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PRIMARY HEALTH CARE PROJECT

Fifth Year External Evaluation

(PIO 669-0165-3-60047)

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LIBERIA
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ACRONYOMS

CCCD	Combatting Childhood Communicable Diseases
CFO	County Finance Officer
CHD	Community Health Department
CHO	County Health Officer
CHS	County Health Service
CHSA	County Health Services Administrator
CHT	Count Health Team
CLM	Central Level Management
CLO	County Logistics Officer
CM	Certified Midwife
CPD	County Personnel Officer
CS	Clinic Supervisor
EPI	Expanded Program of Immunization
GOL	Government of Liberia
HAC	Health Advisory Committe
HC	Health Center
HI	Health Inspector
HIS	Health Information System
HP	Health Post
LPN	Licensed Practical Nurse
LTA	Long Term Technical Assistant
MCH	Maternal and Chld Health

MHSW	Ministry of Health and Social Welfare
MIT	Management Implementation Team
MLHW	Mid-Level Health Worker
NDS	National Drug Service
ORS	Oral Rehydration Solution
PA	Physician Assistant
PCV	Peace Corps Volunteer
PHC	Primary Health Care
PHP	Public Health Physician
PP	Project Paper
RDF	Revolving Drug Fund
RN	Registered Nurse
SER PHC	Southeastern Region Primary Health Care
SPP	Supplementary Project Paper
TA	Technical Assistance
TBA	Traditional Birth Attendant
USAID	United States Agency for International Development (Liberia)
VDC	Village Development Committee
VHT	Village Health Team
VHW	Village Health Worker

1.0 INTRODUCTION

1.A Purpose of the Evaluation

This evaluation of the Agency for International Development/Ministry of Health and Social Welfare Primary Health Care Project (No.669-0165) is the first external assessment of the project following the March 1986 mid-term evaluation. As a result of the mid-term evaluation a series of modifications in the project design and implementation strategy were introduced in order to more sharply focus on village level outputs.

The purpose of this evaluation is to conduct an in-depth assessment of the village health worker program and county-level management support systems in the two project counties (Grand Gedeh and Sinoe). The specific areas of focus for the evaluation are:

- Village Development Committees
- Village Health Worker Training and Effectiveness
- The Revolving Drug Fund
- Supervision
- The Referral System
- Decentralization
- Financial Viability of the VHW Program
- General (attainability of project goals and priority activities)

1.B Evaluation Methodology

The evaluation was conducted by a multidisciplinary team of three consultants with extensive experience in primary health care design, implementation and evaluation (including financial analysis, alternative methods of health care financing, health management and administration, community health work, health worker training and performance evaluation and community participation in health programs). The evaluation scope of work was divided up among the consultants, but the final product is the result of their cumulative efforts. The findings and recommendations reflect the consensus of the entire team.

The evaluation was guided by a set of specific questions developed by USAID/Liberia which were included in the evaluation scope of work (see Annex 6.B). The evaluation is based in part on a review of project documentation maintained by USAID, the SER PHC project offices in Monrovia, Zwedru and Greenville (the latter sites being county headquarters for Grand Gedeh and Sinoe), the operative divisions and working groups of the central level Ministry of Health, county health services and MEDEX. The team reviewed project files, documents, the PP and SPP, implementation letters, periodic activity and supervision reports, financial records and reports, SER PHC operations manuals, consultant's reports and other background documents (including the mid-term evaluation, Liberian Demographic and Health Survey etc.).

A second major source of information was lengthy interviews with the central and county SER PHC Project staff; AID staff (including Human Resources Division Staff); technical advisors (including employees of MEDEX, Peace Corps Volunteers attached to the County Health Service in Sinoe, and the CCCD advisor); and Ministry of Health personnel involved directly and indirectly in project activities (including staff of the National Drug Service).

The team visited the two project counties and made an extensive series of site visits to health centers (4), health posts (5) and VHW communities (10). To gather comparable data a standard survey instrument was developed and used in eliciting data from the villages and health facilities visited (see Annex 6.D). A list of persons interviewed is included as Annex 6.A.

A complete draft of the evaluation report was submitted to the SER PHC Executive Committee. The draft was reviewed and discussed in a meeting of the Executive Committee and Evaluation Team with comments being submitted to the Team.

The focus of the evaluation, determined by USAID, is project implementation. Since the major focus of village activities have been underway for such a brief period, the evaluation is primarily one of process, not impact. This report focus on the seven project assessment areas: village development committees, village health worker training and effectiveness, the revolving drug funds, supervision, decentralization and financial viability of the VHW program. Finally, the team suggests priority areas for action (the eighth assessment area) and specific recommendations for strengthening SER PHC Project and consolidating its achievements.

2.0 EXECUTIVE SUMMARY

The purpose of the evaluation (USAID/MHSW Primary Health Care Project No. 669-0165) was to conduct an assessment of the village health worker program and county-level management support systems in the two project counties (Grand Gedeh and Sinoe). The evaluation is based on a review of project documentation maintained by USAID, the SER PHC project, MHSW and Medex. A second major source of data was a series of in-depth interviews with SER PHC, USAID, MSHW and county health service staff, technical advisers (including MEDEX personnel), Village Health Workers, Village Development Committee members and persons in the project communities. A standard survey instrument was employed to gather comparative data from the villages and health facilities visited. Since the major focus of village activities have been underway for a brief period, the evaluation is primarily one of process, not impact.

Village Development Committees - VDCs are established and functioning in 62 communities, working with their VHN in providing health promotion and health education services to their communities. In the 52 communities which have received drugs, the VDCs appear to be involved in the management of the revolving drug fund (RDF); however, the level of involvement is limited. Further training and support of the VDCs will be needed particularly in regards to monitoring and maintaining the necessary record-keeping for the RDF.

Village Health Workers - The VHWs are capable of providing the types of treatment for which they have been trained. However their knowledge and skills need to be reinforced in the areas of personnel preventive services and communicable disease control. The VHWs have been experiencing difficulties in completing the various VHW reporting forms and need further support in this area. The development of the TBA component of the VHT has not been adequately addressed.

Though only 114 of the 204 targeted communities will be mobilized and functioning by August 1988 it appears that the 80% coverage target will be achieved as the health centers and health posts serve as primary care units for a greater population than was originally thought. Though it is too early to measure the effectiveness of the VHWs, they appear to be expanding overall.

systems coverage by treating a large proportion of the persons who had not previously been treated by the MHSW system.

Revolving Drug Funds - Most of the 53 established RDFs appear to be functioning. However, insufficient information on the performance of the RDFs is reaching the CHS and there is no satisfactory monitoring of results. There needs to be strengthening at the VDC and HC/HP levels in the areas of purchasing, sales records, inventory management and reporting. Policies and procedures for the RDFs are not completely established, as the system is still being developed and implemented. The ability of the PAs and key CHS staff to provide adequate supervision and support needs to be enhanced.

Supervision - There is a wide variation in the number of supervisory visits carried out by the PAs, though the average exceeds the one visit per month suggested in the FP. However, more important than the number and frequency of supervisory visits is their focus and content which have not been formalized. The PAs are making effective use of the motorcycles purchased under the motorcycle plan though there is concern as to the plan's long term financial viability, the future ability to provide mileage reimbursement for supervision and provide spare parts. The technical and administrative skills of the supervisors need to be reinforced and their numbers increased in each of the counties.

Referral System - There has been an increase in the number of trained and functioning MLHWs within the two counties since the beginning of the project (from 19 to 48). However, the roles of MLHWs need to be defined with a view towards more fully integrating them into the PHC activities. Similarly there is a need to define and implement administrative and technical norms for differentiating levels of care (hospitals, health centers and health posts).

The effectiveness of the referral system at the VHW level can not be assessed as the health information system does not capture data on VHW-initiated referrals. The ability to assess increases in immunization coverage and usage of ORS is similarly limited, due to the absence of baseline data.

Decentralization - The GOL has taken a number of significant steps in support of decentralization included among which are allowing the counties to retain locally generated funds and creating county level administrative posts with the commitment to fund these positions through the MHSW budget. These gains have been partially offset by the continuation of personnel practices which undermine the authority of the county health service. The MHSW has been somewhat remiss in providing the counties with the support and guidance necessary to discharge their

responsibilities in a decentralized system (e.g. assistance in areas such as planning and budgeting, evaluation etc.).

Turning to the county drug supply and distribution system, it should be noted that the county level drug supply is presently part of the hospital RDF. For reasons of accountability, a county drug depot should be implemented with a mark-up imposed on all sales to cover all direct and indirect costs of its operations. The central and county level distribution systems appear to be functioning with minimum difficulties, however with the RDFs becoming more active, alterations in the drug distribution system may be required.

The financial management system is still being developed, consequently there is little in the way of financial management in the counties. The other management support systems are in varying stages of implementation. Operations manuals are being prepared for all systems with those for Transportation, Personnel and Communications having been approved by the MHSW. Successful institutionalization will require that persons filling critical positions enhance their understanding of the full scope of the system and the responsibilities of the positions which they fill. Personnel will have to further develop their capacity to provide adequate supervision and skills reinforcement in managerial/administrative areas. Finally, sources of revenue to replace USAID funding need to be identified.

Financial Viability - At the present time it is unlikely that the MHSW will be able to bear the capital costs of replicating this project due to the economic situation of the country. It is also unlikely that the GOL will be able to fund any substantial increase in recurrent expenditure; at best the GOL should be able to continue to fund the salaries of existing county staff, take on the salaries of a limited number of new staff and contribute a small amount to vehicle operations and supplies costs. However, county revenues are being generated by fee-for-service and drug sales which may cover a significant portion of PHC costs. The financial viability of the present and future VHW programs is closely linked to the ability of the NDS to provide a regular and adequate supply of drugs and medical supplies at low prices.

Recommendations

SER PHC activities should be extended through August 1989 to allow the VHT program and its management and support systems to be institutionalized

The mobilization of additional VDCs should be postponed for a minimum of three months [till at least March 1988] to allow the SER PHC to focus its resources on further training and supervision of those VDCs which have already been established

Efforts should be directed at strengthening the VHWs knowledge and skills in the areas of information reporting skills, personal preventive services and communicable disease control through (1) enhancing the VHW training curricula, (2) improving the content and frequency of supervisory visits and (3) establishing a program to provide two weeks of annual re-training for VHWs.

Improve the stock management system [planning/budgeting, purchasing, inventory control, financial monitoring] at the county, facility and VHW levels.

Efforts should be undertaken to enhance the PAs ability to support the VHW and VDC in terms of their [VHW, VDC] functions and responsibilities - particularly monitoring of the RDFs- through (1) enhancing the PAs in-service training workshops and training curricula, and (2) improving the content and frequency of supervision which the PAs receive.

Define and implement a set of administrative and technical norms [standards] which differentiate hospitals, health centers and health posts.

A long term management consultant should be hired to provide ongoing technical assistance to personnel in both counties, and support to members of the Management Implementation Team. The management LTA should be located in one of the two counties spending the majority of his/her time in the two counties.

The finance and budgeting system must be redesigned to provide financial data [e.g. budgets and income forecasts etc.] that can be used as a management tool for planning and monitoring of performance: county level management must be trained to be able to use this data in discharging their planning/control and monitoring functions.

3.0 Findings

A. Village Development Committees

Village Development Committees are established and functioning in sixty-two communities (39 in Grand Gedeh and 23 in Sinoe). Each of the communities has chosen and sent a VHW for training, collected seed money for establishing a revolving drug fund and 53 of them are providing drugs through the VHW. The VDCs working with their VHW are actively engaged in health promotion and health education activities within their communities. The VDCs generally tend to be generally pleased with the performance of the VHW. VDC criticism directed at the VHW and suggestions for "strengthening" VHW performance revolve around the inability of the VHW to provide more complex treatments or supply a wider, more sophisticated level of drugs. These criticisms confirm the belief that the VDCs lack a clear understanding of the proper role of the VHW. Similarly, the VDCs do not fully understand their specific roles or functions, particularly as they relate to administrative functions.

The VDCs appear to be involved in the management of the RDFs but the level of involvement is not sufficient and further training and support will be needed. Whilst it is not vital that VDC members maintain all the records for the RDF it is essential that they understand and verify them.

The presently functioning VDCs must be strengthened in terms of their knowledge and understanding of the specific role and functions of VDC members and the VHW; and the relationship between the VHW, the VDC and the larger community. Particular consideration should be given to monitoring and maintaining the necessary record-keeping system for the RDF.

B. Village Health Team

It is thought that only 114 of the target number of 204 VHT communities will be mobilized and functioning by August 1988. When the communities were surveyed and selection criteria, such as a minimum number of houses, were applied it was found that only about 135 communities could support VHTs. It is expected that 21 of these will not establish VHTs. Despite the reduced number of VHTs it appears that the coverage target of 80% will probably met since the HCs and HPs apparently serve as primary care units for a greater population than was originally thought.

Fifty-three of the sixty-two VHWs had received their drugs by the end of October 1987 and are performing both curative and preven-

tive functions. VHWs are capable of providing treatment within the scope of their training. VHWs can correctly prepare the sugar, salt solutions for the treatment of dehydration though they are uncertain about the proper dosage for children. Although they can effectively mobilize their communities for vaccination programs, many neither know the childhood diseases that are preventable by vaccination nor the appropriate schedules for vaccination. The VHWs have been experiencing difficulties in completing the various VHW reporting forms. The TBA component of the VHT has not been actively developed.

The VHWs knowledge and skills need to be reinforced in the areas of information reporting, personal preventive services and communicable disease control. The development of the TBA component of the VHT needs to be addressed.

C. Revolving Drug Fund

Most of the 53 RDFs established in communities appear to be operational although the lack of performance information on some of them gives cause for concern. In the majority of the communities visited, people were generally very enthusiastic about the RDFs and both sales and profit figures were good. However, insufficient information on the performance of RDFs is reaching the CHS and there is no satisfactory monitoring of results. There needs to be strengthening at community and HC/HP levels in the areas of purchasing, sales records, inventory management and reporting. Improvements need to be made at CHS level in gathering, analysing and using performance data. In addition the ability of the PAs and key CHS staff to provide supervision and support in these areas needs strengthening.

Policies and procedures are not completely established and systems are still being developed and implemented. It is important that this work be completed before new RDFs are set up.

D. Supervision

Supervision at the county level is provided by the Clinic Supervisor who is directly responsible to the County Public Health Physician. The CS exercises direct supervision over all health center and health post PAs within the county. The CS also provides administrative supervision to the CMs; technical supervision is provided by the county MCH supervisor. The health center or health post PAs supervise the VHWs in their catchment areas. There is a wide variation in the number of supervisory visits carried out by PAs; the average exceeds the one per month suggested in the project paper. Nevertheless there are some PAs who have not been providing supervision to all the communities for which they are responsible. Arguably more important than the number and frequency of the supervisory visits is the focus and content of the visits; neither of these areas has been

formalized. The PAs are making effective use of the motorcycles purchased under the motorcycle purchase plan. However, there is some concern regarding the long term viability of the purchase plan, the ability to continue mileage reimbursement for official travel and the ability to obtain spare parts once the project ends.

District PA supervisors need to be established in each project county. The PAs ability to support the VHW and VDC in terms of their functions and responsibilities, particularly with regard to monitoring of RDFs, needs to be enhanced. Moreover, the technical and administrative content of the supervisory visit must be formalized for each level of supervision.

E. Referral System

There has been an increase in the number of trained and functioning middle-level health workers (MLHWs) within the two counties since the beginning of the project (from 19 in 1985 to 48 at the time of the evaluation). The effectiveness of the referral system at the VHW level can not be assessed as the health information system does not capture data on VHW-initiated referrals to either the HP or HC. In terms of measuring the effect of the VHWs curative activities on the number of patients seen at HPs or HCs, it is too early to make any determination. However, a large proportion of the persons seen by the VHW appear to be "new patients," persons who would not normally be seen at the facilities - they may have not previously sought medical attention or have used traditional healers. The absence of baseline data does not permit an assessment of changes in immunization coverage or increases in the use of ORS since the beginning of the project. The Westinghouse (1986) and EPI/CCCD (1987) surveys can serve as baseline data for future assessments if comparable data is collected at a later date.

To achieve effective use of the referral system it will be necessary to define and implement administrative and technical norms for differentiating levels of care (hospitals, health centers and health posts). The roles of MLHWs must be defined with a view towards integrating them into PHC activities. Finally, it will be necessary to incorporate into the HIS a mechanism for capturing referral from the VHWs to facilities as well as return referrals from the facilities to the VHWs.

F. Decentralization

The GOL has taken a number of positive steps in the area of facilitating "local decision-making under central guidelines," the most noteworthy being: allowing counties to retain locally generated revenues, the creation of county level administrative posts (CHO, CHSA, CFO, CPO, CLO etc.) and the hiring of mid-level health workers with the commitment to assume the responsibility

for funding these positions. These positive actions have been offset by the continuation of personnel practices in the areas of hiring, discipline and supervision which undermine CHS authority.

The Ministry is somewhat remiss in providing necessary support and guidance to the counties in areas relating to program planning and budgeting, evaluation services, setting of standards and norms (see Referral System) and the provision of technical assistance.

Turning to the county drug supply and distribution system it should be noted that county level drug supplies are presently part of the hospital RDF. Whilst this has been convenient for starting operations it is not suitable for reasons of accountability to continue intermingling county and hospital level drug supplies. Thus the plan to set up County Drug Depots should be implemented. The County Depot should charge a mark-up on all sales to cover direct and indirect operating costs. Supplies have not always been available due to shortages at the NDS and transport difficulties between Monrovia and the counties. The distribution system within the counties appears to be functioning and the main problem seems to have been transport difficulties. However, the VHW program has only recently started and as sales and outlets increase changes will need to be made in the distribution system. It is important that sufficient levels of stocks are held to avoid shortages when transport becomes difficult.

With regard to financial management the system is still being developed and there is presently little in place in the counties. Receipts and expenditure data is produced but not in a manner that can be used for management purposes. The Hospital, CHD and Administration Departments are not used as individual cost centres and separate trading and fund statements are not prepared for CHS RDFs. Income forecasts and budgets are not all drawn up in the same format as financial statements and are not used for controlling expenditure. Operational policies and procedures have not been drawn up for the use of fee-for-service revenues at both CHS and HC/HP levels.

The other management support systems are in varying stages of implementation. Operations manuals are being prepared for all systems with those for Transportation, Personnel and Communications having been approved by the MHSW. In terms of institutionalizing the systems, not all persons fulfilling critical positions necessarily possess an understanding of the full scope of the system and the responsibilities of the positions which they fulfill. Nevertheless people are adequately trained to carry out the systems' tasks which they are presently fulfilling. The SER PHC does not appear to have developed among its personnel the capability of providing adequate supervision and skills reinforcement in managerial/administrative areas. Finally, there is

the question of financial viability once MEDEX/USAID funding is no longer available.

There is an insufficient level of coordination among staff and personnel in the two project counties and central level SER PHC and MHSW. Management capacity needs to be strengthened among personnel in both counties and the MIT (envisaged to be the central level source of management TA and training) in areas such as planning and evaluation, the use of data for decision-making, drug and medical supplies, general supplies, communications and personnel. Finally, policies must be established and implemented for determining how locally generated revenues will be used to cover direct and indirect costs of the CHS.

G. Financial Viability of the VHW Program

At present time it is unlikely that the MHSW will be able to bear the capital costs of replicating this project due to the economic situation of the country. It is also unlikely that GOL will be able to fund any substantial increase in recurrent expenditure. At best the GOL should be able to continue to fund the salaries of existing county level staff, take on the salaries of a limited number of new staff and contribute a small amount to vehicle operation and supplies costs. For the foreseeable future additional recurrent costs would have to be funded from revenues raised at the county level. The program has not been running long enough to provide any clear indication of the level of revenues that can be raised. However, results of the last 15 months in the two project counties indicate that annual revenues of between \$20,000 and \$25,000 have been raised in each county. This could cover direct recurrent costs of a VHW program but would leave little else for improving services at MHSW facility levels, supporting TBAs or administration. With increased sales from the new VHW operations, revenues should increase in the future but it there is insufficient data to forecast what levels they can reach.

The financial viability of the VHW program is closely linked with the ability of the NDS to provide a regular and adequate supply of drugs and medical supplies at low prices. It is therefore vital that all parties involved in the program give maximum support to finding a solution to the problem of obtaining foreign exchange with which to import drugs.

4.0 SER PHC PROJECT

A. VILLAGE DEVELOPMENT COMMITTEES

1. Of the village development committees (VDC) which were established, how many are actually functioning?

Thirty-nine VDCs have been established in Grand Gedeh and twenty-three in Sinoe, that is they have chosen a VHW, sent the individual for training, and have collected the required seed money (\$100) to establish the revolving drug fund (RDF). Of the sixty-two VDCs, none have ceased operations. Based on visits to 10 VDC communities, it appears that the VDCs have been meeting on a regular basis, at least once a month, with most members in attendance. Interviews with VDC members suggests that they are working with the VHW and are actively engaged in health promotion activities: proper use and protection of water sources, proper community sanitary practices, prevention and treatment of diarrhea. The VDCs are less active in performing "administrative tasks": the monitoring of VHW activities, managing the RDF and formally interacting with the larger community.

In a number of instances, the VDC members did not have a clear understanding of either their specific roles or functions, particularly as they related to performance of "administrative tasks." This is not meant to imply that all VDCs are in this situation, perhaps only a minority among the sixty-two VDCs find themselves in these circumstances. There are a number of factors which may explain the level of VDC development observed by the Evaluation Team: VDC members not being able to attend VDC workshops and training sessions, changes in VDC membership, normal variations in level of skill and ability of VDC members, reduced accessibility to VDC communities due to poor road conditions which limited PA support activities etc.

Having said this, what is important is that sufficient levels of PA support be provided to assure that all VDCs can continue to function. That is, VDC members must be aware of their specific responsibilities and capable of carrying them out.

2. Are the VDCs representative of their communities?

The Project Paper (PP) provides general guidelines for assessing whether VDCs are representative of their communities. The PP notes that VDC membership should include "young as well as old, women as well as men, representative of local church groups, teachers, students [etc.]." County level records are not

available which specify the characteristics of the VDCs membership along the lines noted in the PP. Nevertheless, the general process by which the VDC membership was selected, does suggest that the VDCs are representative of the communities.

The VDC membership was selected through a "community meeting" process. The specific manner in which membership was chosen varies across communities. However, among the VDC communities visited by the Evaluation Team a number of distinct selection patterns emerged. At one end of the spectrum, membership was selected by a general vote of the assembled community residents. At the opposite extreme, which was the case in at least one community, the clan chief personally selected the individuals drawn from each "quarter"¹ who thus constituted the committee. However, the more common method of selection involved the participation of the quarter elder who selected individuals to represent their quarter on the VDC, in such instances the elders also determined the officers. It should be emphasized that these latter two patterns of selection more closely conform to traditional practices of the communities. Arguably, following traditional patterns creates a greater level of trust among the community and a greater willingness on the part of VDC members to accept the responsibilities of membership. It may further be argued that at least during the initial development phase, acceptance by the community may be more important than "representativeness".

Despite the differences in the selection process, similar criteria seemed to govern the choice of individuals, i.e. the individual have some involvement in community activities, be perceived as responsible, respected and be willing to carry out the functions and responsibilities of the VDC. These criteria reflect the criteria established by the SER PHC particularly in Sinoe, and the general statement noted in the PP. Women, a group which the SER PHC made a special effort to have included on the VDCs, were represent on six of the ten VDCs. Though it was quite evident that the women played a token role in some of the committee on others they actively participated in the VDC fulfilling the roles of treasurer and secretary.

3. Are the VDCs involved in the management of the revolving drug funds (RDF)?

All the RDFs at Health Centre (HC), Health Post (HP) and VHW community level have been capitalized entirely from community

¹Communities are divided into "quarters" which are comprised of historically related groups of people who share a common descent from a male ancestor.

donations. All VDCs and Health Advisory Councils^a (HACs) are supposed to receive and hold RDF cash, monitor sales and stocks, authorise purchases and make out monthly reports.

In the 10 VHW communities visited it was found that the VDCs^a were involved in the management of the RDFs to some degree. In most cases the VDCs received and held the cash from sales (in one case however the VHW held the cash). Since the RDFs had been operating at community level for less than 5 weeks there had as yet been no follow-up purchases of drugs in the communities visited. Involvement of VDC members in the running of the RDFs was generally limited to those representing the VDC on the RDF Sub-Committee - the VDC Chairman and Treasurer (the VHW is the third member of this Sub-Committee). In some of the communities the VDCs did not appear to fully understand the extent to which they should be involved in managing the RDF and did not understand the system, for example how to take inventory or how to order drugs. Apparently the PAs, who have been responsible for training the VDCs, have not all fully understood the system or devoted enough time to explaining it to the VDC members. In order to be able to help the VDCs, PAs will need further training plus support and supervision from the CS.

Of the 9 Health Centre/ Health Post communities visited it was found that in 8 of them the HACs were involved in the management of the RDFs to some degree. In the other one there was a dispute between the PA and the HAC and the fund was not really operational. In most of the 8 which were operational the HAC members on the RDF Sub-Committees were receiving and holding cash, checking stocks, authorising purchases and checking Monthly Reports. However in a few cases not all aspects of the HACs work were being carried out. For example, in one community in Since the PA was holding the RDF Pass Book (the book used to register transactions on the Community's account at CHS). In another community the VDC was not checking stocks and did not countersign or apparently understand the RDF Monthly Report form (used to show the financial state of the RDF). The CS should monitor purchase orders and monthly reports for signatures of the HACs and should use the in-service training and supervision of the PAs to reinforce the importance of HAC involvement.

^aIn both counties the committee responsible for health affairs, including management of the RDF, in HC/HP communities is called the Health Advisory Council.

^a For the purposes of this evaluation the Village Development Committee is regarded as being the committee responsible for health affairs and management of the RDF in VHW communities. In Grand Gedeh the actual name given to these committees is the Community Health Council.

4. Are the VDCs able to maintain the record-keeping system for the RDF?

In the VHW communities visited, the VDCs are not maintaining the record-keeping system for the RDF. At this stage the VDCs are only making out receipts for cash handed over to them by the VHWs. At the time of the evaluation visit records were being kept of sales and, in some of the communities, of stock checks; however these are kept by the VHWs as part of their monthly report books (used to record patient and drug information). In Since the VHWs have also been filling out a monthly RDF summary report showing the monthly income from sales, payments, cash balance and value of inventory, in some cases with the assistance of the PAs. In some communities one or both of the VDC members on the RDF Sub-Committee appear able to understand the records kept and have been verifying them to some degree.

The RDF summary report used in Since should be introduced in Grand Gedeh and should be modified to show the monthly gain/loss and the percentage of gain to sales income. Training will be required for PAs, VHWs and VDCs in the use of these records. Follow-up by the CS and PAs will be required in both counties to ensure that VDCs take over relevant aspects of the record keeping system or that at least they understand the records kept by the VHW and sign them after reviewing them. Where VHWs and VDCs have problems with the records the PAs should devote extra time to training them and will have to help with the record keeping until the VHW and the VDC can assume the responsibility.

In the HC/HP communities visited most of the HACs generally appeared able to maintain the records. However as with the VHW communities most of the record keeping is generally carried out by the health worker, in this case the PA. HAC members receive the cash every week and sign the Weekly Cash Report to indicate verification and receipt of cash, sign the stock records as having carried out a physical check, authorise the Purchase Requisition, and sign the Monthly Report for verification. However, the PA generally fills out those forms and records. In one community visited the HAC members did not apparently understand the forms and did not sign them. It is not essential that the HAC fill out the records for stock, cash receipts or purchases as long as they understand and check them; however it would be useful for the HAC to fill out the Monthly Report, if only to demonstrate that they understand how it works.

5. Are the VDCs satisfied with the performance of their village health worker (VHW)? If so, in what ways have the VHWs improved the health of their communities?

Among the VDC communities visited, the VDCs are generally pleased with the performance of the VHW. The VHWs only had been functioning since August 1987, consequently their impact on the health of

their communities is difficult to ascertain; VHW are supposed to provide simple curative and preventive services. Nevertheless, VDC members have commented favorably on the active role VHWs have taken in promoting community health practices aimed at disease prevention: educating the community on the need to keep sources of drinking water clean, building pit latrines, keeping the community and areas around homes free from garbage and feces. VDC members have also noted VHW efforts at teaching the community about the prevention and treatment of "runny stomach" (diarrhea).

A number of specific complaints have been expressed regarding VHW performance. These complaints tend to revolve around the VHWs inability to provide more complex treatments (e.g. give injections) or supply a wider selection of drugs. Rather than indicating a level of discontent with VHW performance, such complaints suggest the lack of understanding of the VHWs role and his relationship to the health post/health center - the referral system. More importantly, they indicate the need for additional PA support for the VDCs in the areas of supervision and continuing education.

6. What suggestions do the VDCs have to strengthen the VHWs effectiveness in providing health care?

In general, members of the VDCs interviewed by the Evaluation Team were not able to provide suggestions for strengthening VHW performance. As noted, VHWs were trained in August 1987 and only receive drugs during the last week of October. At this point VDCs are simply reacting to the presence of drugs and medical care in the community; they have not had sufficient opportunity to observe VHW performance and thus suggest feasible ways to strengthen their effectiveness. Those suggestions which have been offered, are of the same nature as the complaints regarding VHW performance. They tend to confirm the belief that in some instances VDCs lack a clear understanding of the proper role of the VHW and reinforce the need for additional PA support of the VDCs.

B. VILLAGE HEALTH WORKER TRAINING AND EFFECTIVENESS

1. Of those VHWs trained how many are actually functioning? Of those which are inactive or have quit what are the reasons given.

Operations of the PHC program in communities were anticipated to commence in April 1987; however they actually became fully operational in October 1987. We were informed that 53 of the 52 VHWs that had been trained had received drugs. Ten of the 53 communities with RDFs were visited. All of the 10 VHWs visited were functioning in terms of providing preventive and curative services. None of the VHWs visited had quit or were inactive.

but the program has not been running long enough for this to be significant.

2. Based on the VHWS records, what types of cases are reported and treated at the village-level? How many cases of illness or injury have the VHWS not been prepared to treat?

Four of the ten VHWS interviewed had not kept records of the number and type of cases of illnesses which they treated, although there was evidence of drug sales. All of the VHWS seen showed a general weakness in their reporting skills as well as in their awareness of the benefits to be gained from accurate record keeping. Within the VHW curriculum there is a need to strengthen and enhance the sections dealing with the health information system (HIS) and RDF management. Guidelines for continuing education (during supervision) should be developed as a means of targeting skills requiring re-enforcement.

Based on the review of available records and discussions held with the VHWS and community members the VHWS have been able to manage cases of illnesses or injuries encountered at the level at which they have completed training. The most common cases treated at the village level are malaria, scabies (craw-craw) and intestinal worms. Symptomatic treatment of fever and headaches were also common.

The highest number of cases any one VHW could not treat, as indicated by the records of numbers of persons referred⁴, was three. These cases, according to verbal reports, included lower abdominal pains, gonorrhoea and pneumonia. The VHWS were not trained to treat these illnesses and it is appropriate that such cases were referred.

Communities expressed concern that the VHWS were not permitted to administer injections. The role of the VHW in his community, as well as his permitted range of curative services, need to be underscored to avoid confusion and promote better understanding of the multi-tiered treatment system envisioned in the FHC approach.

3. What proportion of the village is actually using the VHW?

Data is not available and can not be determined using the VHWS records. A review of the number of contacts reported by some VHWS gives the impression that communities are making use of the

⁴ Referrals are recorded in the VHW Monthly Report Book. However this information is not incorporated into the HIS at the HC/HF level.

services. If the project is interested in obtaining this information then periodic sample surveys would need to be developed and used.

4. Ascertain whether the VHW is capable of correctly mixing the sugar, salt, solution and the oral rehydration salts for the treatment of dehydration. Then, verify whether mothers whose children were treated by the VHW can prepare the SSS mixture.

All the VHWs interviewed know the correct proportions of the sugar, salt, water with orange, lemon or grapefruit for the preparation of the sugar/salt solution (SSS) for the treatment of dehydration. There was some confusion about the dosage of the solution for young children and this needs to be addressed by the PAs.

The effectiveness of the use of oral rehydration salts (ORS) packets for rehydration was known by VHWs but they were not sure of the measuring and mixing techniques. For practical purpose, it might be useful to promote only the use of the SSS at the village level for the treatment of dehydration.

There are no records of children treated by VHWs for dehydration. However, the preparation and importance of the SSS was widely known in all communities visited in Sinoe County. The team observed correct demonstration of the preparation of SSS by a female VHC member. This awareness had been facilitated by the training until through repeated face-to-face instructions and demonstrations in the communities.

The level of awareness of SSS in Grand Gedeh County communities was low. This may be attributable to the poor integration of other health services in Grand Gedeh County as indicated by the level of involvement of the staff of those services in the SER PHC activities. In Sinoe county the team approach is practiced on a much larger scale than in Grand Gedeh County. The use of the team approach appears to have increased the efficiency and productivity of the SER PHC system in Sinoe. An example of this is the involvement of the Directress of Nurses and the MCH and CCCC supervisors in training, mobilization and health education activities; especially in the promotion of the preparation of the use of SSS for treatment of dehydration.

5. Does the VHW understand the vaccination schedule?

None of the VHWs interviewed had any knowledge or understanding of the vaccination schedule. The evaluation team was concerned about the VHWs limited knowledge and understanding regarding childhood diseases preventable by immunization. The VHW curriculum emphasizes the strategy for community mobilization for vaccination but there is a need to strengthen the content

regarding childhood diseases preventable by immunization and awareness of the vaccination schedule. This is important so that the VHWs can be aware of the age at which a child needs to take a particular vaccination and thus instruct, advise and encourage village mothers to ensure that their children are fully immunized.

All the HCs and many of the HPs reportedly have kerosene refrigerators. With the strengthening of the supervisory system through the establishment of district supervisors, those HCs with refrigerators could serve as fixed facilities to provide periodic outreach services for immunisation (e.g. for DPT and QFT vaccinations). Planning should be done by the supervisors and the CHMs in collaboration with the HP staff and the VHTs to ensure proper scheduling and effective mobilization of the communities as well as adherence to scheduled visits.

6. How many new family planning acceptors have been reported?

Family planning services are at present not provided by the VHW. Due to the short duration of the VHWs training period, they were not taught about family planning, personal preventive services or communicable disease control. However, caution should be taken not to overburden the VHW with too much information; it is more important at this time that he understands properly what he was taught and does it correctly.

7. What changes, if any, would the VHWs make in their training program?

To implement the complex and demanding task set for him by the program document, the VHW will obviously encounter constraints such as pressure from the community to perform curative services above his level of competence.

At this early stage he does not as yet feel inhibited in the discharge of his functions and he sees no need for change. However, if lessons can be learned from past experiences, then the process for his continuous development must be viewed as a learning experience both for him and those responsible for the implementation of the program to give reality to the ideal of the program's goals. The VHW must be properly guided to build up his competence in helping the community to promote health through action e.g. cleaning the community, digging wells for safe drinking water and constructing latrines. A repeated reminder of his role is essential to avoid the temptation to perform tasks above his level of training.

8. Is the VHW satisfied with the remuneration provided by the community?

All VHWs visited appeared to be satisfied with the remuneration provided. With the exception of one VHW, whose community has promised to pay him a monthly stipend of \$10, all the VHWs retain the Fee for Service as remuneration. In addition some communities promised to assist their VHW with his farming. Whilst levels of drug sales and fees have been high during these first weeks, in the long term small communities may not be able to continue to provide sufficient service fees to support their VHWs. On the other hand the Fee for Service as method of recompense might tempt VHWs to focus on rather than preventive services. Constant monitoring of the VHWs activities is necessary to achieve and maintain an acceptable balance between preventive and curative activities.

9. Does the VHW effectively collaborate with the Traditional Birth Attendants (TBA) in the village?

Active village health teams (VHWs and TBAs) have not yet been established. TBAs contacted during pre-mobilization community assessment visits are anxiously looking forward to their participation in upcoming training courses and receiving a supply of drugs after the course. In addition we understand that plans have been made to supply TBAs in Sinoe who have had some initial retraining with drugs. However plans to supply TBAs with drugs should be discouraged as it will create additional problems for the VDCs who will have to monitor and manage multiple drug funds. To avoid having to establish separate RDFs for the TBAs the project should create a coordination mechanism for the VHTs so that patients of the TBAs can have easy access to drugs held by the VHWs.

Certified midwives at those HCs visited are not being fully utilized. Their training as trainers of TBAs should receive immediate attention to enable them to commence TBA training, especially in Grand Geden. Further postponement of the training of TBAs will make it more difficult for VHWs and TBAs to work as a team.

C. THE REVOLVING DRUG FUNDS

1. Of the revolving drug funds established, in villages and health center and health posts, how many are operational?

a. VHW community RDFs

In Grand Gedeh we were informed that all the 39 VHWs trained had received drugs. Of these 39 RDFs established we were informed by the FAs that all are operational². However since they have only been operating for one month there is as yet no data available in the way of reports. In the 6 communities visited 5 were found to be operational in that the drugs were being sold, and cash received and given to the VDCs. In the other one the VHW was holding the cash because neither he nor the VDC understood that it should be handed over to the VDC. Although it was not possible to see if the RDFs were in surplus the council members and VHWs believed that they were. However, in some of the communities the VDCs and the VHWs were unsure how the system should operate, in particular checking stocks and repurchasing drugs. There is danger that these RDFs may cease to function unless they are given swift and effective follow-up by the FAs.

In Sine we were informed that 23 VHW communities had RDFs but that only 14 of them had received drugs at the time of our visit due to transportation problems caused by the rains. There were no reports of how many of the 14 RDFs were operational since they had only started in the previous month. Four communities with RDFs were visited and in all of them the RDFs appeared to be operational in that they had been, making sales, receiving cash and, in the case of 3 of them, appeared to have increased their capital. A stock check had not yet been performed at the fourth so we could not tell if its capital had increased.

b. HC/HP community RDFs

Of the 14 RDFs established in HC/HP communities in Grand Gedeh, 12 were known to be operational from the reports submitted. These reports indicate that all 12 have increased their capital. Of the others, one was believed to be operational although we were informed that the FA was having trouble with the records and had been asked to redo them before submitting them to the CS. No information was available on the other one since apparently the FA was missing and access to the town had been impossible during the last few months due to rains. Of the 5 HC/HP communities visited, however, only 4 were found to be really operational. In one town there was a problem between the FAs and the HAC

²For the purpose of this evaluation operational has been defined as making sales, receiving cash and increasing capital.

resulting in few sales and no purchases of drugs being made and they were out of stock of several important items. The reason for this problem seems to stem from poor initial organisation in the community which is related to poor performance of the PA. In some other communities it was found that certain key items were out of stock and were apparently not available at the CHS Depot.

We were told that in Since a total of 28 RDFs had been established in HC/HP communities: at 4 Health Centres, 11 Health Posts with PAs and 13 Health Posts staffed only by Dressers. Most of the RDFs at facilities with PAs were set up around October 1986; those at HPs staffed by Dressers were established in June 1987. Financial records only show 15 of the RDFs as having generated income - 14 of the 15 facilities with PAs and 1 of the 13 with Dressers. Monthly RDF reports from the facilities have not been received at the CHS. According to the CHS, all the 15 RDFs at facilities with PAs are operational. However the CHS has no information on the RDFs at HPs staffed by Dressers. At the 4 facilities visited, all of which had PAs and all of which had brought funds into CHS, the RDFs were operational and in surplus. At this stage there is only evidence to show 15 of the 28 as operational.

c. Summary

In summary, of the 53 VHW community RDFs established, there are no written reports at CHS to show how many are operational since activities have only recently begun; however of the 10 communities visited 9 had operational RDFs. Of the 29 HC/HP communities with PAs and RDFs, data shows 27 to be operational (information is not complete on the other 2) and of the 9 visited 3 were operational. However of the 13 HPs with Dressers (Since) and RDFs only 1 is known to be operational and there is no information on the rest. The message from this is that most of the RDFs in HC/HP communities with PAs are operational; also probably most of those in VHC communities are operational since they only started recently. However, the situation of the RDFs in HPs with Dressers is worrying in that there is as yet no information since drugs were provided in June 1987. It is obvious that the information system for the RDFs is not functioning well and needs to be improved if they are to be successfully monitored and supported.

2. Of those which are operational, determine the amounts of drugs used during an average month in the rainy season and an average month in the dry season by type of drug.

The records at the HCs and HPs do not provide this information in summary form. It was impossible to determine these details in the time available since it would have meant going through patient record books at each place visited, which is a very time

consuming task. In the VHW communities the RDFs have not been operating long enough to make the data meaningful. It is important that the sales of each drug be reported periodically by PAs for all RDFs under their supervision (including VHW and Dresser RDFs) so that the CHS can build up data for planning drug stock levels and purchasing quantities. A system needs to be set up to collect this data on a regular basis.

3. What factors appear to influence the success of the RDFs?

Firstly it is important to understand that the formation and management of the RDFs differs between the VHW communities and HC/HP communities. In VHW communities the VDC and VHW are highly dependant on the PA for training and support whereas in the HC/HP community the RDF is essentially managed by the PA under the supervision of the HAC.

The key factors that influence the success of the RDFs at the VHW community level cannot yet be accurately ascertained since they have only been running for one month. However, from the communities visited it is apparent that the RDFs have the support of the townspeople due mostly to a strongly felt need for curative services. The council members and VHWs are generally enthusiastic and responsible persons. The problems that are occurring can be attributed to the VDCs and VHWs not understanding their function or how the RDF system is supposed to operate. This problem is already affecting the success of some RDFs and seems to be a result of inadequate preparation of VDCs and VHWs and a lack of support from the PAs. Each PA has been responsible for training the VDCs in his area and thus the performance of a VDC is linked to the ability, understanding and enthusiasm of the PA. The support provided by the PA is important. Where some PAs provide more assistance to the VHWs in checking stocks and filling in forms the system appeared to function better. However, there is a danger that the VHWs and VDCs may become over dependant on the PAs and not carry out their responsibilities. It is important that the CSs monitor this situation and work to improve the understanding of the weaker PAs and VDCs.

At HC and HP levels the key factors that have contributed to success appear to have been: the support of the community due to the strongly felt need for curative services; the availability of drugs which is linked with the increased mobility provided by the motorcycles; and the enthusiasm and ability of key HAC members and especially of the PAs. Where problems have been seen they are attributable to the limited time that the PA has spent at his post due to training activities, the poor performance of some PAs in working with the HACs, the lack of monitoring and supervision from CHS staff and the lack of communication by the HAC to the community. This is partly attributable to the extensive training activities undertaken in recent months and also to the rainy

season from May to October which has made travel in the district difficult.

In terms of reducing misunderstandings at the community level it would be helpful to put up a poster in each community explaining broadly how the RDF operates and how the money paid for the drugs is used. This could also be combined with an explanation of the Fees for Service policy and how those funds are used.

It is also recommended that CM be allowed to sell those drugs which she is trained to prescribe when the PA is not at the HC/HP in order that limited curative services can be provided during the PAs absence. However they should not both handle the RDF at the same time since there is then problem of who is accountable in the case of a shortfall. Therefore a system should be set up so that when a PA is away the CM is responsible only for a limited amount of drugs and she should account to the PA when he returns. The PA should be ultimately responsible for any shortfalls. The CMs would need training in the management of the drugs and in record keeping, in addition to any clinical upgrading that may be necessary.

4. What changes, if any, are required to improve the financial management and reporting systems?

a. RDF performance reporting and monitoring

The easiest way to monitor the performance of the RDFs is by observing the amount of profit made in relationship to the sales. Since retail prices are relatively fixed and costs do not change often it is possible to have a good idea as to how much profit each type of facility should make given the type and average quantity of drugs that it handles. Since any error or shortage in cash or stocks will affect the profit it will also affect the relationship of that profit to the sales which will therefore show up as abnormal. If these profit percentages are calculated for each RDF every month any abnormality should be obvious and can be investigated.

A further check on performance can be made by monitoring the number of patients, fee-for-service and drug sales for each facility since they are also related.

There is therefore a need for a monthly report tabulating and comparing the results for the County Drug Store (when operational), hospital, MCH centre (Grand Gedeh) and each health center and post. This should show the number of patient visits, the fees for service collected, the average fees per patient, the total value of drug sales, the average drug sales per patient, the profit and the percentage of profit to sales for the month reported. Comparative figures should be shown - for example for

the average of the last 12 months and for the same month the previous year. This report will provide management with information on fees, sales and profits and will allow comparisons to be made between facilities and over time for each facility. It will thus pinpoint areas that need investigating. The main source of information for the health centres and posts will be the Monthly Reports and any of these individual facility reports in arrears should be noted on the summary report. The report, which should be prepared by the CFO with the help of the CS and circulated to all senior management and to the PAs should be accompanied by a narrative section highlighting problems.

A similar report should be prepared monthly by each PA for the VHW community RDFs and those at HPs with Dressers (or other health workers) in his area and submitted to the CS for monitoring. A monthly summary report highlighting problem areas should be prepared from these reports by the CS and circulated to CHS management.

It would be useful to carry out an exercise to calculate the average total profit percentage for drug sales in each type of facility (hospital, MCH centre, health centre, health post with PA, and health post with Dresser) and in the communities with VHWs. This average total profit percentage figure would be based on the average mix of drugs sold in a month. This would provide a guide to the profit percentage expected for each type of RDF. It should be recognised, however, that the present method of pricing stocks at the cost of the last purchase has the effect of taking in a profit on stocks existing at the time of purchase, which will not be realised until those stocks are sold. If retail prices are not increased in line with the rise in costs then the profit margin in the year that they are sold will be reduced. If the price rises and existing stocks are large this may have a significant effect on profits which will have to be taken into account when monitoring margins.

CHS management staff and PAs will need additional training in order to analyze and understand the relationships shown in these reports. These reports should serve as a basis for focussing supervision of the CS and CFO on problem areas thus reducing the need for routine supervision of the RDFs. It is necessary to decide how HP/Dresser RDFs will be supervised. In terms of their distance from CHS HQ it will be best to have this supervision carried out by the most easily accessible PA.

b. Supervision of RDFs

There is a need for more follow-up technical support and supervision for RDFs by the CFOs in addition to that provided by the CSs. However recognising that the CFOs have other responsibilities they should restrict the time needed for this to the minimum by ensuring that the monthly reports from the

facilities are submitted to CHS on time. By using the monthly reports as indicated above they can focus supervision on the places where it is most needed. An immediate effort should be made by the CSs and CFOs to obtain copies of all the monthly reports overdue from all the facilities so that complete initial reports can be prepared. The PAs should be made responsible for collecting these reports for all RDFs in their areas (including HF Dresser RDFs). There may also be a need for the CLO to give technical support to the RDFs in the area of inventory management. However this support should only be provided as requested by the CS or CFO when there are problems in this area. The CS should accompany the CFO or CLO on visits to communities with RDFs since he is the direct supervisor of the PAs and instructions should come through him.

c. Recording of drug issues at health facilities

At present it is impossible to get accurate monthly reports on the profit of each RDC (except for the Hospital) because the stock per the records is always rounded-up to the nearest half unit (eg. tin or bottle) and thus overvalued. This makes it impossible to monitor the profits as recommended above. In addition it is a big job to get figures for average issues of each drug which are necessary for planning purchasing and stock levels because issues are not recorded on the inventory records (although according to draft Revolving Drug Fund Manual they should be). In order to solve these problems issues should be recorded on a new form on a daily basis and the total for each drug for the week entered from the form onto the inventory sheets. Thus at the end of each week the stock balance in the inventory records would be accurate and could be easily checked physically - drugs in ampoules can be counted and it should be easy to see if the quantity of drugs in tablet and liquid form appears to be correct without actually counting or measuring. For liquids it would be useful if the bottles could be marked in a way to facilitate calculating the contents. At the end of each month it would be necessary to add up the last few days issues and enter them on the inventory sheets in order that the end of the month balance will be correct. This balance would then be used to calculate the total stock value for the Monthly Report. It will also be easy to add up the issues for each month when required for planning drug purchasing and stock levels. Before starting to record issues in this way it will be necessary to take a reasonable accurate inventory check - counting exactly those items that can be counted and estimating as closely as possible tablets and liquids - and enter the quantity as the balance on the inventory sheet. Later when a tin of tablets or a bottle of liquid is finished the balance figure resulting from the estimated stock check can then be adjusted. Whilst this work will take up a little more of the time of the PAs and HACs it should be worthwhile in terms of providing better information to management for monitoring operations and for planning.

d. Reporting System

The reporting system appears to be generally satisfactory. However it is not always being followed and in Sinoe no RDF Monthly Reports have been submitted to the CHS by the PAs since the RDFs began. In addition some PAs and HAC members appear to have trouble understanding the Monthly Report Form. Thought should be given to simplifying the form if possible, and giving further training in how to use it. It would also be useful to show the percentage or proportion of profit to sales on that form to provide a check on the accuracy of the figures and to highlight any problems. These Monthly Reports should be put on permanent files - one for each facility. In Grand Gedeh there is a need for a form at the community level to assist the VDC and VHW to keep track of receipts and expenditures and to assess the profit and capital value of the RDF. An effort should be made to introduce a simple form at this level as soon as possible. The form used in Sinoe as shown in the Guide for Sinoe County Community Health Workers is suitable for recording this information. However, it will need to be amended to include cash in hand as well as cash at CHS and also the monthly gain and the profit percentage against sales. It is also important that the PA collect this information and submit it in his monthly report to the CHS. Some of the facilities visited did not have all the forms they need to make reports. Effort needs to be made to ensure that facilities and communities have sufficient forms to enable them to keep records and report properly. All forms must be standardised for the two counties.

It is important that HAC and VDC members are able to understand the reports; in particular the relationship between the gain and the sales since this is the easiest way in which they can monitor the performance of the RDF. Since the VHW and the PA are both involved in handling drugs and cash belonging to the RDF, the community needs to be able to satisfy itself that the RDF is performing as it should without having to rely solely upon detailed checking. It is recognised that some VDC and HAC members may have difficulty with the calculation of the gain and its relationship to profit. In introducing these forms effort should be made to keep the method of calculation simple.

e. Stock Levels

There is a need to set minimum and maximum inventory levels for each drug for each level of RDF in order that the risks of running out of certain drugs or losing drugs through overstocking can be minimized. These levels should take into account the problems of transporting drugs to the various facilities. The fact that it will be more economical to repurchase at regular intervals (monthly for community RDFs and quarterly at a county level) should also be considered. In order to set these levels

data will have to be collected at the various levels of facilities. Once an accurate physical inventory check is made and recorded it should be possible to calculate the usage of drugs at representative centres by taking the purchases made by the facility since the RDF started and deducting the quantity still in stock. This can then be averaged by dividing by the number of months the RDF has been in operation. In the future the stock recording system should be altered as recommended earlier in this report so that monthly drug use data can be easily collected. In some of the health facilities there are slow moving items which should be returned to the CHS for action. Regular monitoring of sales versus balances should be carried out to minimise this problem. Once minimum and maximum levels are set comparison should be made with actual levels and decisions made as to how to deal with any surpluses. Providing adequate inventory levels are established, purchasing of drugs which have fallen below minimum levels need be done only at the regular ordering time (eg. at the end of the month for the HCs and HPs).

f. Purchasing delays

There appear to be occasional delays in supplying drugs to the health centres and posts due to the documentation flow system at the CHS level. Effort should be made to reduce these delays. It is hoped that this will improve with the new system of having the FAs bring in their orders and take their drugs when they come into the CHS offices for their monthly in-service training. It may be worthwhile to reallocate manpower at those times to help the CLO to deal with the increased workload.

g. Inventory Checking

Emphasis must be placed on regular monthly physical checks at all facilities until these checks become accepted as matter of routine. For example hospital drug stocks are presently not checked every month as is laid down in the system and when the team arrived in the second week in November no stock checks had been made for the end of October. The impression given is that these stock checks are not seen as highly important by staff and it appears that in the past stock check figures were not taken into financial statements or used in any way at all. However now that these stocks provide the bulk of the capital for the RDFs it is important that stocks be properly checked both physically and through the use of meaningful financial statements in order to maximise the contribution from the RDFs. It is recommended that the county drug depot (presently the hospital store) stocks be checked jointly by the CFO and CLO. There is a need for a form for signing off for the completion of stock checks and recording problems such as deteriorations in stocks, approaching expiry dates or differences between physical and book inventory balances in order to advise management and to provide a basis for

decisions on what action should be taken. The same form should be used to list the book balances at the end of month, cost prices and values and the total value of stock to be used in the financial statements. These forms should be signed by both CLO and CFO and submitted each month to the CHO and CHSA. Apparently in Sinoe there are additional stocks not taken into the books. It is important that a physical check be made as soon as possible by the CLO and CFO and the book quantities adjusted to reflect actual counts.

h. Pass Book system

Whereas in Grand Gedeh all community RDF cash balances are held by the VDCs, in Sinoe cash from the HC and HP community RDFs are brought into the CHS once a month and are held by them in trust. In Sinoe drugs purchases are charged against the balance held for each community. In Sinoe the communities appear to prefer that their funds are held at the CHS due to the risk of theft or misuse in the communities. However this preference should be balanced against the risk of misuse at CHS level which would damage the level of trust built up. Holding funds in trust may also increase dependence on the CHS with the accompanying possibility of reduced involvement of the communities. In the search for a solution the CHS team is looking into the possibility of opening a bank account for each community. In dealing with this problem of security versus independence it is important to monitor closely how the different systems are working in the two counties and how the communities respond.

i. Accounting for Purchases

In Sinoe the system of deducting purchases from the account of the purchasing facility is not working well. There are long delays in entering these amounts, apparently caused by delays in completed Purchase Requisitions getting from the CLO to the CFO. It is important that these amounts are entered in the RDF Ledger and the Community RDF Pass Book as soon as a requisition is completed and it is recommended that completed requisition is entered immediately in the stock records by the CLO and passed quickly to the CFO for entering in the Ledger and Pass Book and filing on a permanent file in date order. In addition the CFO should separate the community RDF Accounts from the community Fee For Service Accounts in the RDF Ledger.

D. SUPERVISION

1. How many supervisory visits have the district supervisors carried out since the VHWs were trained?

At present the SER PHC does not employ "district supervisors," that is, health center PAs who are responsible for supervising

health post PAs and CMs in their section of the county. The "district supervisor's" function is filled by the county level Clinic Supervisor. The CS, who is directly responsible to the Public Health Physician (PHP), exercises direct supervision over all health center and health post PAs within the county. In addition, the CS provides administrative supervision to the CMs; technical supervision of CMs is provided by the county MCH supervisor. The health center or health post PAs supervise the VHWs in their catchment areas [see question D-4].

County level records do not provide data regarding the number of supervisory visits carried out by the PAs. However, among the 10 VHW communities the Evaluation Team visited in Grand Gedeh and Sinoe, the PAs averaged approximately 2 supervisory visit per month since the VHWs completed their training -- the VHWs in both Grand Gedeh and Sinoe counties received training in August of this year. These averages exceed the one supervisory visit per VHW community per month suggested in the Project Paper. Nevertheless, there was a wide variation in the number of supervisory visits among the PAs interviewed. Moreover, not all of the PAs are providing supervision to the complete set of communities for which they are responsible.

The variation in the number of supervisory visits per PA can be attributed to: the number of VHWs per PA, time/distance between the health center or health post and the VHWs community, and the concentration of PA workshops and in-service training programs over the past two months. Supervision of the PAs by the Clinic Supervisor has been similarly affected by these factors; CSs have not been able to maintain a schedule of monthly visits to each PA.

The curtailed schedule of supervisory visits by the Clinic Supervisor appears to be a significant factor in explaining the disparity in PA performance. This is particularly true in Grand Gedeh. PAs located further from Zwedru, who as a consequence receive less direct supervision, carried out fewer VHW visits than those located closer to the county capital.

The abbreviated schedule of CS supervisory visits is attributed to a combination of temporary factors noted above. Moving into the dry season, road conditions will improve allowing greater access to health center, health post and VHW communities. It is felt that the disruptions caused by the training schedule will diminish as the initial phase of training has been completed. The SER PHC should be encouraged to minimize further disruptions by stretching out the timetable for the remaining workshops and in-service training.

SER PHC personnel recognize the need to take action to assure additional supervision of PAs and by extension VHW; discussions

are underway within the Project to address the issue (e.g. use of "district supervisors" - see D-4).

2. How have frequency and regularity of visits contributed to the performance of the VHW?

It is reasonable to assume that the frequency and regularity of supervisory visits will contribute to the effective performance of VHWs. Nevertheless, with the training of VHWs occurring in late August and regular supervision having begun in October, there is only a months experience - 1 to 4 visits - upon which to make an assessment. The limited supervisory experience provides an insufficient basis for making any meaningful judgments regarding the effects of supervision. Moreover, with the VHWs having recently returned from training, it is difficult to attribute changes in their "technical" performance and understanding of the VHW role to supervision.

Arguably the focus and content of the PAs supervisory visit may be a more significant factor in influencing VHW performance than the frequency and regularity of those visits. At present the content of the supervisory visit has not been formalized⁶. Most PAs use the VHW Record Book as the basis for supervision. Nevertheless, the extent to which PAs focus on specific elements of VHW performance - technical and administrative skills - varies among individual PAs as well as between supervisory visits. The performance of the VHW is inexorably linked to the performance of the VDC. Yet, in perhaps half of the VHW communities visited by the Evaluation Team, PAs placed little emphasis on assessing the VDCs performance and provided the Council minor technical support to the VDCs during the supervisory visit. To the extent that supervisory visit focuses on the VHW/VDC interaction as well as VDC performance - functions and responsibilities - it is handled in a similarly ad hoc fashion [see D-4].

3. Are the supervisors making effective use of the motorcycles which were purchased under the motorcycle purchase plan?

The Clinic Supervisors and PAs appear to be making effective use of the motorcycles purchased under the motorcycle purchase plan⁷. That is, they have relied on the motorcycles to carry out community mobilization activities, supervisory visits, trips to the

⁶Work has begun in Since to establish a supervisory check list for use by the Clinic Supervisor

⁷The County Logistics Officers, County Finance Officers and in the case of Since, at least one CM have also purchased motorcycles through the motorcycle purchase plan. We have not been able to assess their usage of the motorcycles.

county capitals to attend workshops and training sessions, and to obtain drugs for their clinics and VHVs. During the past month PAs at the five health centers/health posts visited by the Evaluation Team in Grand Gedeh averaged approximately 160 miles of official travel. Mileage figures for Since tend to indicate similar usage. The Clinic Supervisor for Since estimates that over the past year motorcycle usage averaged 150 - 200 miles per month.

With the ability of the PAs to provide drugs and maintain a regular and frequent schedule of supervisory visits linked to the use of motorcycles -- neither of these functions are feasible without the use of motorcycles -- maintenance and the availability of spare parts is a major concern. The individual PA is responsible for the maintenance of his motorcycle, the cost of repairs and spare parts covered through the payment of a mileage reimbursement. Though the LTA in Grand Gedeh has provided the PAs in both counties with basic instruction in preventative maintenance, their ability to fulfill these functions is limited. Discussions with the Clinic Supervisor for Since county suggest that approximately 50% of his PAs -- those who have not previously owned motorcycles -- do not understand basic preventive maintenance nor can they easily effect minor repairs.

Up till now, down-time due to mechanical problems has been limited. However with increased usage, maintenance will become a significant issue. The PAs as well as others in supervisory capacities who will be acquiring motorcycles, need to receive further training in basic preventive maintenance and minor repairs. Therefore, it is encouraging to note that the SER PHC has incorporated such training into its planned "motorcycle operators course."

With MEDEX's eventual departure, the ability of the county health services to assure the availability of spare parts, provide funds for mileage reimbursement and allow for the eventual replacement of motorcycles will be severely tested. Seed money is being provided through MEDEX/USAID to establish a "revolving spare parts fund". As presently envisioned, the fund will operate in a similar fashion to the RDF, however the specific details remain to be worked out. The SER PHC should be encouraged to continue its activity in this area.

Turning to the mileage reimbursement, sources of funding to cover mileage reimbursement need to be explored, e.g. revolving drug fund, fee-for-service. In weighing the use of fee-for-service to support supervision, SER PHC should not be constrained by the current practice of using the fees-for-service generated by a specific facility to cover the cost incurred by that facility. Given the pivotal role which mileage reimbursements plays in facilitating supervisory visits, the funds available to reimburse a PA should not be dependent upon the fees the specific health

center or health post can generate^a. Arguably, those facilities (or districts) in greatest need of supervision would be generating the least fees. Consideration should be given to appropriating a percentage of the fees collected by each facility to cover the county's total mileage reimbursement needs.

The use of county funds for mileage reimbursement may appear to be inconsistent with the approach to systems development engendered by the RDF and by extension the "revolving spare parts fund; however, the situations are not analogous. The benefits derived from the availability of drug are more readily apparent than those which flow from adequate supervision. The community's ability to identify with the need for drugs, its willingness to support and monitor the RDF does not have a corollary in terms of supervision.

Turning to the motorcycle purchase scheme there is concern regarding the financial viability of the fund. Given that the monies collected from the purchase of motorcycles cover approximately half of the vehicle's replacement cost, the motorcycle fund can not be maintained on a self-sustaining basis. With SER PHC estimating that motorcycles will have to be replaced approximately every two years, the need to recapitalize the fund will probably arise prior to the project completion date (August 1989). The SER PHC needs to identify a mechanism for replenishing the motorcycle revolving fund, e.g. increase the percentage of the cost which the employees pay for the motorcycles, identify an outside source of funding, tap into either the rotating drug fund or the fee-for-services, or some combination thereof.

4. What changes, if any, are required in the supervisory model?

The original and Supplementary Project Paper envisioned a system of supervision in which health center and health post PAs would supervise the VHWS within their catchment areas. In addition, specially trained PAs and CMs located in "every other health center" would supervise the PAs and CMs assigned to health posts in their section of the county. The SER PHC supervisory structure does not strictly conform to the above model. Rather, the Clinic Supervisor provides technical and administrative supervision to health center and health post PAs. Supervision of the CMs is split between the CS and the county MCH supervisor. The CS retains the responsibility for providing administrative supervision while the MCH supervisor furnishes the required technical

^aWhile it is recognized that the Health Advisory Councils do not exercise control over the fees-for-service generated by their respective health centers or health posts, limited discussions with HAC members suggests that there would be community support for using those fees to facilitate the PAs support of CHWs.

supervision. A further adaptation of the supervisory structure involves the supervision of health posts staffed by dressers. Though the use of dressers was not contemplated in the Project Paper, they are included in the SER PHC. Supervision of dressers is provided by the PA situated in the nearest health center.

The concept of "district supervisors" put forth in the PP and SPP remains valid. Moreover, given the CSs broad scope of responsibilities and present work load, the need for additional supervision of health center and health post PAs is required. It should be noted that the SER PHC in Since has begun considering alternatives for supplementing the level of supervision. For example there has been some discussion of dividing the county into three districts for supervisory purposes with a district supervisor for each district.

The SER PHC should be encouraged to pursue the idea of establishing "district supervisors" in each of the project counties. The need to conform to political districts should not be viewed as a major factor in determining the number and configuration of "supervisory districts." The optimal number of districts will depend on the number and distribution of facilities [HCs and HPs] and communities which will eventually be mobilized. Rather than being tied to the figure of one district supervisor per 10 to 13 PAs and CMs as suggested in the PP, the SER PHC should be guided by the need to assure adequate PA coverage in the health centers. As indicated in the SPP, mid-level health workers (i.e. PAs) should not be expected to spend more than two days out of five in supervision away from their facility.

Turning to the area of VHT supervision, the Supplementary Project Paper calls for each mid-level health worker to support an average of eight rather than the four to six VHTs envisioned in the original Project Paper². Depending on the time/distance between the health center or health post and the VHT community - a factor which is subject to seasonal variation - the suggested number of VHTs to be supported by each PA may be excessive.

The number of communities that can adequately be supported by a PA, during the period following the establishment of the VDC and training of the VHWs is beginning to emerge as an issue as plans are being made for the second phase of mobilization. The specific concern relates to the timing of the second phase of mobilization which is tentatively scheduled for the December/January period.

During their initial period of activity, the VHW and VDC require a more intensive level of supervision than the two supervisory

²At the present level of mobilization the maximum number of CHWs supervised by a single PA is five with the average being approximately two CHWs per PA.

contacts per month envisioned in the Project Paper. Interviews with the CS, PAs, VHWs and members of VDCs suggest that at least one supervisory visit per week would be required. With the VHWs and VDCs having been trained in August and only recently receiving their drug supplies - late October - it is difficult to estimate the length of time that the communities will require intensive levels of supervision. Nevertheless, the present experience suggests that 1 to 2 months is too brief a period of time. In general, the VHWs and VDCs do not appear to be at a point which would allow the PAs to assume the added responsibilities and workload inherent in the mobilization of additional communities. Simply in terms of the RDF, a minimum of one month (December) would be required for the PAs, VHWs and VDC to bring the various RDF inventory and reporting forms up to date [see section C The Revolving Drug Fund]. A minimum of two additional months operating the RDFs under close PA supervision would then be required to gain the necessary level of experience. At the very minimum, the second phase of mobilization should be postponed till the beginning of March 1988.

A second area of VHT supervision involves CM support of the TBAs. With the limited number of CMs at the health center level, it is not feasible for the CM to provide direct technical supervision of the TBAs on regular basis. To address the need for regular supervision, it is suggested that PA be used to identify problems encountered by the TBAs. These problems could then be referred to the CM who would provide the necessary supervision and follow-up.

5. How effective are the supervisors in resolving problems they encounter in the villages? Is the knowledge of the VHW adequately tested during the supervisory visit? Does the supervisor accompany the VHW on home visits?

In general the PAs (and CSs) are well trained and are highly motivated, they bring a high level of professionalism to their role as supervisors. Given these qualities, the PAs are not as effective as they should be in providing support to the VHWs and VDCs.

As previously noted, there is variation in the number, and frequency of supervisory visits; not all PAs provide supervision to the full complement of VHWs for whom they are responsible. Moreover, the manner and extent to which PAs focus on specific elements of VHW performance - technical and administrative skills - varies among individual PAs as well as between supervisory visits. In some areas the supervisors accompany the VHWs on home visits, in others this is not the case. There is no clearly discernable pattern. VHW/VDC interaction as well as VDC performance - functions and responsibilities - is handled in a similarly ad hoc fashion. It is the Evaluation Team's belief that a monthly reporting form should be developed that indicates the number, and frequency of supervisory visits to each community by

the responsible PA. The PAs effectiveness could be further enhanced through formalizing the focus and content of the supervisory visit.

As previously noted, the SER FHC has begun to develop a supervisory checklist for use by the CS. These effort needs to be expanded. A specific supervisory check list should be developed for each level of supervision, that is, CS supervision of PAs¹⁰, MCH supervision of CMs, PA supervision of VHWs and their VDCs, CM supervision of TBAs. As a first step, a master list of relevant skills should be developed for each provider. Included in the lists for PAs and VHWs would be the specific functions and responsibilities of the HACs and VDC supported, that is supervised by the PA or VHW. The lists would then be divided into manageable units that would form the basis of each supervisory visit. For example, during the PAs first visit he/she might focus on three specific "technical" and three "administrative" skill that the VHW should have mastered, e.g. mixing ORS, diagnosing and treating malaria, recognizing and treating worms; filling out the monthly report form, taking inventory and completing the drug requisition form. In terms of the VDC, the PA might focus on three specific functions or responsibilities the committee is to carry out. In the following visit the supervisor would cover the next set of administrative, technical and committee skills. At the end of the "supervision cycle" all of the relevant skills would thus be covered. Besides the obvious advantage of assuring that each supervisor monitors all the relevant skills, the establishment of supervisory check lists will facilitate a uniform level of care.

To assure a uniform level of care, it is essential, that the development of the supervisory check lists be undertaken as a collaborative effort among the relevant normative offices at the central ministry level and the SER FHC in the two counties.

E. THE REFERRAL SYSTEM

1. How many mid-level health personnel are now trained and functioning compared to the beginning of the project?

Middle Level Health Workers (MLHWs) are comprised of Registered Nurses (RNs), Physician Assistants (PAs), Certified Midwives (CMs) and Licensed Practical Nurses (LPNs). At the inception of the project in Grand Gedeh in early 1985, thirty-one rural

¹⁰Different check lists will be required for supervising PAs at the health center and health post levels. Though PAs receive the same training, the type of skills and necessary level of proficiency will vary depending whether they are posted to a health center or health post.

facilities were managed by various types of health personnel including Dressers, Nurses Aids and volunteers. Nine of the facilities were each headed by a PA and three of them CMs. Information on the initial number of rural facilities was not available for Since out staff included six PAs, one LPN and numerous Dressers.

Both counties health services were reorganized following the introduction of the project. The development of sufficient numbers of trained MLHWs was considered the key to the success of PHC in Liberia. Under the project the MHSW agreed to provide the number of trained MLHWs needed by target counties. However during the first years of the project progress was slow and few additional MLHWs were provided. The SPP was developed in the third project year and under this the expected staffing pattern of 3 MLHWs for each HC and 2 MLHWs for each HP as proposed in the PP were reduced to 1 PA and 1 CM for each HC and 1 MLHW for each HP.

At present there are 8 HCs and 22 HPs staffed by retrained MLHWs - 34 PAs, 11 CMs and 3 LPNs. At this stage of the project the proposed number of MLHWs for these 30 health facilities has been met (see Tables 1 and 2 for details). We were informed that all MLHWs trained and assigned are functioning in terms of performing curative, preventive and supervisory (PAs) duties. However, the CMs do not appear to be fully productive and some of those visited had not done deliveries at their HCs since January 1987. This is due in part to the reluctance of mothers to pay the \$10 delivery fee required at the HC. Pre-Natal attendance at the HCs is low, reportedly due to the absence of TT vaccines. Except at one HC, the CMs visited are generally not entrusted to operate the RDF in the absence of the PAs.

Many communities are concerned about the frequent periods of closure of HCs and HPs during the past few months, especially since they expected good service once the RDFs were set up. They have therefore been requesting the assignment of additional health personnel to the facilities. The absence of the PAs is due to the their involvement in various workshops, training sessions and mobilization activities. Although this high concentration of training should not reoccur in the future the PAs will necessarily spend one to two days per week out of their health facilities carrying out supervision of VHWs. Since the small number of patients seen at the health facilities does not justify the assignment of another MLHW to the facilities, it is important that the PAs prepare and exhibit their weekly work schedules to show the extent of there activities outside the facilities and to enable patients to plan their visits. In addition, in facilities where there are PAs and CMs, they should coordinate their activities to be more productive. Bearing in mind that there are certain drugs that they should not handle, the CMs should be trained to provide limited operation of the RDFs to facilitate

continuity of services at the HCs during the absence of the PAs. Control and supervision of the CMs would be necessary to ensure that they only handle those drugs that are within their capability.

Except for the presence of a CM there is no distinction at present between the functions performed at a HC and a HP. A higher level of treatment facility must be able to deliver services that are not available at the lower level if it is to function as a referral unit. A policy on standards and technical norms for health facilities is needed to validate the referral system.

The Tubman National Institute of Medical Arts has proposed a one-year continuing education program to better utilize the LPNs who are already in health facilities other than hospitals. The curriculum would include diagnosis and treatment, and managerial and supervisory skills. As LPNs are already on the MHSW payroll, it would be cost effective to identify LPNs who could be retrained to perform functions of the PAs rather than training and employ new PAs. The HIs already in the health service are not fully integrated into the PHC system. Their role needs to be redefined and an appropriate policy and program need to be established to enhance their full participation in PHC activities. HIs in the system could collaborate with PAs in community mobilization and the training of VDCs, HACs and VHWs.

To further alleviate the shortage of project personnel, the SER PHC is encouraged to define the potential role of other MLHW with a view towards integrating them into SER PHC activities.

2. Based on health post and health center records before and after the training of VHWs determine whether an increasing proportion of certain common illnesses and injuries are being treated at the village level rather than at the health posts and health centers.

The VHWs have not been operating long enough to enable any meaningful assessment of the VHWs effect on HC/HP patient loads. A review of the daily patient records of those PAs with VHWs revealed that the number of patients from the VHW communities has not declined since the VHWs began working. It appears that a high proportion of the patients seen by the VHWs are not patients who would otherwise have been seen at the health facilities. It follows that the VHWs are seeing new patients who perhaps did not get medical attention or preferred to use traditional healers.

3. What is the total number of referrals that the VHWs sent to the health post or health center?

Although some of the VHWs record the number of patients referred to the HCs or HPs, there is no record at those facilities of referrals from the VHWs; it is therefore not possible to obtain this information. The HIS being introduced does not capture VHW-initiated referrals. Appropriate forms for such referrals should be designed and put into use.

4. Using baseline information from the Westinghouse Survey and the EPI coverage surveys determine whether vaccination coverage rates increased, decreased or remained the same since the beginning of the project? Has there been an increase in the use of oral rehydration salts?

Baseline data is not available for Grand Gedeh or Sinoe which indicates levels of vaccination coverage or ORS usage prior to the start of the SER PHC project. Without such data there is no basis for determining whether "current" levels indicate a deterioration or increase in coverage.

A number of studies have been taken between 1986 and 1987. The Westinghouse Survey (1986) though not specific for the project counties suggests that 20% of children between the ages of 1 and 5 were fully immunized. A second survey undertaken by EPI following the 1986 vaccination campaign indicates that 2% of children in Grand Gedeh and 4% of the children in Sinoe were fully immunized. The 1987 EPI/CCCD survey suggests coverage rates of 6% - 12% for early age immunization.

Even with the above surveys, the ability to detect change in coverage between 1986 and 1987 is limited. Questions regarding the comparability of the survey designs (age groupings, definitions of coverage etc.), and conflicting results make it difficult to draw meaningful conclusions from the surveys.

5. Particularly in Grand Gedeh County, has the project effectively used ELR2 to convey health education messages to announce clinic schedules and supervisory visits?

At this point there is no way to assessing project impact that can be attributed to the use of ELR2 radio. The CHS in Grand Gedeh county uses three 15 minute segments of ELR2 air time weekly to encourage communities that have been mobilized to continue with their PHC development. Sinoe does not use ELR2 because of erratic reception particularly in the Greenville area.

F. DECENTRALIZATION

1. Is there evidence of support and coordination of decentralized activities at the county level?

Evidence of support for decentralization should be viewed from two perspectives: the first relates to actions taken by the central government (central Ministry level) which the Project Paper suggests facilitates "local decision-making under central guideline," e.g. operating under decentralized budgets, financial and operational management. The second area involves central level activities aimed at providing support and guidance to the counties in carrying out county level operations. As suggested by the PP these include program planning activities, setting of standards, evaluations, provision of technical assistance etc.

The government of Liberia has taken a number of positive steps to facilitate decentralization in the area of "local decision-making," the most noteworthy being the retention of locally generated revenues. Revenue collected by the County Health Services (CHS), in the areas of fee-for-service, drug fees, registration fees etc., are no longer remitted to the national treasury but are retained by the counties to finance county health services.

Other positive actions on the part of central government include the creation of county level administrative posts and hiring of mid-level health workers with the commitment to assume the responsibility for funding these positions. In Grand Gedeh, the government has assumed responsibility for the salaries of the County Health Officer (CHO) and County Health Services Administrator (CHSA); however, their Ministry salaries are supplemented by funds made available through the development fund. Though the County Personnel, Finance and Logistics Officers are presently paid out of development funds; they are scheduled to be placed on the Ministry's budget at the start of the new fiscal year (January 1988). Twenty-two of the counties twenty-eight PAs and CMs already have been shifted to the Ministry budget.

A similar situation exists in Sinoe. The CHO and CHSAs salaries are supplemented by development funds. County Finance Officer is in the process of being placed on the Ministry budget while the County Health Administrator, Personnel and Logistics Officers are scheduled to be shifted to the Ministry budget in January. All CMs have been transferred to the Ministry payroll as have fourteen of the twenty-one PAs; the remaining seven PAs are scheduled to be shifted to the Ministry budget in January.

The positive actions taken in support of decentralization are offset by a series of personnel practices in the areas of hiring, discipline and supervision. The effect of such actions is to undermine CHS authority. The Personnel Manual adopted by the

Ministry delegates the authority to recruit and select "general category" staff (e.g. messengers, drivers, janitors etc.) to the CHS. In terms of professional, administrative, fiscal and clerical staff, the CHS is provided the opportunity to participate in the recruitment and selection process. Nevertheless, the central level administration continues the practice of recruiting and selecting personnel without county level input or, in some cases, the knowledge that positions are being filled.

The Personnel Manual details a series of procedures for disciplining county level personnel and outlines a formal grievance process which personnel can invoke. In both areas there are a series of steps which must be completed at the county level before the issue progresses to the central Ministry level. As in any new system there is the tendency for the effected personnel to attempt to by-pass county authority and appeal directly to officials at the central Ministry level. The Ministry has taken steps to discourage such practices by directing officials to either ignore employee appeals or direct the employees back to the CHS. Despite the Ministry's efforts, the situation has not been completely resolved; among some Ministry officials there remains a tendency to take direct action on employee appeals.

Ministry practices in terms of supervising its vertical programs act to undermine decentralization efforts and frustrate attempts to coordinate health service activities at the CHS level. The EPI, Leprosy and Tuberculosis programs tend to by-pass the CHO and communicate directly with their local supervisors. In some instances funds for these programs flow directly to the local supervisors rather than through the CFO. This is viewed as an especially serious concern in Sinoe. Discussions with county level officials suggest that these action make it difficult to integrate the activities of these individuals into the overall county health program. It limits their ability to address problems of discipline, coordinate transportation arrangements, supervisory schedules etc.

In turning to the second area of concern - central level activities aimed at providing support and guidance to the counties in carrying out county level operations - it is more difficult to assess the level of support for decentralization as there is a subtle distinction between support of decentralization and a policy of benign neglect. While no clear pattern emerges, discussions with county level personnel suggest that central Ministry is somewhat remiss in providing necessary support and guidance to the counties. For example, the training and supervision of health center and health post personnel requires that a clear distinction be made between the level and scope of services to be provided at each type of facility. The Ministry which is charged with establishing technical norms and standards has either not defined these standard for health centers/health post, has not transmitted this information to the responsible individuals in

the CHS or has not exercised sufficient supervision to monitor their implementation.

In the area of finance, the Ministry does not appear to providing the necessary auditing and evaluation services. In terms of budgeting process, the CHS executive committees have been involved in the process of developing budgets for the 1987/88 fiscal year. Lacking guidance from the central Ministry as to possible levels of funding, the budgets which were developed were returned as being unrealistic. At the time of the Evaluation Team's visit guidance for developing revised budgets had still not been provided.

The above comments are not meant to imply that the Ministry is not providing any support and guidance to the SER PHC counties. For example, technical support is being furnished through the vertical programs; the "Management Implementation Team" does assist the counties in management/administrative development.

Having just suggested that Ministry is not providing the level of support that it should, the Evaluation Team does recognize that the Ministry is operating under severe financial constraints. With the large MEDEX/USAID presence in the two counties, it becomes easy for the Ministry to reduce its support from those areas and devote its limited resource to other purposes. What such a policy might portend in terms of the government's support for decentralization is unclear. However, it does raise serious questions regarding the ability of sustaining the progress achieved by the SER PHC.

2. How well is the county drug supply and distribution system operating from the central warehouses in Zwedru and Greenville?

Presently there are no separate county drug stores: there are basically the hospital stores, from which drugs for the CHS are also drawn. Issues to the CHD facilities are charged out but those to the hospital and MCH are not. The plan to make county level stores should be followed through as soon as possible in order to separate the management of county level stocks from hospital stocks. This will facilitate planning, management and accountability of these two operations. The inventory is already physically separated from the hospital pharmacy store and drugs are requisitioned from the main store using the same forms as the health centres. Separate records should now be kept in the books and issues to the hospital and, in the case of Grand Gedeh, to the MCH Centre should be charged to their accounts. Issues to all facilities and communities should be charged at a uniform mark up and since the only mark-up at present being applied is 20% (in Grand Gedeh) it is recommended that this figure be used. The mark up should be sufficient to cover direct costs, to contribute to indirect CHS costs such as training and to improve services.

Price lists should be made showing the cost to facilities - the price for each item including the mark up.

Whilst at the Central level it is understood that health facilities with PAs will hold separate stocks for VHWs and Health Posts with Dressers, many staff in the counties do not appear to be aware of this policy and think that it would be better for PAs to supply VHWs on a trans-shipment basis. Indeed resupplying of VHWs is likely to go ahead shortly on this basis. Whichever system is chosen there will be problems. For example the facility stock basis means that since two separate stocks will be held by PAs, stock checks by the HACs will have to be done simultaneously to avoid substitution. Also PAs may find themselves holding larger sums of cash which increases the risk of theft or misuse. It may also not be practical to credit HC/HP accounts with 10% of the sales of these drugs to the VHWs since they will probably be needed more at the CHD level than at the individual facility level where unspent fees for service are presently building up. If Dressers come into CHS once a month to collect their salary then the occasion could be used for an in-service meeting and at the same time they could replenish their drug stocks. This would reduce the work load for the PAs since they would not have to purchase the drugs for the dressers. The PA would be required to countersign the purchase order to say that he has verified the stocks and records. It would still be necessary to supervise the dressers RDFs on a regular basis. Whichever system is adopted for replenishing the stocks of the Dressers and VHWs it should be implemented as soon as possible in order to give time to assess its practicality. TBAs should not carry separate drug stocks but should refer patients to the VHW for supplies. This will simplify RDF management and will encourage collaboration between the TBAs and the VHWs.

Poor road conditions have contributed to the unavailability of certain drugs during the last few months. However the major factor has apparently been the inability of the NDS to supply many of the necessary drugs because of major delays in importation. It is understood that most of these drugs have now arrived and are available. The ability of the NDS to supply necessary drugs when needed is vital for the future of the project. It is hoped that the delays experienced between placing orders and receiving goods can be reduced in the future. The difficulty of obtaining drugs from the NDS has meant that the CHS has had to purchase in the local market at higher prices. To resolve these problems efforts must be continued to find a reliable, competitively priced supplier.

It is understood that project grants are to be made for the seed stocks for the two county drug stores and it appears that there may be more than adequate capital remaining in the Hospital RDFs for pharmacy stocks. After carrying out accurate physical checks on pharmacy and main hospital stocks, setting minimum and maximum

stock levels and reducing or increasing individual stocks to the agreed levels, management should set priorities for using any excess capital.

3. How successful is the implementation of the other seven systems?

The remaining seven management systems are in varying stages of development and implementation. Manuals have been prepared for all system with Transportation, Personnel, and Communication having received final Ministry approval.

a. Health Information System - Following a series of pilot tests in Grand Gedeh and Sinoe counties and subsequent revisions in the data collection forms, the HIS was introduced in the two counties during the last week in October. With the system just being introduced, it is too early to speculate on the success of implementation.

Regular, frequent and in-depth supervision by the CS, and MIT will facilitate the succesful introduction of the HIS - it should be noted that the HIS was introduced to the PAs in each county through a one day workshop presented by the MIT. However, to insure the system's long term viability it will be necessary for the SER PHC and MHSW to foster an environment which encourages and is conducive to the use of the data for decision-making purposes. In the past, information tended to move upward through the system with a limited return flow of analyzed data to county administration or facilities - data necessary for effectively exercising the programing/budgeting, supervision and control function. In general the system lacked the capacity to verify, process, analyze and evaluate data.

The following factors in combination with the lack of a return flow of useful information have reduced the facilities' incentive to produce accurate and timely data for both their own and the system's use:

- the county's limited budgetary and programming authority
- inadequate analytical skills among administrators, managers and supervisors to utilize the data which the system was generating for problem identification, problem solving and decision-making purposes
- inadequate supervision from the central and county level administration (supervisors) to the sites where the data were initially generated

The Evaluation Team strongly encourages that action be taken to address the above concerns, e.g. develop and implement a series of basic level "problem identification, problem solving and

decision-making" workshops for administrators, managers and supervisors which will focus on how to use the data which the HIS generates for decision-making purposes; incorporate a specific HIS skills area within the various supervisory check lists being developed [see section on supervision], etc.

b. Finance - At present the financial management system is still being developed and a short term consultant is to be contracted to assist with this work in both counties. The following areas should be addressed as part of this system development:

- The Hospital, CHS and Administration Departments should be treated as separate cost centres in accordance with the recommendation shown in the draft Financial Management Manual. This will enable management to see clearly the income and expenditure for each department. Whereas budgets have been prepared on this basis, financial statements have not. This should be introduced as soon as possible and the financial statements for the last financial year should be redone in this format in order to provide a basis for comparison for the future. Balance Sheets should be prepared for each department and should include debtors and creditors as well as cash and any stocks not included in the RDFs. RDF total capital and assets figures can be included in the Balance Sheets under Revolving Funds. Statements should be prepared monthly, quarterly and annually. It may be useful to break down the statements for the Community Health Department to show the MCH Centre and special programs such as EPI and CCCC separately from the total of the Health Centres and Posts. Budget comparisons should be shown on the income and expenditure accounts.
- A separate fund statement and trading account should be prepared for the County, Hospital and MCH RDFs (since the RDFs at the HCs and HPs belong to the communities they should not be included). These statements should be presented not only to management but also to the County RDF Committees. The trading account should show purchases, sales, transport costs, and profits (after adjusting for opening and closing inventories). Any purchases or sales on credit must be taken into account. It is important that the valuation of stocks is as accurate as possible since any over or under estimation will affect the profits; the CFO should therefore check the calculation.
- As stated earlier in this report profits may be overvalued in times of rising drug cost prices due to the method of calculating stocks at the most recent price. Since these profits are not realized until the drugs are sold they

should not be regarded as available for expenditure. As far as the County Drug Store is concerned the amount available would be only the mark-up (e.g. 20% if that is agreed); any excess ought to be due to this pricing effect. Hospital profits would be overstated, however, by such price increases and care should be taken when deciding how much profit is available for future expenditure. When these stocks are eventually sold the additional profits will be realized and would be available. Of course, if the retail price is not increased in line with the rise in cost price, the profit margin will be reduced in the year that the drugs are sold.

- It is also necessary to implement a system for recording vehicle mileage and operating expenses, as well as for keeping track of maintenance. Based on this information the CFO should prepare a quarterly report to the CHS management team showing how much each vehicle is costing, which will serve to monitor vehicle usage and costs and allow management to cost out certain activities as well as enabling decisions to be made as to which vehicles should be kept or replaced.
- Income forecasts and expenditure budgets must be drawn up annually. Income must be compared with the forecast every month since if it is below forecast the expenditure budget will have to be reduced accordingly. Expenditure must be checked against budget before authorization. This is already happening to a degree in Grand Gedeh but not in Sinoe. The Sinoe accounting system will have to be adapted to allow easy checking against budget.
- Income and expenditure from other funds such as Development Funds and CCCD should be brought into the accounting system and whilst they may need to be reported separately they should be incorporated into a global financial statement.
- The procedures for the use of fee-for-service needs to be developed in the counties. This is especially so in Sinoe, where several communities expressed the desire to know how these fees would be used. It is important that this is clarified if the program is to be successful. Although general policy guidelines are in place, CHS management should agree as soon as possible on procedures for using these funds and should advise the communities. A statement of the policy and procedures should be put on a poster in each centre where fees are collected. It is recommended that a percentage of these fees at all hospitals and rural facilities (except the VHW communities) be retained by the County Health Services to contribute to

Administration and Community Health Department costs. The amount to be charged should be calculated as part of the 1988 budget exercise but as an initial figure it would be convenient to use the same figure of 20% used for the RDFs. Each PA should report every month on the status and use of the fees collected to the VDC and the VDC should inform the community.

- Separate bank accounts should be opened for RDFs - one for CHS RDFs (County, Hospital and MCH) and one for community RDFs (if separate community accounts are opened at the bank as mentioned earlier this will not be necessary). The remaining account would then be a general funds account covering CHD, Hospital and Administration income and expenditure. This is to avoid funding CHS or Hospital expenses out of RDF funds. Where there is to be an allotment of part of the income from CHS RDFs this can be paid from the CHS RDFs account to the General Funds Account on a quarterly basis. If one account is opened for community RDFs it should be a savings account. Any excess funds in other accounts should be put into separate bank savings accounts in order to benefit from interest earned.
- Presently petty cash for the Hospitals/CHSs is sent by the GOL in the name of an individual employee. For reasons of security all bank accounts should be in the name of the institution and all payments to the Hospital or CHS should be made by cheque in the name of the institution.
- Purchases of general supplies should be posted to stock accounts and issues charged to each cost centre including the hospital. A small margin should be added to cover costs of purchasing and to contribute to administration. Stocks must be physically checked every month. A trading statement should be drawn up every month to reconcile movements and stocks and to check that the right level of margin is being achieved.

c. Personnel - As noted, the Personnel Manual has been approved by the Ministry; the basic sets of personnel forms and procedures, job descriptions etc., have been developed and are available at the county level. Moreover, a County Personnel Officer has been appointed in each of the project counties.

Despite the substantial gains that have been achieved in implementing the personnel system, progress has been limited in a number of key areas. Areas in which implementation has lagged include:

- planning and budgeting for personnel needs and the recruitment and selection of new employees. The absence of adequate resources has not permitted the counties to exercise the

planning and budgeting function in a meaningful fashion. Despite actions by the Ministry of Health to encourage the transfer of authority, the reluctance of central level administration to relinquish its previous role in the recruitment and selection of personnel and allow for county input as per the approved personnel manual, has limited the counties' development in this area.

- discipline including supervision, attendance, and grievances - Notwithstanding Ministry efforts to discourage such practices, there is a tendency for central level officials to condone employees' by-passing of county authorities by taking direct action on employee appeals. The effect of such practices is to undermined the implementation of county disciplinary and grievance procedures. A further factor affecting the implementation of the disciplinary, supervision and evaluation aspects of the personnel system, is the reluctance on the part of supervisors to go on record against employees i.e., provide written criticism, assessments or evaluations. Overcoming this reluctance is a intractable task requiring the creation of an environment which is supportive of supervision and discipline.
- developing the capacity to assess the training needs of county employees and develop ongoing programs of in-service training - A number of inter-related factors have affected the pace at which the capacity in this areas has developed. Job descriptions have been developed and distributed, however discussions with the CFOs suggest that some of the supervisors are not aware of the full scope of the job descriptions of those they supervise. Appraisal forms have been developed but not generally distributed, moreover there is a reluctance to undertake evaluation. The combined effect is to limit the data available to assess the needs for both technical and administrative training and thus limit the ability to develop a broad based program of regular in-service training for CHS personnel. This is not meant to imply that the counties have not undertaken in-service training programs, quite the contrary. For example, the county training unit in Sinoe has been very active in developing a training program focused around the Project's mobilization requirements addressing the needs of the VHWs/-VDC, and PAs. Similar training activities have been undertaken in Grand Gedeh. Nevertheless, the focus of in-service training, needs to be broaden to address the training requirements of other members of the CHS with the CFO being incorporated into the process.

To address the above concerns, the Evaluation Team strongly encourages the Ministry to continue its efforts to encourage support of the counties' prerogatives in the area of personnel practices as per the Personnel Manual. Furthermore, a greater

amount of management TA should be directed towards working with and improving the CPOs skills.

d. Facility and equipment maintenance - The Facilities and Equipment operations manual was released in July 1987 and is in the process of being implemented. As with the other management support systems, the absence of adequate resources has not permitted the counties to exercise the planning and budgeting function in a meaningful fashion. Moreover with much of the present financial support for vehicle and equipment maintenance coming from USAID or development funds, the opportunity for county personnel to develop these skills is further limited. While recognizing the administrative and potential legal constraints, SER PHC should be encouraged to increase the present role of county personnel in the planning and budgeting area.

Preventive maintenance remains limited and the use of maintenance and repair records for equipment and vehicle has not yet been initiated. Having not been standard practices the performance and institutionalization of these functions will require will require a heightened level of supervision.

There do not appear to be any structural impediments to the implementation of the Facilities and Equipment support system. However as was noted in the discussion of motorcycle maintenance, sources of funding to cover spare parts needs to be explored, e.g. revolving drug funds, fee-for-service etc.

e. General Supplies - An operations manual for General Supplies has been developed; the basic sets of forms such as requisition vouchers, purchase orders and stock cards etc., have been developed and are available at the county level. A Logistics Officer has been appointed in each of the project counties, part of his responsibilities being the general supply system.

In addition to the general supply recommendations noted in the above discussion of the finance system [purchase of general supplies and inventory control] the SER PHC should be encouraged to develop within the county level logistics office the ability to effectively monitor and analyze the consumption of general supplies as part of planning and budgeting function for general supply needs. Towards the development of that capacity, the CLO needs to carry out regular inventory, and stock taking of general supplies according to the procedures outline in the Supplies Manual. Furthermore, additional emphasis should be placed on developing and implementing a regular schedule for the replenishment of general supplies.

f. Transportation - As indicated, the operations manual for Transportation has been adopted for use by the Ministry of Health with major components of the transportation plan having been implemented. A series of "transportation system's record keeping

forms" have been placed in use. The motorcycle purchase plan has been successfully providing motorcycles to county personnel and a "revolving motorcycle spare parts fund" is being established. However, there is concern regarding the financial viability of the plan given that the monies collected from the purchase of the vehicles covers approximately one half of their replacement cost. Similar concerns relate to the spare parts fund [see D - 3]. Regarding CHS vehicles, the situation is somewhat more problematic: Given the present financial constraints and estimates of future revenue, it is not clear whether the CHS has the funds to maintain these vehicle following MEDEXs departure [see section G Financial Viability].

In terms of vehicle maintenance, there is a trained mechanic at the CHS in each of the two project counties. While the mechanics provide regular maintenance of CHS vehicles, the concept of preventive maintenance is not as well established - the development and implementation of a regular preventive maintenance program should be encouraged. The use of vehicle log-forms has been successfully implemented; the need to establish and implement vehicle maintenance and repair records has been noted. However, to derive maximum use from these forms the SER PHC should be focus on developing the capacity of county level staff to analyze the data contained in these logs for purposes of planning and budgeting for future transportation needs.

g. Communications - The Communications Operations Manual has been adopted by the Ministry of Health, however implementation has been uneven across components. In the area of electronic communications, short wave radios have been provided to various facilities in both counties. Nevertheless, regular schedules of transmissions and monitoring is not being adhered to. A second component of electronic communications, public radio (ELR2) has been used in Grand Gedeh as a means of providing information to field workers and health education information to the general public. Due to erratic transmission patterns in Greenville and its environs, ELR2 has not been employed in Sinoe county.

Turning to the area of Communications Support systems, a regular schedule of CHS Executive Committee meetings has been adhered to. Though it is reasonable to assume that such meetings will facilitate communications among county level staff, it is not possible to determine their effectiveness in providing a forum for considering and resolving issues. Two areas which require particular additional attention are the implementation of the record keeping and filing systems and written communications. As discussions with LTAs suggest, it is necessary to train and monitor the CHS staff, especially supervisors, in observing the guidelines put forth in the Communications manual regarding written communications within the county and to central Ministry level officials.

4. What is the likelihood that the management systems designed by the project will be institutionalized?

The eight management systems designed by the project are in varying stages of development and implementation though none are fully implemented. The systems vary in their level of complexity and sophistication. As a consequence, county personnel have had varying opportunities to develop an understanding of the specific system in which they will exercise responsibility. Similarly, their opportunity to attain the required skills necessary for adequately discharging their functions have also varied. Moreover, depending on the specific management system, greater or lesser levels of experience will be required to achieve proficiency. All of these are factors which will affect the pace at which institutionalization of the management systems occurs.

On a more basic level there are a number of specific conditions which will determine the likelihood of being able to institutionalize the management systems developed by the project:

a. The extent to which persons fulfilling critical positions possess an understanding of the full scope of the system and the responsibilities of the position which they fulfill - At the county level it is essential that the CHO and members of the CHS Executive Committee have a broad understanding of the management system which is to be implemented. That is, they need to know how each of the eight management components operate and how the specific components interrelate with one another. Given that the systems are in varying degrees of development and implementation, they need this level of understanding to be able to move from one phase in the systems' operation to the next. In terms of their specific area of responsibility, it is essential that they have a thorough understanding of their system, e.g. finance, logistics etc. A similar level of understanding is required at the central project level in order to guide and coordinate systems implementation in each of the counties.

It is questionable whether the county level officials possess the broad understanding of the system and the interrelationships among its elements to guide the implementation process in the absence of MEDEX support. This may be attributable to:

- a lack of continuity at the CHO level; the counties' permanent CHOs have been on study leave during the period in which most of the management support systems have been developed and implemented;
- the CHOs need to devote large portions of their time to the administration of the county hospital and provision of clinical services,

- an absence of regular management TA - the LTAs are not able to maintain a balance in terms of time devoted to clinical versus managerial/administrative TA. Being physicians there is the natural tendency to be pulled in a clinical direction. Moreover, being placed in a situation in which they are formally functioning as the county's Acting Public Health Physician, further reinforces the clinical role.

A similar situation exists on the central project level. In the period since the present Project Manager assumed her post, she has made tremendous progress in terms of infusing the necessary managerial skills into the position. Given the conflicting demands on her time, the Project Manager is unable to devote sufficient time to developing the broad knowledge and understanding of the totality of the system and the interrelationship of its elements. Moreover, the Chief of Party is unable to devote the necessary time to working with the Project Manager in the above area due to his dual role as both COP and management LTA; the later role is further stressed by the need to supplement the management TA provided in the two project counties with the LTAs.

b. The extent to which persons are adequately trained to carry out the system's tasks which they are presently fulfilling - In general this is not a major issue, of more concern are C and D. However, it would be appropriate to implement along with the annual performance appraisal a "job skills/aptitude appraisal" to determine over time whether the persons skills are appropriate for the position, and if such deficiencies exist, whether they can be corrected through training.

c. The availability of a source of supervision and access to necessary skills reinforcement - At present the SER FHC does not appear to have developed among its personnel the capability of providing adequate supervision and skills reinforce in the managerial/administrative areas. Attempts in that direction have begun with establishment and support of the "Management Implementation Team (MIT)." The role of the MIT in management development is suggested in a SER FHC concept paper addressing the issue of institutionalizing the management development function within the Ministry. At present, the Unit is composed of two Ministry of Health employees and a short term MEDEX advisor - the MEDEX advisor who will be leaving in December 1987 shall be replaced by a Ministry nurse with extensive training experience. The Unit has been effective in introducing elements of the various management systems. However, they do not appear to have been able to provide sufficient follow-up to assure effective implementation. Without upgrading the Unit's managerial and administrative skills, their ability to function as a viable source of management TA to the counties is limited. As is the case with the county and central project level personnel, there is serious question as to whether

the Unit possess the broad understanding of the system and the interrelationships among its elements which would be necessary to discharge the management development function.

d. The availability of a source of supervision and training for additional skills that would be required under a fully implemented system - As indicated above it is envisioned that the MIT will fulfill this role. However, their technical skills in the area of management/administration are at the present time problematic. While it is true that the MIT will be able to draw upon the technical resources of the Ministry - something which they currently do - this does not negate their need for additional support and training in management/administration.

A further concern regarding the MIT involves the absence of well developed plans for their eventual integration into the Ministry's Bureau of Planning and Resources Development and the availability of funds to support their operation. It should be noted that while the MIT is physically located in the offices of the Bureau, they are not integrated into the Bureau's operations.

e. The availability of resources (financial and human) to maintain the system - As the major portions of the financing required to operate the system come from directly through USAID or through development funds, the question of financial viability remains a serious concern [see section G].

In order to address the above concerns, the Evaluation Team strongly suggests that an additional source of ongoing technical assistance in the management area be provided through 1989 to both counties, and to members of the Management Implementation Team. It is suggested that an LTA be stationed in one of the two project counties, dividing his/her time among the three areas. At the county level the LTAs principal counterpart would be the County Health Services Administrator, and secondly the CHO. The LTA would also work with the CFO, CPO and CLO as needed. A single full time management LTA would probably be sufficient for the task.¹¹ The single management LTA would provide an element of coordination to what frequently has been fragmented and uncoordinated management systems development process - the two counties and the MIT have operated with a less than ideal level of coordination. Furthermore, the addition of the LTA would allow the Chief of Party and Public Health Physician LTAs to concentrate their efforts in areas which need further enhancement.

Providing an on-site source of management TA at the county level will relieve the Public Health Physician LTAs of their direct

¹¹The TA would be in addition to a financial consultant which is in the process of being hired to develop and help implement the financial management system.

management support functions permitting them to focus their efforts on reviewing and upgrading the clinical skills of mid-level health workers.¹² In general the training of MLHWs (PAs, CMs) has focused on community mobilization and supervision skills. Given the time constraints and their other areas of responsibility, the PHP LTAs have not been able to provide the level of clinical training and skills reinforcement that they felt to be necessary to fully meet the Project Paper goal of improving "the diagnostic, therapeutic and promotional services" provided by MLHWs.

With regards to the central level Management LTA [CLM], the addition of the management TA would allow the CLM LTA to devote a greater portion of his time to (1) working with the Project Manager in further refining and implementing the finance, health information and drugs and medical supplies support systems (2) identifying and strengthening the necessary areas of linkage between management support systems at the county and central level and (3) working with the Bureau of Planning and Development to fully integrate the MIT function into the Bureau's ongoing operation.

Turning to the Project Manager, it is suggested that Project Manager reallocate her time in order to be able to devote greater attention to systems development and spend a greater proportion of her time in the two project counties. To facilitate the shift in focus, the SER PHC should consider creating the position of "assistant" or "deputy" Project Manager; it should be noted that position of Deputy Project Manager was contemplated in the Project Paper.

G. FINANCIAL VIABILITY OF THE VHW PROGRAM

1. Using available data estimate the incremental capital and recurrent costs for the following categories of the county-level VHW program: training for supervisory personnel and VHWs, supervision, facility maintenance and supplies.

Based on the experience of the two counties the incremental capital and recurrent costs¹³ of these categories of the county level VHW program are as follows:

¹²To effectively discharge these functions it will be necessary for the LTA to work closely with counterpart PHPs. At present neither PHP has such a counterpart. In one county the PHP is recovering from a serious accident in the other the PHP is on study leave.

¹³ All figures are based on 1987 costs.

CAPITAL (NON-RECURRENT) COSTS

Training for County Training Team

a. CHO, CS, MCH Supervisor plus EPI Supervisor, Env.Health Supervisor etc:	
- Training to train, mobilize and supervise (21 days on site) 3 person team from Monrovia at \$100 travel plus per diems (\$20 per day each) ¹⁴	1,360
- Materials	100
- Manuals (VHW, Training, Mobilization, V.Profile)	<u>60</u>
	<u>1,520</u>
b. PA (1 for 8 VHWs)	
Training for Mobilization (12 days)	
Per Diem \$10 per day	120
Food \$5.50 per day	66
Materials	5
Travel	<u>13</u>
	204
Training for training (12 days)	204
Training for supervision & m'cycle (14 days)	235
Follow up training for mobilisation and training ¹⁵ (2 x 3 days to be added to in service) - per diem and food.	93
Manuals (VHW, Training, Mobilisation, V.Profile)	<u>60</u>
	<u>796</u>

Training for VHWs

VHWS Initial Training (17 days)	
VHW food (\$2 per day) and travel (\$20)	54
PA stipend \$75 ÷ 4 VHWS	19
PA food (\$4 per day) and transport (\$12) = \$80 ÷ 4	20
Equipment	50
Training materials	5
VHW Manual and Village Profile	<u>30</u>
	<u>178</u>

¹⁴This training was carried out by LTAs in the project counties but has been costed as if it was done by a central training team.

¹⁵ Assuming there would be 3 cycles of VHW training to arrive at 8 per PA and that refresher training would be needed before second and third cycles.

Supervision

Grant to set up Motorcycle Revolving Loan Fund	
Motorcycle (duty free) (based on Yen cost)	1300
Spares	<u>400</u>
	<u>1700</u>

RECURRENT COSTS

Refresher training (cost per person per year)

VHW Annual Training (12 days)	
VHW food (\$2 per day) and travel (\$20)	44
PA stipend \$50 ÷ 4	12
PA food (\$4 per day) and transport (\$12) = \$60 ÷ 4	15
Materials	<u>5</u>
	<u>76</u>
PA Annual training (6 days)	
Per diem - \$10 per day	60
Food - \$5.50 per day	33
Travel (100 miles at 13 cents)	13
Materials	<u>5</u>
	<u>111</u>
PA In-service training (1 day per month)	
Per diem - \$10 p.day x 11 (1 month annual training)	110
Food - \$5.50 p.day x 11	60
Travel - 100 miles x 13 cents x 11 months	<u>143</u>
	<u>313</u>

Facility Maintenance

There should be no costs of facility maintenance at the VHW level. The maintainance of other facilities would not directly affect the work of the VHW.

Supervision (per person per year)

CS supervision - travel (500 miles per month at 13 cents)	<u>780</u>
CFO supervision - travel (200 miles per month at 13 cents)	<u>316</u>
PA supervision - travel (200 miles per month at 13 cents)	<u>312</u>

The time period estimates used to calculate training are regarded as a minimum and may need to be amended following future performance assessments of both PAs and VHWs. If "district supervisors" are incorporated into the supervisor model then additional training courses might not be necessary for those PAs. On the job training with the CS should suffice. Supervision costs for those PAs (district supervisor) would rise to perhaps 400 miles per month at 13 cents = \$124.

The above costs can be summarized as follows:

Non-Recurrent

Training County Training Team	\$1,520
Training 1 PA	\$796
Training 1 VHW	\$178
Supervision - Motorcycle Fund	\$1,700

Recurrent (per year)

Refresher training for 1 VHW	\$76
Refresher training for 1 PA (\$111 + \$313)	\$424
Supervision of PAs - 1 CS	\$780
Supervision of PAs - 1 CFO	\$312
Supervision of VHWs - 1 PA	\$312

2. Based on the results from this analysis, what is the likelihood that the GOL will be able to replicate this model in other counties?

The additional direct costs¹⁴ of replicating this model in other counties would depend on the accessible population of the county which would determine the ideal number of VHW communities. For the purposes of this example it is assumed that 96 VHW communities would be established.

Capital costs

Training - 1 CS (plus county team)	1,520
- 3 Area CSs 3 x 796	2,388
- 12 PAs 12 x 796	9,552
- 96 VHWs 96 x 178	17,088
Grant for Motorcycle Revolving Fund	
- 16 staff as above x 1700	27,200
- 2 for CFO and CLO	<u>3,400</u>
	<u>61,148</u>

Recurrent Costs (per year)

VHW annual retraining 96 x 76	7,296
PA annual retraining 15 x 111	1,665
PA monthly in-service 15 x 313	4,695
Supervision - CS	780
- District CS 4 x 624	2,496
- CFO	312
- PAs 15 x 312	<u>4,680</u>
	<u>21,924</u>

The above figures include certain costs (stipends and per diems) which could be reduced or eliminated - for example in the case of per diems by arranging accomodation in MOHS facilities. However

¹⁴ All figures are based on 1987 costs and do not take inflation into account.

the figures do not take into account the indirect costs of supporting the VHW program. Included among these costs are those already covered by the MHSW such as salaries of PAs, the CS and support staff at the CHS level. However the CHS would need to increase staff to support this program, in particular the RDF aspect. Additional PAs and CMs might be needed to provide supervision and support coverage to VHTs and referral services for their patients. At the CHS HQ level additional staff needed would be at least a CFO, a CLO and a CHSA at a cost of \$6,000, \$4,800 and \$7,200 per year respectively. In addition supervision and support for PHC activities would be required from MHSW PHC Coordination staff of about 3 days per month. The Management Implementation Team would be needed to provide about 3 weeks initial training and about 3 days per month supervision and support. Both these groups would require access to a vehicle. Administration and overall supervision of VHT and RDF activities would generate additional indirect costs such as jeep transportation for the CHD. However drug transportation costs would be met out of the RDFs. In order to carry out a full PHC program a TBA program would have to be included with training, support and supervisory activities.

At the present time it is unlikely that the MHSW would be able to fund capital costs of VHW programs and donor funds would be required. At least for the first few years it is unlikely that the MHSW would be able to fund all recurrent costs. It is hoped that the MHSW would be able to provide the salaries for additional mid-level health workers and support staff - the CLO, CFO and CHSA - as well as continue to pay salaries for existing staff. The additional number of mid-level health workers would vary from county to county depending on the area and population to be covered and the number of workers already in place. However the ability of the MHSW to place new MLHWs may depend on its ability to redeploy existing staff. It is also hoped that the MHSW would be able to contribute to other recurrent costs such as supplies and gasoline. Development Funds or donor funds would need to be used to cover additional recurrent costs. However, such funding would be temporary and county revenues will have to play a major role in funding activities in the longer term. The program has not been running long enough in the two counties for there to be any clear idea as to the amount of revenue that can be generated at the county level by the RDFs and fee-for-service. However it appears possible that at least some of recurrent costs could be funded from these income sources. For example, annual revenue generated in the two project counties from fee-for-service and RDFs based on results over the fifteen months to September 1987 appears to be as follows:

	<u>Grand Gedeh</u> ¹⁷	<u>Since</u> ¹⁸
Fee for Service:		
Hospital	7,801	10,793
HCs/HPs	<u>2,004</u>	<u>3,038</u>
	9,805	13,831
RDF Gains:		
Hospital/County	<u>18,925</u>	<u>16,608</u>
	<u>28,730</u>	<u>30,439</u>
(RDF Sales)	(35,058)	(26,083)

The gains made on the RDFs are probably overestimated because (1) stocks may be overvalued due to the system of pricing at the cost of last purchase (as discussed earlier in this report) and (2) in the case of Since it appears that opening stocks were undervalued. Nevertheless it seems reasonable to suppose that total annual income generated would have been between \$20,000 and \$25,000 in each county. This would appear to be sufficient to cover the recurrent costs of a VHW program (approximately \$22,000 for one with 96 VHWs and 15 PAs)¹⁹ but would make little or no contribution to any other costs, including those of the hospital where most of the revenue was generated. However the program in the two counties is in its early days and if services improve, sales to VHW communities get going, and more control is

¹⁷ Figures are from the Financial Statements for the year ended 30th June 1987. However the HCs/HPs fee-for-service figure is based on the monthly average for the 7 months to September 1987 ($\$1,169 \div 7 \times 12 = \$2,004$).

¹⁸ Figures for Since are based on the results shown in the Financial Statements for the year ended 30th June 1987 and for the quarter ended 30th September 1987. The figure for fee-for-services for the HCs/HPs is based on the revenue for the 10 months to 30th September 1987 ($\$2,532 \div 10 \times 12 = \$3,038$). The figure for RDF profit is based on the result of extracting information from the statements for 30th June and 30th September 1987 (since no stock figure was available for June a period of 15 months was used). The surplus for the 15 months appears to be \$20,761 which for 12 months would be $\$20,761 \div 15 \times 12 = \$16,608$.

¹⁹ The revenue generated in the two counties during the last 15 months does not include much for sales to VHW communities since that activity only started recently. Therefore no comparison can really be made between the level of revenue generated and the recurrent expenses of the hypothetical VHW program. However the level of recurrent expenditure for the two county programs would probably be similar to that shown in the example since, although the number of VHWs is expected to be fewer the number of PAs will be greater.

exercised over RDFs and fee-for-service it is likely that future revenue levels will be higher. The performance of these key income-earning activities at the county level should be monitored closely to give better data from which to judge the contribution they can make towards covering recurrent costs.

A summary of types of recurrent expenditure and suggested long term funding sources appears as follows:

Central Level

Public Health Team to provide coordination, supervision and support for PHC programs:

- salary and support costs to be paid by MHSW Central.

Management Implementation Team to provide management support for county level PHC programs:

- salary and support costs to be paid by MHSW Central.

County Level

County Hospital:

- salaries and a small allowance for supplies to be provided by MHSW Central;
- other expenses, such as building and equipment maintenance, household and administrative supplies, transport and travel to be met from hospital Fees for Service and hospital RDF surpluses;
- drugs and medical supplies (including transport costs) to be met from the hospital RDF.

Community Health Department:

- salaries and a small allowance for gasoline to be met by MHSW Central;
- other expenses such as supervision and refresher training of PAs, VHWs, TBAs etc., rural facility building and equipment maintenance, household and administrative supplies to be met from rural facility Fees for Service, a portion of hospital Fees for Service, and County RDF surpluses;
- drugs and medical supplies (including transport costs) from the County and community RDFs.

Administration Department:

- salaries and a small allowance for supplies to be provided by MHSW Central;
- other expenses such as additional supplies to be met from a portion of rural facility and hospital Fees for Service.

The question has been raised as to whether retail prices for drugs should be standardized nationally or allowed to vary from place to place depending on transport costs. It is probably better to have standardized national prices on the grounds of operational simplicity since the variations in transport costs are likely to be very small compared with the overall costs of the drugs, providing that deliveries to the counties are made on a quarterly basis so that the value of the consignment transported is high. However, it is recommended that variations in transport costs be examined to see what effect they have on drug costs.

It should be noted that the future of the PHC program is closely linked with the future of the NDS since the ability of the CHSs to provide services and generate income depends almost entirely on the adequate and timely supply of drugs and medical supplies at low prices. Although the NDS has suffered long delays between ordering and receiving drugs it is understood that adequate stocks of most key drugs and supplies are now on hand and others are due to arrive shortly. However, the ability of the NDS to import drugs in a timely manner and at reasonable costs depends greatly on the availability of foreign exchange. It is recognized that efforts are being made to solve the problem of getting foreign exchange and it is recommended that all parties connected with this project give their utmost support to finding a feasible, long-term solution. In particular it is recommended that discussions be continued with UNICEF to see if previous delays in obtaining drugs through that agency can be avoided in the future.

H. GENERAL

1. Considering the progress to date, problems encountered and the remaining time and budget, are the project's goals and objectives attainable by August 1988?

a. Village Level Outputs

A principal output of the program as per the SPF was the establishment of 238 functioning VHW communities: each with a VDC organized and operating, a Village Health Team (1 VHW and 1 TBA) in place and an RDF developed and effectively operating. Although

this target was hoped for, the minimum target per the SPP was actually 204 villages. This was calculated by multiplying the expected number of health facilities (30) by the number of communities which could be supported by a facility (8) and deducting a figure of 15% for failures.

The number of villages expected to be achieved by August 1988 has reduced considerably from that envisaged in the SPP. Of the 204 anticipated, the CHS management expect to achieve 104. A breakdown of the comparison appears as follows:

<u>VHW Communities</u>	<u>Grand Gedeh</u>	<u>Since</u>	<u>Total</u>
<u>Per SPP</u>			
Target for mobilization	120	120	240
Less failure rate 15%	<u>18</u>	<u>18</u>	<u>36</u>
Total operational by August 1988	<u>102</u>	<u>102</u>	<u>204</u>
<u>Current Forecast</u>			
Group 1 - target for mobilisation	54	34	88
Less failures (GG 28%) (S 30%)	15	11	26
Group 1 - total established to date	— 39	— 23	— 62
Group 2 - target for mobilisation ^{ee}	48	20	68
Less forecasted failure rate ^{ee1}	13	3	16
Group 2 - expected total established	— 35	— 17	— 52
Expected operational by August 1988 ^{ee}	<u>74</u>	<u>40</u> ^{ee}	<u>114</u>
<u>Anticipated shortfall as a % of SPP target</u>	<u>27%</u>	<u>61%</u>	<u>44%</u>

In the SPP it was assumed that 8 villages fall within the catchment area of one HP. However it is not known what criteria, if any, were used to establish the figure of 8 - for example the size of village. When the CHS team applied criteria of village

^{ee}Some of these communities are ones that did not get mobilized in the first round.

^{ee1}The forecast failure rate for Grand Gedeh (18%) is based on the failure rate experienced in the first group. The rate for Since (15%) is lower because many of the communities are ones that were contacted during the first round and that have now decided to join the program.

^{ee2}This assumes no dropout of communities after establishment.

^{ee3}In Since it is estimated that there are a total of 126 communities of which only 48 meet the criteria of size, accessibility and lack of proximity to other health services.

size (Grand Gedeh minimum 20 houses, Since 100 people), accessibility to the supervising PA and proximity to other health services they found that only about 90 communities in Grand Gedeh and about 45 in Since were feasible sites to establish VHWs and RDFs. Of this total of 135 it is expected that 114 will be established as VHW communities, a failure rate of 16%.

In terms of population coverage the SFP had a goal of reaching 80% of the population in the counties which was estimated as 144,000 (the rural population was estimated at 115,000 and the total population 180,000).

The total population of Grand Gedeh county is estimated at 105,000²⁴ and project staff calculate that 71,570 people (68%) fall in the catchment area of hospital OPD and the 15 HCs and HPs (Work Plan 1987). Each VHW is expected to provide services to a minimum of 20 houses which at an estimated 9 people per house means that each VHW serves a minimum of 180 people. This number multiplied by the expected number of VHWs (74) gives a minimum total of 13,320 people covered by VHWs. This is a further 12% of the population, raising the total population covered by the program to 80%.

The total population in Since is estimated to be about 70,000²⁵ and project staff estimated in their 1987 Work Plan that 80% of the population would be served directly by mid-level health workers by May 1987 through the hospital OPD, the HCs and the HPs. Per the 1987 Work Plan it was estimated that 40 communities would be eligible for a VHW in that they each had more than 100 people and were more than 1 hour's walk from a HC or HP. The 40 VHWs placed in these communities would therefore each provide services to a minimum of 100 giving a minimum total VHW coverage of a further 4,000 people. This would increase the estimated coverage by 6% which would raise the total coverage to 86%.

Assuming that these coverage figures are correct the conclusion is that the target population will be met. Although the number of VHWs is less than anticipated, the catchment area of the HCs and HPs makes the mid-level health workers available as the primary contact for a much greater proportion of the population than had been thought. It should be recognised, however, that the health status of the remoter villages which rely on VHW services may be worse than those with access to a HC/HP. It is therefore necessary to balance HC/HP services with VHW services to achieve a maximum impact. This has significance in deciding, for example, the amount of time that a PA should spend on supervision and support of the VHWs curative work as opposed to providing

²⁴ Per the MHSW the estimated population in 1984 was 102,810.

²⁵ Per the MHSW the estimated population in 1984 was 64,147.

curative services himself; the resources put into expanding VHW programs as opposed to upgrading the services provided by mid-level health workers; and how preventive health services can be maximised in those villages within 1 hour of a HC/HP which therefore do not have a VHW.

b. County Level Output

i. Rural Facility Staff

There are a total of 8 health centers and 22 health posts in the rural communities staffed with 34 FAs and 11 CMs. Except for one rural health center in Since county that does not have a CM, all other existing facilities meet minimal staffing requirements. The establishment of a fifth health center in Grand Gedeh is not indicated in view of the fact that the Martha Tubman Hospital and MCH staff in Grand Gedeh could provide support services to the health post and communities in Tchien District. Sparse population distribution and poor accessibility to many areas make it unnecessary to set up another health center in Since at this time.

There are 13 health facilities staffed by dressers in remote areas of Since which have RDFs. These dresser facilities are useful for the expansion of coverage areas. Despite their remoteness they must also be supervised if their operation is to be meaningful to the system.

ii. Systems Guidelines

Though the eight management systems will be developed and adopted by August 1988, implementation will not be completed by that date. Monitoring, evaluation and revisions (adaptations) will be required in the financial management, drug and medical supplies and health information systems. In terms of the HIS, the process of creating an environment which encourages and is conducive to the use of data for decision-making purposes, a necessary condition for the system's long term viability will not be complete.²⁴

Though the implementation of certain components of the personnel system will not have been completed by August 1988 (developing the institutional capacity for assessing the training needs of CHS employees and developing on-going program of in-service training etc.) the more critical aspect relates to the willingness of

²⁴Integral to fostering an environment conducive to the use of data, is the development and implementation of basic level "problem identification, problem solving and decision-making" workshops for county level personnel. It is doubtful that these courses can be fully realized by August 1988.

central level to relinquish control over certain personnel practices. The Ministry has taken specific actions to discourage central level officials from intervening in those aspects of the hiring, discipline and supervision process which fall within the purview of county level authorities. Nevertheless, there is no way of determining when those actions will produce the desired impact.

In a somewhat analogous situation, the extent to which transportation, supplies, facility and equipment can be implemented is linked to larger structural issues. In these cases, it is the ability of the counties to identify and develop sources of funding required to finance the various maintenance and spare parts funds.

iii. County Staffing

Both Grand Gedeh and Sinoe counties are operating with acting County Health Officers. The permanent CHOs have been on study leave during the period in which most of the management support systems have been developed; they are scheduled to return by August 1988. In regards to PA Supervisors, there is only one individual fulfilling that role in each county. However based on changes to be made in the supervision model additional PA supervisors - "district supervisors" - will be trained and in place by August 1988. The specific number of district supervisors will be determined based on the number and distribution of VHW communities to be mobilized. In both counties CM supervision is split between the Clinical Supervisor (PA) and the County MCH Supervisor. The CS retains the responsibility for furnishing administrative supervision while the MCH supervisor provides technical supervision. The required Logistics and Administrative Officers have been recruited trained and are functioning in each of the counties. In addition each county has a Personnel and Financial Officer. All of the above noted personnel are presently or are scheduled to be on the Ministry budget by January 1988.

iv. Training Teams

The establishment of training teams comprising of 2 PAs and 2 CMs have not been formalized. All PAs in the SER PHC Project were trained as VHW trainers and are involved in this task. There has been a delay in the training of CMs as TBA trainers. This has precluded the training of TBAs, especially in Grand Gedeh County.

v. RDFs

At the present time RDF policies and procedures are not completely established and systems are still being developed and implemented. It is important to have these in place and functioning before work begins on preparing for the next batch of VHWs and it is therefore recommended that effort is concentrated

on this during the next 3 months. It will also be necessary to monitor the system closely during the following 6 months to ensure that the system is being properly operated and to finetune it where problems are encountered. TA is necessary to achieve these objectives and should be provided in both Financial Management and Logistics. In Financial Management particular areas of concern are the reporting system, the compilation and analysis of data and the performance monitoring system. In Logistics areas of particular importance are planning, purchasing, inventory management and distribution. The TA should be provided on a continuous basis throughout the 9 months in the 2 counties and it is suggested that one week per county per month should be sufficient in Financial Management and the same for Logistics. Initially most of that week would be spent on work related to the RDFs; however, later it should be possible to spend part of the week on other areas of importance.

vi. Motorcycle Purchase Plan Guideline

A revised motorcycle purchase plan was developed and implemented in 1984 (Government of Liberia Ministry of Health and Social Welfare Motorcycle Purchase and Operating Plan, December 18, 1984). The revised plan details the policies and procedures governing the purchase of motorcycles, payment schedules, third party liability insurance requirements, maintenance, registration and licensure requirements, and provisions in case the purchaser is transferred to another area of the country, is dismissed or resigns. Detailed provisions covering the operational costs of the motorcycles are also included in the document. It is expected that the necessary actions for insuring the financial viability of the motorcycle purchase scheme will be taken prior to August 1988 (monies collected from the purchase of motorcycles do not cover the replacement costs).

c. Central Level Outputs

i. Curricula Development for FHC Health Workers

The development of curriculum for VHWs and VDCs was completed by county rather than central level training units. The rationale for involving the county training units in the curriculum development was to make the curriculum "more inherently Liberian and familiarize potential VHW trainers (FAs) with the material." However, the composition of the training units - two LTAs, two short term curriculum consultants, US Peace Corps Volunteers and potential VHW trainers (FAs)²⁷ - severely undermined the stated

²⁷The wide disparity between the educational background of the recently trained FAs and that of the other members of the training units combined with the FAs lack of experience raises doubts regarding the level of significant input that FAs were

rational. Furthermore, by not involving the central level training team in the curriculum's development the team was deprived of an opportunity to gain needed experience, experience that becomes increasingly critical as MEDEXs involvement in the project ends.

A TBA training manual has been developed by the MHSWs MCH training unit. With the need to initiate the training of TBAs it is suggested that the SER PHC make use of the existing MCH manual rather than develop its own.

The development of revised curricula for PAs, CMs, RNs and HIs was successfully completed, with the institutions responsible for the training of MLHWs having begun to make use of the curricula. Re-training workshops for PAs, CMs, and RNs were conducted in the two project counties.

A curriculum for Environmental Health Technician was developed which will benefit HIs presently enrolled in the Tubman National Institute for Medical Arts (TNIMA).

ii. Central Administration and Management Functions

Strengthening central administration and management functions to the extent necessary to support decentralization will require that project inputs be continued beyond August 1988. Areas critical to assuring effective decentralized county operations which will require such inputs include:

- identifying and strengthening the areas of linkage between the management and technical support systems at the central and county levels.
- formulating operational plans for developing the management development function within the Bureau of Planning, Research and Development.
- developing the Management Implementation Team's management and administrative skills. The MIT is envisaged as being the source of supervision and

able to provide.

d. Budgetary Considerations

The budget for the SER PHC project is funded from five sources- County revenues, GOL central contributions, Development Funds, USAID direct funds and USAID funds via Medex.

In terms of USAID funding (direct and via Medex) we have been informed by USAID officials that estimates are currently being prepared of uncommitted funds expected to remain at the end of August 1988. It appears that there will be more than sufficient funds to cover all planned expenditures through August 1988 as well expenditures for the additional TA recommended in this document.

GOL central contributions are likely to remain limited to salaries and a small amount of gasoline until at least August 1988. Other contributions such as funds for supplies are greatly in arrears and can not be relied upon given the present state of the national economy. Presently salaries of some key county level personnel are paid from Development Funds but it is understood that these staff will be taken onto the MHSW payroll in January 1988.

County revenues do not as yet contribute greatly towards county level costs but it is hoped that this will increase before August 1988 to a level where it is capable of meeting a significant part of CHD supervision costs and County Administration Department costs.

Given the situation of GOL central contributions and county level revenues it is likely that a major part of project costs will have to be covered by Development Funds. Although a budget has not yet been drawn up for 1988, the amount of funds allocated for the year from October 1987 to September 1988 (\$800,000) should be sufficient to cover the costs of all activities expected to be paid out of those funds plus any possible shortfall in GOL central contributions or county revenue contributions.

In summary therefore it appears that sufficient funds will be available to carry out the activities remaining between the present time and August 1988. Until USAID estimates of uncommitted funds at the end of August 1988 are finalized it is not possible to judge what level of activities can be funded through to the end of August 1989.

It is probable that Development Fund contributions will be needed for the final year of the project and for one or two more years in order to allow services to reach a satisfactory level and revenues to grow to a level where they can support those services. It is understood from USAID officials that it should be possible to maintain Development Fund contributions to this

program for up to two years after the PCD although the level of contributions may fall.

2. What are the priorities for activities to be completed by the end of the project [original SER FHC project termination date]?

a. Village Development Committees

The SER FHC must direct its training and supervisory activities towards strengthening the presently established Village Development Committees in terms of their knowledge and understanding of the responsibilities of the VDC, the specific role of its members and those of the VHW, and the relationship among the VDC, VHW and the community. Particular emphasis should be placed on reinforcing the VDCs abilities to monitor the RDF and maintain the necessary record-keeping system for the RDF.

b. Village Health Team

The priority for activities to be undertaken in the area of Village Health Team development are:

- strengthening the Village Health Workers' knowledge and skills in the areas of information reporting skills, personal preventive services [especially in immunization education] and communicable disease control.
- identifying and "re-training" trained TBAs who are already located and practicing in the VHW communities as the initial stage in developing the TBA component of the Village Health Team.

c. Revolving Drug Fund

The priority for activities to be undertaken in terms of the RDF are:

- collecting and analyzing RDF data on a monthly basis for the planning and monitoring of each Revolving Drug Fund.
- establishing the county level drug stores to supply all county MHSW facilities and RDFs, and determine the necessary mark-up to cover all direct and indirect cost incurred in its operation.
- improving the stock management system [planning/- budgeting, purchasing, inventory control, financial monitoring] at the county, facility and VHW levels.

d. Supervision

The priority for activities to be undertaken in the area of supervision are:

- increasing the number of PA supervisors in each of the project counties, the number of additional supervisors being dependent on the number and distribution of facilities [HCs and HPs] and communities which will eventually be mobilized.
- enhancing the PAs ability to support the VHW and VDC in terms of their [VHW, VDC] functions and responsibilities - particularly monitoring of the RDFs.
- formalizing the "technical and administrative" content of supervisory visits for each level of supervision: Clinic Supervisor, "district supervisors," PAs, MCH supervisor, and CMs.

e. Referral System

Priority activities for enhancing the effectiveness of the referral systems include:

- defining and implementing a set of administrative and technical norms [standards] which differentiate hospitals, health centers and health posts.
- reviewing and upgrading the clinical skills of mid-level health workers.
- defining the role of other middle level health workers [e.g. RNs, LPNs, Health Inspectors etc.] with a view towards integrating them into SER PHC activities.
- incorporating into the Health Information System, a mechanism for monitoring referrals from VHW to facility and facility to VHW.

f. Decentralization and Systems Implementation

The priority for activities to be undertaken in the area of decentralization and management support systems' implementation are:

- increasing the level of coordination among staff and personnel in the two project counties, the central level management and the Management Implementation Team in areas such as training of personnel, development and implementation of management support systems etc.

- strengthening management capacity among personnel in both counties and members of the Management Implementation Team in areas such as planning and evaluation, the use of data for decision-making, personnel, communications etc.
- complete the development and implementation of the financial management system.
- training county level officials to use data produced by the financial management system in discharging their planning/control functions.
- strengthening the drug and medical supply and general supplies systems at the county level.
- establishing and implementing policies for determining how locally generated funds [fee-for-service, RDF, motorcycle purchasing plan, "motorcycle spare parts revolving fund" etc.] will be used to cover direct and indirect costs of the CHS.
- establish an adequate, regular long-term supply of drugs and medical supplies at low prices at the NDS level.

5.0 RECOMMENDATIONS

1. SER PHC activities should be extended through August 1989 to allow the VHT program and its management and support systems to be institutionalized.
2. The final evaluation of the SER PHC should be scheduled in July-August 1989, just prior to the end of that component.

Village Development Committee

3. The mobilization of additional Village Development Committees should be postponed for a minimum of three months (till at least March 1988) to allow the SER PHC to focus its resources on the further training and supervision of those VDCs which have already been established.

Village Health Team

4. Efforts should be directed at strengthening the Village Health Workers' knowledge and skills in the areas of information reporting skills, personal preventive services (especially in immunization, educational and communicable disease control) through (1) enhancing the VHW training curricula, (2) improving the content and frequency of supervisory visits and (3) establishing a program to provide two weeks of annual re-training for VHWs.
5. As the initial stage in developing the TBA component of the Village Health Team, the SER PHC should identify and "re-train" (one week workshops) trained TBAs who are already located and practicing in the VHW communities; later stages in the development of the VHTs will include the regular training of TBAs.

Revolving Drug Fund

6. On a monthly basis, collect and analyze data which can be used for the planning and monitoring of each Revolving Drug Fund.
7. Establish the county level drug stores to supply all county MHSW facilities and RDFs, and determine the necessary make-up to cover all direct and indirect costs incurred in its operation.
8. Priority be given by all parties to guarantee an adequate, regular, long-term supply of drugs and medical supplies at the NDS level.

9. Improve the stock management system [planning/budgeting, purchasing, inventory control, financial monitoring] at the county, facility and VHW levels.

Supervision

10. Institute a system of "district supervisors," in each of the project counties, the number of district supervisors being dependent on the number and distribution of facilities [HCs and HPs] and communities which will eventually be mobilized.
11. Efforts should be undertaken to enhance the PAs ability to support the VHW and VDC in terms of their [VHW, VDC] functions and responsibilities - particularly monitoring of the RDFs - through (1) enhancing the PAs in-service training workshops and training curricula, and (2) improving the content and frequency of supervision which the PAs receive.
12. Formalize the content of supervisory visits through the development and implementation of "skills based" supervision checklists - technical, administrative and VHT/VDC skills - for each level of supervisor: Clinic Supervisor, "district supervisors," PAs, MCH supervisor, and CHs.

Referral System

13. Define and implement a set of administrative and technical norms [standards] which differentiate hospitals, health centers and health posts.
14. The role of other middle level health workers [e.g. RNs, LPNs, Health Inspectors etc.] should be studied with a view towards integrating them into SER PHC activities.
15. The services of a LTA Public Health Physician in each of the two project counties should continue through August 1989; the LTA PHPs would be expected to work with his/her counterpart [MHSW PHP] focusing their activities on reviewing and upgrading the preventive and curative skills of mid-level health workers.
16. Incorporate into the Health Information System, a mechanism for monitoring referrals from VHW to facility and facility to VHW.

Decentralization and Systems Implementation

17. The SER PHC must take immediate steps to increase the level of coordination among staff and personnel in the two project counties, the central level management and the Management Implementation Team in areas such as training of personnel,

development and implementation of management support systems etc.

18. The role of the central level Management consultant who would also be responsible for coordinating technical assistance should continue through August 1989.
19. A long term management consultant should be hired to provide ongoing technical assistance to personnel in both counties, and support to members of the Management Implementation Team. The management LTA should be located in one of the two counties spending the majority of his/her time in the two counties.
20. The services of a financial management consultant should be continued through August 1988; the consultant would be expected to provide on a continuous basis one week of consulting services per month per county.
21. One week per month of technical assistance in drugs and medical supplies, and general supplies should be provided to each of the project counties through August 1988.
22. Policies must be established for determining how locally generated funds [fees-for-service, RDF, motorcycle purchasing plan, "spare parts rotating fund" etc.] will be used to cover direct and indirect costs of the CHS.
23. The finance and budgeting system must be redesigned to provide financial data [e.g. budgets and income forecasts etc.] that can be used as a management tool for planning and monitoring of performance; county level management must be trained to be able to use this data in discharging their planning/control and monitoring functions.

Persons InterviewedUSAID/Liberia

Mary Kilgour	Mission Director
Francisco Zamora	Health Development Officer
Stanley Handleman	Chief - Human Resources Development Office
Edward Costello	Chief Economist
Jenkins Cooper	Health Programs Assistant

SER/PHC Project

Louise Mapleh	Project Manager
Jessie Duncan	Training Coordinator

MH&SW (Central)

J.Boima Barclay	Deputy Minister/Administration
Ivan Camanor	Chief Medical Officer
Moses Galakpai	Deputy Chief Medical Officer/Preventive Services
Eric Johnson	Assistant Minister / Bureau of Planning

National Drug Service

Peter Wonokay	General Manager
George Cooke	Assistant Manager - Supplies
Aaron Weah Weah	Assistant Manager - Finance

MEDEX/Liberia

Richard Ainsworth	Chief of Party
Richard Blakney	Logistics Specialist
Indermohan Narula	LTA/Public Health Physician
Paul Mertens	LTA/Public Health Physician
Susan St.Clair	Administrative Officer (Grand Gedeh)

County Health Services (Grand Gedeh)

W.E. Mwaipola	County Health Officer
Thomas Barway	County Health Services Administrator
John Weahgar	Clinic Supervisor
Joseph Williams	Mobilization Officer
Ernest Kingsley	County Finance Officer
Albert Doerue	County Logistics Officer
Jerome Suhm	County Personnel Officer
Paul Kollie	PA - Killepo Health Post
Suku-Toe Hodge	PA - Kanweaken Health Center
Fallah Chokpelleh	PA - Kanweaken Health Center
Esther Dianue	CM - Kanweaken Health Center
Carl Dickson	PA - Zleh Town Health Center
Mabel Toe	CM - Zleh Town Health Center

P.Toe Sneh	PA - Sarbo Health Center
Welma Tweh	CM - Sarbo Health Center
Lorenzo Dorr	PA - Polar Health Post

County Health Services (Sinoe)

Victoria Brown	County Health Officer
Marietta Yekee	Director of Nurses (F.J.Grant Hospital)
Johnson Chea	Clinic Supervisor
Marie Watkins	MCH Director
Seratta Monger	MCH Supervisor
David Chon	County Health Services Administrator
Amos Karno	County Finance Officer
Gebeah Mombo	County Logistics Officer
Watt Seigbeh	County Personnel Officer (Acting)
Nyan Dikeh	Mobilization Supervisor
Augustus Doe	PA - Tanneh Weah Town Health Post
Harrison Laneyo	PA - Butaw Health Post
Henry Jallah	PA - Tubmanville Health Centre
Nathaniel Kpaahkpai	PA - Djila Kilo Health Post
Alberta Hitchings	PCV - Mobilization
Faye Hannah	PCV - CCCD

Communities (Grand Gedeh)

John Toe	VHW - Seagboken
Joe Gee	VHW - Cheboken
George Maplay	VHW - Geaken
J. Juwah	VHW - Wessitoken
Neerwaly Pouh	VHW - Gaye Town
Arthur Zarwonjah	VHW - Zuaya
Members	VDC - Seagboken
Members	VDC - Cheboken
Members	VDC - Geaken
Members	VDC - Wessitoken
Members	VDC - Gaye Town
Members	VDC - Zuaya
Members	HAC - Killepo
Members	HAC - Kanweaken
Members	HAC - Sarbo
Members	HAC - Zleh Town
Members	HAC - Polar

Communities (Sinoe)

Morris Charlie	VHW - Garpu's Town
William Pearl	VHW - Boyee Town
Isiah Sackor	VHW - Worba
Charles Gboneh	VHW - Grisby Farm
Members	VDC - Garpu's Town
Members	VDC - Boyee Town
Members	VDC - Worba
Members	VDC - Grisby Farm

Members
Members
Members
Members

HAC - Tanneh Weah Town
HAC - Butaw
HAC - Tubmanville
HAC - Djila Kilo

Other Projects

James Thornton
Paul Ippel
Elizabeth Mulbah

Technical Officer - CCCD/MH&SW
Executive Secretary - CHAL
PHC Coordinator - CHAL

CONTINUATION
SHEET

- P/O/C
 P/O/P
 P/O/T
 P/A/PR

1. Cooperating Country

Liberia

2a. P/O Number
669-0165-3-60047

2b. Amendment
 Original OR No. _____

3. Project Number and Title

669-0165

Primary Health Care

Indicate block
numbers

Use this form to complete the information required in any block of a P/O/P, P/O/T or P/A/PR. For P/O/C, furnish the item number, quantity, description/specifications, including catalog stock number and price when available.

III. Statement of Work

The purpose of this evaluation is to conduct an in-depth assessment of the village health worker program and county-level management support systems. The sites to be evaluated should be selected randomly. A standard survey instrument should be designed in order to gather comparable data from the villages and health facilities visited. The evaluation will focus on the following questions:

A. Village Development Committees

1. Of the village development committees (VDC) which were established, how many are actually functioning?

2. Are the VDCs representative of their communities?

3. Are the VDCs involved in the management of the revolving drug funds (RDF)?

4. Are the VDCs able to maintain the record-keeping system for the RDF?

5. Are the VDCs satisfied with the performance of their village health worker? If so, in what ways have the VHWS improved the health of their communities?

6. What suggestions do the VDCs have to strengthen the village health worker's effectiveness in providing health care?

B. Village Health Worker Training and Effectiveness

1. Of the VHWS trained, how many are actually functioning? Of those which are inactive or have quit what are the reasons given?

2. Based on the VHW's records, what types of cases are reported and treated at the village-level? How many cases of illness or injury have the VHWS not been prepared to treat?

CONTINUATION SHEET	UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY AGENCY FOR INTERNATIONAL DEVELOPMENT	<input type="checkbox"/> Worksheet <input checked="" type="checkbox"/> Instance	PAGE <u>7</u> OF <u>11</u> PAGES
	<input type="checkbox"/> M/O/C <input type="checkbox"/> M/O/P <input checked="" type="checkbox"/> M/O/T <input type="checkbox"/> P.A./P.R.	1. Cooperating Country Liberia	
		2a. PIO Number 669-0165-3-60047	2b. Amendment <input checked="" type="checkbox"/> Original OR No. _____
		3. Project Number and Title 669-0165 Primary Health Care	

Indicate block numbers

Use this form to complete the information required in any block of a P/O/P, P/O/T or P.A./P.R. For P/O/C, furnish the item number, quantity, description/specifications, including catalog stock number and price when available.

3. What proportion of the village is actually using the VHW?
4. Ascertain whether the VHW is capable of correctly mixing the sugar, salt, solution and the oral rehydration salts for the treatment of dehydration. Then, verify whether mothers whose children were treated by the VHW can prepare the SSS mixture.
5. Does the VHW understand the vaccination schedule?
6. How many new family planning acceptors have been reported?
7. What changes, if any, would the VHWs make in their training program?
8. Is the VHW satisfied with the remuneration provided by the community?
9. Does the VHW effectively collaborate with the Traditional Birth Attendants (TBA) in the village.
- C. The Revolving Drug Funds
1. Of the revolving drug funds established, in villages and health center and health posts, how many are operational?
2. Of those which are operational, determine the amounts of drugs used during an average month in the rainy season and an average month in the dry season by type of drug.
3. What factors appear to influence the success of the RDFs?
4. What changes, if any, are required to improve the financial management and reporting systems?
- D. Supervision
1. How many supervisory visits have the district supervisors carried out since the VHWs were trained?

CONTINUATION SHEET	UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY AGENCY FOR INTERNATIONAL DEVELOPMENT	<input type="checkbox"/> Worksheet <input checked="" type="checkbox"/> Invoice	PAGE <u>8</u> OF <u>11</u> PAGES
	<input type="checkbox"/> PJO/C <input type="checkbox"/> PJO/P <input checked="" type="checkbox"/> PJO/T <input type="checkbox"/> PA/PR	1. Cooperating Country Liberia	
		2a. PJO Number 669-0165-3-60047	2b. Amendment <input checked="" type="checkbox"/> Original OR No. _____
		3. Project Number and Title 669-0165 Primary Health Care	

Indicate block numbers

Use this form to complete the information required in any block of a PJO/P, PJO/T or PA/PR. For PJO/C, furnish the loan number, quantity, description/specifications, including catalog stock number and price when available.

2. How have frequency and regularity of visits, contributed to the performance of the VHW?

3. Are the supervisors making effective use of the motorcycles which were purchased under the motorcycle purchase plan?

4. What changes, if any, are required in the supervisory model?

5. How effective are the supervisors in resolving problems they encounter in the villages? Is the knowledge of the VHW adequately tested during the supervisory visit? Does the supervisor accompany the VHW on home visits?

E. The Referral System

1. How many mid-level health personnel are now trained and functioning compared to the beginning of the project?

2. Based on health post and health center records before and after the training of VHWs determine whether an increasing proportion of certain common illnesses and injuries are being treated at the village-level rather than at health posts and health centers.

3. What is the total number of referrals that the VHWs sent to the health post or health center?

4. Using baseline information from the Westinghouse Survey and the EPI coverage surveys determine whether vaccination coverage rates increased, decreased or remained the same since the beginning of the project? Has there been an increase in the use of oral rehydration salts?

5. Particularly in Grand Gedeh County, has the project effectively used ELRZ to convey health education messages, to announce clinic schedules and supervisory visits?

CONTINUATION SHEET

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY AGENCY FOR INTERNATIONAL DEVELOPMENT

- P/O/C
- P/O/P
- P/O/T
- P/A/P/R

Worksheet Insurance

PAGE 9 OF 11 PAGES

1. Cooperating Country
Liberia

2a. P/O Number
669-0165-3-60047

To: Amendment
 Original OR No. _____

3. Project Number and Title
669-0165
Primary Health Care

Indicate block numbers

Use this form to complete the information required in any block of a P/O/P, P/O/T or P/A/P/R. For P/O/C, furnish the item number, quantity, description/specifications, including catalog stock number and price when available.

F. Decentralization

1. Is there evidence of support and coordination of decentralized activities at the county level?
2. How well is the county drug supply and distribution system operating from the central warehouses in Zwedru and Greenville?
3. How successful is the implementation of the other seven systems?
4. What is the likelihood that the management systems designed by the project will be institutionalized?

G. Financial Viability of the VHW Program

1. Using available data estimate the incremental capital and recurrent costs for the following categories of the county-level VHW program: training for supervisory personnel and VHWs, supervision, facility maintenance and supplies.
2. Based on the results from this analysis, what is the likelihood that the GOL will be able to replicate this model in other counties?

H. General

1. Considering the progress to date, problems encountered and the remaining time and budget, are the project's goals and objectives attainable by August 1988.
2. What are the priorities for activities to be completed by the end of the project?

IV. Reports

The contractor will submit a complete draft evaluation report to the SERPHC Executive Committee by the beginning of the fourth consulting week. The Executive Committee will review the draft and submit their comments to the Team Leader by the end of the fourth consulting week. By the end of the fifth week a final evaluation report must be submitted to the USAID Project Officer. Reproduction of the report will be the responsibility of the contractor. Fifteen copies must be submitted to the Project Officer prior to departing post.

UNITED STATES INTERNATIONAL
DEVELOPMENT COOPERATION AGENCY
AGENCY FOR
INTERNATIONAL DEVELOPMENT

Worksheet Invoice

PAGE 10 OF 11 PAGES

CONTINUATION
SHEET

- P/O/C
 P/O/P
 P/O/T
 P/A/T

1. Cooperating Country

Liberia

2a. P/O Number

669-0165-3-60047

To: Amendment
 Original O.R. No. _____

3. Project Number and Title

669-0165

Primary Health Care

Indicate block
numbers

Use this form to complete the information required in any block of a P/O/P, P/O/T or P/A/T. For P/O/C, furnish the item number, quantity, description/specification, including catalog stock number and price when available.

V. Relationships and Responsibilities

The Team Leader will have overall management responsibility for contract representatives in Liberia and provide direction for the evaluation (see section 22 of the P/O/T)

VI. Terms of Performance

The contractor's services are to begin on/about November 9 and end on/about December 11.

Documents Consulted

Revolving Drug Fund Manual (Draft)	SER PHC	January 1987
Consultants Final Report for the Community Mobilization Advisor SER PHC	Winthrop Morgan	July 1987
Work Plan SER PHC 1987	SER PHC/MEDEX	January 1987
Decentralization Guidelines	SER PHC	January 1987
CHS Operations Manual - Communications	MHSW	June 1987
CHS Operations Manual - Transportation	MHSW	September 1986
CHS Operations Manual - Personnel	MEDEX	September 1986
CHS Operations Manual - Health information (Draft)	SER PHC	June 1987
Community Mobilization: The Village Health Team Network	Alberta Hitchings Winthrop Morgan Nyan Zikeh	February 1987
Status Report - Grand Gedeh June 1986 to October 1987	CHS Team	November 1987
Status Report - Sinoe January 1987 to September 1987	CHS Team	Undated
Liberia Demographic and Health Survey - 1986 - Preliminary Report	Ministry of Planning and Economic Affairs/ Westinghouse	March 1987
Liberia Primary Health Care Project - Project Paper	USAID	August 1983
Liberia Primary Health Care Project - Supplementary Project Paper	USAID	August 1986

Institutionalizing SER PHC Management Development within the Ministry of Health and Social Welfare - A Concept Paper for Review and Comment	SER PHC	May 1987
Accounting System and Procedures Manual	Management Control Systems	May 1985
Project Grant Agreement between the Republic of Liberia and the United States of America for the Primary Health Care Project	USAID	August 1983
Learning About People	SER PHC	Undated
MHSW Annual Report 1985/86	MHSW	September 1986
National Formulary for Essential Drugs and Medical Supplies	MHSW	1986
Supervising and Supporting Health Workers in Liberia - Workshop Manual 1	MHSW/MEDEX	April 1986
Bati-O-Bati, A Community Health Worker Manual for Liberia	MHSW	1987
CHS Since Financial Statements for 12 Months Ended 30 June 1987	CFO - Since	October 1987
CHS Since Financial Statements for 3 Months Ended 30 September 1987	CFO - Since	October 1987
CHS Grand Gedeh Financial Statements for Fiscal Year Ended 30 June 1987	CFO - Grand Gedeh	October 1987
CHS Operations Manual - General Supplies	SER PHC	July 1987
Financial Management Manual (Draft)	SER PHC	Undated
Report on a Consultancy to Liberia for the SER PHC Project and MEDEX/LIBERIA	Svend Holsoe	July 1986
Health Centre/Post Information System	SER PHC	Undated

Community Mobilization Training Workshop, Participants Guide, CHS, Grand Gedeh	MEDEX	February 1987
CHS Operations Manual -- Facilities and Equipment	SER PHC	July 1987
Republic of Liberia 1984 Population and Housing Census, Summary Population Results	Ministry of Planning and Economic Affairs	1987
Consulting Report of Creation of a Division of IEC	Joshua Adeniyi	July 1985
Report of a Visit to SER PHC Project	Sunil Mehra	December 1986
Combatting Childhood Communicable Diseases, Country Summary, Liberia, Annual Report	CCCD Staff	1986
Trainers Manual, Community Health Worker Class 1	SER PHC	August 1987

PRIMARY HEALTH CARE PROJECT
FIFTH YEAR EXTERNAL EVALUATION
STANDARD SURVEY INSTRUMENT

A. VILLAGE DEVELOPMENT COMMITTEES

1. Of the village development committees (VDC) which were established, how many are actually functioning?
 - a. Are the VDCs aware of their specific responsibilities?
 - b. Does the VDC understand what is implied by each of its responsibilities? -- describe which functions are being carried out and the process employed: (1) Determine village development priorities, (2) organize and mobilize village resources, (3) select VHW and identify appropriate TBAs for training, (4) monitors VHW and TBA, (5) identifies and implements economic activities in support of PHC, (6) assures adequate remuneration of VHW - determines kind, amount of payment to the TBA, (7) responsible for managing village pharmacy and its finances, (8) coordinates multisector PHC activities.
 - c. How frequently does the VDC meet, levels of attendance?
2. Are the VDCs representative of their communities?
 - a. Describe the membership of the VDC
 - b. How were they selected?, What specific types of individuals did they attempt to recruit?, attempt to exclude?
 - c. Which "groups" dominate the VDC?
 - d. Does the VDC have the acceptance of the community?
3. Are the VDCs involved in the management of the revolving drug funds (RDF)?

How does the VDC exercise operational control over the RDF: (1) planning and budgeting -- estimating needs for capitalization, (2) inventory control, (3) types and quantities to be ordered, (4) mark-ups etc.
4. Are the VDCs able to maintain the record-keeping system for the RDF?
 - a. Ask Clinic Supervisor (CS) how many of the VDCs with RDFs in the county can maintain these records.
 - b. Ask Physicians Assistant (PA) how many VDCs in his area can maintain these records.
 - c. Examine available records with relevant VDC members

visited.

5. Are the VDCs satisfied with the performance of their village health worker? If so, in what ways have the VHWs improved the health of their communities?
 - a. What are the specific activities or services which the VHW provides? Perception of performance -- availability, knowledge, acceptability.
 - b. What have been the results of VHWs activities.
 - c. Are there services/activities which VHS should be providing that he does not? (How important are these for the health of the community?).
 - d. Are there services/activities which VHS should not be providing that he does?
6. What suggestions do the VDCs have to strengthen the village health workers effectiveness in providing health care?

Open ended question

B. VILLAGE HEALTH WORKER TRAINING AND EFFECTIVENESS

1. Of those VHWs trained how many are actually functioning? Of those which are inactive or have quit what are the reasons given.
 - a. Ask the CHO, CS, LTA.
 - b. Check status reports at CHS.
 - c. Ask PAs at selected HCs and HPs.
 - d. Ask VHWs and VDCs in selected VHW communities what VHW has done in the community during the last 2 months, what else did he do besides VHW activity, when did he last meet with VDC.
2. Based on the VHWs records, what types of cases are reported and treated at the village-level? How many cases of illness or injury have the VHWs not been prepared to treat?
 - a. Ask PAs, VHWs and community members in selected communities.
 - b. Examine VHWs clinical records.
3. What proportion of the village is actually using the VHW?
 - a. Check status reports to ascertain population covered by VHW.
 - b. Examine selected VHW clinical records.
 - c. Ask selected VHW community members.

4. Ascertain whether the VHW is capable of correctly mixing the sugar, salt, solution and the oral rehydration salts for the treatment of dehydration. Then, verify whether mothers whose children were treated by the VHW can prepare the SSS mixture.

- a. Ask selected VHWs what he does for a patient with diarrhea, and how does he prepare ORS from packets and home made solutions.
- b. Ask a group of mothers in each selected community same questions as in a.

5. Does the VHW understand the vaccination schedule?

Ask selected VHWs why vaccinations are important, which diseases are prevented by vaccinations and when children should be given each vaccination.

6. How many new family planning acceptors have been reported?

- a. Check clinical records of selected VHWs.
- b. Ask selected VHWs if they provide family planning services, if so how many women have received and how many have continued.

7. What changes, if any, would the VHWs make in their training program?

Ask selected VHWs.

8. Is the VHW satisfied with the remuneration provided by the community?

Ask selected VHWs how they are remunerated and if they are satisfied with it.

9. Does the VHW effectively collaborate with the Traditional Birth Attendants (TBA) in the village?

Ask selected VHWs if there are any TBAs in the community and, if so, how he works with them

C. THE REVOLVING DRUG FUNDS

1. Of the revolving drug funds established, in villages and health center and health posts, how many are operational?

- a. Ask the County Public Health Physician.
- b. Ask the County Clinic Supervisor.
- c. Ask the County Finance Officer and see reports for

health centers and posts.

- d. Visit selected health centers and posts, meet with the PAs and Health Advisory Committees and examine the RDF records.
- e. Ask the PAs at selected health centers and posts about the village RDFs in their area.
- f. Visit selected villages, meet with the VHW and Community Health Council and examine the RDF records.

NOTE: Criteria used to assess whether RDFs are operational are: medicine sales, cash collections, maintenance of record-keeping system, replenishment of stocks, management of stocks, capital build-up, and division of responsibilities between PAs/VHWs and committees.

2. Of those which are operational, determine the amounts of drugs used during an average month in the rainy season and an average month in the dry season by type of drug.

Examine records at county level and at selected health centers, health posts and villages.

3. What factors appear to influence the success of the RDFs?
 - a. Ask County Public Health Physician, County Finance Officer, County Clinic Supervisor and selected PAs, Health Advisory Committees, VHWs, Community Health Councils and traditional village leaders.
 - b. Compare common features of successful and unsuccessful RDFs.

NOTE: Areas to focus on include acceptance by villagers and by traditional leaders, performance of PA/VHW and health committee/council, attitude of traditional healers, ability of villagers to pay, and support and supervision from county health services.

4. What changes, if any, are required to improve the financial management and reporting systems?
 - a. Ask County Public Health Physician, County Finance Officer, County Clinic Supervisor and selected PAs, Health Advisory Committee members, VHWs and Community Health Council members.
 - b. Examine systems.

D. SUPERVISION

1. How many supervisory visits have the district supervisors carried out since the VHWs were trained?

Assess the number carried out in relation to number specified in supervision plan -- total and in relation to each individual P.A.

2. How have frequency and regularity of visits contributed to the performance of the VHW?

- a. Does supervision occur on a regular basis? How often?
- b. Content of the supervisory visit: (1) what are the specific set of skills to supervised during each visit, are these linked to the technical norms established at the central Ministry level?, (2) what is the procedure for skills testing, is it linked with on site "training" and skills reenforcement, does the supervisor have sufficient training to review these skills?, (3) what are the specific administrative areas reviewed during visit?

3. Are the supervisors making effective use of the motorcycles which were purchased under the motorcycle purchase plan?

- a. What is the amount of down-time due to (1) mechanical problems -- difficulty in obtaining spare parts, ability to perform limited maintenance, (2) lack of gasoline, (3) road conditions etc.?
- b. Ability to maintain motorcycles after Project?

4. What changes, if any, are required in the supervisory model?

As the CHO, PHP, CS, MCH supervisor, PAs, VHWs. Information to be supplemented from responses gathered in questions 1-3 above.

5. How effective are the supervisors in resolving problems they encounter in the villages? Is the knowledge of the VHW adequately tested during the supervisory visit? Does the supervisor accompany the VHW on home visits?

- a. "Clinical" -- relate to the skills testing during supervision and the extent of on spot/in-service training which they can provide. Refer to information gathered in section on VHWs, specifically are they treating conditions for which they are trained?
- b. "Administrative" -- relate to maintenance of records, operation of the RDF etc.
- c. "Community mobilization issues" -- relating to VHW and

CHC

E. THE REFERRAL SYSTEM

1. How many mid-level health personnel are now trained and functioning compared to the beginning of the project?
 - a. Check original project documents, mid-term evaluation report and status reports.
 - b. Ask CHO, CS, LTA.
 - c. Interview mid-level health personnel at selected HCs and HPs.
2. Based on health post and health center records before and after the training of VHWs determine whether an increasing proportion of certain common illnesses and injuries are being treated at the village level rather than at the health posts and health centers.

Check records at selected HCs and HPs and in selected VHW communities.

3. What is the total number of referrals that the VHWs sent to the health post or health center?

Check records at selected HCs and HPs and in selected VHW communities and ask VHWs.

4. Using baseline information from the Westinghouse Survey and the EPI coverage surveys determine whether vaccination coverage rates increased, decreased or remained the same since the beginning of the project? Has there been an increase in the use of oral rehydration salts?

Check Westinghouse and EPI survey records.

5. Particularly in Grand Gedeh County, has the project effectively used ELRZ to convey health education messages, to announce clinic schedules and supervisory visits?

Check station records and discuss with CHOs, LTAs, CSs, selected PAs and selected VDCs and community members as to the source of health education messages: immunizations, "runny stomach" and nutrition etc.

F. DECENTRALIZATION

1. Is there evidence of support and coordination of decentralized activities at the county level?
 - a. What decisions has the central government (central Ministry

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level) taken which facilitates "local decision-making under central guidelines?"

- b. What activities has the central government (central Ministry level) taken to provide support and guidance to the counties in carrying out county level operations - program planning activities, setting of clinical and technical standards, evaluations, provision of technical assistance etc.?

2. How well is the county drug supply and distribution system operating from the central warehouses in Zwedru and Greenville?

- a. Examine the county level records of drug supply movements and storage.
- b. Check at selected health centers and posts to see if supplies are received as ordered and in a timely fashion.
- c. Assess central warehouse management in terms of planning, purchasing, storage and distribution.

3. How successful is the implementation of the other seven systems?

For each of the seven systems assess which of the basic components have been implemented, and the degree to which they are effectively being used.

4. What is the likelihood that the management systems designed by the project will be institutionalized?

- a. For each system: (1) do the persons fulfilling critical positions possess an understanding of the full scope of the system and responsibilities of the position they fill, (2) are they adequately trained to carry out the tasks which they presently fulfill, (3) is there a source of supervision and access to necessary skills reinforcement, (4) is there a source of supervision and training for additional skills which would be required under an fully implemented system.
- b. Continuity of personnel
- c. Availability of resources (financial and human) to maintain systems.

G. FINANCIAL VIABILITY OF THE VHW PROGRAM

1. Using available data estimate the incremental capital and recurrent costs for the following categories of the county-level VHW program: training for supervisory personnel and VHWs, supervision, facility maintenance and supplies.

- a. Examine historical records and future forecasts and

budgets and discuss with county and central management staff.

2. Based on the results from this analysis, what is the likelihood that the GOL will be able to replicate this model in other counties?

Examine GOL economic forecasts, Ministry of Health budget forecasts and discuss with project central management staff and senior Ministry of Health officials.

H. GENERAL

1. Considering the progress to date, problems encountered and the remaining time and budget, are the project's goals and objectives attainable by August 1988?
 - a. Obtain forecasts of attainable project outputs from senior level county staff and assess them in the light of progress to date.
 - b. Discuss with senior Ministry of Health officials commitment of GOL to providing necessary inputs.
 - c. Examine budgets and discuss with county and central level project staff and representatives of funding agencies.
2. What are the priorities for activities to be completed by the end of the project?

Based on an assessment of the information obtained in sections A through H1.

GRAND GEDEH COUNTY
HEALTH FACILITIES WITH CATEGORY AND NUMBER OF PERSONNEL

	PA	CM	LPN	DRESSER	TBA	TRAINED CHW
1. GBERPO DISTRICT						
. Kanweaken HC	2	1	x	x	x	4
. Killepo HP	1	x	x	1	x	2
. Jarkaken HP	1	1	x	x	1	2
2. WEBBO DISTRICT						
. Sarbo HC	1	1	x	3	1	3
. Juwelpo HP	1	x	x	x	1	2
. Jayproken HP	1	x	x	1	1	3
. Jimmiville HP	1	1	x	x	x	1
3. TCHIEN DISTRICT						
. Niabo HP	1	x	1	2	1	3
. Zia Town HP	1	x	x	1	2	3
. Tuzon HP	1	x	x	x	x	x
4. GBARZON DISTRICT						
. Zleh Town HC	1	1	x	1	1	3
. Toe Town HP	1	1	x	x	1	4
. Polar HP	1	x	x	x	1	1
5. KONOBU DISTRICT						
. Ziatown HC	2	1	x	x	x	4
. Glio HP	1	1	x	x	x	2
. Putu HP	1	x	x	1	1	2
TOTAL	18	8	1			39

SINNE COUNTY
HEALTH FACILITIES WITH CATEGORY AND NUMBER OF PERSONNEL

	PA	CM	LPN	DRESSER	TBA	TRAINED CHW
1. PYNE TOWN DISTRICT						
. Pyne Town HC	1	1	x	x	1	3
. Woongbardee HP	1	x	x	x	x	1
2. JUARZON DISTRICT						
. Plandialabo HC	2	1	x	x	1	3
. Tannah Neah Town HP	1	x	1	x	2	1
. Geetroh HP	1	x	x	1	x	1
3. KPANYAN DISTRICT						
. Tubmanville HC	1	1	x	1	x	2
. Butaw HP	1	x	x	x	x	3
. Panama HP	1	x	x	x	x	x
. Dejila/Krio HP	1	x	x	x	x	1
. Saywon Town HP	1	x	x	x	x	2
. Lexington HP	2	x	x	x	3	x
4. DUGBE RIVER DISTRICT						
. Kuitabuzon HP	2	x	x	x	x	5
5. JAEORAE JAEORAI						
. Nyeonwaken HC	1	x	x	x	x	2
. Jarkoken HP	x	x	1	x	x	x
TOTAL	16	3	2			23

13 Health Posts are staffed by dressers only.

* Supervision of the 3 CHWs shared by the two health facilities