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ABSTRACT

An intercountry workshop on distance learning (DL) was conducted at the University of Khartoum, Sudan, in November 1991. Individuals involved in the World Health Organization's (WHO's) Health Learning Materials network in nine African countries (Sudan, Ethiopia, Guyana, Kenya, Mauritius, Tanzania, Uganda, Zambia, and Zimbabwe) met to share their experiences in managing and administering DL systems. Groups of workshop participants used actual problems and case studies to develop realistic DL strategies, an adaptable model DL project, strategies for intercountry collaboration, and guidelines for evaluating DL programs. The formation of an intercountry committee on DL was proposed to complement the efforts of the WHO's Health Learning Materials Clearinghouse in Geneva in furthering the development of DL in individual countries. (This document includes the following materials developed during the workshop: model for planning and administering DL programs, guidelines for evaluating the impact of DL programs for health workers, criteria for assessing DL materials, and strategies for promoting intercountry collaboration in DL. Appended are a list of workshop participants and two workshop case studies.) (MN)

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DISTANCE EDUCATION FOR HEALTH PERSONNEL: New Strategies

Amos Mwakilasa



World Health Organization
1992

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This text is one of a series of training and information materials on health issued by the central clearinghouse.

For further information on the HLM Programme, contact:

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CONTENTS

	<i>Page</i>
Acknowledgements	ii
Introduction	iii
1. Workshop objectives	1
1.1 General objectives	1
1.2 Specific objectives	1
2. Workshop process	2
2.1 Group dynamics	2
2.2 Assessment of educational needs for distance learning	2
3. A model for planning and administration of a distance learning programme in a country	4
3.1 Planning the distance learning programme	5
3.2 Administration of the distance learning	6
4. Guidelines for evaluating the impact of distance learning programmes for health workers	9
5. Criteria for assessing distance learning materials	11
6. The strategy for promoting intercountry collaboration in distance learning	13
6.1 The need for collaboration	13
6.2 The strategy for collaboration	13
6.3 The establishment of an Intercountry Committee on distance learning to promote intercountry collaboration	14
Workshop recommendations	16
Workshop conclusions	18
Annex 1 List of participants	
Annex 2 Case studies	

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I am indebted to the facilitators and organizers of the workshop for their efforts to make the workshop a success. Mrs Rashida A/Mutalib, Director, Sudan Open Learning Unit and, from the Ministry of Education, Mr Sidding Abdel Monim, Director of the Inservice Training Institute, and Mr Osman Al Awad Fanous, Director of Educational Technology, were very effective as facilitators. It was also a pleasure to work hand-in-hand with Dr Farouk Abdel Aziz, HLM Project Manager, Sudan and, from the Education Department, Khartoum, Mrs Naima A. Mihameed and Ms Ekhlous Ahmed Mukhtar from the Education Department, Khartoum, all of whom played an important part as organizers of the workshop.

I would like to extend my profound gratitude and appreciation to Ms Lucy Wood of the Istituto Superiore di Sanità, Rome, with whom I shared much of the preparation work for the workshop, and to Mrs Dorothy Sawe of DANIDA, who kindly typed the draft document.

They may not read these words, but I would like to express my sincere and warm respect to all health workers who were observed, interviewed, or questioned during the field survey on assessment of needs in distance learning. They provided a practical and valid learning experience for workshop participants, and thus a realistic approach to developing relevant and appropriate distance learning materials.

Finally, I would like to record, on behalf of WHO, my thanks to the Ministry of Health in Khartoum, for kindly hosting the workshop and for all the efforts made to ensure its success.

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INTRODUCTION

An intercountry workshop on distance learning was conducted on the premises of the University of Khartoum from 9-15 November 1991. Participants (see Annex 1) were drawn from nine countries: Sudan, Ethiopia, Guyana, Kenya, Mauritius, Tanzania, Uganda, Zambia and Zimbabwe. This workshop was an activity of the WHO Health Learning Materials (HLM) network, servicing English-speaking Africa. Participants were individuals involved in HLM projects and educators in the ministries of health and education in the participating countries.

The aim of the workshop was to bring together managers and administrators from the health sector to share experiences in the management and administration of distance learning systems. It was intended that they would identify the capabilities and skills required for designing and implementing distance learning programmes in their countries. In addition, they were to develop strategies and mechanisms for planning and administering a model distance learning (DL) project for country adaptation, develop a proposal for intercountry collaboration and prepare guidelines for evaluating DL programmes.

Participants achieved these aims by means of a number of methods used during the workshop. These included experiential sharing of ideas, opinions and experiences, as well as fieldwork or excursions where health workers were observed, assessed and interviewed. This allowed the identification of real needs that distance learning would have to address. Groups worked on problems and case studies from which realistic strategies evolved. Strategies for an adaptable model of a DL project, and for intercountry collaboration, and guidelines for evaluating distance learning programmes were developed, and are presented in this document. The formation of an Intercountry Committee on distance learning was proposed, as part of the English-speaking African HLM network, to complement the efforts of the WHO HLM Clearinghouse Geneva in furthering the development of DL in countries.

Many thanks are due to the Ministry of Health of the Sudan and to the national HLM project in Khartoum for hosting and for financing local costs of this important workshop.



In exploring the role of distance learning in health professional education, a number of group interactive methods were used to promote group dynamics, such as buzz groups, snowballing, problem-solving, brainstorming and group assignments

1. WORKSHOP OBJECTIVES

1.1 General Objectives

- to create awareness of the need for distance learning (DL) among decision makers in Ministries of Health and other related institutions;
- to facilitate the planning and implementation of a DL programme in a country, as an integral part of continuing education of health staff;
- to promote intercountry collaboration for the sharing of information and resources in Distance Learning.

1.2 Specific Objectives

- to define the important elements that constitute DL programmes, and to consider with participants how these can be applied to meet post-basic and continuing education needs of health personnel in their countries;
- to review the experiences in different countries and recent progress in DL programmes for health workers;
- to assist participants in identifying the needs and resources for designing and implementing DL programmes for health personnel in their own countries;
- to develop a mechanism for the planning and administration of a DL programme, and to design a model for adaptation to different country situations;
- to identify the essential requirements for developing learning materials for DL programmes;
- to establish guidelines for evaluating the impact of DL programmes on the education of health personnel;
- to develop strategies for intercountry collaboration and propose ways in which countries can benefit from each other's DL experiences.

2. WORKSHOP PROCESS

2.1 Group Dynamics

The majority of participants were experienced trainers of health professionals. Most participating countries were already involved, in one way or another, in the application of DL techniques in the continuing education of their health workers. This combination of expertise provided a good foundation for active participation in groups in sharing experiences and ideas. To facilitate group dynamics, a number of group interactive methods were used (such as buzz groups, snowballing, problem solving in groups, group assignments, brainstorming, discussions in plenaries). This series of exchanges very much reinforced the understanding by participants of DL in the context of continuing education for the health professions.

2.2 Assessment of Educational Needs for DL

To make the workshop more practical and realistic, participants conducted a needs assessment survey among health workers to determine needs and priorities for DL. The main aim of the exercise was to enable participants to "learn by doing" how to design relevant DL project based on needs and priorities of health workers and their working environment. The process was as follows:

2.2.1 Field Visits

Participants were divided into four groups, each of 6-8 people. Each group visited one health centre in and around Khartoum. The four centres selected were: Samur, Fatih El Rahman El Bashir, Kober and Khartoum Health Centres. The groups developed their own needs survey instruments. These included observation using checklists with rating scales, interviews, questionnaires, and checking of records. A number of health workers were interviewed (doctors, vaccinators, health educators, laboratory assistants). Each group then made a summary of the identified needs and priorities. Participants found the exercise very useful, and relevant to the intended workshop outcomes.

2.2.2 Case Studies

To complement the needs survey, case studies were developed to promote discussion in groups. Two such case studies were used in the exercise (see Annex 2).

The first case study enabled participants to identify in groups the steps involved in developing a plan for a national DL project. They discussed in detail what is involved in each stage. Major steps defined included:

- * needs identification and assessment of educational needs of the target group
- * establishment of the DL project
 - laying the groundwork and building political support
 - planning the project
 - preparatory activities
 - implementation of the project
 - monitoring and evaluation of project activities

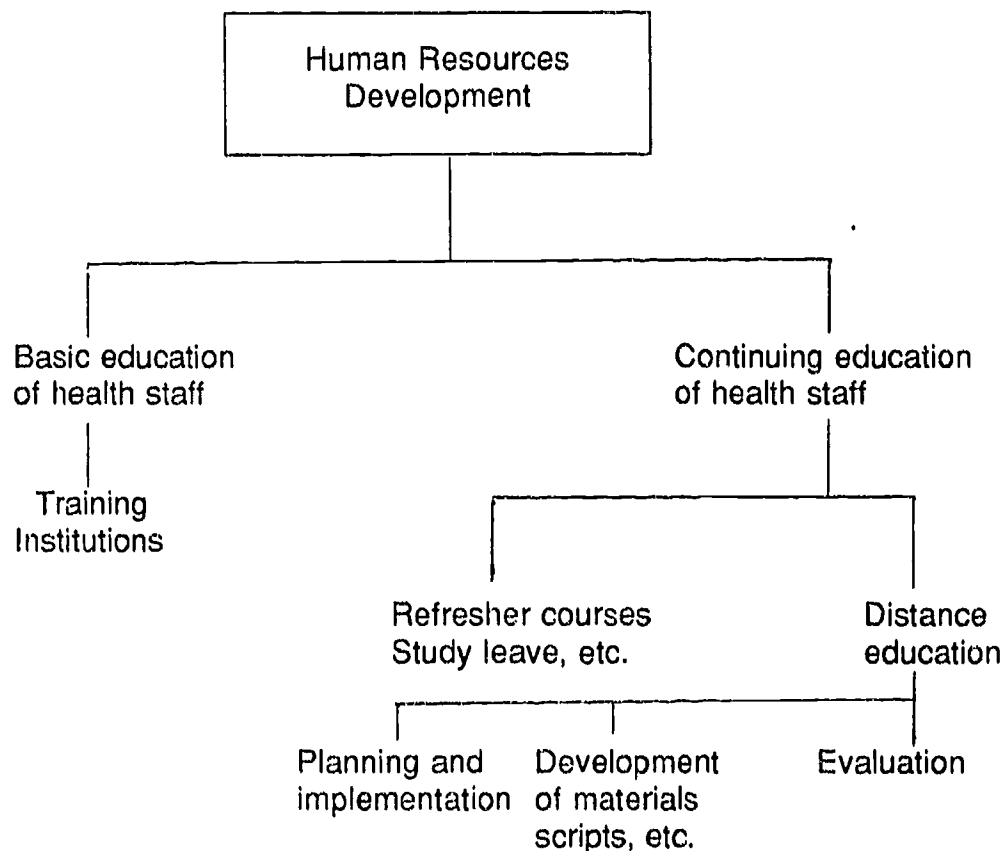
The second case study, reflecting the Sudan situation, was presented to groups for discussion and action. It required participants to develop a DL project realistic for the Sudan, but which could be adaptable to each of the participating countries. A model for a DL programme evolved out of this exercise (see Section 3 below).

2.2.3 Review and critique of DL Materials

Participants reviewed and evaluated a number of DL modules in PHC based on previously established criteria. This exercise, which was highly commended by participants, enabled them to practice the development of DL materials that are relevant and appropriate for a specific target group. They then developed criteria for good DL materials (see Section 5 below).

3. A MODEL FOR PLANNING AND ADMINISTRATION OF A DISTANCE LEARNING PROGRAMME IN A COUNTRY

The group expressed strongly the view that, if a distance learning programme is to serve a useful purpose in strengthening continuing education for health workers, it must be closely integrated into the existing human resources development structure of the Ministry of Health. The following organogramme shows the relationship.



In general, the planning and administration of a distance learning project needs to address the following series of steps. These steps as described are neither exhaustive nor in strict order, but rather are illustrative for the purpose of the model.

3.1 Planning the DL programme

The planning of a distance learning programme includes a number of essential components. These are:

3.1.1 Policy decisions

- Establishment of a national committee to be responsible for distance learning. The task of this committee will be to clarify the rationale for DL in the national context, formulate policy and collaborate with other sectors and NGOs. In addition to this, the committee will assure the following:
- establishment of a DL unit in the human resources for health directorate;
- collection of data about educational needs, categories, numbers and geographical distribution of health workers, available resources (HLM production, radio, TV), and foreseeable constraints and problems in the introduction of DL;
- identification of the roles and functions of the DL unit, its objectives and goals;
- establishment of clear linkages between DL and basic/post-basic education systems in the country.

3.1.2 Decisions on methodology

- who decides priorities? DL unit or Ministry of Health, or both?
- at what level are these decisions taken? Country or State/Province/Region?
- what will be the criteria for introducing DL?
- who will be the trainees? Criteria for selection?
- what subjects will be selected as priority areas?
- materials development, fieldtesting, production and distribution;
- selection of media to support DL;
- development of methods to ensure effective supervision, monitoring, feedback and evaluation.

3.1.3 Student profile as a guide to content

- who are the target groups, and what is their background?
- their numbers by cadre/profession
- their geographical distribution in the country
- their educational experiences/requirements
- assessment and identification of needs
- pretesting target groups and defining competencies required
- defining objectives of the DL programme
- deriving the content from the objectives

3.1.4 Programme Specification

- decision on duration and phases
- selection of content, incorporating knowledge, skills and attitudes
- selection of media
- creation of mechanisms to assure continuous feedback

3.1.5 Evaluation

- evaluation of programme objectives
- evaluation of programme effectiveness
- analysis of cost effectiveness
- evaluation of skills and competences of health workers as compared to pretest results
- development of case studies based on the evaluation to facilitate the sharing of information with other countries.

3.2 Administration of the DL programme

The process of DL requires the following decisions to ensure a well-planned, efficient and smooth operating programme:

3.2.1 The administrative structure

- will it exist as a separate unit, or as a department within an established institution?
- administrative staff needed
- equipment, and other resources required.

3.2.2 Responsibilities

- interrelationship with other hierarchical structures both within and outside the Ministry of Health
- delegation of powers, responsibilities and authority
- roles and functions of programme staff
- accountability

3.2.3 Materials development

- allocation of tasks (conceptualization, writing, illustration, fieldtesting, design and layout and production)
- printing - in-house printing? Government printer? Use of private printers?
- production and time constraints
- process for fieldtesting

3.2.4 Distribution

- when to dispatch materials and by what means
- storage and inventory of materials
- how to check that the materials have been sent and received
- who is charged with distribution of materials?

3.2.5 Feedback

- who provides feedback? Headquarters staff, field tutors and supervisors, target group of students?



Some country HLM projects have marketed staff skills in microcomputing and succeeded in generating income to fund project activities

- how is it structured and what does it cover?
- when is it sent?
- how reliable and objective is it?
- how is it analyzed?
- how is it made use of?
- who maintains the records?
- who provides certification for students?
- what is the accreditation of the course?

3.2.6 Finance and other support

- securing funding from local sources
- securing foreign funds through obtaining donor support
- identifying donors and promoting donor interest
- writing comprehensive proposals for funding
- keeping the production line operational
- assuring incentives for students

3.2.7 Sustaining the programme

- income generation, with a local revolving fund
- charge students a minimum fee
- government (Ministry) budget line
- assuring the relevance of the DL programme to identified national needs
- continuous effort to ensure participants' acceptance, including some form of incentives scheme

4. GUIDELINES FOR EVALUATING THE IMPACT OF DISTANCE LEARNING PROGRAMMES FOR HEALTH WORKERS

Criteria and simple indicators for evaluating the effectiveness and/or impact of DL programmes must be developed. However, it was emphasized that a comprehensive evaluation process should from the outset be built into the planning, implementation and outcome phases of a programme. Should something critical occur at any stage in the programme, it will have an important bearing on its outcome, effectiveness or impact. The group proposed the following guidelines for adaptation to specific country situations.

PROGRAMME PHASE	ITEMS TO BE EVALUATED	POSSIBLE INDICATORS
Planning	National policy on DL	<ul style="list-style-type: none"> * Evidence of a clear policy document on DL
	Needs assessment	<ul style="list-style-type: none"> * Evidence of conduct of a needs assessment survey, and analysis of results * Are the needs of health workers and communities reflected?
	Programme objectives	<ul style="list-style-type: none"> * Specific? * Attainable/achievable? * Measurable/realistic? * Realistic time frame?
	Personnel	<ul style="list-style-type: none"> * Who were involved? With what skills? * How competent?
	Other supporting resources, materials, funds, etc	<ul style="list-style-type: none"> * Have all the necessary materials been foreseen? Acquired? * Sources of funds? How much available? From government? From donor(s)?
Implementation	Production of materials	<ul style="list-style-type: none"> * Were they produced? Evidence of materials produced? Adequate? * Are they relevant to the need? * Usability?

PROGRAMME PHASE	ITEMS TO BE EVALUATED	POSSIBLE INDICATORS
Implementation (continued)		<ul style="list-style-type: none"> * Readability? * Appropriate?
	Distribution of materials	<ul style="list-style-type: none"> * Is there evidence of timely distribution of materials to users? * Were they adequate? * Numbers delivered/used/balance?
	Funds	<ul style="list-style-type: none"> * How much funds were made available? How much used? Balance? Misappropriation? Account books in order?
	Media	<ul style="list-style-type: none"> * Acceptance? * Effectiveness? * Frequency?
	Student performance	<ul style="list-style-type: none"> * Student records/enrolment/total drop-out rates. Coverage? Pass rates? Assessment? Students' judgement of the course? Motivation? (certification, promotion, etc.) Improvement in specific skills? Improvement in health services?
	Supervision	<ul style="list-style-type: none"> * Adequate? Regular? Competence of supervisors' feedback?
Evaluation of outcome	Performance in key areas of knowledge, attitudes and skills	<ul style="list-style-type: none"> * Change in knowledge, attitudes and skills. Improvement of performance of health workers before and after programme intervention.
	Long-term evidence of improvement in health care delivery	<ul style="list-style-type: none"> * Better health services in the community, e.g. vaccination coverage, low infant mortality rate and morbidity, etc.



Learning materials for distance education should be fieldtested in the realistic conditions in which they will be used by the target audience

5. CRITERIA FOR ASSESSING DISTANCE LEARNING MATERIAL

5.1 List of criteria for routine assessment

To promote the readability, relevance, usability and effectiveness of the DL materials, minimum criteria of design should be fulfilled. The group developed the following criteria:

- use a simple typescript layout, with the objectives clearly stated
- each unit should include guidance for students on how to use it
- development of the unit should be on a clear step-by-step basis, especially for practical procedures with illustrations (e.g. how to vaccinate a child)
- use diagrams, lists and photographs wherever possible to break up the text and make it more interesting for readers
- note the importance of using a conversational style, backed up by pictures
- relate radio or television programmes to the text to facilitate the task of the learners
- ensure active participation of students by relating instructional text to activities. Inform students what materials they need for each activity (e.g. syringes, sterilization equipment).
- use different types of questions for assessment (e.g. problem-posing, problem-solving, case study, guided essays) whenever possible and appropriate
- use self-check exercises for immediate feedback to the learner when appropriate
- include questions and topics for discussion in the course
- each unit should include an assignment or, when possible, a group activity
- use of posters and symbols is important for semi-literate students
- the materials should be fieldtested under realistic conditions in which they will be used by the specific target audience
- avoid too much information overload in the text

- write simple, understandable and attractive materials that will capture and sustain the learners' interest

Competence involves learners applying both skills and knowledge correctly in situations as near to the reality of their workplace as possible. The learning materials, therefore, need to be activity-based rather than reading-based.

5.2 Communicating with multi-ethnic groups

The workshop expressed the view that writers of materials, especially health promotion materials, will sometimes have to deal with many ethnic groups. These may have different cultural, religious, linguistic and traditional backgrounds. It was doubted whether writers could meet the needs and interests of each of the ethnic groups. However, the workshop agreed that such challenges should be accepted, and strongly recommended that:

- needs assessment should be carried out for each of the ethnic groups.
- focus ethnic group studies should be carried out to determine the similarities and divergences in their culture, religion, traditions, language, etc.
- as far as possible, a unit of material should be specific for each ethnic target audience. Where, however, it is absolutely essential for one unit to be used by a multi-ethnic target group, the writer must address the variations in their cultural, religious and behavioural backgrounds
- materials should be translated into the language of each of the ethnic groups where use of a common language is not practical. However, this will increase the cost of the materials
- as with all DL materials, they must be fieldtested across the sampled ethnic groups, and modifications made based on the results
- use of traditional media (like drama, songs and poetry) should be considered where appropriate for each of the ethnic groups to back up the DL materials.

6. THE STRATEGY FOR PROMOTING INTERCOUNTRY COLLABORATION ON DISTANCE LEARNING

6.1 The need for collaboration

The group felt that there was a strong need for intercountry collaboration. It was justified in that:

- countries in the network have similar health and educational needs and problems
- the populations share similar geographical, socio-economic and cultural features. In many cases, the countries share borders so that the problems of one country can affect the other
- the network countries have been affected by the worldwide economic recession almost to the same degree, and can therefore pool resources for the common good
- countries are at different stages of experience in DL. They can therefore share information and expertise to enrich their national continuing education programmes.

6.2 The strategy for collaboration

The following were identified as areas for potential intercountry collaboration:

6.2.1 Training

Training of health personnel will be constantly needed in fields such as writing and editing, design and layout of DL materials, the development of supporting radio scripts and television programmes, the administration of all aspects of DL project activities, methods of distribution and evaluation. Countries can also undertake joint education projects, in the form of study tours or intercountry workshops.

6.2.2 Information collection and exchange

This will include the exchange of written materials (books, pamphlets, modules), diskettes, audio or video cassettes; also, case studies on the use of equipment, research findings, drop-out rates, student reaction, results of special studies on different DL methods. It could also include joint production of materials.

6.2.3 Joint research studies

Joint research projects, especially health systems research and operational research in DL methodology, should be encouraged between countries. The findings, would be used for improvement in the continuing education systems of these countries. Research in educational method is another important area which lends itself well to intercountry collaborative efforts.

6.2.4 Exchange of expertise

Collaboration between countries should move well beyond the confines of DL, as continuing education embraces all the competences of human resources development. It should therefore take the form of consultancies in areas such as health economics, health planning, training, PHC management and research. Promotion of local consultancies within and between these countries should be encouraged. This was strongly supported by all the participants. It was not only the most appropriate and relevant approach, but also economical and low cost when compared to consultancies from outside the region.

6.3 **The establishment of an Intercountry Committee on Distance Learning to promote intercountry collaboration**

The workshop recognized the efforts made by the WHO HLM clearinghouse in Geneva to support developing countries in introducing distance learning. To complement these efforts, the group saw a necessity to form a Committee on distance learning to link the clearinghouse with the network countries, and to spearhead the creation of a workable DL network for English-speaking countries. This will help to decentralize some of the activities of the clearinghouse to the network office in the spirit of self-reliance and sharing of resources between partner countries.

6.3.1 Composition of the Committee

The Committee will be composed of five members who were elected by the workshop. Countries forming the membership are:

Sudan	- Chairman
Ethiopia	- Member
Kenya	- Member
Zimbabwe	- Member

Dr A.O. Mwakilasa (Tanzania), the Senior Workshop facilitator, was unanimously elected and co-opted into the Committee as a Member. The Chairman, Dr Farouk Abdel Aziz, Sudan was given the mandate of calling a meeting of the Committee that will clarify its terms of reference and functions.

6.3.2 Anticipated functions of the Committee

The role and functions of the Committee will be specified at its first meeting. However, it is expected that it will address important issues like:

- provide linkage between the WHO clearinghouse and the respective countries
- spearhead collaboration among countries based on the mechanisms developed during the workshop
- explore areas of intercountry collaboration in distance learning
- establish and maintain an up-to-date inventory of opportunities, facilities and expertise that exist in each of the member projects to enhance the exchange programme
- advise member projects on strategies for developing sustainable DL systems
- advise member projects on ways of integrating the HLM and DL programmes to assure an optimal and rational use of resources, especially in countries where these two programmes exist independently

6.3.3 Mechanism of Operation

The group gave the Committee the mandate to formulate a workable operating mechanism to ensure its smooth running. This will initially be limited due to problems of funding. However, the group recommended strongly that the WHO HLM Clearinghouse be approached to assist the smooth establishment and take off of the Committee. The latter will need to consider seriously strategies for its future funding and the sustainability of its activities.



Every country in the network should be encouraged to start its own distance education programme

WORKSHOP RECOMMENDATIONS

The workshop appreciated the excellent work undertaken by the WHO HLM clearinghouse in encouraging developing countries to introduce distance learning to strengthen continuing education of health workers. This has taken the form of moral, material and financial support. In recognition and appreciation of such efforts, the workshop strongly recommend the following:

- in order to strengthen their continuing education programmes, each participating country should adopt DL as an integral part of the national human resources development plan, with a specific sub-vote in the national health budget for funding
- intercountry collaboration should be emphasized and promoted by participating countries in the areas of exchange of information, materials, experiences and expertise
- a distance learning network should be established between participating countries within the already existing HLM network framework. Countries in which the two programmes exist independently should be encouraged to merge them for optimal effect and impact
- an Intercountry Committee should be set up to link WHO Geneva and the respective countries in spearheading the establishment of a DL network. This Committee will promote intercountry collaboration using mechanisms developed during the workshop.
- every participating country should be encouraged to start a DL programme within the next two years
- WHO should be requested to solicit funds for assisting further development of DL programmes, and especially in training health personnel to plan and manage such programmes
- consultancies in DL in English-speaking Africa should be carried out by people from the region, conversant with local realities and needs to ensure the relevance, appropriateness and practicality of such programmes

WORKSHOP CONCLUSIONS

This was a very special workshop which brought together representatives of the health and education sectors from a number of countries in English-speaking Africa to share experiences in designing and developing distance learning programmes for health workers. A draft model programme has been evolved for adaptation. The existence of clear national policies and the identification of needs through assessment are pre-requisite conditions before a country embarks on such a programme. Mechanisms for essential intercountry collaboration on DL have been developed, and the formation of an Intercountry Committee has been proposed to promote and implement this collaboration. Strategies for evaluation of DL programmes and criteria for effective DL materials have been formulated, and are described in this document.

It is important for the DL planner to recognize the political, social, economic, cultural, moral and physical challenges that confront him or her in setting up such a programme. The planner needs to be both systematic and tactful, and should ensure the involvement of all parties concerned in the management and administration of the programme. Before embarking on a full-scale DL programme in a country, it is advisable to conduct a pilot study. The lessons learned will be invaluable for future planning.

The final evaluation of the workshop by the country representatives was extremely positive, in spite of the difficulties experienced due to local conditions. The Sudan Ministry of Health and HLM project team were congratulated and thanked by the group for their valuable contribution in ensuring the success of the workshop.

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CASE STUDY

Part 1

Your Minister of Health has declared that one of his top priorities for the next five years is to improve the managerial capacity of peripheral level health staff. He asks the Training and Manpower Development Department to carry out a baseline survey to determine current educational needs among all cadres of health care workers employed in government-run health centres and dispensaries. He specifies that the survey pays particular attention to those cadres in charge of the health facilities at district level.

- Q. In carrying out a baseline survey aimed at determining the continuing education needs of health workers, what are some of the main areas that you think should be investigated?
- Q. Although it seems that the Minister's aim is to use the data obtained from the baseline survey to implement some form of continuing education for peripheral level health personnel, could such data provide useful indications for those involved in basic and post-basic training programmes? How?

Part 2

The results of the baseline survey show gaps in all areas investigated. Knowledge levels were low regarding the health statistics, population distribution, etc., thereby illustrating why health workers were unable to plan effectively activities such as EPI and MCH. With regard to practice, it was observed that good sterile technique was often neglected.

Accurate register and inventory keeping were unusual and charge/discharge registers were often incorrectly filled. Inspection of selected health facilities revealed that supplies were often stored in a disorderly fashion, and equipment, such as scissors, sterilization containers, refrigerators, lamps, were not properly maintained.

In many cases, poor performance seemed to be correlated more with staff attitude than with a low level of knowledge.

A survey of health workers at district level revealed that the most frequent sources of frustration were low pay, inadequate facilities, equipment and supplies, no opportunity for promotion, under-staffing and training. Lack of appropriate or helpful supervision was frequently cited among those working in outlying areas. The number of people who had had some form of refresher training or technical updating was very low. Almost no reference materials were

available for health staff and they had no access to libraries. In areas served by facilities where performance and morale was observed to be low, inquiries among people using the facilities suggested poor communication between staff and the community, and a general dissatisfaction with health care delivery.

In conclusion, although the majority of staff had a reasonable knowledge of diagnostic and treatment methods, those who had been in the field a long time had only a limited understanding of the concepts of PHC, of newer techniques, of national plans for EPI, MCH and family planning, and of recent changes in the disease pattern, especially the increase in AIDS and its significance.

- Q. Distance learning is one way of meeting post-basic and continuing education needs. Of the above-mentioned educational needs, which do you think might be the easiest or most appropriate to try to meet through distance learning? Which of the various methods of distance learning might be most suited to meeting these needs? Why? Which would be more difficult? Why?
- Q. Why do you think we have focussed our story on the use of distance learning in meeting continuing education needs and post-basic education needs and given less emphasis to distance learning as a way to do basic training?

Part 3

After reviewing the results of the baseline survey, the Director of Training and Manpower Development is rather depressed. Although he now has a much better perspective on the problem, he doesn't know where he is going to find the funding or the necessary personnel to carry out the massive training programme that seems to be needed. He calls you, his Assistant Director, because you have recently returned from a workshop with some new ideas on how to use distance learning. He feels that, considering the scale of the problem, especially in the peripheral areas, distance learning is the only way to proceed. He asks you if you think that the department staff are ready to plan and conduct a distance learning programme in this situation. In order to help him decide whether this proposal is feasible, you begin by explaining that, roughly speaking, constructing and running a distance learning programme involves five basic aspects or stages. You suggest that together you and he analyze critical factors related to these five basic stages, which are as follows:

- Laying the groundwork and building political support
- Planning the programme
- Preparatory activities
- Implementation of the programme
- Monitoring and evaluation of programme activities

- Q. What do you think needs to be done at each stage?

DEVELOPING MECHANISMS FOR PLANNING AND ADMINISTRATION OF DISTANCE LEARNING PROGRAMMES

(Adaptable model to other network countries)

CASE STUDY

The Sudan is a large country with an area of 2.5 million square kilometres, with deficient health services in rural areas. It also suffers from economic problems like other developing countries. The Ministry of Health (M of H) is finding it difficult to update the competence of its health workers especially in rural areas and it is difficult to set continuous education programmes in the traditional way for obvious reasons. There is a Directorate of Training and Health Manpower Development in the M of H with a supporting HLM project. They have entrained the idea of setting up distance learning programmes system and would like to make use of all available facilities in the country for that aim, especially SOLU, Ministry of Education, Ministry of Information and Culture, and other intersectoral bodies.

The M of H would like to develop a plan of implementation of such programme putting in mind the strategies for its administration at central and peripheral levels. The Directorate of Training is inviting you to develop the plan and the strategies for implementation. This could be adopted to other countries in the region communication network.