development or revision, as requested by AID. Requests may vary in scope and complexity, from relatively small components of a curriculum to the development of revision of an entire curriculum for a health technician.

Services may include some or all of the following:

- Regular on-site consultation during the process of curriculum development or revision.
- Bibliographic support
- On-site workshops on production of instructional materials and test construction, and
- Editorial assistance while work is in progress."

The following table indicates the magnitude of the services provided by the Contractor under this "task" and suggests the geographic spread of the activities.

(see nest page)

OBSERVATIONS AND IMPRESSIONS

The contractor provided assistance in curriculum development or revision to several countries. As noted earlier, a heavy investment of time and energy has been made in Nepal; services included on-site consultation and workshops throughout the curriculum development process, including much assistance with production of instructional materials and tests and editorial assistance with the developed curriculum. In Bolivia, assistance was provided in curriculum revision and in consultation regarding new course development. It should be mentioned, too, that the SCD was applied not only to the development of new courses but also to core courses which had been taught over longer periods of time (e.g. - the Basic Sciences curriculum in the HA program Nepal).

3/M

TABLE III SERVICES PROVIDED LDCs UNDER TASK IV
SHOWING COUNTRY AND YEAR

April 24, 1979

∞ - Reconnaissance trip
✓ - Consult

SERVICE	COUNTRY	YEAR 01	YEAR 02	YEAR 03
A. On Site Consultation	Bahrain	∞		
	Bolivia	∞ ✓	✓	
	Ecuador			∞
	Egypt		∞	✓
	El Salvador	✓		
	Guatemala	∞		
	India		∞	
	Indonesia		∞	
	Nepal	✓	✓	✓
	Nicaragua	∞		
	Peru	∞ ✓		
	Philippines		∞	✓
B. Bibliographic Support	Bahrain	✓		
	Bolivia	✓	✓	
	Egypt			
	Honduras	✓	✓	
	Nepal	✓	✓	✓
	Philippines			✓
C. On Site Workshop	Bolivia	✓		
	Egypt			✓
	Honduras	✓	✓	
	Nigeria			✓
	Nepal	✓	✓	✓
	Philippines			✓
D. Editorial Assistance	Bolivia	✓	✓	
	Egypt			✓
	El Salvador	✓		
	Honduras	✓	✓	
	Nepal	✓	✓	✓
	Philippines			✓

Whether the request for assistance was with small components of a curriculum or with the development or revision of an entire curriculum, all persons interviewed by the evaluation team reported that CEDH responded admirably, often "going the extra mile" in their efforts to provide assistance.

TASK V

"At the request of AID, three to five formal or informal linkages shall be formed each year with LDCs on country-specific health manpower development problems. Consultation and specialized training services shall be provided to AID Missions, geographic desks, and bureaus on country-specific health manpower development problems. Consultation (to LDCs implied - ed.) by Contractor staff will take one or more of the following forms:

- Followup of teacher training workshops in the LDCs
- Performance analysis . . .
- Evaluation of education programs . . .
- Bibliographic support . . .
- Consultation with AID missions and AID Washington . ."

As referred to in Boston University's Annual Report, 1978, under the topic of "specialized help in manpower development" --- "CEDH assisted in health manpower component of a proposed loan to extend health services to

rural areas." That this was accomplished, and with eminent success, is demonstrated by the following newspaper account which was in the papers during our (appropriately-timed) visit to the Montero Project in Bolivia. Quod erat demonstrandum!

Paz, Bolivia, Jueves 29 de marzo de 1979

Bolivia y EE.UU. firmaron convenio de servicios de salud en área rural

FIRMA DE CONVENIO.- Los gobiernos de Bolivia y EE.UU. firmaron ayer un convenio de préstamo de 13.300.000.- dólares para la extensión de servicios de salud en el área rural. En la foto, los representantes de ambos gobiernos.

Los gobiernos de Bolivia y Estados Unidos suscribieron ayer un convenio de préstamo y donación de fondos, orientados a la extensión de servicios de salud en el área rural.

El préstamo y donación de la Agencia para el Desarrollo Internacional (AID), es de 13.300.000.- dólares. El aporte de Bolivia asciende a $US.- 6 672.000.-, más la liberación de impuestos por adquisición de equipos, maquinarias y repuestos varios que, en una segunda etapa, beneficiarán a los distritos rurales de Potosí, Santa Cruz y La Paz. Actualmente, se lleva a cabo una primera etapa en la zona rural de Santa Cruz.

Los documentos fueron firmados por los ministros de Previsión Social y Salud Pública, Gral. Luis Rivera Palacios y de Finanzas, Lic. Wenceslao Alba, y por el embajador Paul H. Boeker y el director de USAID en Bolivia, Frank Kimball. El préstamo será cubierto en un plazo de 30 años. La donación proporcionará asistencia técnica y el aporte de Bolivia cubrirá, en niveles nacional y departamental, pago de sueldos, gastos de operación y mantenimiento de vehículos y equipos.

El embajador Boeker dijo, en su discurso que "es un ejemplo de la continua preocupación de los Estados Unidos por el bienestar de la población rural de Bolivia. Nuestro pueblo contribuye con su aporte al mejoramiento de servicios de educación, salud y agricultura para ciudadanos de recursos limitados".

Al referirse al préstamo, Boeker aludió a "la construcción y remodelación de las instalaciones de salud en el área rural, postas sanitarias, centros de entrenamiento, talleres de mantenimiento y almacenes; centros de salud hospitalarios y equipamiento de dichas instalaciones y la renovación de las instalaciones de asistencia de los sistemas de salud nacional".

Por su parte, Rivera Palacios dijo "que los ideales comunes que distinguen a las amistosas relaciones entre Bolivia y Estados Unidos se rubrican en forma constante en diferentes campos de cooperación que realiza ese país. En los hechos, este nuevo acuerdo entre nuestros dos países representa una renovación de amistad de cooperación y de buena voluntad en beneficio del pueblo boliviano".

El préstamo y la donación beneficiarán a una población aproximada de 650.000 habitantes asentados en los departamentos de Santa Cruz, Potosí y La Paz. De ese número, alrededor de 200.000 personas tendrán, por primera vez, acceso a los servicios de salud básicos.

TABLE IV: SERVICES PROVIDED TO AID OFFICES AND TO LDC'S UNDER TASK V BY YEAR AND BY COUNTRY

A. Consultations (Services to AID)

Service Provided	AID Unit Assisted
Year 1: *Conference on Behavior Change in Nutrition	DSB/Education AID
Year 2: *Help write PID and PP	Somalia Mission
*Develop English and Spanish Slide Tape Show on CEDH services and capability	DSB/Health AID
*Course "Curricular Problems and Instructional Modes in International Development"	DSB/Health AID and Boston University
Year 3: (first 6 months)	
*Evaluate AID Contractor	Haiti Mission
*Workshop on curriculum design at annual meeting in Los Angeles	APHA International Division

B. Consultations (to LDC's)

Year 1: Workshop on SCD; workshop on evaluation and workshop on modern educational methods	Nepal
Workshop on SCD	Bolivia
Evaluation Design	El Salvador
Workshop on evaluation	Honduras

* Not required by the Contract.

Year 2:	Evaluation auxiliary nurses curricula; health education	Bolivia
	Workshop on evaluation	Honduras
	Consult on health assistant and auxiliary health worker curriculum	Nepal
Year 3:	(first 6 months)	
	Workshop on SCD	Egypt
	Consult on Health Assistant and Auxiliary Health Worker Curriculum	Nepal
	Teach workshop on SCD	Nigeria
	Teach workshop on SCD	Philippines

TASK IV

"Upon request of AID missions, geographic desks, or bureaus, and their (sic) host countries, specialized short-term training shall be tailored to the specific needs of the individual(s) involved."

Table V shows the numbers of trainees for whom specialized short-term training was provided, in Boston, by project year.

TABLE V: SPECIALIZED SHORT-TERM TRAINING ACTIVITIES CARRIED OUT UNDER TASK VI, BY YEAR

Year 01	Honduran	M.D.	(1)
	Bolivian	R.N.	(2)
Year 02	Bolivian	R.N.	(3)
	Honduran	R.N.	(2)
	Nigerian	M.D.	(1)
Year 03	Indonesians		(3)
	Philippinos		(1)
	Course on Internat'l Dev.		(9)

(Adapted from Annex D.)

The Role of Women in Development

The role and development of women vis-a vis this project, while less than optimal, has been encouraging. In Bolivia, for example, auxiliary nurse is/can be either male or female and in practice it's about 50-50. However, auxiliary nurse II's are male, not because this is a higher level, administrative/supervisory position (which it is), but because of the conditions of the job, mainly auxiliary nurse II's must work at night, do a great deal of travel for long distances over very bad roads on mountainous terrain, use motorcycles to get around, etc. In addition, the culture expects marriage, home and family to take precedence for a woman.

In Honduras, the project is training nurses (mostly female) and auxiliary nurses, (who are, again, either male or female). Midwives are being trained, too, but not as part of this project; they are all female. Health promoters are always male, because of cultural and work conditions similar to those in Bolivia.

In Nepal, there has been less progress in women's development. In the programs involved in this project (the HA and CMA programs), practically all students are male. However, the AID mission in Nepal has been promoting more female village health workers, particularly in the mid-hills (where 60% of the population lives). Cultural differences in the high hills, prevent females from working in those kinds of

health positions. But now there is one female village health worker in each established health post in the Terrai (plain) and in the mid-hills areas. It should be remembered that the village health worker is a position requiring only a few weeks of training.

Nurses do not have much prestige or power in Nepal. We were told that "if the Senior Health Officer left the health post,a brand-new CMA would be put in charge if an HA wasn't available. They'd never put a nurse in charge."

The evaluation team did talk to several female medical doctors who were involved in this project. They enjoy the same respect and status as male medical doctors.

FURTHER OBSERVATIONS:

1. Technical or interpretive guidance and back-up should be built into all LDC programs after training workshops.

2. Follow-up support mechanism needed to assist trainers who function outside of formal training institutions.

3. A decision must be made --- at the U.S. A.I.D. level --- about how to handle the various languages used in different countries (see Task 2).

4. Continue to train a nucleus of people in each country, to provide in-country capability.

5. Continuing education in SCD methodology and curriculum development should be promoted.

6. Understanding and application of "Evaluation" concepts by LDCs needs to be improved.

7. Conferences of the kind held at Cali and Kuala Lumpur should be continued.

8. Project officer at AID-Washington should be encouraged to visit sites of active projects.

9. Continue this project or

10. A project to train health supervisors, using SCD, would be a desirable follow-up project.

11. Some funds should be made available to LDCs for production and use of audiovisual materials.

12. A good understanding of the structure of each institution within the LDC is critical to contractor's success.

13. For trainers who were not trained in a workshop, a brief introductory-type booklet would be useful.

Health professionals who have been involved in the CEDH project were generally positive about the results achieved in their respective countries. They noted the flexibility of this curriculum approach in training nurses, auxiliary nurses, health promoters, health assistants, etc. for new roles and responsibilities. In Nepal, the project bought orderly planning, uniformity and standardization to the curriculum on a country-wide basis, creating some sense of order among the multi-campuses to meet Nepal's health needs.

Miscellaneous:

While not strictly an element of the evaluation report, the following exercise might be of interest to some readers; it represents an attempt by one of the authors to place the "Phase III Teaching Community Medicine" in a time-frame continuum.

The project "Teaching Community Medicine, Phase III," is the third of a series of projects.

Phase I (1972-1974) included research and development of a text called Systematic Course Design in the Health Fields.

Phase II (1974-1976) consisted of field trials of the text in seven LDCs and the publication of the text.

Phase III, the present phase, (1976-1979) calls for refinement of the methodology, extension of SCD methodologies to additional AID countries, and strengthening activities begun at the field test sites.

Specific activities carried out during the life of these three phases may be visualized as sections of a time-frame continuum. (The considerable overlapping of activities is omitted in this concept for the sake of simplicity.)

Concept of SCD

Concept of SCD applied to health fields

Research and development of text on SCD in health

Field trials of text

Revisions/modifications of the text

Publication of the text

Field Director Training in Boston

Triad of Recon. Visits, Workshops, Follow-up visits in LDCs

Application of "Triad Approach" to first, production of "units of instruction", secondly, "courses for health workers" and, finally, "revision or preparation of entire curricula for certain categories of health workers"

Incorporation of teacher training methodologies and teacher training activities into SCD model

Recognition of need further to develop and strengthen the local production of instructional materials

Identification of further elements that may emerge as limiting factors in the development of LDC health manpower and related training programs.

When viewed in this perspective, the apparently successful completion of all targeted tasks in the Phase III project may be seen as but one of a series of stepping stones, with additional stones, as yet but dimly seen, marking the future course of improved teaching in the health field in LDCs.

CHECKLIST FOR DISCUSSIONS WITH AID, HOST COUNTRY, (ETC.) OFFICIALS

IDENTIFYING DATA:

NAME POSITION HOW LONG IN POSITION?

FAMILIARITY/CONTACT WITH PROJECT

CEDH AND SCD ACTIVITIES IN COUNTRY.

What? When? Where? Why? How? Who?
Any documents we should see?
What people should we see?

Management of Project:
Field and workshop personnel. Recon. visit, followup.
Qualified? Proper timing? Helpful? Planning. Supervision.
Followup. Reports. Evaluation. Budget. (See also next page)

Targets and Activities:
Appropriate? Timely? Useful?
Outputs. Multiplier effects.
Host country reactions to project and people.
Subsequent activities/roles of participants.
Recruitment/selection of Field Directors, participants.
Bolivia: what happened to John Messey's urban renewal study?
Educational level of participants:
actual vs. desirable/ideal
Any reports/gossip about post-workshop use of SCD.
Any participants who failed to use it?
Any lists of people trained, courses given?
Strengths/weaknesses of approach.

HOW WERE FIELD DIRECTORS/PARTICIPANTS SELECTED?

Could it have been done differently/better?
Any in-country experience in using SCD methodology in lower educational level. Health workers — as P.H.C.?
Reactions from WHO, UNICEF, etc. to project.
Review log frame for further discussions.

April 5, 1979

IS BU's INPUT STILL NEEDED, OR COULD SCD METHOLDOGY PROCEED WITHOUT B.U. FOLLOWUP, BACKSTOPPING AND ASSISTANCE?

IF THE PATTERN THAT EVOLVED (i.e., Recon. visit, workshop, followup visit) WAS USED IN HOST COUNTRY SITUATION, WAS IT APPROPRIATE?

Were decision makers involved?
Was it a training activity alone, or did it tie together training, planning and health delivery systems?

MANAGEMENT OF PROJECT:

Did B.U. handle logistics, communications, etc. Well? Independently? Too much reliance on mission, AID/w?

Did B.U. try to sell its own methodology approach too much? or Did B.U. adequately represent the broader AID objective, and goals?

Any other donor agencies, ministries, involved in project?

Review logframe assumptions

Inputs
Outputs
Project purpose

PROJECT PURPOSE:

Did EOPS conditions prepared during preparation of project, prove to be a good description of actual status now?

Unplanned effects (good or bad)
Social structure Economic Environment Other

SHOULD THE PROJECT BE CONTINUED?

WHAT WAS THE BASIS FOR THE CALI, COLUMBIA WORKSHIP? HOW DIFFERED FROM OTHER WORKSHOPS? INTENDED OUTCOME? WAS THIS ACHIEVED?

IS THERE A RECOGNIZABLE PATTERN OF PREDOMINANTLY URBAN-BASED TRAINERS? IF SO, DOES THIS PRECLUDE ANY EXTENSION OF TRAINING METHODOLOGY TO RURAL AREAS? WHY? WHY NOT?

DOES THE HOST COUNTRY HAVE ANY HIDDEN POLICY RE SCD METHODOLOGY BEING USED? IF SO, DOES IT ENHANCE OR DETRACT FROM METHODOLOGY BEING SELF-SUSTAINING?

ANY ROLE OF WOMEN DISCUSSION?

DO YOU HAVE ANY IMPRESSION ABOUT THE SCD MANUAL ITSELF?

=

QUESTIONNAIRE FOR USE WITH FIELD DIRECTORS AND WORKSHOP PARTICIPANTS:

1. NAME POSITION/TITLE HOW LONG IN THIS POSITION?

2. HOW WERE YOU SELECTED (as F.D. or Participant)?
   WERE THERE FORMAL CRITERIA? WRITTEN DOWN?
   WHO PREPARED THE CRITERIA?
   WHO APPLIED (USED) THE CRITERIA DURING THE SELECTION PROCESS?

3. BEFORE YOU TOOK THIS POSITION (F.D. or Participant), WHAT WERE YOU DOING? (Title; Teaching; what courses; How many trainees/students; etc.)

4. HAS YOUR POSITION CHANGED SINCE --
   a) For F.D.'s: You were trained in the SCD methodology?
   b) For Participant's: You attended the workshop?

5. WHAT WAS THE PLACE, TIME, DURATION, ETC. OF YOUR SCD EXPOSURE?
   Workshop: Held where, when, by whom
   B.U. Training: Held where, when, by whom

6. CAN YOU GIVE US A LIST OF ALL THE TRAINING ACTIVITIES YOU HAVE ENGAGED IN SINCE YOUR OWN SCD "EXPOSURE."
   a) Type of Training
   b) Numbers of students
   c) Educational level of students
   d) backgrounds of students
   e) Urban or rural
   f) Have your students used the SCD approach subsequently?

7. WHAT IS YOU OWN FEELING ABOUT THE SCD METHODOLOGY?
   VERY USEFUL: USEFUL: SO-SO: NOT MUCH HELP; DON'T LIKE IT.
   a) What are its strengths and weaknesses?
   b) Does it work better when training people from a higher or lower educational level?
      Could it be used in training P.H.C., village level, workers with, say, a 12th grade education? A 6th grade education? Or lower?
   c) Have you ever used the SCD methodology in training P.H.C. people? Describe.
   d) Was the Recom. visit and followup visit useful?

8. FOR F.D.'s: HAVE ALL PARTICIPANTS AT WORKSHOPS SUBSEQUENTLY USED THE METHODOLOGY? SOME? WHAT PERCENTAGES OF EACH?
   DO YOU KNOW OF SOME PARTICIPANTS WHO HAVE NEVER USED IT? WHY NOT?

9. FOR PARTICIPANTS: IN YOUR TRAINING ACTIVITIES SINCE THE WORKSHOP, HAVE YOU ALWAYS USED THE SCD METHODOLOGY? SOMETIMES? NEVER?

WHY DID YOU USE IT IN SOME SITUATIONS AND NOT IN OTHERS?

10. CAN YOU USE THE MANUALS/INSTRUCTIONAL MATERIALS DEVELOPED BY B.U. BY YOURSELF, AT THIS TIME, OR WOULD YOU (PREFER) (NEED) CONTINUED ASSISTANCE FROM B.U. PERSONNEL?

11. WHAT IS YOUR PERCEPTION OF THE MANAGEMENT OF THE PROGRAM BY B.U.?
    DID YOU GET ALL THE HELP YOU NEEDED? WAS IT USEFUL TO YOU? WAS IT TIMELY?
    WHAT OTHER THINGS COULD HAVE BEEN DONE THAT WOULD HAVE BEEN HELPFUL?
    DID YOU RECEIVE ANY BOOKS, JOURNALS, EDUCATIONAL MATERIALS THAT WE HAVEN'T ALREADY MENTIONED?

12. FOR F.D.'s: HAVE YOU EXCHANGED INFORMATION OR EXPERIENCES WITH OTHER F.D.'s. IN THIS (OR OTHER) COUNTRIES CONCERNING SCD METHODOLOGY?
    DO YOU THINK THAT IN FUTURE PROGRAMS OF THIS SORT, PARTICIPANTS SHOULD COME TO WORKSHOPS AS A GROUP OF PEOPLE FROM THE SAME INSTITUTION(S) INSTEAD OF AS INDIVIDUALS? WHY DO YOU THINK SO?
    FOLLOWING YOUR WORKSHOPS, WHAT WAS THE TYPE OF FOLLOWUP HELP YOU RECEIVED FROM B.U.? WHO? WHERE? HOW LONG?
    OBJECTIVES ACHIEVEMENTS
    WHICH WAS (MOST) (LEAST) HELPFUL? WHAT ELSE COULD HAVE BEEN DONE?
    DID YOU ATTEND THE CALI WORKSHOP?
    DESCRIBE IT
    ANY SUBSEQUENT FOLLOWUP?
    EXPECTATIONS? ACHIEVEMENTS?
    HOW MANY BOLIVIANS ATTENDED? WHO?
    ADD: WOMEN IN DEVELOPMENT

LIST OF PEOPLE CONTACTED AND INSTITUTIONS VISITED

AID/W, WASHINGTON

Mr. John McEnaney, Project Officer
Mr. John Massey
Dr. John Kennedy
Ms. Theresa A. Lukas
Ms. Barbara Kennedy

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Dr. Lori Vanderschmidt, Project Director
Dr. Ascher Segall, Director
Dr. John McCollum, Consultant
Ms. Geri Duffy, Administrative Assistant
Mr. Jose Carneiro, Senior Research Associate
Ms. Ramona Arnett, Director of Development
Ms. Beverly Anderson, Secretary

LA PAZ, BOLIVIA

AID/BOLIVIA

Dr. Audrey P. Wight

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Margarita R. de Millan, R.N.

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PROYECTO SALUD RURAL MONTERO

Dr. Everisto Maida, District Project Coordinator

(Santa Cruz, con't.)

SCHOOL FOR TRAINING NURSE AUXILIARIES

(Three participants)

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ANNEX D

Competency Based Curriculum Development for the Health Fields:

Summary of the

Center for Educational Development in Health, Boston University Project

AID/DSB, Office of Health, Contract ta-c-1355

April 1979

I. Summary

The Office of Health in the Development Support Bureau (DSB) continues to support its centrally funded field service contract with the Center for Educational Development in Health (CEDH) at Boston University. This project is responsive to requests from DCs to teach a methodology for applying modern educational technology using a systematic course design in training the trainers of health professionals, paramedicals, and auxiliaries.

The response from the field has been encouraging with a total of over 30 inquiries received, resulting in 22 technical field visits and assistance in developing programs.

A two-phase program preceded the present project. Phase I, (1972-74) included research and development of a text called Systematic Course Design for the Health Fields. This text was evolved from course materials used by CEDH for many years while the Center was at the Harvard School of Public Health. The text uses a systematic, competency-based model for curriculum design and is intended for training teachers of health professionals to use these methods.

Phase II, (1974-76) consisted of an extensive field test of the text in seven DCs (Cameroon, Colombia, Honduras, Lebanon, Malaysia, Nepal and Vietnam). The objective of the field test was to see if the methodology used in teaching course design was applicable in the developing nations and to make appropriate revisions of the text prior to publication. The text was published in 1975 by John Wiley and Sons. Assessment of the impact of the field tests was also conducted.

The current project, Phase III, (1976-79) calls for refinement of the methodology, extension of systematic course design methodologies to additional AID countries, and strengthening activities begun at the field test sites.

II. Objective

The main objective of CEDH is "The development of a corps of trained health manpower which is capable of developing and implementing adequate solutions to the health needs of the country".

III. Present Situation

In some countries it may be necessary to restructure curricula and retrain existing categories of workers to assume many responsibilities required by an integrated health care approach. To utilize these new multi-purpose workers effectively, supervisors may need additional training. Other countries are developing completely new categories of health personnel, such as village level workers, middle level physician extenders, and the like.

IV. Services Available

The Center for Educational Development in Health (CEDH) is prepared to meet its main objective by means of the following:

A. Conduct intensive, in-country training of varying lengths for health teachers in one or more of the following areas:

1. Competency-Based Curriculum Design

   "Competency-based means courses and curricula which rest firmly upon and are derived from clear specifications of what the worker is to be able to do in his future job." This concept sounds deceptively simple; it actually requires a considerable amount of systematic thought. Participants of the in-country training are taught to design units of instruction using the systematic course design model.

2. Effective Teaching Methodologies

   Emphasis is placed on the use of techniques which actively involve the student in the learning process such as group discussion, role play, and case method analysis. Considerable attention is given to the selection of inexpensive, practical methods which facilitate student learning.

3. Design of Valid Evaluation Instruments

   Assistance is provided in the design of various tests of performance and attitude of trained personnel as well as in simple ways to evaluate the quality of the test instruments themselves.

4. Instructional Materials Development

   Assistance suited to local needs and resources can be provided to develop instructional materials such as slide-tape sets, workbooks, small units of programmed instruction, exercises, and cases for group discussion.

B. Deliver in-country assistance or consultation to the health manpower development units in such matters as:

1. Development of New Competency-Based Curricula

2. Review and Revision of Existing Curricula

3. Design of Systematic Ways to Evaluate the Effectiveness of Curricula

4. Provide technical support service to missions and host countries by:

   a. Consultation on the Training Component of Country Plans for Health Manpower Development

   b. Participant Training in Boston

      Facilities from the Center for Educational Development in Health can be made available for participant training at Boston University. Note: This contract provides no funds for participant training in the U.S. Funds may come from the country itself, Mission participant training funds, or other donors.

   c. Bibliographic Support of Ongoing Health Manpower Development Projects

      CEDH has access to computer retrieval of world-wide literature in health manpower development. In addition, the Center has its own extensive working library. Requests for bibliographic support should be accompanied by a clear specification of the type of assistance requested.

V. Research and Development Backup for Project

To support the curricular services described above, CEDH has been developing and field testing publications including a Leader's Guide for Systematic Course Design for the Health Fields and a Simplified Edition of the same text. The Leader's Guide makes it possible for individuals who have developed a curriculum using the Systematic Course Design method to teach a workshop in order to train others. Instructions for each workshop session are already outlined as well as participant assignments and criteria for evaluating participant products. The Simplified Edition of the text is written at the sixth grade level. The objective of the new text is to permit individuals, for whom English is a second language, to make effective use of the method. The text is also shorter and more practical.

To assure that curricula based on the Systematic Course Design (SCD) approach are effective, CEDH continues to assess participant course design products in its' workshops overseas. Further evaluation of on the job competency of health workers trained in courses developed according to the SCD method is being carried out.

September 1976 - September 1977

( ) = number of individuals trained

Site	Reconnaisance Visits	Conferences and Workshops Overseas	Consultation Overseas	Training of Field Directors/ Teaching	Research/Publication
Nepal	X	a) Systematic Course Design (12) b) Evaluation c) Educational Methods (20)			Field Test Leader's Guide for Systematic Course Design
El Salvador			developed evaluation design for rural health aides program		
Bolivia	X	Workshop in Systematic Course Design (SCD) (22)			
Honduras		Workshop in Evaluation (28)			
Peru	X		Curricula for inservice training		
Nicaragua	X				
Guatemala	X				
Bahrain	X				
Boston				Honduran M.D. (1) Bolivian R.N. (2)	Develop Leader's Guide for Systematic Course Design

( ) = number of individuals trained

September 1977 - September 1978

Site	Reconnaisance Visits	Conferences and Workshops Overseas	Consultations Overseas	Training of Field Directors/ Teaching	Research/Publications
Colombia (Regional)		Conference for health manpower policy makers on SCD (34)			
Nepal		Workshop on SCD for new faculty (29)	Consult on Auxiliary Health Worker and Health Assistant Curriculum		Basic Science Curriculum for Health Assistants
Malaysia					Field Test Leader's Guide Systematic Course Design
Israel					Field Test Simplified Edition SCD
Honduras		Workshop on evaluation (35)			
Mexico					Publish Spanish Version SCD (LiMusa)
Bolivia			Evaluation of auxiliary nurses; curricula health educators		
Somalia			plan P.I.D.		
Brazil	X				
India	X				
Indonesia	X				
Philippines	X				
Boston				Bolivian RN (3) Honduran RN (2) Nigeria MD (1)	Field Test Edition Simplified Edition of SCD

Site	Reconnaissance Visits	Conferences and Workshops Overseas	Consultations Overseas	Training of Field Directors/Teaching	Research/Publication
Malaysia (regional)		Conference for policy makers on competency-based methods (45)			
Philippines		Workshop on SCD (25)			Field Test Simplified Edition SCD
Brazil		Workshop on SCD (20)			
Peru		Workshop on SCD (20)			
Indonesia		Workshop on SCD (45)			
Nepal			Develop curricula for auxiliary health workers and health assistants		Field Test curricula for auxiliary health workers and health assistants
Nigeria		Workshop on SCD (11)			Field Test Simplified Edition SCD
Togo		Workshop for Village Health Worker Trainers (25)			
South Korea	X				
Ecuador	X				
Boston				Indonesian (3) Philippinos (1) Course on International Dev. (9)	Publish Leader's Guide Simplified Edition SCD Paper on 1974-1976 Field test overseas
Egypt	X	Workshop on SCD (65)			

AID Contract ta-c-1355 1977-1979

Outputs	Required by Contract	1977	1978	Projected 1979
Field Directors trained in Boston	4-6 per year	3	6	5 9 (course on international development)
Teachers trained in Workshops overseas	50-100 per year	82	98	256
Reconnaissance Visits	---------	6	4	3
Countries assisted by consultations or workshops (not including Reconnaisance Trips)	3-5 per year	5	6	9
Publications	Simplified SCD text Leader's Guide SCD	---	Spanish version SCD (not required)	Simplified SCD text Leader's Guide SCD French version SCD (not required by contract)
Course or Curricula for International Development at B.U.	---------	---	---	(not required by contract) 1
Research	---------	Field test Instructor's Guide	Field test Simplified Edition of SCD	Evaluate new curricula for Nepal

ANNEX E

Travel

on

AID Contract: AID/tc-c-1355

Teaching Community Medicine Phase III

September 20, 1976 to September 19, 1977

Name	Dates	Location	Purpose
Dieter Koch-Weser	11/18/76-12/3/76	Boston-LaPaz-Sta Cruz-LaPaz-Boston	Consultant on USAID Project in Bolivia.
John Massey	1/11/77-1/26/77	San Salvador	Consultation on Health Worker Evaluation for AID.
Lori Vanderschmidt	2/23/77-3/21/77	Boston-Washington-San Francisco-Hawaii-Malaysia-Nepal-Birgunj-Tansen-Bahrain-Boston	To assess the possibility of field testing Teacher's Manual in Malaysia and Bahrain. To discuss parallel AID projects with Dr. Smith in Hawaii. To plan long range program in Nepal.
John Massey	2/27/77-3/4/77	Boston-Guatemala-Nicaragua-Boston	Consultation on Rural Health Assistant for AID.
Maydee de Crespo	4/5/77-5/1/77	Santa Cruz-Bolivia-Boston and return	To attend a workshop at CEDH.
Marguerita de Milan	4/5/77-5/1/77	Bolivia-Boston and return	To attend a workshop at CEDH.
Dieter Koch-Weser	5/1/77-5/16/77	Cali, Colombia	Follow-up of workshop in Bogota of 1974 and discussion of possible workshop for South Colombia in Cali.

Name	Dates	Location	Purpose
John Massey	5/11/77-6/4/77	Boston-Tegucigalpa-Nicaragua-El Salvador-Guatemala-Boston	Consultation on health manpower programs in Honduras, Nicaragua and Guatemala. Technical assistance to ongoing project in El Salvador.
Judith Carey	5/21/77-6/18/77	El Salvador	Implementation of a training program for AID in El Salvador.
Dieter Koch-Weser	6/28/77-7/16/77	Boston-New York-La Paz- Santa Cruz-Sao Paulo Rio de Janeiro-New York-Boston	Workshop on course design for rural health workers.
John Massey	6/28/77-7/16/77	Boston-La Paz-Santa Cruz-Montero-Bolivia	To give a workshop on Systematic Course Design for staff of the Ministry of Health Training Schools in Bolivia.
Judith Carey	8/12/77-9/17/77	San Salvador	To continue consultation on Rural Health Aide Curriculum in El Salvador.
John Massey	8/17/77-8/27/77	La Paz-Tegucigalpa-Boston	To give a workshop on Evaluation to Teaching Staff of Ministry of Health in Honduras.
John McCollum	8/25/77-10/4/77	Kathmandu, Nepal	
Lori Vanderschmidt	8/25/77-10/7/77	Boston-Nepal-Malaysia-Hawaii-Boston	3 workshops on Evaluation, Modern Instructional Method and Systematic Course Design, consultation-Nepal; arrange for field test of Leader's Guide - Malaysia; meet with Dr. Smith - Hawaii.
Judith Carey	9/14/77-9/24/77	Boston-Lima-Arequipa-Lima-Boston	Lima - to present a workshop on Systematic Course Design. Arequipa - to meet with representatives of the Medical School and ASPEFEME for future collaborations.
Dieter Koch-Weser	9/14/77-9/21/77	Lima, Peru	Workshop for INPROMI and health professional schools under AID contract.

Name	Date	Location	Purpose
Judith Carey	8/12/77-9/1/77	San Salvador	To continue consultation on Rural Health Aide Curriculum in El Salvador (follow-up visit).

September 20, 1977 to September 19, 1978

John McCollum	2/17/78-3/11/78	Nepal	
Lori Vanderschmidt	2/17/78-3/11/78	Nepal	To work with the Institute of Medicine Faculty in developing curricula for the training of Health Assistants and Auxiliary Health Workers for Nepal.
Jocelyn Carlson	3/4/78-3/31/78	Somalia	To consult for AID in Somalia to serve as a Health Manpower Training specialist on the PID team.
John McCollum	5/20/78-8/16/78	Nepal, Bangkok, Djakharta, Manilla, Guam	
Dieter Koch-Weser	6/4/78-6/22/78	Boston-Salvador-Brazil-Peru-Colombia-Venezuela-Boston	Preparation for the Cali Conference to be held in Cali, Colombia August 14-19, 1978. Visit with participants of the conference and potential instructors.
Lori Vanderschmidt	6/10/78-7/28/78	Boston-Malaysia-Nepal-India-Boston	To plan Malaysian Conference; To assist in development of curricular materials for Health Assistants and Auxiliary Health Workers in Nepal.

Name	Date	Location	Purpose
John Massey	7/8/78-7/18/78	Washington, D.C.-Tegucigalpa-El Salvador-Boston	Conduct workshop for nursing instructor staff in Honduras; follow-up evaluation of Rural Health Aide Program in El Salvador.
Dieter Koch-Weser	8/9/78-8/19/78	Cali, Colombia	To participate in The Cali Workshop held in Cali, Colombia.
John Massey	8/9/78-8/20/78	Cali, Colombia	Same as above.
Jorge Auza Lopez	8/13/78-8/18/78	Bolivia-Cali, Colombia-Bolivia	To attend the Cali Workshop held in Cali, Colombia.
Jorge Quinteros Canedo	Same as above.	Same as above.	Same as above.
Margarita Ruiz De Millan	Same as above.	Same as above.	Same as above.
Maria Aurora De A. Holloway	Same as above.	Brasil-Cali, Colombia-Brasil	Same as above.
Fabiola De Aguiar Nunes	Same as above.	Same as above.	Same as above.
Juracy Dos Santos Rocha	Same as above.	Same as above.	Same as above.
Clara Wolfovitch	Same as above.	Same as above.	Same as above.
Gilka Xavier Da Silveira	Same as above.	Same as above.	Same as above.
Maria Terezinha De Amaral Moreira	Same as above.	Same as above.	Same as above.
Ernesto Medina Lois	Same as above.	Chile-Cali, Colombia-Chile	Same as above.
Ceneyda M. De Jaimes	Same as above.	Colombia	Same as above.
Luz Helena Sanchez	Same as above.	Same as above.	Same as above.

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Name	Date	Location	Purpose
Vincente Zapata S.	8/13/78-8/18/78	Colombia	To attend the Cali Workshop held in Cali, Colombia.
Miguel Almeida	Same as above.	Ecuador-Cali, Colombia-Ecuador	Same as above.
Elizabeth Angela Ascencio S.	Same as above.	El Salvador-Cali, Colombia-El Salvador	Same as above.
Zoila Blanca Fuentes	Same as above.	Same as above.	Same as above.
Celia Osorio De Salazar	Same as above.	Same as above.	Same as above.
Concepcion De Maria Segura	Same as above.	Honduras-Cali, Colombia-Honduras	Same as above.
Nelson Velasquez G.	Same as above.	Same as above.	Same as above.
Myriam Fonseca Lopez	Same as above.	Nicaragua-Cali, Colombia-Nicaragua	Same as above.
Adilia Lopez De Somarriba	Same as above.	Same as above.	Same as above.
Jaime Manzanares Aviles	Same as above.	Same as above.	Same as above.
Renato Castro De La Mata	Same as above.	Peru-Cali, Colombia-Peru	Same as above.
Rodolfo L. Gonzalez Enders	Same as above.	Same as above.	Same as above.
Graciela Risco De Dominguez	Same as above.	Same as above.	Same as above.
Miguel Santillana	Same as above.	Same as above.	Same as above.
Carlos Luis Gonzalez	Same as above.	Venezuela-Cali, Colombia-Venezuela	Same as above.
Elio Velasquez Villaroel	Same as above.	Same as above.	Same as above.

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September 20, 1978 to Present

Name	Date	Location	Purpose
John McCollum	10/27/78-12/78	Nepal	
Lori Vanderschmidt	11/3/78-12/15/78	Nepal	To assist the Institute of Medicine in Nepal with the development of Health Assistant curriculum.
John McCollum	1/6/79-4/1/79	Nepal, Manila, Singapore, Kuala Lumpur, Tokyo	
Lynne Gilbert	1/10/79-2/28/79	Nigeria	To conduct a workshop in Nigeria.
Lori Vanderschmidt	1/19/79-3/24/79	Nepal, Manila, Malaysia	Nepal: To review progress of Health Assistant Basic Science and Clinical Task Forces in development of curriculum. Philippines: To teach the Ministry of Health trainers the SCD method; develop a curriculum for a 10 week course for Municipal Health Officers in Management and Community Development. Kuala Lumpur: To deliver an Asia Regional Workshop on competency based health professional curricula to representatives from 10 Asian countries.

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Country and Name	Date	Location	Purpose
Bangladesh:			
Sneha Banu	3/11/79-3/16/79	Bangladesh-Kuala Lumpur-Bangladesh	To attend the CEDH/AID conference held in Kuala Lumpur, Malaysia.
T.R. Chowdhury	Same as above.	Same as above.	Same as above.
Dr. M.A. Rahim	Same as above.	Same as above.	Same as above.
Fiji:			
Isikeli Leweniquila	Same as above.	Fiji-Kuala Lumpur-Fiji	Same as above.
Indonesia:			
Hasnan Said	Same as above.	Indonesia-Kuala Lumpur-Indonesia	Same as above.
Sumarti Sudomo	Same as above.	Same as above.	Same as above.
Fardiah Yasin	Same as above.	Same as above.	Same as above.
Putu Lawa Udayana	Same as above.	Same as above.	Same as above.
Nepal:			
Moin Shah	Same as above.	Nepal-Kuala Lumpur-Nepal	Same as above.
Bishma Prasai	Same as above.	Same as above.	Same as above.
Papua New Guinea:			
K.K. Beri	Same as above.	Papua New Guinea-Kuala Lumpur-Papua New Guinea	Same as above.
Joel Banam	Same as above.	Same as above.	Same as above.

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Country and Name	Date	Location	Purpose
Philippines:			
Santigo Casin	3/11/79-3/16/79	Philippines-Kuala Lumpur-Philippines	To attend the CEDH/AID Conference held in Kuala Lumpur, Malaysia.
Remy Dequina	Same as above.	Same as above.	Same as above.
Pedro Gaton	Same as above.	Same as above.	Same as above.
Porazon P. Gonzalez	Same as above.	Same as above.	Same as above.
Vinifreda Marquez	Same as above.	Same as above.	Same as above.
South Korea:			
Kyo Ho Han	Same as above	South Korea-Kuala Lumpur-South Korea	Same as above.
Chong-Dal Park	Same as above.	Same as above.	Same as above.
Kilbyoung Yoone	Same as above.	Same as above.	Same as above.
Thailand:			
Pairatana Gunakasem	Same as above.	Thailand-Kuala Lumpur-Thailand	Same as above.
Narintr Tima	Same as above.	Same as above.	Same as above.
Paichit Pawabutra	Same as above.	Same as above.	Same as above.
Pensri Pichaisanit	Same as above.	Same as above.	Same as above.
Khun Manee Choothai	Same as above.	Same as above.	Same as above.
Tonga:			
Laumeesi Malolo	Same as above.	Tonga-Kuala Lumpur-Tonga	Same as above.
Washington, D.C.:			
Ramona Arnett	Same as above.	Washington, D.C.-Kuala Lumpur-Washington, D.C.	Same as above.

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Name	Date	Location	Purpose
Dieter Koch-Weser	3/26/79-4/2/79	Ecuador	To travel to Ecuador to discuss CEDH involvement.
Jose Carneiro	3/26/79-4/2/79	Ecuador	Same as above.

ANNEX F

NEPAL PROJECT

1975 - 1979

8 Trips - 67 Weeks

1975	March	2 weeks	Reconnaissance
1975	June-July	12 weeks	Workshop on Systematic Course Design; Advanced Workshop
1977	March	1 week	Assessment
1977	August-October	12 weeks	Workshop on SCD Workshop on Evaluation Workshop on Instructional Methods Proposal for CMA/HA Curriculum Projects
1978	February	8 weeks	HA. Develop Basic Science Curriculum; Plan Verification Study CMA. Begin Module Development
1978	June-July	13 weeks	HA. Complete Basic Science Begin Medical Modules CMA. Develop 24 Draft Modules
1978	November-December	12 weeks	HA. Develop Entry Tests. Negotiate with Faculty Board. Develop Medical Modules. CMA. Finish MCH, FP Community Nursing
1979	January-February	7 weeks	HA. Overall Plan Medical Curriculum Basic Science into Classrooms CMA. Train Field Faculty; Field Training Manual. Finalize Anatomy Physiology, Basic Science

67 weeks or 1 1/3 man year