

AFRICA CHILD SURVIVAL INITIATIVE
COMBATting CHILDHOOD COMMUNICABLE DISEASES
(ACSI-CCCD)

CONTINUING EDUCATION:
THE RATIONALE FOR A SYSTEM APPROACH

TRAINING



UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
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Working Paper

Continuing Education: The Rationale for a Systems Approach

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INTRODUCTION

With the shift to primary health care (PHC) in the late 1970s^a, health care workers often lacked the basic skills required to perform their newly assigned tasks. As a result, ministries of health (MOHs), supported by international, bilateral, and nongovernmental organizations (NGOs) organized training courses to improve the primary health care skills of health workers. Training courses were directed toward providing information and introducing new skills related to specific programs, such as immunization or case management for diarrheal disease and malaria.

In many sub-Saharan countries during the early 1980s, training courses were frequently implemented without identifying needs or assessing health worker performance before and after training. Activities were often conducted without coordination and communication. For example, the community might be mobilized to use services before the health workers had been trained to deliver them. Or health workers were trained to perform certain tasks, but the drugs or equipment needed for the task were not available. All too often, health workers attended training classes with similar course content because of limited monitoring or insufficient tracking of health worker training. There was no structured way to know if all categories of health care providers received needed training.

These experiences suggest that the long-term development of a “systems approach”^b to training will help assure that the right health care workers are trained in a timely and appropriate fashion. An overall recognition of the need for training or continuing education^c *throughout* the health worker’s career is critical for improving, strengthening, and maintaining health worker performance.¹⁻³ Today, 14 years following Alma-Ata, some sub-Saharan countries have developed a systems approach to continuing education that is comprehensive and meets the continuing education needs of their health workers.

The purpose of this paper is to describe the rationale for using a systems approach in strengthening and sustaining^d continuing education activities. This design is based on the many lessons learned during the Africa Child Survival Initiative-Combating Childhood Communicable Diseases (ACSI-CCCD) Project, which began in 1981. During the last decade of ACSI-CCCD, training experiences suggest that while the implementation of continuing education in each country may vary, a systems approach is likely to foster effective and efficient training and strengthen sustainability.⁴

^aThe international health conference at Alma-Ata (January 1978) helped to establish primary health care as one of several ways to support the now well-known World Health Organization (WHO) slogan *health for all by the year 2000*.

^bA “system” refers to “the sum of the educational activities, the organizational structure that supports and manages those activities, and crucially, the relationship between the educational activities, the management, and external agencies involved in the provision of health care.” In: Abbatt FR, Mejia A. *Continuing the education of health workers: A workshop manual*, World Health Organization (WHO), Geneva, 1988.

^cContinuing education “is just what the name implies: an integrated system for extending the education of the health worker beyond basic [or preservice] training, across his [or her] entire career.” In: *Continuing education for health workers: Planning district programmes*, African Medical and Research Foundation, Nairobi, 1983.

^dSustainability has been defined as “the continuation of activities and benefits achieved during the life of the project, at least three years after the project funding stops.” In: Bossert T. *Can they get along without us? Sustainability of donor-supported health projects in Central America and Africa*, *Soc Sci Med*, 1990; 30(9):1015-1023.

EARLY PLANNING

The ACSI-CCCD Project began three years after the Alma-Ata declaration of *health for all by the year 2000*. The purpose of the ACSI-CCCD Project was to work with 13 African countries in strengthening their capacity to improve child survival by utilizing five⁵ support strategies and applying them to three technical areas, with program management and sustainability as overriding concerns for all [Fig 1].

FIGURE 1: ACSI-CCCD PROJECT

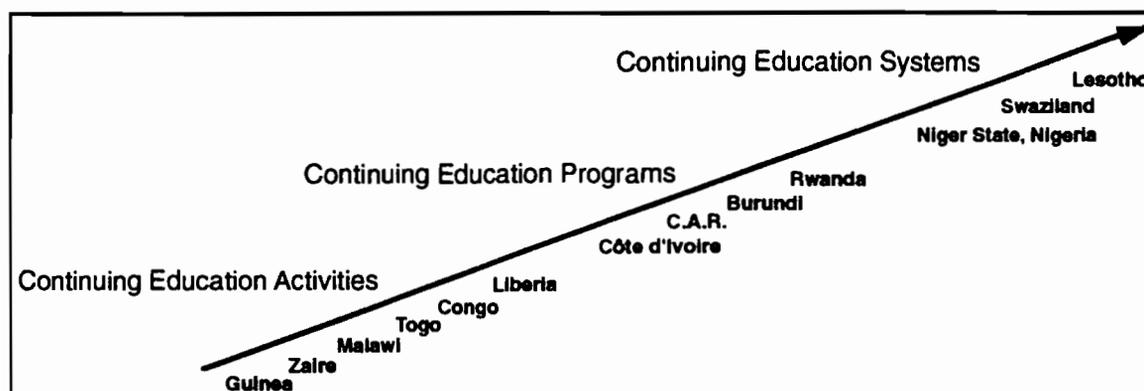
Support Strategies	Technical Areas
Training Health education Operational research Health care financing Health information systems	Immunization Diarrheal disease control Malaria control

To address the urgent need of upgrading health worker skills (to meet the new demands of primary health workers), MOHs initiated intensive training courses. Frequently, these courses covered all three technical areas, as well as health education, training, health information systems, and supervision. The focus was on training senior and midlevel managers, followed by peripheral staff training. Observations and later evaluation of many of these programs identified important elements needed in the development of effective training systems. For example:

- Develop a national infrastructure to coordinate training.
- Conduct training needs assessments (at the community, facility, and health system levels).
- Coordinate and plan interaction with other training agencies and institutions.
- Adapt generic training materials to country-specific needs.
- Design training of trainers (TOT) programs to develop skills in “how” to train health workers.
- Decentralize training by conducting training courses closer to local health facilities.
- Include time for skills practice in the training sessions.
- Track personnel who participate in health care training courses and programs.
- Plan training content so that duplication of subject matter is minimized.

By the early 1980s, the CCCD countries were in varying stages of developing their continuing education approach (including activities, programs, and systems), as suggested by the continuum line and definitions described [Fig. 2].

FIGURE 2: CONTINUING EDUCATION CCCD COUNTRIES – THE EARLY 80s



Continuing education activities: Educational activities refer to *ad hoc* (one-time) training activities that do not fit into a long-term design to address comprehensive health worker training needs, especially at the peripheral or midlevel.

Continuing education programs: Programs can be described as *planned*, routine educational activities. Continuing education programs 1) are offered on the basis of a survey of needs, 2) are comprehensive to include all cadres of health workers that need the training, and 3) are planned as a regular activity of the district or regional health team.

Continuing education systems: For the purpose of this paper, a system is comprised of a set of interrelated program elements that work together to achieve a particular purpose. Therefore, continuing education can be organized as a system when it 1) involves a comprehensive approach, 2) when the various issues and decisions in different sectors are coordinated, and 3) when the support, expertise, and resources (political, technical, educational, financial, and managerial) from different institutions are brought together to provide a coherent program of educational activities leading to progressive learning.¹

All 13 sub-Saharan countries in the CCCD project were involved in training activities, but initially only Swaziland and Lesotho [see Fig. 2] incorporated a systems approach to health worker training. To assist these two countries in supporting their continuing education plans, CCCD technical officers and training consultants worked with MOH personnel to review the current status of their existing training programs and make plans for any weak areas that might need strengthening.

For other countries, assistance was offered to plan training strategies that would respond to the country's respective needs, yet lead to a systems approach. The evolution of training strategies in each country varied, depending on the status of training at the beginning of the CCCD project, the cooperation with (and support of) local UNICEF representatives, the priorities and interests of the MOH, and the needs of in-country CCCD technical officers. To promote the development of a systems approach and encourage continuity in continuing education, technical officers were provided with guidelines. These guidelines were used with their MOH counterparts to identify each country's existing health worker training status and (equally as important) the direction that should be taken. Suggested in the guidelines were the following activities:

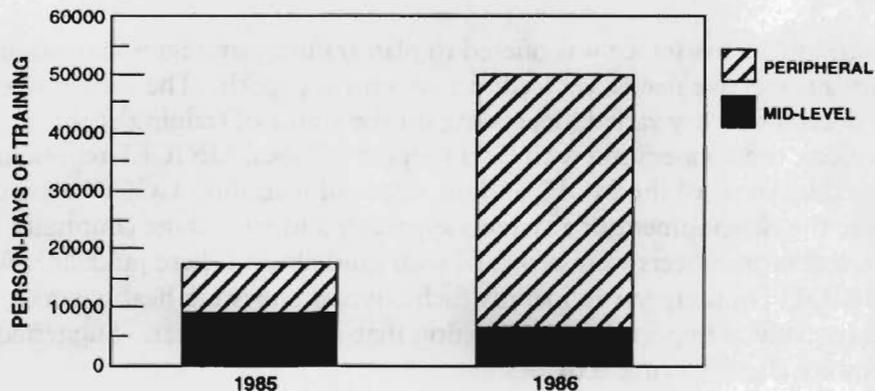
- Assess existing training. Determine what training was previously done, who is responsible for training, what policies are being used, what resources are available, is training decentralized, and is coordination taking place among institutions, agencies, and organizations.
- Conduct needs assessments. Observe health worker performance, review existing equipment and supplies, perform exit interviews of mothers, and conduct supervisory interviews.
- Plan for needed training. Define the type of training, the materials to be used, how training should be completed, and prepare trainers with training and material development skills.
- Plan a link for supervisory follow up. Discuss with participants how they can then help health workers apply what they have learned in the classroom to health facility settings.
- Evaluate the effectiveness of training. Assess the participants at the end of their training course and *use* the evaluation data to improve training.
- Institutionalize training. Coordinate with other agencies and sectors to develop short and long-term training plans and include a line item in the health budget for training expenses.

IMPLEMENTATION

The CCCD training objectives included strengthening the MOH training capabilities and institutionalizing a sustainable training strategy in each participating country. Therefore, training system guidelines needed to focus on measurable progress in several areas, particularly with 1) evaluation of the training system, 2) evaluation of health worker performance, and 3) training trainers.

During the early years of training, the initial method of measuring the success of training activities was to count the number of health workers trained. The CCCD Project reported annually on the number of "person-days" of training as called for in the project paper. For example, in 1985 over 17,000 person-days of training were reported compared to 50,000 person-days of training in 1986 [Fig. 3].

FIGURE 3: PERSON-DAYS OF TRAINING 1985-1986



EVALUATING TRAINING SYSTEMS

In time, it was recognized that counting “person days of training” was not a valid indicator of an effective training program. Evaluation needed to address both the training system and the effectiveness of the training programs. Specific training system components were then identified and the status of training systems in CCCD countries during 1985-86 was documented [Fig 4].

FIGURE 4: STATUS OF CCCD TRAINING ACTIVITIES BY COUNTRY

ACTIVITY	BURUNDI	C.A.R.	CONGO	COTE D'IVOIRE	GUINEA	LESOTHO	LIBERIA	MALAWI	RWANDA	SWAZILAND	TOGO	ZAIRE
Identify Training Coordinator	●			●		●	●	○	●	●		●
Develop 1 Year Training Plan (1987) With Specific Consultant Needs And Coordination With Other Agencies Involved In Training	●	●		●		●	●		●	●		●
Adaptation Of Training Materials For Peripheral-Level Workers	○	○	○	●		●	●	●	●	●	○	○
Training Of Trainers (Core Trainers)				○		●	○				○	●
Decentralization Of Training	○	○		○		●	○	○	○	●		
Needs Assessment Conducted Prior To Peripheral Level Training	●			○		●		○	○			
Continuing Education Plan						●				●		
Review Of Schools Of Health Science Curricula In CCCD Context	○		○	○		●						
Evaluation Of Peripheral Level Training	○			○			○	●	○			●
Reports Submitted On Number Of Person-Days Of Training	●	●	●	●	●	●	●	●	●	●	●	●

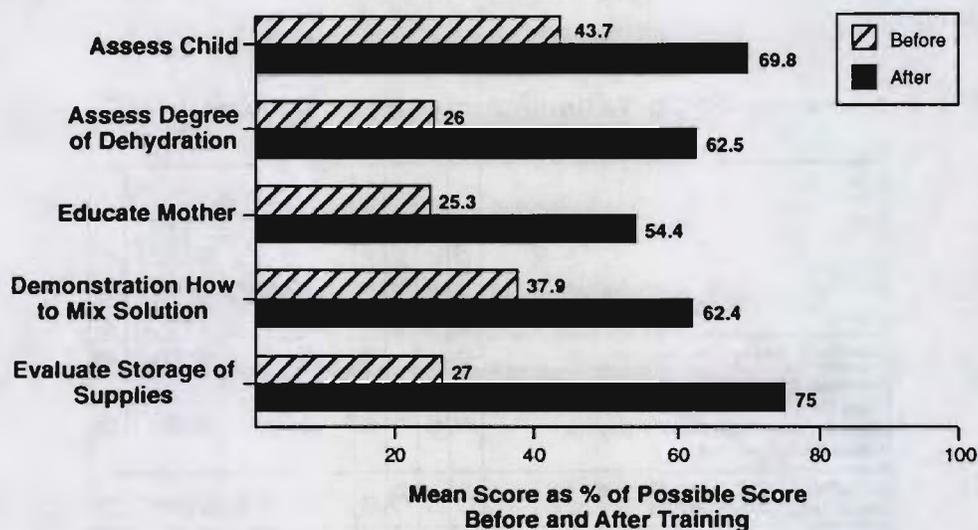
● FULLY COMPLETED ○ PLANNED STARTED 1985-86

EVALUATING HEALTH WORKER PERFORMANCE

Evaluating training performance was determined in two ways: 1) at the course site by pre- and post-tests, and 2) on-the-job supervisory observations. Pre- and post-tests were developed to evaluate training courses. Initially, these were written tests. Pre-tests helped to identify participants that might need more assistance during the course. Trainers could also use the results of the tests to identify specific content areas where many participants were weak. In such instances, the trainer could spend more time with the trainees. By contrast, if there was an area where participants appeared rather strong, the time allocated could be reduced. In some courses, the pre- and post-tests led instructors to re-evaluate their training material and to modify the course for clarity.

Later, objective structured practical exams (OSPE)^c were developed and used in Nigeria. The effectiveness of skill-based training is shown by the pre- and post-test results of the OSPE for PHC managers in Niger State learning case management skills [Fig 5].⁶

FIGURE 5: CASE MANAGEMENT OF CHILDREN WITH DIARRHEA



To evaluate on-the-job health worker performance, facility-based needs assessments (FNAs) were conducted in 12 of the 13 CCCD countries during the mid 1980s. These assessments consisted of 1) observation of health worker performance, 2) an exit interview with the mother or caretaker of the sick child to determine what had been learned from the health facility visit, 3) occasional interviews with either the health worker or the supervisor to determine their perceptions of the health problem, and 4) review of equipment and drug supplies.

These needs assessments helped to identify problems that affected training, as well as training deficiencies. As an example, a health worker could not be expected to calculate a dose of chloroquine on the basis of the weight of a child if there was no scale. Likewise, health workers could not recommend oral rehydration salt (ORS) packets for a child with diarrhea if packets were not available for the mothers or caretakers. Clearly, problems existed that were linked to health worker performance, but more training was not the answer.

In addition to inadequate health worker performance, the FNAs documented the lack of equipment, supplies, drugs, and the shortage of supervisory visits.⁷ The results from these FNAs have provided useful information for planning future activities. For example:

- In Malawi (1986), health workers were trained using a didactic approach. The courses were based on semi “self-instruction” modules. Data from the Malawi 1986

^cThe practical examinations consisted of a number of “stations.” Each station was based on a training objective and each participant began the examination at a different station. At every station, the participant answered a question using practical or written skills. At the end of a fixed period of time (approximately 7 minutes) a bell rang and the participant moved to the next station. By the end of the examination, every participant visited each station, answered each question(s) at that station, worked on a problem, or demonstrated a skill.

FNAs suggest there was little difference between trained and untrained health care workers. The approach to training changed to incorporate more skills practice.

- In Burundi, a five-day training course was cut to three days. Two days of practical work were deleted. The data suggest there was no difference between those trained for three days and untrained health care workers. Such feedback shows that when skills practice sessions are deleted from training courses, skills are not learned.
- In Niger State, Nigeria and C.A.R., the FNAs demonstrated improvements in all skills. Training materials from both countries incorporated the best use of skills practice of any of the CCCD countries.

TRAINING TRAINERS

At the start of the CCCD Project, only two countries had trainers that had previously attended TOT courses. In order to increase the number of trainers who were skilled in how to train, two intercountry TOT courses were conducted—one for the CCCD francophone and the other for CCCD anglophone countries. A future follow-up TOT course was planned for each country.

Several CCCD countries implemented the concept of multipurpose trainers and supervisors at a decentralized level. A core group of people at the regional or state level was given initial training in how to train by giving lectures, leading discussions, and using demonstrations. Then the trainers were instructed in the technical content and conducted training for the CCCD intervention areas (immunizations, malaria, and diarrheal diseases). Technical experts from the intervention areas participated when (and if) they were needed. Consultant support was provided during the first few training sessions. Confidence and skill in training increased with successive sessions. Several country trainers began to use their new skills for conducting training needs assessments, developing training materials, and other specific needs.

ACHIEVEMENTS

By 1990, health ministry personnel and supporting donor agencies in most CCCD countries recognized that ad hoc approaches to training were offering only short-term solutions. Ministry personnel were concerned about the constant demand for workshops.^f Health workers were away from their jobs more often than necessary. Donor agencies were concerned with what appeared to be endless training activities.

With the recognition of these training problems, several countries strengthened and improved their existing programs or systems during the CCCD years. The following examples describe the decentralized continuing education policy in Lesotho, the design of a continuing education system in Nigeria, and the decentralized needs assessment and inservice training in C.A.R.

^fPersonal communication with CCCD technical officers and field staff in Swaziland and Togo.

A REVIEW OF COUNTRY EXAMPLES

LESOTHO

Lesotho established a continuing education program before the CCCD Project. The purpose of training health employees in the MOH and Private Health Association of Lesotho (PHAL) institutions was to improve their motivation, performance, and productivity so that they could provide better health services.⁸

- Materials development and training of trainers occurred at the central level.
- Planning and conducting training were decentralized to the Health Service Area (HSA) level.
- Annual continuing education workshops were held for HSA trainers.

NIGERIA

Today, health care services in Nigeria are decentralized to the State and Local Government Area (LGA) levels. Findings of two facility-based needs assessment surveys carried out by the Niger State MOH in collaboration with CCCD Project personnel (1988-1989) resulted in a decision to develop a continuing education system within the State Ministry of Health (SMOH). This started Continuing Education Units (CEUs) in 9 of the 30 states. Other states are expressing an interest in initiating similar programs.

- The State CEU (although located in the School of Health Technology) is under the direction of the State Training Coordinator. The CEU staff train the LGA managers who, in turn, train the health workers in their respective LGAs.
- Follow-up supervision is provided by CEU staff who support LGA managers with their local training.
- A CEU newsletter is published 2-4 times a year as a method of disseminating important information and technical updates.
- The Continuing Education Committee (an advisory committee) is comprised of program managers, NGO representatives, and representatives from state training institutions and other ministry sectors (finance, transportation, etc.). This committee considers national, state, and LGA specific needs and recommends continuing education topics annually.

CENTRAL AFRICAN REPUBLIC (C.A.R.)

During the late 1980s, training was decentralized in C.A.R. to the regional level. Regional teams were trained to conduct assessments of health worker performance in all categories of health facilities.

- A pretraining health facility survey was administered in 87 facilities to evaluate health worker performance. The results were used to develop training materials.
- Following training needs assessments, teams were trained to provide inservice education to correct identified deficiencies.
- Training was then conducted at the regional and district levels with over 300 health workers participating.
- Health worker performance was re-evaluated after 6-12 months. The process established in 1988 for the expanded program on immunization (EPI) training (needs assessments, TOTs, training health workers, and evaluation) was repeated for the training on control of diarrheal disease (CDD) in 1989, and for malaria in 1990-91. Each built on the experience of the preceding program.

DISCUSSION

Financial resources must be available for continuing education activities and programs to take place. Currently, donor support plays a significant role in the financial support of training in almost every country. Donor funding usually assists with the reproduction of training materials, transportation for the health workers, and per diem. However, countries or states bear much of the routine or ongoing cost surrounding continuing education for health workers. An analysis of the training costs of the CEU in Niger State found that the State was carrying 45 percent of the budget. Countries need to designate a line item in their budget for continuing education activities. Funding, and what happens after potential donor funding ceases, is a key issue for the sustainability of any program or project.⁹

Providing country and regional quality health services depends upon many components—a key factor being the availability of adequate numbers of trained health workers.³ Independently and collectively, continuing education systems (when integrated with effective supervision) can help maintain and upgrade the competence, improve the performance, and increase the productivity and job satisfaction of all health workers.¹⁰

There are many differences seen in continuing education levels in CCCD countries. As their respective programs develop *each* country must produce a system unique to its own situation. However, there are certain commonalities deserving consideration by *all* countries striving to improve, strengthen, and maintain continuing education.

- Base training priorities on needs assessments of national, district, community and health worker needs.
- Set policies and develop training materials at the national level.
- Plan and conduct the actual training so that it is decentralized as much as possible (and on-the-job when feasible).
- Develop a core of master (multidisciplinary) trainer-supervisors.

- Design a long-term continuing education plan for national, district, and community health workers.
- Include continuing education as a line item in the budget at each level.
- Network between sectors, institutions, and agencies to maximize resources and avoid duplication of activities—a key component of any training or continuing education system.
- Build on preservice training and improve it, if necessary. However, do *not* use continuing education as a replacement for preservice training.

SUMMARY

Lessons learned from the CCCD Project suggest that developing a systems approach to continuing education is vital for training effectiveness and sustainability. The following steps for strengthening continuing education have been incorporated into an easy-to-use guide⁴ for policy makers and program managers wanting to promote the future growth and development of training:

- Develop or revise a continuing education policy statement;
- Conduct a training needs assessment;
- Define management and plan activities;
- Organize and implement system programs; and
- Monitor and evaluate the system.

Recognition of and concern for the need to improve and strengthen health worker performance, combined with the desire to improve, strengthen, and maintain primary health care services, justifies developing a strong continuing education component. Planning for a systems approach will help reinforce the institutionalization, and thus the sustainability of health worker training and continuing education for the future.

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