

 **BASICS**
TRIP REPORT

**REVIEW OF CDD
AND EXCLUSIVE BREASTFEEDING
PROGRAMS IN MALAWI**

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**REVIEW OF CDD AND
EXCLUSIVE BREASTFEEDING
PROGRAMS IN MALAWI**

October 18-November 7, 1993

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I.	INTRODUCTION	1
II.	PROGRAM ISSUES AND RECOMMENDATIONS	1
	A. POLICY/MANAGEMENT/PLANNING	1
	B. ORS AVAILABILITY/DISTRIBUTION/COMMERCIAL PRODUCTION	3
	C. COMMERCIAL SECTOR (DISCUSSION WITH PHARMANOVA) .	5
	D. RECENT RESEARCH FINDINGS AND ISSUES	6
	E. TRAINING ISSUES	11
	F. HEALTH EDUCATION MATERIALS	14
	G. HEALTH INFORMATION/DATA COLLECTION	15
	H. EXCLUSIVE BREASTFEEDING	16
	I. CASE MANAGEMENT ISSUES	18
	J. CHOLERA/DYSENTERY	19
	K. DONOR RESOURCE MOBILIZATION/COORDINATION	20

ANNEXES

- A. Revised cholera/dysentery reporting forms**
- B. Graph: Cases of Dysentery 1992-93**
- C. Number of Cholera cases and Case Fatality Rate,
1992-1993, Malawi**
- D. Matrix/Summary of possible USAID Involvement in CDD/BF Activities**

APPENDICES

- A. Scope of Work**
- B. List of Persons/Organization Contacted**
- C. Health Facilities Visited**
- D. Documents Consulted**
- E. Agenda: Cholera/bloody diarrhea workshop**
- F. Strategies/Recommendations: Cholera/bloody diarrhea workshop**

I. INTRODUCTION

This consultancy was carried out from October 18 - November 7 1993. The period up to October 31, 1993 was covered under the PRITECH II project while the remaining time was under the new BASICS Project.

The consultant assessed ongoing control of diarrheal disease (CDD) and exclusive breastfeeding activities through review of written documents, and interviews with government, non-governmental organizations (NGOs), and private voluntary organization (PVO) officials including CHAM, IEF, Project Hope and collaborating donors (UNICEF, WHO, UNDP). Field trips were undertaken to Central and District hospitals and urban/rural health centers. A major portion of the consultant's time was taken up by assisting Community Health Services Unit (CHSU)/Ministry of Health (MOH) with preparations for the USAID- funded cholera/dysentery preparedness meeting held on November, 1-3. The consultant attended the conference, gave a presentation on Zambia's experience with cholera/dysentery and acted as a facilitator.

II. PROGRAM ISSUES AND RECOMMENDATIONS

A. POLICY/MANAGEMENT/PLANNING

There have been significant improvements in CDD management and planning since the 1989 comprehensive review. A full time CDD program manager has been appointed, a five-year implementation plan written, and strategies developed for control of cholera and dysentery. Nevertheless, a number of problems remain which may impede implementation of an effective CDD program.

Health officials and donors alike expressed the opinion that CDD was a weak program with diffuse goals and little support. Although an implementation plan has been written, there is still a need for a clear CDD policy statement endorsed by the MOH. Moreover, while CDD is a separate program under the MOH it is represented only by a Program Manager (PM) with no support staff or secretariat. CDD is often viewed as an activity which takes place in Oral Rehydration Therapy Units (ORTUs) with little relationship or integration with other programs (Nutrition, Breastfeeding / MCH). Program plans still have unrealistic targets (eg. 30 percent reduction in mortality by 1994) and there is no clear national budget for CDD activities. Regional and district health personnel do not have a clear idea of what the national CDD strategy is and tend to regard CDD as oral rehydration solution (ORS) and training (excluding information, education, and communication (IEC), evaluation, supervision, community level activities and collaboration with other sectors). In terms of case management, health workers (HWs) have not received clear guidelines from the MOH on ORS (number of sachets to give to discharged ORTU patients) or antibiotic use.

RECOMMENDATIONS:

- A key priority for the CDD program is to review the CDD plan (or more appropriately, the CDD document). The CDD PM should develop a detailed workplan with input from regions and districts specifying CDD components, activities, persons/ organizations responsible, resources available, resources required, and evaluation and monitoring. All components should have realistic and achievable targets and objectives. The plan should then be circulated to donors for their input so that they can identify and commit support for specific activities. The workplan should be annual and periodically revised. Monitoring of the accomplishments and activities should be done through regular meetings with the National CDD Committee and various subcommittees.
- In relation to the above recommendation consideration should be given to providing technical assistance (short term) to assist the National CDD Program develop implementation plans which would include all major CDD program components.
- The National CDD Intersectoral Committee should be revived and reconstituted with new terms of reference. The committee with various subcommittees and task forces (ORS, training, health education) would be responsible for formulating CDD policy and monitoring CDD activities at the national level. (Note: This apparently has been done and approval for the committee is awaited from the Minister of Health. The suggested representation includes Ministry of Works and Supply, Ministry of Women and Children's Affairs and Community Services, and NGOs)
- The program should consider holding a 2-day CDD planning workshop with participants from the MOH, training schools, CHAM, CMS, NGOs, PVOs and private sector to help in mapping priorities and future strategies for the program. Input from MOH departments and NGOs involved in such activities as promotion of exclusive breastfeeding, nutrition, MCH, and water/sanitation will enable the CDD program to develop an integrated approach.
- The appointed CDD PM needs support and backup to function properly. Consideration should be given to providing a Deputy PM, a secretariat and a vehicle. Many of the activities he carries out could be done by a secretariat (1 or 2 public health nurses or similar cadre).
- It would be beneficial to have a full time technical expert (eg. WHO APO, BASICS field representative) to assist the PM particularly in donor resource mobilization, training, planning, monitoring/evaluation, research and case management issues.
- Appointment of Regional CDD coordinators to implement, monitor and supervise CDD activities should also be considered.

B. ORS AVAILABILITY/DISTRIBUTION/COMMERCIAL PRODUCTION

The Malawi CDD program included among its objectives in 1981 to provide correct case management through extensive use of oral rehydration therapy (ORT), provision of ORS to fixed health facilities, and education of the community in the use of oral rehydration therapy for children with diarrheal diseases. One of the major objectives of the CDD program was to establish ORTUs in health facilities (80 percent to date). The dispensing of ORS sachets was discouraged because it was felt that knowledge of correct preparation of ORS was inadequate. ORS was therefore prepared for caretakers at the health center for use at home. This policy has now changed and ORS sachets are given to caretakers after they leave the ORTU.

The results of the 1991 morbidity survey (49 percent incorrect ORS preparation rate) and the fact that few ORTU managers provided adequate information to caretakers on preparation and use (Health facility survey, 1993) indicate that community knowledge on correct ORS preparation has not improved. As of 1990, the CDD program encouraged HWs to give one or two ORS sachets to caretakers on discharge from ORTUs. The assumption by the CDD program was that since ORS sachets now have instructions in Chichewa, mothers would read and correctly prepare the solution. Given the low literacy rate it is not likely that mere instructions in local language will increase correct ORS preparation. In spite of these problems it is important that the CDD program continue to provide ORS sachets to mothers and at the same time focus attention on community-based education efforts and improve communication skills and information being provided by HWs and ORTU managers. Because of the previous policy, many HWs tend to hoard ORS supplies and give no ORS or only one sachet to caretakers on discharge. It is important therefore that the national CDD program (NCDD) clarify the policy in regard to ORS and disseminate it to HWs. Community health workers receive ORS through the MOH drug supply system. The amount they receive depends upon the stock available at the health center.

Availability/Supply

The majority of ORS available in the country is purchased by UNICEF. In 1982, 130,000 sachets were supplied which increased over the years to reach 1.2 million in 1989. This level has been maintained up to 1993.

Using 1989 population data, the amount of ORS available was far below requirements.

Number of children below five = 1,486,042 (18 percent of total population)
Sachets distributed = 1,250,000

If we assume that the average number of diarrhea episodes suffered per year per child under age five is approximately five, and that each requires two sachets, then the number of ORS sachets needed is 15 million. However, not all episodes of diarrhea require ORS and many can be effectively and appropriately treated at home using home-available fluids (HAFs).

Recent epidemics of cholera and dysentery also require adequate stocks of ORS. The actual ORS requirement is probably closer to six million sachets per year.

Reports from Regional Health Officers (RHOs), District Health Officers (DHOs), donors, and HWs indicate that ORS availability has been erratic over the years. Supplies were adequate during the drought and for cholera/dysentery due to donated supplies from UNICEF, WHO, ODA, Red Cross, and other donors. Currently, supplies seem sufficient but may be quickly depleted as the diarrhea season begins and as cholera/dysentery cases increase. A problem is also evident in distribution. Health workers, essential drug personnel, and regional/district officers noted that distribution of ORS supplies from Central Medical Stores (CMS), a government facility, was a difficult and lengthy process. Insufficient travel and transport charges add to the problem.

Currently there is no monitoring system to track available ORS supplies, distribution, and requirements. The CDD program will need to develop a mechanism to obtain data on ORS stocks (ORS use rate in health facilities). A system can be developed, in collaboration with the Essential Drug Program, using an ORS monthly reporting form which includes diarrhea cases treated, ORS used, and estimated requirements.

The CDD program should also carry out operational research tracing ORS from purchase to consumer in order to identify problems in the system (cf. research).

RECOMMENDATIONS

- The CDD program should conduct operational research to determine availability/use of ORS. A study could track ORS from the CMS to consumers, and sales in the retail sector as well as availability and sales of antidiarrheals.
- In the absence of an ORS stock monitoring/tracking system it is essential that the CMS be regularly provided with data on diarrhea cases, particularly cholera/dysentery, to enable them to order the necessary stocks of ORS, drugs, and IV fluids.
- The current ORS stock level in CMS is 1.2 million; an additional 1.2 million sachets will come from Pharmanova UNICEF purchase. The ORS availability is still far below national requirements particularly with expected epidemics of cholera and dysentery. Moreover, a buffer stock of at least 1.5 million should be maintained. As CDD program activities expand and more ORS is distributed to community based HWs, and as health centers (HCs) provide 2 sachets per discharged ORTU patient, then future requirements will reach 6 million. Plans for this expanding ORS requirement should be made now.

C. COMMERCIAL SECTOR (DISCUSSION WITH PHARMANOVA)

Discussions were held with the general manager (GM) of Pharmanova (formerly Sterling-Winthrop) regarding their experience with producing ORS (Winhydrat) and their plans for future production. The GM had a keen interest in manufacturing ORS and noted that the plant had the capacity to produce 45,000 sachets per week (2.3m/yr). Currently 1.2 million sachets have been produced and stored in the facility warehouse awaiting distribution to CMS following a recent agreement by UNICEF to purchase on behalf of the MOH. The product is a 1-liter WHO formula (sodium bicarbonate) in aluminum packaging. The package includes information on mixing/use in English and Chichewa. The GM was interested in improving the package design to make it more attractive and consumer-friendly by including graphics and information on feeding and continued breastfeeding during the diarrhea episode.

The product has been on the market since 1984 and is available at retail chemists and some private surgeries. Currently, two other ORS sachets are also available including Rehydrit (250 ml. lemon flavored Searle product) and Sorbitol, a 1-liter South African product. Promotional materials for Winhydrat were distributed (point of sale poster and customer leaflets) but have been withdrawn because they promoted the product as ORT. The GM is amenable to receiving technical advice and social marketing assistance to assess sales potential and improve marketing.

A tour of the plant revealed that the facility was clean and well organized with good quality control procedures.

RECOMMENDATIONS

- Technical assistance to help develop promotional material (point of sale posters, informational leaflets, better packaging) and social marketing advice (to map out an effective marketing strategy) may be provided through the BASICS project if requested.
- Evaluate cost and effectiveness of provision by USAID of raw materials for ORS production to Pharmanova after 2 years.
- Availability and distribution of ORS may also be expanded through social marketing and this should be explored through the PSI project. Condoms and ORS can be effectively distributed together along with promotional material.
- A particularly cost effective way to obtain ideas for a logo or package design is to sponsor a contest advertised in newspapers. The contest would solicit entries to design an appropriate logo and package design for Winhydrat. This is also a good method to encourage and utilize local artistic talent.

D. RECENT RESEARCH FINDINGS AND ISSUES

1. A number of research studies on diarrhea, breastfeeding, and related issues have been carried out in Malawi. Additional sources of useful information for the CDD program can be obtained from donor project reports (ADRA, Project Hope, Save the Children, Africare, GTZ, etc.). The Pediatric monitoring project, Kamuzu Central Hospital (KCH), and the routine health information system (HIS) and Sentinel Site system also provide valuable data.

A diarrhea and Malaria Mortality, Morbidity and Treatment survey was conducted by the MOH in Nov-Dec 1991 funded by UNICEF. The national survey was intended to:

- Establish baseline data for malaria and diarrheal disease morbidity and mortality for children under five in order to improve disease monitoring.
- Determine the knowledge, attitude, and practice (KAP) of community members related to malaria and diarrheal disease.

Although the study was conducted in Nov-Dec 1991, data analysis was delayed until late 1992 and the report is not yet widely available. It is not clear from the study whether WHO questionnaires or training material were used, and the length of the training (carried out at the regional level) is not specified. Moreover, information on who facilitated and monitored the quality of training, and who supervised data collection in the field, is not provided.

A total of 8,997 households were interviewed containing 13,293 children under five in 302 randomly selected clusters (30 households per cluster). The sample design description notes that clusters covered all districts. It is unclear from the analysis what percentage come from predominantly urban areas and how many from rural areas.

The results indicate that 2,976 households (3,605 U-5s) or 27 percent had diarrhea in the previous two weeks. Of these, 639 (21 percent) said the child had blood in the stool. In terms of actions taken, 59 percent took the child to the health center and 34 percent gave the child an antidiarrheal. Almost half (49 percent) obtained the antidiarrheal from the health center and 25 percent from a retail chemist. The high use of antidiarrheals, particularly by health centers, raises serious questions regarding the quality of case management particularly when ORT corners have been set up in 80 percent of health facilities. The survey results also show a low ORS use rate of 9 percent for episodes treated in the past two weeks while sugar-salt solution (SSS) use was 31 percent. This may be an indication of a problem with availability of ORS. The use of SSS continued to be high even after the MOH discouraged use in 1988-89. In addition, only a small number of children (261, or 7 percent) received fluids during the diarrhea episode while 22 percent received nothing.

Breastfeeding during diarrhea was good, with 97 percent saying they continued to breastfeed. A major problem was identified in that 49 percent of caretakers interviewed described

incorrectly how to prepare ORS. The survey also noted misunderstanding by caretakers as to the purpose of ORS.

Thirty nine percent said that ORS stops diarrhea. Other fluids given by caretakers included Phala (a thin maize, porridge preparation) (64 percent), 5 percent soup, 37 percent SSS, 5 percent Thobwa (a non-alcoholic traditional drink) and 8 percent used tea. The diarrhea mortality results derive from interviewer assessments based on signs/symptoms provided by caretakers. The diarrhea associated mortality rate using this method was found to be 28 percent. The major issues raised by the morbidity/mortality survey include the following:

- Low ORS use rate and conversely high SSS rate when the use of SSS is no longer an MOH policy
- Mothers/caretakers belief that ORS stops diarrhea
- High use of antidiarrheals

COMMENTS:

Additional analysis needs to be done on the data including a calculation of average number of diarrheal episodes based on the 27 percent 2-week prevalence rate, inclusion of a seasonal adjustment factor as the study was conducted in Nov-Dec (diarrheal season in Malawi), and some disaggregation of the data by urban/rural. It is unfortunate that data regarding the duration of the diarrheal episodes are not included as they would provide an indicator for a persistent diarrhea rate.

- Given the 27 percent 2 week prevalence rate the average number of episodes is probably around 4.8 to 5 episodes. This information may be used to estimate ORS requirements.
- The report with recommendations should be printed and made more widely available so that it can be used by the MOH, regions/districts in planning. (Note: UNICEF suggested that they would support printing and disseminating the report after additional analysis of the data is completed.)
- The survey identifies a number of important issues which need to be addressed by the CDD program including availability of ORS, overuse of antidiarrheals, high use of SSS, misunderstanding as to the purpose of ORS, and low use of other fluids at home (7 percent). The CDD program needs to focus more attention on improvement of home management as well as messages (targeted health education campaign) focusing on purpose/proper mixing of ORS.

2. A demographic and health survey was conducted by the National Statistical Office (NSO) and Macro International Inc. (USAID contract) from September-November 1992. The

survey, using standard questionnaires developed by Demographic Health Services (DHS), included questions on diarrhea, infant feeding practices, and nutrition.

The results indicate that 7 percent of children under five had diarrhea in the 24-hour period before the survey, and 22 percent in the 2 week period before the survey. The 2-week rate is slightly less than the earlier morbidity survey. Diarrheal prevalence was highest in the 6-23 month age group (as noted also in the 1991 survey). The DHS survey does disaggregate results by rural/urban and reports that diarrhea is higher in children in rural than urban areas.

The results show a much higher ORS use rate (32 percent) and home-based preparations (32 percent). ORS use was more common in urban than rural areas. The DHS survey does not address questions of correct preparation/use of ORS. ORT use rate (ORS or Home available fluids) was relatively high at 55.8 percent.

COMMENTS:

- The DHS survey results may indicate increasing availability of ORS, perhaps a reflection of increased distribution during the drought.
- While the ORT use rate is reported, it does not indicate use of SSS as a separate category. Nevertheless, an increasing ORT use rate is a measure of program impact.

3. A third major survey is the recent Health Facility survey carried out by the MOH/CDD program from 12-30 April 1993 with support from UNICEF and WHO. The survey was conducted using WHO protocols in all three regions and included 3 central hospitals, 12 district hospitals, 13 rural hospitals and 34 health centers/dispensaries. A total of 129 diarrheal case management sessions were observed, 78 HWs and 129 caretakers interviewed and health records reviewed.

The results of the survey are very discouraging and raise serious questions regarding the quality of diarrhea case management in health facilities. The report notes that while the concept of facilities having ORT corners and use of ORS is widely accepted, the quality of diarrhea case management was poor. This included the fact that the amount of ORS given was generally not in conformity with standard guidelines, feeding was a routine practice in only a few facilities, and the time spent in an ORTU by patients was not utilized as an opportunity to educate caretakers on preparation and administration of ORS, home care, prevention, etc. Moreover, only 1 percent of the staff managing ORTUs had received CDD training. Many ORTUs had insufficient supplies of ORS and utensils.

A particularly interesting finding was the fact that caretakers actually had better knowledge on home management of diarrhea than health workers (i.e. continued feeding, increased fluid intake, when to bring the child back, preparation and administration of ORS). A possible reason for the finding could be the fact that community-based projects supported by NGOs

and PVOs have been particularly widespread in Malawi which may have increased awareness and use of ORS/ORT. In addition, the presence of active HSAs, Village Health Volunteers, and CHWs may have had a positive effect on Home Management.

Specific problems identified in health worker's case management included conclusions as to the degree of dehydration reached without using systematic approach; only a few asked about blood in stool or important signs of dehydration. As a result, 21 percent of the children were misclassified. In general the quality of case management was inadequate with patients being inadequately assessed, inadequately rehydrated, and caretakers poorly advised. Treatment for bloody diarrhea was also poor (use of inappropriate antibiotics).

Advice given to caretakers on home care and ORS preparation was inadequate and seems to be related to lack of knowledge by HWs and unclear delineation of responsibilities about who should advise caretakers.

The report attributes the deficiencies to a combination of factors including lack of knowledge and skills, lack of supplies, inadequate supervision, shortage of staff, and lack of strong national support from the national CDD program and MOH.

COMMENTS:

- This is an important study, raising serious questions which need to be addressed by the MOH CDD program. The report should be made widely available throughout regions, districts, and health facilities.
- The findings suggest that the CDD program needs to reassess the current training process and methodology and focus more attention on providing quality training (including "hands on" experience) for HWs and ORTU managers. The fact that mothers and caretakers have better knowledge than HW's may be a reflection of the fact that the community-based information channels are effective. These community-based channels need to be utilized and reinforced by good education and quality care in health centers, particularly in view of the high health center utilization rate in Malawi.

The survey report includes several recommendations which I endorse and which I believe should be considered by the CDD program. Support for a number of the actions may be obtained through UNICEF, WHO, and USAID. In addition, the following recommendations are offered:

- The CDD program should develop a realistic training plan to provide quality training with an emphasis on hands-on practice and interpersonal communication skills. The PRITECH-developed booklet, "Advising Mothers," may be a useful training aid. In addition, HWs need to have clear ideas as to their responsibilities. Currently, ORTU

activities are regarded as separate from other under-five activities and they are not closely supervised.

- ORTU managers and drug dispensers in health centers need to coordinate their efforts and each should know who is to provide the caretakers with information on ORS preparation, use, and when to return, etc.
- The CDD program should also develop clear guidelines on diarrhea case management including use of drugs, policy on ORS, SSS, HAFs, feeding, etc. The essential drug program has recently revised a Prescribers Manual and Standard Treatment Guidelines which contains some of this information but a separate manual on diarrhea/cholera/dysentery would also be useful.
- The CDD program should also appoint and train focal points (district/regional CDD coordinators) who would be responsible for monitoring ORS supplies, ORT corners, health education material production and distribution, training, conducting operational studies, reporting on CDD activities in their areas, and organizing training (in-service and on-the-job).

Other issues include intensifying health education campaigns (mass media) to focus attention on home management (increased fluids, continued feeding, and identification of danger signs).

The possibility of establishing a DTU (Diarrhea Training Unit) to provide hands-on training for clinical tutors, pediatricians, nurses/nurse tutors and HWs involved in diarrhea case management (referral centers) should also be considered. A DTU also serves as a model facility which should be replicated (on a smaller scale) throughout the country.

The surveys conducted to date provide important information for the CDD program and it is important that the findings be made widely available. It is also essential that the information be used in CDD planning and that the problems/deficiencies identified are addressed. The results of the health facility survey have already led to action by the Southern Region to propose training for ORTU managers/health center staff in diarrhea case management.

RECOMMENDATIONS:

- The CDD manager should collect information and reports from ongoing projects, many of which contain data that may be useful in CDD planning, training, monitoring, and evaluation. ADRA, for example, produces monthly reports which include ORT use rates in their project area.
- The CDD program should also consider conducting small operational studies such as:

- a) An ORS distribution study tracing ORS availability and distribution from CMS to health centers to consumers.
- b) A study on the current supervisory system to identify problems and develop a standardized system (using checklists, performance indicators/criteria, and observation of case management).
- c) An infant feeding study (what do caretakers actually feed their children during diarrhea episodes?)
- d) A survey of KAP of community health workers - use of ORS information provided to mothers, and referral practice.
- e) A study of health care utilization practices - who do caretakers go to first when their children have diarrhea, why etc.?
- f) Survey of traditional healers - KAP in regard to diarrheal diseases.
- g) Survey of private practitioners' practices in regard to diarrhea, ORS use.
- h) Monitoring survey of availability of antidiarrheals and ORS in private shops and retail chemists.

These suggested studies may be carried out with a relatively small investment by the CDD program and they can be done in collaboration with CESU with support from donors. The studies should be integrated as much as possible with studies by other programs (EPI, ARI, NUT, PHC). USAID should consider funding operational studies designed to answer key CDD program issues. Conducting operational studies not only assists in CDD planning but also increases visibility of the CDD program.

E. TRAINING ISSUES

There has been a wide range of training activities carried out by the CDD program over the years including supervisory skills courses, case management training for HWs (regional/district) and HSAs, and CHW training. Training problems identified in a comprehensive CDD program review in 1989 included lack of reports detailing content, methodology, participants, use of a highly didactic approach with few practical sessions, and training conducted by people with little or no training in educational methodologies. The recent health facility survey which found the overall quality of diarrheal case management to be poor points to the consequences of the training approaches used. The CDD program should take the results seriously and reassess training methods and cadres being trained. While it is disappointing and frustrating to the CDD program and donors to see such results, it should be viewed as a challenge to the CDD program to develop a realistic training plan using a more practical approach and more cost effective methods. Faced with similar results

of a health facility survey in 1989, the Zambian CDD program shifted emphasis away from supervisory skills courses and developed a training plan which included a TOT course to teach a cadre of trainers in teaching skills. The trainers then conducted provincial courses to teach a cadre of people to organize and train district and health center staff. This was followed by on-the-job training for CHWs. ALL of the training included a practical hands-on component at a DTU or a nearby hospital.

The Malawi CDD program should consider training a cadre of trainers drawn from MOH, region/district, CHAM, and other organizations with experience in conducting skills training courses. The trainers do not necessarily have to be health workers but should have expertise in practical, participatory, experiential training methods.

A number of cost effective training methods are available and should be considered by the CDD program. For example, WHO has recently developed (field tested in Zambia) a set of modules for "distance learning". The course uses a self-instructional approach and can be used with a video and tape recorder (optional). The materials are intended for HWs in clinics or small hospitals and allow them to learn all the principles of diarrhea case management at their own pace guided by tutors (who visit/supervise from the district occasionally to check progress). The first step in using this approach is to select tutors from districts/regions who receive one week of training in how to use the modules, how to provide assistance to learners, grade exercises mailed to them, and be responsible for visiting learners at their work place.

After completing the course, the learners receive an official certificate from WHO. The advantage of the method is that it avoids the hotel-based training typical of many courses and is therefore more cost effective.

Another possibility is the three-day clinical management course also developed by WHO intended for small hospitals and clinics. Again, the course is preceded by a training of trainers (TOT) module, and includes instruction on training methodologies and practicals to develop a cadre of trainers. The trainers then conduct training at the regional or district level using the WHO materials adapted/supplemented with locally relevant information (cholera/dysentery). The advantage is that the training is short (3-4 days), takes place in the region/district, includes practicals, and creates personnel who in turn can train others.

Training for the HSAs is currently underway and should yield significant dividends. The HSA is a direct link with the community and has potential to improve disease surveillance, community participation in health initiatives, disease identification/referral, improvement in home management of diarrhea, and other diseases as well as better health education. This assumes that the quality of training for HSAs is good. A curriculum has been developed and revised in May 1993. The training period is eight weeks in duration. The teaching methods include presentations in lecture format, practical teaching, and discussion methods. The emphasis is on skill training supported by lectures sufficient to understand the specific skill, hands on training provided by structured laboratory and practical training activities in

selected sites in Public Health Training Catchment (PHTC) areas. A total of 271 hours include 53 classroom hours and 218 practical. While the modules include diarrheal diseases, there are none on malaria or ARI (more information on exclusive breastfeeding should also be included).

The HSA training, supported by USAID, ODA, and the World Bank, should be continued and should prove beneficial and complement CDD training efforts. A recent survey of HSAs (report available soon) should provide vital information on training needs etc.

Retraining courses for health center staff to upgrade their knowledge and skills on diarrhea case management following the results of the health facility survey have already been proposed for the Southern region. Similar training courses need to be held in other regions/districts. Health workers actually involved in diarrhea case management should be targeted and training must include a practical component. A system of regular/quality supervision during which case management is observed and some skill training takes place is required. This can partially serve as a refresher course as well.

Training for sentinel clerks, MCH coordinators, and clinical officers in the 12 sentinel sites has also been initiated. A training syllabus and report is available.

In general the CDD program is beginning to address some of the problems/issues associated with quality of training. In order to accomplish the goals, the program will need donor support for TOT courses, short courses, and refresher courses. The presence of a full time technical advisor (either WHO APO or technical advisor under BASICS) would be very useful to the CDD program.

RECOMMENDATIONS

- CDD program reviews have suggested conducting training needs assessments to determine the level of knowledge and appropriateness of cadres to perform their jobs. This is listed as a strategy in the 5-year CDD Plan (1990-94) and has not as yet been done. The health facility survey results illustrate the urgency of carrying out such an assessment. Regions/districts can carry out assessments for their areas and the central CDD program should assess training capabilities of available trainers. The training needs assessment should include nursing schools (what materials are they using to teach about diarrhea and exclusive breastfeeding?) and the College of Health Sciences and College of Medicine.
- The CDD 5-year plan includes the establishment of DTUs after a training needs assessment. If this involves using existing facilities (central hospital) and sufficient personnel are available as trainers it should be seriously considered. Technical assistance may be obtained to consider the feasibility of establishing a DTU (WHO, BASICS, or USAID).

- The team training approach should be used in CDD training. This involves training 2-3 more people from relevant hospital care units to develop a team. For health centers it may be best to provide on-the-job training for all of the staff on a number of related MCH programs. The approach has distinct advantages over training only one person in CDD and assuming that he/she will pass on what he/she has learned to other staff (rarely happens in practice). CDD activities will be more integrated in other activities if all staff in the HC are aware of the relationships between breastfeeding and diarrhea, diarrhea and measles immunization, and diarrhea and malnutrition.

F. HEALTH EDUCATION MATERIALS

The situation in regard to the availability and use of CDD-related IEC materials is generally inadequate. Many health workers, health officers, and donor supported project personnel complained that few materials were available, and if they were available were not being used effectively to teach caretakers. This complaint was reiterated by most participants of the recent cholera/dysentery workshop. Many of the materials developed under the HealthCom project including a "diarrhea wheel", mobile, posters, flipchart, and local language diarrhea booklet were either in dilapidated condition or no longer available. Even WHO diarrhea treatment charts were not available in some of the health facilities visited. (1,000 treatment charts have just been received by the CDD program).

The results of the health facility survey reinforce the need to improve communication between HWs/ORTU managers and caretakers. Although patients spend an average of 2 hours at an ORTU the time is not utilized to teach mothers about ORS preparation, use, continued feeding, breastfeeding, diarrhea prevention, or when to return to the facility.

In general, many of the recommendations for IEC materials offered by the comprehensive program review (1989) remain valid. The recommendations are even more important as the CDD program responds to epidemics of cholera/dysentery.

The recent meeting held in Central Region to review current diarrhea control/prevention messages, rate them, and determine priority themes is an important step in developing targeted, effective IEC materials. Among the key messages identified is the need to focus on teaching the rehydration concept (that ORS prevents dehydration and does not stop diarrhea). Key strategies for social mobilization and IEC materials were developed during the cholera/dysentery workshop which will also assist in developing more effective approaches to reach caretakers at the community level.

RECOMMENDATIONS

- The CDD program should review existing materials and develop a plan in conjunction with the health education unit to identify priority IEC needs. Some materials may be re-tested, changed, and produced again.

- The health education unit in collaboration with the CDD PM has recently produced interesting posters with messages on hygienic practices, feeding, breastfeeding, and rules for home treatment (displayed to participants during cholera/dysentery workshop). These materials need to be pretested, printed, and distributed as soon as possible.
- The CDD program perhaps in collaboration with donors working in different areas should carry out socio-cultural research on practices and attitudes of mothers in order to target health education messages more effectively.
- Many donor supported projects have developed health education and training materials; these should be reviewed and shared. A mechanism to do this is through a child survival health education materials committee (established as a sub-committee to National CDD Intersectoral Committee).
- Local level production of IEC materials should be encouraged and supported. Communities should be involved in production. An independent group at the regional level can evaluate material before printing and distribution. Pretesting should be done in a pilot community.
- Including communication skills in training courses for HWs and ORTU managers is essential and should be done by a cadre trained in communities.
- The CDD program should obtain sufficient copies of materials such as *Diarrhea Dialogue* and *Mothers and Children* newsletter and distribute them to HWs. Latest information and results of research on exclusive breastfeeding should also be obtained and distributed to MOH officials and HWs.

G. HEALTH INFORMATION/DATA COLLECTION

Problems with the current HIS were identified as a major concern by health workers at all levels as well as donor-supported project officers. A recent assessment of data needs/ collection/reporting during the drought noted that late reporting by health centers and the districts to the region made it difficult to compile reports, and data collected were not used or fed back to health personnel. The recommendations offered were to revise the HIS based on priorities at the district/regional level, to establish a position of district health information officer and to provide a responsive system with rapid feedback to the field.

Similar problems were noted in regard to cholera/dysentery reporting. Reliable information on cholera/dysentery is essential in order to assess the reduction in cases, measure success of control efforts, monitor case management impact, to identify sites needing assistance, and to estimate needed supplies for affected districts. Participants in the cholera/dysentery workshop also reiterated the need for accurate, timely data during epidemics. The current cholera/dysentery forms have been revised (see Annex A).

A sentinel site reporting system for diarrhea/malaria has been in place since 1987. Twelve sites distributed throughout the country are intended to monitor the utilization of health facilities for diarrhea and malaria and the practices of the community related to these diseases for children under age five. Problems identified by several evaluations include logistics (lack of forms), supervision (not clear when, how, and by whom supervision is to be carried out), and training (the majority have not received training). Currently the Epidemiology Unit, CDD, and Malaria PMs are revising the sentinel site system by revising the forms (see Annex A). They are also clarifying supervisory responsibilities and training sentinel clerks, clinical officers, and MCH coordinators. Although reviews/evaluations have questioned the value of maintaining the sentinel system, a great deal has already been invested in the system and training for sentinel clerks, COs, MCH coordinators, and public health nurses has already begun.

RECOMMENDATIONS

- The current exercise to revise the sentinel site system should continue and include training, supervision, and follow-up activities.
- Recommendations developed regarding improvements in the HIS at all levels should be implemented after adaptations/revisions and discussion with regional and district officers.
- Agreement should be reached through consensus as to the case definitions of cholera/dysentery and reporting forms currently being developed by districts/regions should be coordinated and standardized.

H. EXCLUSIVE BREASTFEEDING

Exclusive breastfeeding issues and promotional activities were discussed with MOH officials, the Nutrition Unit, and donors (UNICEF, WHO, IEF, Project Hope, and Save the Children). An attempt was made to review current activities, research, constraints, and planned activities.

Results of the recent DHS survey (1992) indicate that while almost all mothers interviewed breastfeed their children through the first 12 months of life, nearly the same percentage were giving water, glucose, and other liquids from age 0-3 months. Forty-three percent of children 0-3 were being given solid food or mushy food (eg. porridge). By 4-6 months 86 percent were fed solid or mushy food.

Research conducted in urban areas of Malawi (Shrestha, 1989) by the MOH and UNICEF found that 47 percent of the 1,302 mothers interviewed introduced supplementary milk before the child was four months old. Nearly 27 percent of mothers introduced supplementary food before three months. The type of food included processed cereals and other commercially marketed baby food (23 percent). There were divided opinions on the appropriate duration of

breastfeeding. About 57 percent thought that a child should be exclusively breastfed up to three months. Another 39 percent thought that a child should be exclusively breastfed up to 4-7 months.

A survey conducted out in Chikwawa district (Castle 1992) for the International Eye Foundation (IEF) and Wellstart included in-depth studies of 81 women in four villages. The results indicate that virtually no mothers breastfed exclusively for any period of time. All mothers gave water from the first few days of life and three quarters were giving phala (watery maize porridge) before four months. The main reason for early supplemental feeding reported by mothers is a belief in their breast milk insufficiency and the associated crying of child (insufficient milk syndrome-reported in other countries). Although there has been no study of KAP of breastfeeding by HWs, most of the HWs interviewed, project personnel, and Nutrition Unit (MOH) report that nurses working in nurseries promote early feeding using sugar water. They also noted that HWs were not well informed about the importance of exclusive breastfeeding. Moreover, most agree that there is resistance/reluctance to promote exclusive breastfeeding by nurses, doctors, and HWs. Promotion of exclusive breastfeeding at the community level was also viewed as difficult due to strong beliefs and pressure from relatives/peers of the mother.

Activities currently underway to promote exclusive breastfeeding in Malawi include the following:

- An exclusive breastfeeding task force has been formed which includes UNICEF, MOH Nutrition Unit, and the Social Welfare Council. The committee is reviewing/revising the breast milk substitute marketing code first written in 1989 but not accepted as a legal document.
- Project Hope/UNICEF has conducted lactation management training for HWs in Southern region. They are also developing posters and other IEC materials.
- CHAM project in Koche health center in Mangochi district, Mlanda health center in Ntcheu district and Nkhorongo health center in Mzimba district have introduced exclusive breastfeeding into their program. CHAM has also produced a curriculum for village health volunteers which includes several modules on exclusive breastfeeding.
- IEF continues to carry out research and promotional activities in Chikwawa district.

RECOMMENDATIONS

- It is essential that the CDD PM be included in exclusive breastfeeding activities. Currently the PM is not a member of the task force.

- Exclusive breastfeeding should be included in Medical Nursing and College of Health Sciences curricula. Reluctance on the part of medical personnel is often overcome when they see the latest scientific evidence for exclusive breastfeeding. Project Wellstart has a large number of training materials (videos, manuals, books, etc.) which can be used.
- Similarly, the effectiveness of breastfeeding promotion depends on HWs having access to current research on the benefits of breastfeeding. In-service training and lactation management seminars can achieve this. The lactation management courses held in Southern region should continue and be expanded to all regions/districts. USAID should consider supporting this effort.
- Breastfeeding promotional material should include messages such as "Exclusive breastfeeding prevents diarrhea or coughs/colds"; mothers respond better when the message includes a reason for doing something.
- Available breastfeeding IEC materials developed by Project Hope, UNICEF, and other projects should be shared and widely used if found appropriate.
- Community-based exclusive breastfeeding promotional efforts should enlist the aid of community development officers, TBAs, church groups, local leaders, agricultural extension officers, HSAs, CHWs, VHVs, and local PVOs.
- Additional studies similar to the research in Chikwawa need to be carried out in other areas.
- A KAP of HWs in hospitals may be a useful way to alert health officials to the need to update knowledge and change practices.
- Training of trainers workshops need to be held to convince health professionals and TBAs of the advantages of exclusive breastfeeding.
- Community-based education efforts should stress the relationship between early supplementation (water,phala) and diarrhea.
- Village level support groups for breastfeeding mothers should be encouraged and supported.

I. CASE MANAGEMENT ISSUES

The health facility case management survey (cf research) is a devastating critique of current diarrhea case management quality and past training efforts carried out by the CDD program. It is now incumbent on the CDD program to reevaluate its approach and future priorities. The program should focus attention on improving the quality of CDD training by ensuring that

appropriate cadres are trained, that all training includes a practical hands-on approach, and that more attention is paid to improving the communication skills of health workers. It is also important that the training HWs receive include issues such as nutrition, feeding, breastfeeding, providing caretakers with information on purpose of ORS, preparation/use, signs/symptoms of dehydration, and when to return to the health center (3 rules). Parallel to this training effort, the CDD program should increase its attention to community-based ORT through such methods as training of HSAs, VHWs, CHWs, as well as exploring the possibility of using community development workers, agricultural extension workers, religious/church groups, traditional healers and TBAs. The importance of establishing a strong community-based ORT program cannot be stressed enough particularly in the face of continuing epidemics of cholera/dysentery. While a great deal of resources and attention are centered on controlling cholera/dysentery, a larger, more important problem remains, namely the large proportion of diarrhea cases/deaths which may be effectively managed at home.

RECOMMENDATIONS

- The CDD program should (after a training needs assessment) train ORTU managers, and HC staff. The training should follow a standard curriculum and include the points noted above.
- The CDD program should explore effective ways to develop a community-based ORT program utilizing CHWs, HSAs, Traditional healers, extension workers, VHVs, TBAs, etc. to spread the ORT message.
- Effective case management means good supervision and regular monitoring of quality of care. Supervision checklists should be developed for CDD and made available for all regions/districts.
- After training it is important to provide needed backup support whether it is HWs in health facilities or community-based service providers (eg. IEC materials, ORS).

J. CHOLERA/DYSENTERY

Cholera/dysentery issues including case management, reporting, logistics control, and MOH/donor response were discussed with health officials at all levels as well as donors involved in providing support during the recent epidemics. The problems identified include a weak CDD program, slow response by MOH, unresponsive/unreliable reporting system, lack of supplies (ORS, drugs, equipment) shortage of personnel and transport, and unavailability of IEC materials.

Many of the problems/constraints were discussed at length during the cholera/dysentery meeting (November 1-3, 1993). (The recommendations and strategies developed during the workshop are included in the final report as an appendix). This section offers a few

recommendations which are based on lessons gained by the Zambian experience and which are equally applicable to Malawi.

RECOMMENDATIONS

- Clearly the best way to prepare and respond to epidemics of cholera/dysentery is to have a strong CDD program in place. The CDD PM and staff must be directly involved in the planning and response to the epidemic.
 - Responding to cholera and dysentery control does not necessarily mean disruption of all ongoing CDD activities. Instead the situation should be viewed as an opportunity to mobilize and involve donors in supporting CDD training, IEC materials/social mobilization, and closer collaboration with other sectors (eg. water/sanitation).
 - A major lesson learned in responding to cholera is that cholera supplies (ORS, IV fluids, equipment, disinfectants) must be strategically placed long before the epidemic strikes. In Zambia we put together cholera treatment kits (sufficient for 100 patients) assembled by Medical Stores and placed in clinics/hospitals in cholera-prone areas. This is particularly important in view of the fact that case fatality is usually high immediately after the epidemic hits and declines as patients are treated with appropriate drugs and fluids (as case management improves).
- Assisting cholera prone districts to plan effectively by holding training courses has proven to be a useful way to develop realistic, specific plans which can then be "sold" to donors.
- The relatively low CFR in Malawi for both cholera/dysentery can be reduced further to 1-2 percent provided good surveillance systems are established, logistics are in place and health workers are well trained.

The cholera/dysentery workshop yielded excellent strategies and review of important issues for the CDD program and epidemic. It is now essential that the proceedings be reported and disseminated to MOH officials and that regions and districts go on to develop plans which are incorporated into an overall epidemic response strategy.

K. DONOR RESOURCE MOBILIZATION/COORDINATION

Given the dependence the CDD program has on donor support to carry out many activities, the successful mobilization of additional support will be important in the years to come.

Up to 1988, the USAID-funded CCCD (Combatting Childhood Communicable Diseases) and HealthCom Projects provided major support for CDD activities including provision of materials for and training of regional and district supervisors, training of teams of district ORT trainers, printing/distribution of IEC/training materials, and provision of equipment for ORTUs.

From 1989, UNICEF became a major donor for CDD filling part of the gap left with the end of the CCCD project. UNICEF has provided up to 1.2 million sachets of ORS, as well as funding for training (extension/PHC workers), revision and printing of diarrhea treatment charts, IEC materials, monitoring/evaluation activities, provision of equipment (ORT corner materials), and salaries for sentinel site clerks.

WHO has also assisted the CDD program particularly in the provision of training, support of monitoring/evaluation, cholera/dysentery (drugs).

As the range of CDD activities expands and with the limited resources available from the MOH it is necessary to continue to utilize donor support and mobilize new donors.

RECOMMENDATIONS

- The CDD program should actively pursue the possibility of enlisting new donor support either for technical assistance or support for training, IEC materials, research, and community-based programs. USAID's planned expanded support for CDD program activities should contribute substantially to the success and provide a needed boost to "rehydrate" the long dormant program.
- USAID should expand support for the CDD program in a number of different components (as noted throughout). This is particularly true when the program is forced to deal with issues like cholera/dysentery, extensive malnutrition (resulting in high persistent diarrhea rates), straining available resources and manpower to the limit.
- The CDD program should increase its collaboration with CHAM. CHAM has developed curriculum/training materials for village-level health workers which may be adapted and used by the CDD program in its training programs.
- The CDD program should make a special effort to increase collaboration with donors engaged in water sanitation projects (ADRA, Africare, GTZ, Save the Children, Action Aid, etc.). Many of these projects include community participation components such as health education and disease monitoring. These projects also produce useful reports, health education materials, and training curricula which would be very useful for CDD. Moreover, regular contact with these projects' personnel will strengthen the CDD program's role in community-based disease surveillance, diarrhea prevention, health education, and training.

ANNEXES

ANNEX A
Revised cholera/dysentery reporting forms

**Ministry of Health
Regional Health Office (Central)**
MONTHLY DISEASE-OUTBREAK REPORT FORM FOR DISTRICT LEVEL

DISTRICT: _____

Month: _____ **Year:** _____

Total number of diagnosing units (sending-in OPD returns) in the district:	
Total number of HSA's in the district:	

Disease	Cases <i>(including deaths)</i>	Deaths
Cholera		
Dysentery (Bloody Diarrhoea)		
Bacterial Meningitis		
Deaths due to Rabies		

Traditional Authority	Cholera		Dysentery	
	Cases <i>(include deaths)</i>	Deaths	Cases <i>(include deaths)</i>	Deaths
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
	Health units	Village based	Health units	Village based
Number of reports included:				

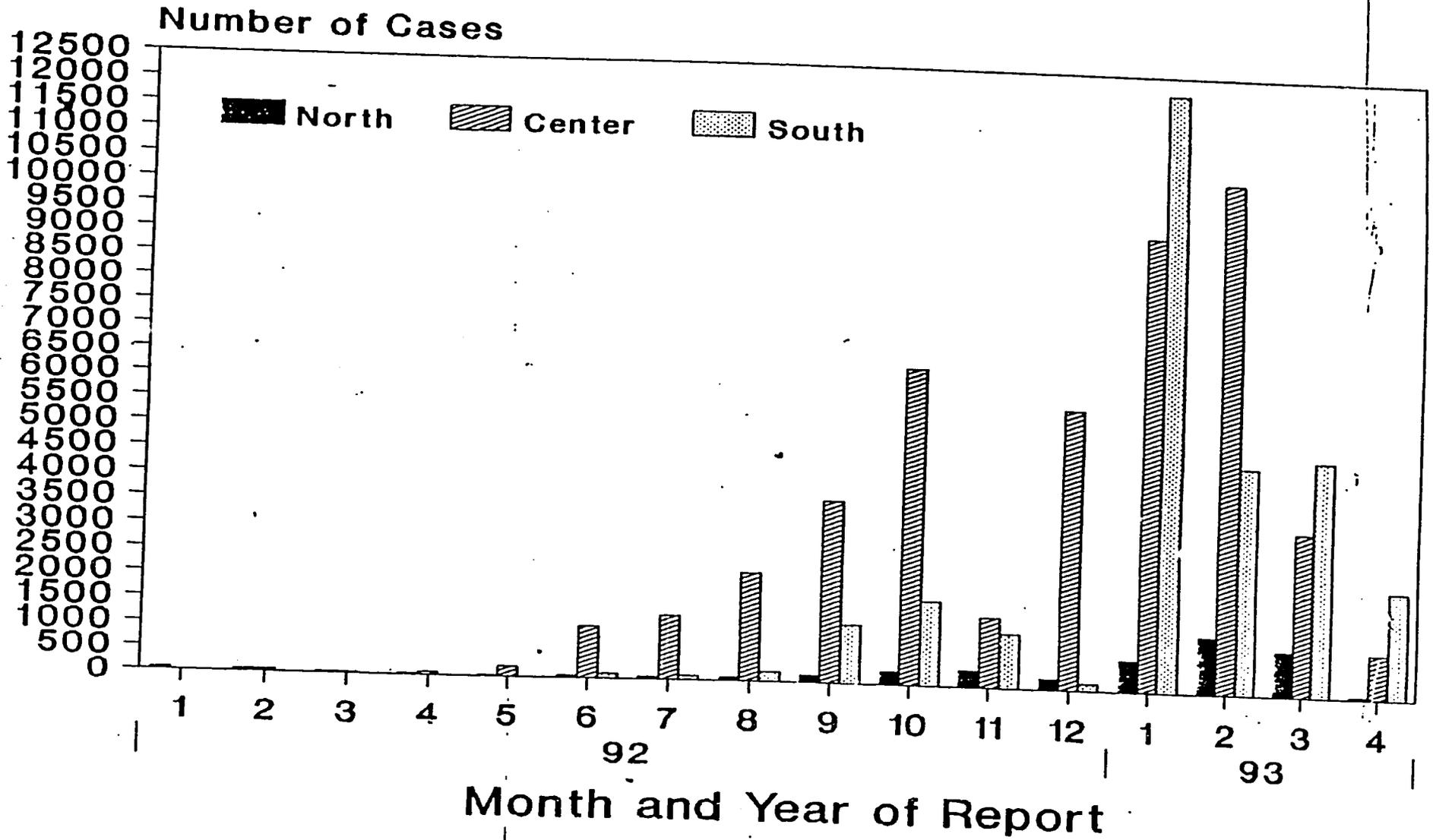
Remarks:

Reported by: _____ **Date:** _____

- 24 -

ANNEX B
Graph: Cases of Dysentery 1992-93

Cases of Bloody Diarrhea, Malawi



8

ANNEX C
Number of Cholera cases and Case Fatality Rate, 1992-1993, Malawi

ANNEX C

Number of Cholera cases and Case Fatality Rate (CFR per 100) in 1992–1993, Malawi

Year	North (CFR)	Center (CFR)	South (CFR)	Total (CFR)
1992	71 (7)	6 (0)	44,465 (0.3)	44,452 (0.3)
1993 to August	12 (25.0)	3,295 (5)	22,193 (1.4)	25,500 (1.9)

DYSENTERY 1992

REGION	CASES	DEATHS	CFR%
NORTH	1,479	62	4.1
CENTRAL	29,744	237	0.8
SOUTH	4,502	27	0.6
TOTAL	35,725	326	0.9

DYSENTERY 1993 JANUARY – AUGUST

REGION	CASES	DEATHS	CFR%
NORTH	5,530	50	0.9
CENTRAL	27,050	156	0.5
SOUTH	25,787	320	1.2
TOTAL	58,367	526	0.9

A

ANNEX D
Matrix/Summary of possible USAID Involvement in CDD/BF Activities

ANNEX D

Possible USAID Involvement in CDD Program Activities

CDD Program Component	Activity	Collaborating Agencies	Technical Assistance	Time Frame	Impact Monitoring
Planning & Management	Technical assistance. To develop workplans.	WHO (APO Position)	Long Term (WHO) Short Term (USAID)	2 years 1-2 months	Development of Realistic work-plans monitored through NCCDC Regional District CDD Coordinators
	Training needs assessment	WHO/UNICEF	Short (TA)	1 Month	
	CDD Planning – Workshop	All involved donors PVO's	Short (TA)	2 days	
ORS Supply Distribution	Provide raw materials for Pharmanova to manufacture ORS for MOH	UNICEF/ Pharmanova	n/a	1-2 years	
Private Sector Commercialization	Social Marketing Assistance for Pharmanova	PSI/UNICEF	Short-term TA to develop marketing plan; possible TA for promo material packet design	2-3 weeks	Availability of ORS in public and private sector
	ORS Use Study– combined with survey of availability in retail sector (antidiarheals)	CHSU	n/a	2-3 weeks	Continuous monitoring of retail sector every 6 month

ANNEX D

Possible USAID Involvement in CDD Program Activities

CDD Program Component	Activity	Collaborating Agencies	Technical Assistance	Time Frame	Impact Monitoring
Training	Conduct Training Needs Assessment (as above)	CHSU	n/a	n/a	Case Management Improvement in HCs
	Adopt use of "Distance Learning" Materials—HC Staff	WHO (Materials)	Trainers	1 week	
	TOT for use of 3–day courses (below)	WHO (Materials)			Quality of Case Mgmt. (Indicators development)
	3 Day training courses for selected clinics/small hospitals (Include cholera/dysentery component)	WHO (Materials)			
	Establish DTU at KCH/Region	WHO	Feasibility Study	1–2 weeks	
Continued support for HSA (CDD/EBF component in syllabus)	ODA/World Bank	None	1–2 years +	Improved surveillance; community– based monitoring	
Develop Standards	Develop standard supervisory checklist	Regions/District CHSU	None	1 week	Use of checklist during supervisory visits
Research/M/E	Conduct Operational Research: – ORS Avail./Distribution – Infant Feeding (HAFS) – Health care utilisation pattern – Traditional Healers/TBA/KAP	CHSU/WHO/ UNICEF	Short–term: Development of protocol/Analysis	1 week (as needed)	Use of data in CDD Policy/Planning

66-

ANNEX D

Possible USAID Involvement in CDD Program Activities

CDD Program Component	Activity	Collaborating Agencies	Technical Assistance	Time Frame	Impact Monitoring
IEC Materials Mobilisation	Social design, Pretest, Print Dist. of materials of EBF, Cholera/Dysentery, Hygienic practices, priority messages	HE/UNICEF		1–2 Months	Availability of appropriate HE materials/HC/Comm.
	Promotion of hand–washing campaign	Private Sector, Soap Co., HE	Same as social marketing TA		Changes in Hygienic practices decreases diarrhoeal disease morbidity
	Social Mobilisation Campaign– Mixing of ORS				Surveys/Correct ORS Mixing Rate/Proper Use
Health Information	Establish District/Regional Health Information Officer Post	Regional District CH	None		Improvement of Data collection/Analysis
Case Management	Develop clear ORS/SSS HAF guidelines	WHO/UNICEF		Consensus during wkshp	Decreased use of SSS, increased use of HAF
	Disseminate guidelines (MAN)HWS/Rx				Monitor quality care
	Develop quality care indicators				Available at HC level
Cholera/ Dysentery	National Strategies developed– District Regional Plans	NGO's/PVO's		1 month	Improved preparedness for epidemics
	District/Regional Plans		Financial for Reg/Dist wkshps	2 days/reg	

ANNEX D

Possible USAID Involvement in CDD Program Activities

CDD Program Component	Activity	Collaborating Agencies	Technical Assistance	Time Frame	Impact Monitoring
Donor Collaboration	Donors represented on national CDD intersectoral committee	UNICEF/WHO	n/a	n/a	Increase Coordination Collaboration – CDD/donor activities
	Involvement of donor supported personnel in CDD activities	Project Hope, IEF Save the Children, etc.	n/a	n/a	
Exclusive Breastfeeding	Support reg./district lactation mgmt. courses	Project Hope, UNICEF		2–3 day x 10	
	Research in selected districts on BF/Infant Feeding (s/c barriers) focus groups	IEF/UNICEF	Possible TA to develop protocol/training in focus group methodology	1–2 months	Report
	Development of IEC Materials/Social Mobilisation (radio/etc.)			1–2 months and inter-mittent	Increased awareness, audience participation surveys – community
	Obtain/Distribute available materials. (Diarrhoea Dialogue), Mothers/Children				Availability of materials Increased knowledge of BF issues

APPENDICES

Appendix A

A. Scope of Work

- To assess the ongoing diarrheal disease (DD) and exclusive breast feeding (EBF) program efforts through review of relevant documents, and interviews with government and PVO and NGO officials and other collaborating donors. Conduct field trips to communities and health facilities.
- The report will summarize the strengths/weaknesses of ongoing efforts and identify areas where USAID assistance might be warranted.
- In discussion with USAID, staff develop a program description for an expanded DD and EBF program consistent with national health objectives, USAID development strategy, and available resources.

Appendix B

B. List of Persons/Organization Contacted

Mr. Chris McDermott, USAID HPN
Mr. Ken Schaw, USAID HPN
Mr. Mexon Nyirongo, USAID HPN
Dr C. Franco Community Health Services Unit,(MOH)
Dr. Nyasulu Community Health Services Unit,(MOH)
Mr. K. Nindi, MOH CDD Program Manager
Dr. Khosa Controller Preventive Health Services,(MOH)
Dr. Chimimba, (MOH)
Mr. Alfred Mwinifumbo, PHC/UNICEF
Mr. Keith McKenzie Water/Sanitation, UNICEF
Dr. Stewart Tyson, Representative of UNICEF
Dr. Lester Chitsulo, CHSU (MOH)
Mr. Charila, Central Medical Stores
Mrs Lilian N'goma Regional Nursing Officer,Central Region
Ms. Martha Chuma, Officer in Charge of Health, UNDP
Dr. Van Dessel, District Medical Officer, Salima District
Mrs. E. Lazaro, Public Health Nurse, Salima District, Khombedza
Mrs. D.S. Kamgunda, Senior enrolled nurse, Dowa District
Mr. J.A. Longwe, Health Assistant, Dowa District
Dr. R. Sowerby, District Medical Officer, Dowa District Hospital
Mr. Nyalungulu, MCH Coordinator, Dowa District Hospital
Mr. Mdebwe, MOH, Nutrition Unit
Mr. Peter Graeff,WHO Essential Drug Program
Dr. E. Mason, WHO Subregion, SADEC Cholera/dysentery Control
Dr. M.E. Chuwa,WHO country representative
Mr. S.R. Kantunda, CHAM-PHC coordinator
Mr. Bob Strickland, Field Director Save the Children
Ms, Carol Diamond, Save the Children
Ms Kate Wedgewood, Save the Children
Ms Morang, Save the Children
Dr. G. Freitman, Regional Health Officer,Central Region
Mr. Mwafulirwa, Senior Medical Assistant, Area 18,HC,Lilongwe
Mr. Terry Kearon, General Manager, PharmaNova, Blantyre
Mrs Catherine Tompson, Project Hope, MCH coordinator
Dr. Paul Courtwright, International Eye Foundation
Mr. E.P. Jumula, Principal Preventive Health Officer, Blantyre
Mr. K. Lungu, Sen. Assist. Environ. Health Officer, Blantyre.
Mr. K. Msowoya, Environmental Health Officer, Blantyre
Mrs. G.S. Khunga, Family Health Officer,Blantyre
Mrs. V. Kamfose, Family Health Officer, Blantyre
Dr. Henk Bekedam, Regional Health Officer,Blantyre

Appendix C

C. Health Facilities Visited

Kamuzu Central Hospital-Lilongwe
Dowa District Hospital-Dowa
Salima District Hospital-Salima
Area 18 Health Center-Lilongwe Urban
Khombedza Health Center-Salima District
Msakambewa Health Center-Dowa District

Appendix D

D. Documents Consulted

1. Castle, S.E. The Social Context of Breastfeeding and Early Supplementation in Chikwawa District, Malawi, Wellstart and International Eye Foundation. 1993
2. Courtright, P., J. E. A. Duke and D. Jacka. Early Introduction of Supplemental Foods and Diarrheal Disease in the first six months of Life: Results from Chikwawa District, Malawi (manuscript) 1992.
3. Chipeta, J.M.E. A Curriculum on Control of Diarrhea Disease for Village Motivators and the Community in Malawi, Project Officers and Entrepreneurs Training. 1993.
4. CHSU Report of Diarrhea and Malaria Mortality, Morbidity and Treatment Survey, MOH/Community Health Services Unit, 1991.
5. GOM The National Health Plan of Malawi 1986-1995, Ministry of Health, Lilongwe, 1986.
6. HealthCom, Malawi Implementation Plan, 1986-1988; HealthCom Project/AED, 1986.
7. Heymann, D.L. et al. Oral Rehydration Therapy in Malawi Impact on the Severity of Disease and on Hospital Admissions, Treatment Practices, and Recurrent Costs. Bulletin of the WHO 68 (2) 193-197.
8. MOH Comprehensive Review of the CDD/Malaria Control Programmes 5-25 June, 1989.
9. MOH Proposal for Dysentery/Cholera Control, Ministry of Health,
10. MOH Malawi National Control of Diarrheal Diseases Programme: Five Year Implementation Plan 1990-94, 1990.
11. MOH Cholera Control Manual for Health Surveillance Assistants in Malawi.
12. MOH/CDD/UNICEF/WHO Health Facility Survey-Malawi. April- May, 1993.
13. Malawi Essential Drugs Programme, Prescribers Companion and Standard Treatment Guideline (Revised 1993).
14. Prins, A. Review of the Malawi CDD Program (June 2-15 1989), Pritech/USAID.
15. Shrestha, R.M. Breastfeeding and Weaning Practices in Urban Areas of Malawi, MOH/UNICEF.

16. NSO/Malawi Demographic and Health Survey,1992, National Statistical Office/Macro Inc.
17. UNDP Development Cooperation Report-Malawi, 1990.
18. "After Drought" Report-Learning from the Event-31-May-1993 to 2-Jun 1993-Southern and Central Region.
19. Workshop Report-Technical Forum on Disaster Related Information Systems-June 29-30th 1993, DRCU/CONGOMA.

APPENDIX E

Agenda for the Meeting

Overall Workshop Objective

- Review last year experience, identify problems, and develop strategies to improve national response to potential cholera and bloody diarrhoea outbreaks.

Monday 1st November

Section Objectives

- Review 1992/93 Outbreak experiences: i.e. difficulties, successes, and lessons learnt through presentation.

Chairman: Dr. P. Chimimba

- | | |
|-------------|--|
| 8.00-8.30 | Introduction and official opening (Hon. Minister of Health Dr. E. Y. Sambo) |
| 8.30-9.00 | Refreshment |
| 9.00-9.30 | National overview of 1992/93 outbreaks (Mr. Nindi - Control of Diarrhoeal Disease Program Manager) |
| 9.30-10.00 | Regional overview (Southern) of the last year cholera and bloody diarrhoea outbreaks (Dr. Beckdam - Regional Health Officer) |
| 10.0-10.30 | Regional overview (Central) of the last year cholera and bloody diarrhoea outbreaks (Dr. Frietman Regional Health Officer) |
| 10.30-11.00 | Regional overview (Northern) of the last year cholera and bloody diarrhoea outbreaks (Mrs. Katambo acting Regional Health Officer) |
| 11.00-11.20 | District presentation of the last year cholera and bloody diarrhoea outbreaks (District Health Officer-Blantyre) |
| 11.20-11.40 | District presentation of the last year cholera and bloody diarrhoea outbreaks (District Health Officer-Ntcheu) |
| 11.40-12.00 | District presentation of the last year cholera and bloody diarrhoea outbreaks (District Health Officer-Karonga) |
| 12.00-13.30 | Lunch Break |
| 13.30-13.45 | Role of the HSA in the Diarrhoeal Disease Program (Mr. J. W. Nyirenda - Principal Public Health Officer) |
| 13.45-14.00 | Medecin Sans Frontier (MSF) experience in cholera outbreak in a refugee camp (Dr. Naboth - MSF Coordinator) |

- 14.00-14.30 CHAM Experience in the 92/93 cholera and bloody diarrhoea outbreaks (Mr. P.S.R. Kantunda - National PHC Coordinator)
- 14.30-14.45 Relationship of exclusive breastfeeding to diarrhoea prevention. Prof. Broadhead School of Medecine
- 14.45-15.00 Tea/Coffee break
- 15.00-15.15 last year experience for CHSU Laboratory (Mr. Chintolo - Public Health Analist)

Section Objectives

Review of the current situation

- 15.15-16.00 Current situation from January to September. Presentation by the RHI North (15'), Center (15') and South (15').
- 16.00 - 16.15 Presentation by the DHI Blantyre,
- 16.15 - 16.30 Presentation by the DHI Ntcheu,
- 16.30 - 16.45 Presentation by the Central Medical Store (Mr. Charila)

Tuesday 2nd November, 1993.

- 08.00 - 08.15 Announcement and any other business
- 08.15 - 08.30 Last year experience in cholera and bloody diarrhoea outbreaks for Water Department (Mr. Kafundu - Ministry of Works)
- 08.30 - 09.00 Overview of the Zambian experience in Cholera and bloody diarrhoea (Dr.P. Freund - USAID consultant).
- 9.00 - 09.30 Tea break

Section Objectives

Identification of problems encounter last year and development of strategies to overcome them.

- 9.30 - 10.00 Plenary: Problem identification and structure of the groups.
- 10.00 - 12.00 Small working group each of them with themes
- 12.00 - 13.00 Lunch break
- 13.00 - 16.00 Small working groups continue

Wednesday 3rd November, 1993. .

Section Objectives

Identification of strategies in order to overcome problems

- 08.00 -09:30 Group Presentations (presentation of strategies). The presentation will be done by a member of the working group.
- 9:30 - 10.00 Tea break
- 10.00 -12.15 Plenary meeting (synthesis of the recommendations and future actions).
- 12.15- 12.30 Closure Dr. Chimimba

Appendix F

F. Strategies/Recommendations: Cholera/bloody diarrhea workshop

DONOR INVOLVEMENT

Policy for Headquarters (HQ) Endorsement

- MOH should review the action plan and composition of CDD committee (By November 30); (HQ)
- A taskforce should be formed at regional level to draft comprehensive CDD plan for 94-98; (HQ)
- National CDD committee review national plan and develop a monitoring system; (HQ)
- MOH should mobilize resources; (HQ)

Policy for Headquarters and Regional health office (HQR) endorsement

- RHO representatives and central-level staffs should amalgamate the regional plans; (HQR)
- RHO's, CHSU should study report forms for dysentery/cholera, to be ready by end of November; (HQR)

PREVENTION

Breastfeeding policy for Headquarters (HQ) Endorsement

1. All mothers are encouraged to exclusively breastfeed their babies (no water or food) for first four months of life.
2. Advertising and marketing of breast milk substitutes should be banned.

ORS policy for Headquarters (HQ) Endorsement

1. ORS packets should be based on 1-liter sized containers.
2. 2 packets of ORS should be given to each patient upon discharge.
3. Mothers should be encouraged to first use home available fluids (HAF) including: soups, teas, light porridge, maize/rice water, thobwa (non-alcoholic traditional drink).
4. VHVs/CHWS should be supplied with ORS.
5. Health Centers should have adequate supplies (including ORS).

Health Education Messages

These following messages have to be endorsed by the Headquarters (HQ)

Appropriate message for the communities - Childhood diarrhea

- Exclusive breastfeeding for 4-6 months of life;
- Improve proper weaning practices;
- Continue breastfeeding during diarrheal episodes;
- Frequent feeding during diarrheal episodes;
- Extra feeding after diarrhea episode, for at least two weeks;
- Immunize against measles;
- Give Vitamin A supplementation.

General diarrhea messages-

- Hand washing - before eating;
 - before preparing foods;
 - after defecation and changing nappies;
 - before drawing water;
- Do not wash hands in a communal bowl;
- Store water in narrow-neck containers;
- Wash foods and vegetables before eating;
- Boil drinking water;
- Use latrines;
- Re-heat leftover foods thoroughly;
- Discourage re-use of towels in restaurants;
- During epidemics:
 - eat hot foods;
 - avoid pre-cooked foods in markets;
 - pot chlorination important;
- Proper referral important;
- Rinse water bucket before filling;
- Obtain water from safe/protected sources;
- Burn or bury all rubbish/refuse/trash garbage;
- Discourage anti-diarrheal medicines;
- ORT prevents dehydration, not diarrhea;
- Reconstitute ORS daily.

Health Education Strategies-

- Mass Media
 - Radio drama;
 - Song contest/jingles;
 - Radio messages;
- Using Community-based extension workers, church, traditional healers, TBAs, agriculture, Health Center cleaners, VHV/CHW, VHC, schools, MOCCS;
- Drama Groups;
- Use theater for development approach;

- Avoid didactic health talks and encourage dialogue;
- Decentralize responsibilities on Health Education (all aspects, including funds) to districts;
- Peer-based learning;
- Posters;
- TOT at the regions and at the districts.

Additional strategies for specific topics-

1. Exclusive breastfeeding (Health Staff)
 - Training must include Exclusive Breastfeeding (pre-service, in-service, and refresher);
 - Lactation management trainers;
 - Target should be working mothers and the extended families.
2. Hand washing
 - Use Private Sector (Soap Company) to encourage use.
3. Measles/Vitamin A/ORT for rehydration
 - Encourage all CHW/VHW programs to distribute Vitamin A and ORT at Community level;
 - More information at all levels (community and health center) showing connection between measles and diarrhea.
4. Strategies during epidemics
 - A. Mobile Public Address System;
 - B. Radio;
 - C. Multi-sectoral approach;
 - D. Churches and schools.

CASE MANAGEMENT

Cholera/Bloody Diarrhea

Case management policy to be approved by Headquarters (HQ)

CASE MANAGEMENT

Clinical Assessment

Physical examination

Assess alertness, examine mouth, pinch skin, examine eyes, feel pulse, take temperature

Classification by severity of dehydration

According to plan A, B, C

History taking

Ask for duration of diarrhea, frequency of vomiting, fever, decrease in urine, thirst, treatment at home

Treatment

1. Rehydrate with ORS. If unable to drink, give I.V. (Ringers lactate) then ORS as soon as s/he can drink.
2. For cholera, Doxycycline 300 mg (children 6 mg/kg) orally stat.
3. For bloody diarrhea, use of antibiotics is restricted to patients admitted in the hospital and not responding after two days rehydration or at risk patients (under five and old people). Nalidixic acid 1 g. orally every 6 hours for 5 days. For children older than three months 50 mg per Kg. body weight per day in 2-4 divided doses for five days. For pain give paracetamol 1 g. (children: 10 mg per kg.) every six hours as required.

Counseling

(to patients on discharge and guardians and ambulatory patients on arrival)

Ensure complete hygienic precautions by all in contact with the patient.

Preparation of ORT, dehydration signs, circumstances under which to return.

Follow "Malawi Standard Treatment Guideline" for remainder of treatment protocols.

It is recommended that the "Malawi Standard Treatment Guideline" be reviewed and the different versions be merged. Also to be reviewed "Cholera Control Manual for HSA's in Malawi."

Who should be doing case management

1. Staff categories - HSA and above may diagnose and treat.
2. Lower categories may be trained to assist under supervision.
3. Extra personnel to be identified before and mobilized immediately after outbreak starts.

4/3

Supervision

(ensuring quality of care)

Supervision by Health Inspector or Higher

A check list for supervisor to be developed and implemented and should include:

- Quality of diagnosis
- Quality of treatment
- Quality of Health Education (counseling)
- Environmental sanitation and excreta disposal
- Set up of treatment center
- Number and type of personnel available to treat cholera and bloody diarrhea
- Quantity and quality of supplies and use
- Use of protocols/guidelines
- Record keeping

Training in case management

Staff training and village volunteer, agriculture field officer, teachers, etc... on case identification and referral

Provide training for HSAs and other support staff on:

- Diagnosing and Treatment
- Sanitation
- Prevention of spread at Treatment Center
- ORS preparation and use
- Record keeping

LOGISTICS/SUPPLIES/DISTRIBUTION

Policy for Headquarters (HQ) endorsement

- Establish posts for CDD coordination at Regional and District levels, National (ASS) (HQ)
- Government to set aside budget specifically for cholera/dysentery outbreaks (HQ)

Policy for Headquarters and Regional Health Office (HQR) endorsement

- Personnel communication (lacking at all levels) (HQR)
- Maintenance of vehicles, motorcycles, bicycles to be improved (HQR)
- Provide adequate storage for CDD supplies at all levels (HQR)

- Develop realistic estimates for budget by District, Region, and suppliers (Central Medical Store)

EPIDEMIOLOGY/MONITORING/REPORTING

Policy for Headquarters (HQ) endorsement

CASE DEFINITION - CHOLERA

WHO -Definition:

Cholera should be suspected when:

- A. In an area where the disease is not known to be present: a patient, five years of age or older, develops severe dehydration or dies of acute watery diarrhea, usually with vomiting. Action to be taken at every Health Center for the first patient:
1. treatment (curative) - fluids
 2. reporting (DHO/DHI) to be given a feedback
 3. confirmation diagnosis sample: at least ten suspected cases.
 4. Check on water/sanitation where a case is identified
- B. In an area where the outbreak of cholera has been confirmed, the diagnosis of cholera should be suspected in any patient older than two years who develops acute watery diarrhea, with or without vomiting.

(reconfirmation: after four weeks, where epidemic tending to an end; confirmation tests (by DHI)).

CASE DEFINITION - DYSENTERY

WHO - Definition:

Diarrhea with visible blood. (This should be seen by the health worker!)

Treatment: for risk patients (as inpatient):

- old people
- under five
- severe illness eg. dehydration, frank blood

Drug sensitivity: (Mchinji/KCH/Ntcheu/QECH) North: St. Johns, Mzuzu

REPORTING SYSTEM

New forms: Health Center Cholera - weekly
Dysentery - monthly

MONITOR QUALITY OF CASE MANAGEMENT

Treatment: ORS/IV FLUIDS RATIO

- ratio staff/patients

- number of IV bags for one patient
- use of antibiotics
- length of stay
- assessment of cases: case sheet

MEETING EVALUATION

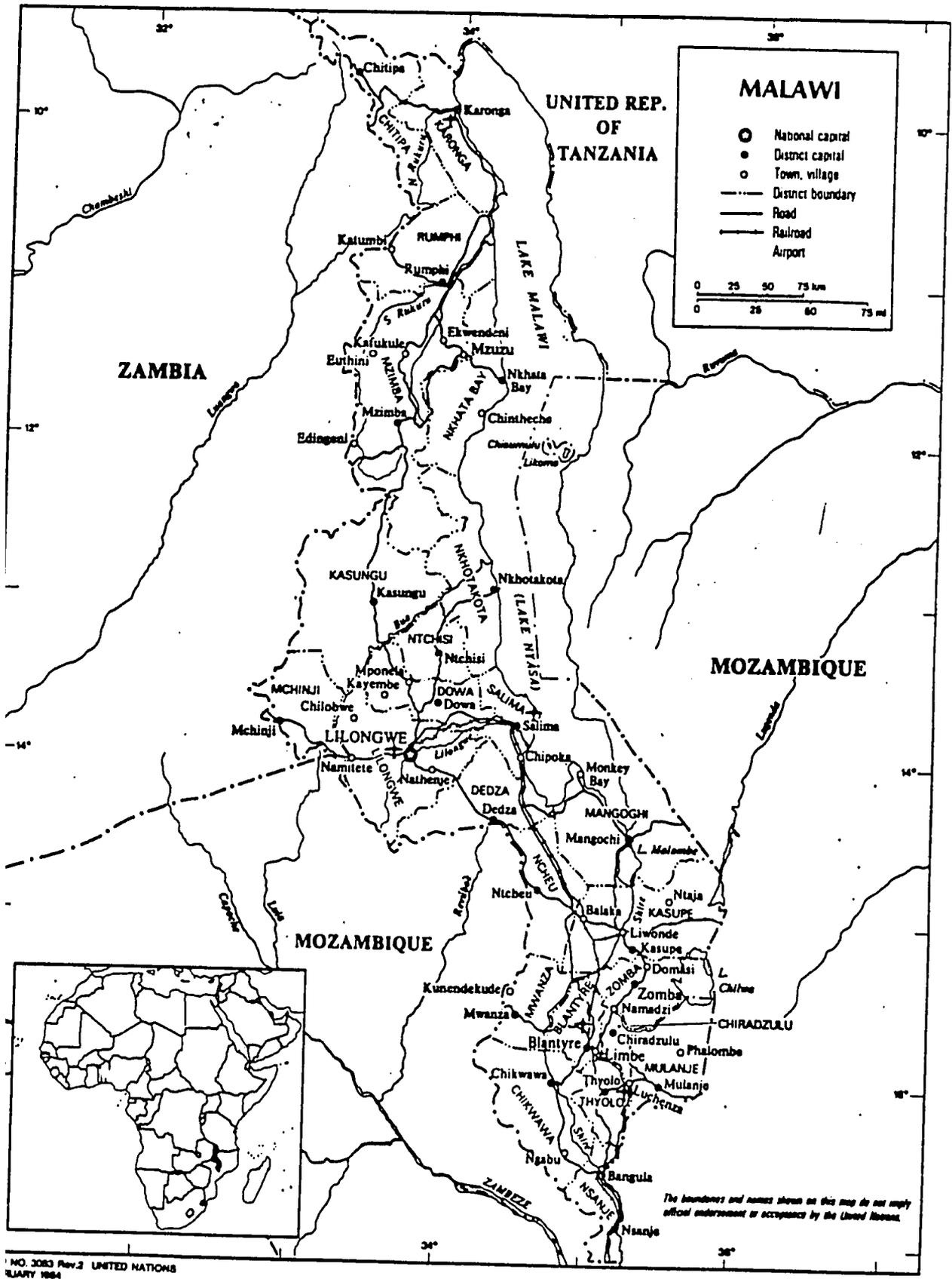
At the end of the workshop participants were asked to evaluate the proceedings.

Members felt the objectives of the meeting had been accomplished.

They had enjoyed group discussions most because information not covered in presentations was made available.

Presentations were rated "useful" to "very useful". However, some participants had this to suggest:

- a. Such meetings should be held in October before the rains.
- b. The venue was inconvenient. Traffic made a lot of noise.
- c. Time allocated for the meeting was short.
- d. Number of presentations next time should be fewer.



MALAWI

- National capital
- District capital
- Town, village
- - - District boundary
- Road
- Railroad
- ✈ Airport

0 25 50 75 km
0 25 50 75 mi

The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.