

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U2.17

1. PROJECT TITLE Rural Health Development			2. PROJECT NUMBER 632-0058	3. MISSION/AID/W OFFICE USAID/Lesotho
4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No, beginning with No. 1 each FY) 632-85-5			5. FINAL EVALUATION <input checked="" type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	
6. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING	7. PERIOD COVERED BY EVALUATION
A. First PFC/AG or Equivalent FY <u>77</u>	B. Final Obligation Expected FY <u>84</u>	C. Final Input Delivery FY <u>85</u>	A. Total \$ <u>4,044,000</u> B. U.S. \$ <u>3,300,000</u>	From (month/yr.) <u>April 1982</u> To (month/yr.) <u>July 1985</u> Date of Evaluation Review <u>November 1985</u>

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)

B. NAME OF OFFICER RESPONSIBLE FOR ACTION

C. DATE ACTION TO BE COMPLETED

- All project goals and outputs were reached.
- GOL contributions made in satisfaction of Project Agreement and in a timely fashion.
- Project displayed unusual sustainability characteristics, principally because of clear focus and GOL involvement in project implementation.

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS N/A

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Project Paper     | <input type="checkbox"/> Implementation Plan, e.g., CPI Network | <input type="checkbox"/> Other (Specify) |
| <input type="checkbox"/> Financial Plan    | <input type="checkbox"/> PIO/T                                  |  |
| <input type="checkbox"/> Logical Framework | <input type="checkbox"/> PIO/C                                  | <input type="checkbox"/> Other (Specify) |
| <input type="checkbox"/> Project Agreement | <input type="checkbox"/> PIO/P                                  |  |

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT N/A

- Continue Project Without Change
- Change Project Design and/or Change Implementation Plan
- Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

- Lynn Gilbert, Nurse Clinician Training Evaluator
- Dan Makuto, Physician Trainer Evaluator
- Jack Sterken, Health Administrative/Organization Specialist

12. Mission/AID/W Office Director Approval

Signature: \_\_\_\_\_  
Typed Name: Jesse L. Snyder, Director  
Date: 3/11/87

Final Evaluation  
of the  
Lesotho Rural Health Development Project

USAID Project No. 632-0058

Prepared by:

Lynn Gilbert  
Dan Makuto  
Jack Sterken

November 14, 1985

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## I. EXECUTIVE SUMMARY

### A. Introduction

The planning and implementation of a comprehensive primary health care programme (PHC) was started by the Government of Lesotho as early as 1974. From 1979 to 1984, the Rural Health Development Project was the major initiative designed to expand the capacity and improve the effectiveness and efficiency of the primary health care delivery system. For this purpose a grant of U\$3,245,000.00 was made available by USAID. The project was managed by the MEDEX group of the University of Hawaii. The project consisted of two major and interdependent initiatives:

1. the strengthening of the management support infrastructure for primary health care activities
2. the development and preparation of appropriate training modules and the establishment and training of two cadres of health workers,
  - a. Nurse Clinician (NC)
  - b. the Village Health Worker (VHW)

The efforts to strengthen the management support infrastructure focussed on:

1. the decentralization of administrative functions to the health services areas (HSAs)
2. policy formation
3. reorganization of the Ministry of Health
4. health information system
5. manpower planning
6. personnel management
7. drugs and medical supplies
8. transportation and two-way radio communications
9. financial planning and control

Human resource development had three major objectives:

1. the establishment of a permanent training capacity to train nurse clinicians
2. the training of fifty-five nurse clinicians during the lifetime of the project

3. the training of 300 village health workers

All three objectives have been met, and in the case of the VHWS has been far exceeded.

B. Summary of Nurse Clinician Component of RHDP

The creation of the NC cadre has made a major contribution to the capacity of the GOL to deliver effective, appropriate, and low-cost health care to the rural population. The evaluation team has found the NCs to be a highly-skilled, dedicated and a needed resource in primary health care efforts. They have a positive attitude and an understanding of PHC goals, and they continue to provide service under working conditions which are often less than optimal, such as separation from family, isolated settings, shortage of staff, lack of transport and lack physical comforts. The growing reputation, acceptance, and support of the NCs by other health workers, including physicians and public health nurses, attests to their abilities and accomplishments.

The current (fifth) class began to reverse a steady decline in enrollment at NCTC, and nine students are due to complete the course early next year. Interviews for next year's intake are currently being held for 22 applicants, enabling a possible intake of at least 20 students, the optimal class size according to the NCTC staff and the minimum possible if the GOL 1990 target of 134 NCs trained and posted is to be met. The World Bank proposed assistance to the national health training capacity should provide the facilities and support to enable achievement of this target; adequate staff and training materials are already in place. The training capacity has been institutionalized and is sustainable.

The NC training is adequate and appropriate to their job description, and the followup by NCTC to support the NCs in the field and to gain feedback for training modification is very good. NC capabilities and performance

in their clinical, management, and community responsibilities is excellent, despite heavy work demands, shortage of staff, and support problems.

The passage of the N. practice act and the establishment of their positions and salary restructuring provided official sanction and recognition of their capabilities and contribution to health care. There remains some discrepancy in salaries and increments between government and PHAL staff. The MOH is providing funds to cover 50% of PHAL nursing personnel, including NCs.

Job satisfaction and a sense of worth and accomplishment are strong among NCs. The attrition rate to date is 5%, since the start of the project. This is due at least in part to the fact that the NCs came from the situations to which they were returning and hence knew the conditions they would encounter.

The impact of the NC program is difficult to quantify in the absence of baseline data. However, there are indicators in increased service, coverage, and acceptance, which support our conclusion of a positive impact.

#### Recommendations

1. Annual intake of a minimum of 20 students
2. Continue to emphasise demonstrated suitability and commitment to rural service as an admission criterion
3. Consider starting new classes at the same time each year, and overlap new classes
4. Consider student NC attendance at annual continuing education seminar to become acquainted with future colleagues and better oriented to actual NC role and responsibilities
5. Establish career paths for NCs and NC tutors, and provide opportunities for upgrading skills and qualifications. (Using donor resources where possible)

6. Provide short tutor courses for NCTC staff who have not yet had such an opportunity, including the physician-trainer
7. Encourage the physician-trainer to visit HSA medical officers and NCS to increase understanding and support of NC role and appropriate use of their skills and expertise
8. No posting of NCS to hospitals until all health centres have NCS
9. Equip all nurse clinician health centres with basic diagnostic equipment (e.g., otoscope, haemoglobinometer) to improve diagnostic capabilities
10. Continue nurse assistant training, increasing the primary health care component of such training
11. Increase significantly the number of health assistants to be trained

C. Nurse Clinician Training

An effective Basotho training staff has developed and has assumed responsibility for the training of the nurse clinicians. The training staff also maintain contact with the nurse clinician cadre through a quarterly newsletter, annual clinic visits and a compulsory annual week-long continuing education seminar. The following is a summary of the achievements of and problems encountered by nurse clinicians according to their trainers.

1. Successes:

- a. The trainers of nurse clinicians including those who, before taking up appointments as tutors had worked in the field as nurse clinicians, all felt that the training NCS received adequately prepared them for the jobs they were expected to perform.
- b. Where NCS have been deployed they are now solely responsible for the training and supervision of village health workers. This has the advantage that the training and supervision of VHWS, which previously was ad hoc is now becoming more formal and standardised.

2. Difficulties:

- a. Where a health centre is understaffed, the nurse clinician has difficulty in executing all her duties, especially the community activities.
- b. Support and supervision for nurse clinicians could be improved if HSA medical officers underwent some training in primary health care and relevant aspects of management.
- c. Many NCs have large areas to cover. Without transport their ability to carry out their activities effectively, is severely constrained. The HSA teams also need reliable transport if they are to support and supervise the NCs effectively.
- d. Currently there is no career structure for NCs. The creation of promotional posts for NCs and tutors needs attention.
- e. The position of the NCTC in the Ministry Head office organogram needs to be more precisely defined, as well as its relationship and lines of communication with MOH Headquarters.

Recommendations

1. MOH should ensure NCs have sufficient staff support at health centres, to ensure the NCs get time to carry out their community responsibilities.
2. MOH should look into ways of providing NCs with transport to ensure they are able to supervise their areas more effectively. HSAs should also have adequate transport to ensure they are able to supervise and support NCs in their area.

3. MOH should look into creating a career structure for NCS, and tutors.
4. MOH should define NCTCs' relationship and lines of communication headquarters.
5. Opportunities for continuing education for NC tutors should be provided.

E. Health Service Area Support

The support received by health clinics varies from area to area. The vast majority receive at least monthly visits by a medical officer. More intensive support is inhibited by the time required to travel to the health centre, lack of transportation or the unavailability of medical officers. The medical officers are virtually unanimous in their very positive assessments of the commitment and quality of the contribution made to the PHC system by the nurse clinicians. The following is a summary of observations made by medical officers:

1. Successes

- a. Nurse clinicians are playing a vital role in extending community health coverage and improving patient care at the health centres. both patient care and health centre management has improved at health centres NCS have been posted to.
- b. The training of NCS adequately prepares them for the tasks they have to perform, and most referrals from health centres managed by NCS are those that require a doctor's attention.

2. Problems

- a. NCS would find it easier to carry out their responsibilities if the following problems were solved.
  - (1) Lack of transport for the supervision of VHWS and community

(ii) The shortage of staff at health centres makes it difficult for the NC to leave the health centre to carry out their community activities.

(iii) There is irregular supervision and delivery of supplies from the district hospital because of lack of transportation.

- b. The selection of NCs should be more rigorous to exclude people whose personalities are likely to create more problems than they solve

#### Recommendations

1. MOH should put a high priority on the provision of appropriate transportation facilities for HSA support of health centres.
2. MOH should review with HSAs the manpower requirements of the health centres.
3. MOH should emphasize demonstrated suitability and commitment to rural service as an admission criterion for admission to NC training programme.
4. MOH should develop an HSA-PHC orientation manual for newly posted MOs. One- to two-day workshops should be periodically organized in each region to discuss PHC concepts and HSA management procedures.

#### F. Village Health Workers

The evaluation team was able to interview 48 VHWs. The following is a summary of the views and concerns expressed by the VHWs:

1. Successes
  - a. Village health workers feel they have been adequately trained by the nurse clinicians for the functions they have to perform in the community.

Most spend their time in the following activities: motivating mothers and children to attend MCH clinics, promoting safe water and sanitation activities, health education, and treating simple common conditions e.g. diarrhoea.

- b. Most VHWS keep records of their activities which they discuss monthly with the NC on their visit to the health centre.
- c. Through the VHWS, basic health coverage has been extended to cover individual households in the villages in which VHWS are working.

## 2. Problems

- a. In certain instances the number of households and villages are too large, and the distances are too great, and the VHW has to travel hours to visit some homes. This problem will of course fall away as more VHWS are trained in these areas.
- b. VHWS feel their inability to perform some basic curative tasks is undermining their credibility in the community, and therefore constraining their effectiveness. The problem of supplying VHW kits should be resolved. The NC should have the authority to order VHW kits for the workers she has trained and is supervising.
- c. Many VHWS would like more supervisory visits from the nurse clinicians. However, they state the NC cannot do this because of lack of transport. They felt that, in addition to the training value of such visits, the nurse clinicians' presence with them in the community will enhance their credibility with the people by demonstrating official sanction of their role and activities.

- d. VHWs occasionally incur expenses which they meet from their own pocket e.g. travel expenses. Although they are grateful for the training they have received and are happy with the work they are doing, they feel consideration should be given to giving them some form of allowance to meet costs incurred in performance of duties.

#### Recommendations

1. VHW training would be expanded to produce more VHWS to ensure each VHW covers a manageable population group.
  2. MOH should look into providing all VHWS trained with kits. This would enhance their credibility and possible effectiveness. The NC should have the authority to order these kits.
  3. NCs should be provided with sufficient resources, both transport and staff to ensure they can supervise all their VHWS regularly.
  4. MOH should consider ways in which VHWS could be reimbursed for expenses incurred in the performance of their duties.
  5. MOH should consider providing a VHW pin name-tag or other forms of identification to all VHWS upon completion of training.
- G. Health Centre Operations and Management

The results of the questionnaires, as well as HC visits, confirm that a functioning PHC network has been established in Lesotho. The nurse clinicians are very competent in their management and communications activities, demonstrating the appropriateness and quality of their training. They show an understanding of the concept of teamwork and make a conscious effort to communicate needs, activities, and responsibilities with their co-workers. The PHC network and the NC cadre, as they currently operate have and are creating many opportunities for initiatives to further improve the delivery, quality, effectiveness and

efficiency of the health care delivery system. The major constraints in pursuing these opportunities appear to be shortages in appropriately trained manpower to help support the community and health education activities of the nurse clinicians. Seventy-five percent of NC health centres have two or more vacant posts and only five percent have no vacancies. In particular, an eighty-three percent vacancy rate for health assistants is inhibiting the expansion of PHC activities at the village level.

The nurse clinicians have proven more than equal to the challenges of operating reliable primary health care facilities in isolated areas. Any activities for which they do not have to depend on outside support are done competently and in close adherence to the operating modules with which they were trained. For the activities on which the nurse clinicians have to rely on outside support, the adherence to the operating modules drops significantly. This indicates problems in the support structure. Most nurse clinicians have identified and trained many VHWs (our sample of forty supervises 1122 VHWs). Only twenty five percent of the NCs stated that they were able to supply the VHWs on a regular basis. This indicates a need for the MOH to decide on a policy and procedure to supply VHWs.

#### Recommendations

1. The nurse clinicians should be included in the process of budget development for HSAs.
2. Medical officers should be trained to view their monthly visit to HCs as management, supervisory and educational support activity and not just a clinical activity.
3. Drugs and medical supplies should be ordered separately by each HC through their HSA. NDSO should prepare these orders separately and ship them directly to the clinic when practical or ship them to the HSA hospital for transfer to the HC.

4. The two-way radio system should be expanded to all HCs. Their use represents real savings in terms of the NC's time, messenger costs and transportation costs and time. The radio also helps lessen some of the extreme isolation and serves as a morale booster. A radio monitoring system should be established to ensure an immediate response to calls, especially after regular office hours.
5. A cash account amounting to M50.00 per month should be established for each HC to fund HC activities in the catchment areas and to help deal with indigent patients. These funds should be for the discretionary non-personal use of the nurse clinician.
6. A renewed effort supported by the health education unit, the public health nurse, and the HSA medical officers should be made to promote the creation of more health centre advisory boards. This effort must be accompanied by the establishment of active HS Advisory Boards and the National Health Advisory Board.
7. The MOH should ensure that the training of nurse clinicians and health assistants be intensified to reduce the large number of vacancies at the health centres.

#### H. Infrastructure Support for Primary Health Care

The activities to strengthen the delivery of PHC services have achieved much during the lifetime of the project and are continuing. Financial, personnel and the collection of health data have been decentralized. The drug supply system has improved although systems to monitor and forecast drug usage are still lacking. A two-way radio communication system is functioning although a more disciplined monitoring system especially after office hours needs to be established.

Transportation remains a major problem and an area where major savings could be realized by the introduction of more stringent management protocols. The MOH has established a cost monitoring system and is developing an improved transportation management capacity in its current

reorganization. The HSA management could benefit greatly from the development of an administrative cadre that could function on a professional level with the medical officer and the matron.

The contribution the health information unit can make to the health planning and monitoring needs of the Ministry of Health are severely limited by a lack of manpower.

The financial advisor is playing a very important role in the development and monitoring of the financial system. The monitoring systems established to gain a measure of control over major cost centres like transportation would benefit greatly if a micro-computer was available to the financial advisor.

#### Recommendations

1. Ship drug supplies to nurse clinician staffed HCs directly. Drug selection should be limited and integrated with the NC treatment protocols. The development of an essential drug list for HCs is recommended.
2. HSAs should forecast their major drug supply needs for one year periods. This would allow NDSO to issue larger more comprehensive tender calls, which would lead to lower unit costs.
3. All health institutions should start a perpetual inventory card system. These cards should be physically located with the drugs. This system would supplement the cumbersome and often inaccurate drug ledger book.
4. NDSO has the capacity and resources to distribute VHW kits nationally. It is recommended that they be given the responsibility for this. NCs should be given the authority to order the VHW kits.

5. It is recommended that a chart system be designed to help create a record of the authority and reasons for which drugs were issued at hospital OPDs.
6. HSA staff meetings should be held periodically to explain PHC concepts and the role of NCs in the health care delivery system.
7. MOH should identify and train an HSA administration cadre with at least university graduate qualifications supplemented by an intensive course in primary health care administration.
8. MOH do a manpower needs assessment for their service and planning units recognizing that the establishment of the PHC system has expanded the scope and demand for the services of these units.
9. MOH retain the post of financial advisor through at least two financial year cycles after the local counterpart takes up his/her position.
10. The financial advisor be provided with micro-computer to facilitate his financial planning, monitoring control and systems development activities.
11. The disease classifications on the morbidity reports be reassessed for appropriateness and that the forms be redesigned to make their use less cumbersome.
12. Statistical reporting should reflect a special effort to address the local needs of HCs and HSAs. For the HCs these reports should include a personalized narrative which points out trends and indicators of potential interest to the NC. The importance of meaningful feedback to those who are the primary data collectors cannot be over emphasized.

13. MOH recognise the crucial role accurate statistics play in the planning process and increase the establishment of the unit to reflect the scope and importance of this unit.
  
14. MOH create a transport management unit responsible for tracking vehicle utilisation fuel consumption and most importantly, repair and maintainance. This unit would be responsible for liaison with the Ministry of Works workshop.

## II. PURPOSE OF THE PROJECT

The RHDP project, approved by AID for funding on September 29, 1977, stated that the project was to be implemented over a four-year period in two separate phases. Phase I, beginning in March 1979, was designed to upgrade the planning, administrative and management capability of the MOH in Lesotho to the level required to maintain a national health services delivery system. Of the total grant of \$3.3 million, \$1.1 million was to be used to support the following activities:

1. training of administrative and management personnel;
2. organizing management and logistical support systems;
3. establishing a planning unit in the MOH;
4. drafting a five-year health plan for Lesotho.

Phase II was contingent upon the successful completion of Phase I.

The purpose of Phase II of the project was: to establish and institutionalize new health workers cadres required for the rural component of a national health services delivery system. Activities under Phase II focused on establishing a training program for nurse clinicians, improving the training of other auxiliary health workers, and training in other countries for tutors for the nurse clinician program. Strengthening existing training programs for village health workers and nurse assistants was also emphasized.

Nurse clinicians were to diagnose and treat problems of 90% of patients seeking health care at the clinic level; promote, train for and supervise curative, preventive and promotive health services. They were to provide managerial direction and supervision for the tasks and activities of staff nurses, and nursing assistants; and train and supervise village health workers.

Specific outputs set for each training program were: 55 nurse clinicians, 130 nurse assistants, 104 village health workers, and 7 nurse clinician tutors. By the end of the project, in addition to training program

targets, all administrative and management support systems as well as the planning unit were to be established, manned, functioning and supporting the service delivery points, in providing health services to the rural population of Lesotho.

The Ministry of Health of Lesotho and USAID project designers hypothesized that:

1. basic health services in Lesotho could become more accessible and available, and probably delivered more cost-effectively;
2. that the demand for medical care services could be met, in 90% of the cases, by upgrading existing doubly qualified nurses to be clinically competent and managerially functioning paraphysicians;
3. that the need for disease prevention and health promotive services could be more broadly and effectively extended through community participation by training village health workers and by better involvement of PHAL;
4. that reorganization and strengthening of district health support services, including management and supervisory practices, and health planning and statistics would be essential to sustaining a viable PHC system.

### III. PURPOSE OF FINAL EVALUATION

The implicit hypothesis at the beginning of the project was that the reorganization of the rural health care system with the nurse clinician as the focal point and an emphasis upon preventive care by all rural health workers would provide better and lower cost services. The Project Paper (PP) indicated that the final evaluation was to determine the efficiency and effectiveness of the project after the proposed activities had been completed.

According to the 1982 evaluation report, the goal of the 5-year RHDP was to establish improved health services delivery system appropriate to GOL's resources and needs. It had two objectives:

1. improvement and expansion of health services in rural areas,
2. strengthening of preventive and promotive health services.

The project was divided into two phases to assure administrative and technical structures and capabilities were available in the MOH to support and maintain the proposed enlargement of the number of health workers.

The nurse clinicians and village health workers were critical to the MOH's long-range goal of developing an integrated health delivery system with a tiered referral network, and of redressing the imbalances between the urban and rural population's access to health services. The nurse clinician was to be supervised, assisted, and supported by a physician-led team of health staff from the HSA hospitals. In turn, nurse clinicians were to train and supervise the village health workers.

According to the project paper, as approved 1977, this project was primarily designed to assist the MOH in institutionalizing its capability to provide for its rural health worker needs rather than fully meet these needs during the life of the project.

The first phase was supposed to create the infrastructure and capacity to adequately support the two cadres, nurse clinicians and village health workers, in their designated roles (see Appendix 1). The second phase was to demonstrate and institutionalize the capacity to train both cadres. The APHA evaluation of Phase 1, 2/80, recommended undertaking Phase II despite the "weak MOH management and support system", unresolved problems of personnel retention, and delayed approval and implementation of the MOH reorganization plan were hindering administration of rural health services".

The strategy adopted, according to the PP, was the "physician-extender" approach, offering curative and preventive services through a three-tiered system, leading to increased accessibility, outreach and quality of rural health care at a reasonable cost. According to the PP, lack of desired success in this strategy could frequently be traced to inadequate preparation for this new approach to health care of:

1. the graduate,
2. the health service system,
3. the community.

The evaluation team has looked carefully at the first two and only in a limited and indirect way at the third element.

This is the final evaluation of this project. The GOL has taken responsibility for, and is continuing nurse clinician training with national resources. The results of this evaluation will hopefully contribute to the improvement of ongoing MOH training programmes and to the improvement of the primary health care system of Lesotho. Accordingly, this evaluation will look not only at the success of this project in attaining the objectives as established in the PP. It will also attempt to evaluate and comment upon impact of the project in improving the delivery of health care to the rural areas of Lesotho.

The purpose of this evaluation is to assess end-of-project status, attainment of objectives of the RHDP, identify lessons learned, and make recommendations for follow-up.

#### IV. METHODOLOGY

The terms of reference given to the evaluation team were to determine to what extent the reorganization of the Primary Health Care system with the nurse clinician as its focal point, and emphasis on preventative care by all rural health workers, were achieving success in providing better and lower cost services.

The evaluation team visited 8 HSAs and 7 health centre/ clinics, 5 of which were run by nurse-clinicians (one was away at the NC continuing education conference at the time of the visit) and one run by a double-qualified nurse.

HSA	HC
Mokhotlong	Libibeng
Butha Buthe	Linikeng
Teyateyaneng	St. Magdalene
Mateleng	Thabena Morena
Qacha's Nek	Sehlabathebe
	LPF Clinic Maseru
Mohale's Hoek	Mpharane
Paray HSA	
Montsonyane HSA	

Interviews were conducted with six district medical officers, seven medical officers, four hospital matrons, two HSA administrators, three district public health nurses, the NCTC principal tutor, physician-trainer, and five NC tutors; MOH personnel and PHAL staff. The team attended several sessions of the NC continuing education annual seminar. The attendance at this seminar of 42 of the 53 NCs currently practicing in the field (6 of the 62 NCs trained under the RHDP are on the NCTC staff) gave us the invaluable opportunity to systematically collect information by means of a questionnaire (See Appendix 2) concerning job performance, adequacy of training, problems in service, and job satisfaction from 75% of the practicing NCs (95% of those

attending the conference). Their responses support our observations/conclusions of a highly-committed, greatly-needed and -skilled new resource in Lesotho's primary health care efforts.

Since the better and lower cost health service envisaged by the Rural Health Development Project could only be achieved when each of the health workers involved in the new system fully understood their roles, and had begun to perform them adequately it was essential;

1. To determine success and constraints that have attended the training, deployment, managerial supervision and support mechanisms for the key health workers in the project. The successes and problems were identified through questionnaires, and interviews with nurse clinicians, trainers of nurse clinicians, medical officers and village health workers

## 2. Trainers of Nurse Clinicians

### Interview with Teachers of Nurse Clinicians

The respondents were all interviewed as a group. All the trainers of NCS, the physician, the principal tutor, and nurse tutors were present. The interview was designed to elicit information which would point to any problems in training, support, and functions of nurse clinicians. The following points were discussed:

- a. teaching approach by trainers to various modules
- b. adequacy of training for NCS
- c. ability of NC to cope with expanded duties
- d. supervision from the central level
- e. management and supervision from the HSA level
- f. factors constraining NCS from performing their duties more effectively
- g. data collection and utilization by NCS
- h. role of NCS in training village health workers
- i. general comments from trainers of NCS

### 3. Nurse Clinicians

The evaluation team was fortunate to be able to administer a rather comprehensive questionnaire to forty-two of the fifty-three nurse clinicians currently practicing at health centres.

The questionnaire (See Appendix 2) consisted of two parts, the first part deals with clinical training and community activities, the second part was based primarily on the self evaluation check list in the NC health centre module.

### 4. Medical Officers

Interviews and Questionnaires were also administered to Medical Officers in the Health Services Areas

The questionnaire (See Appendix 3) to medical officers at the health service areas was administered to determine the following major points, and to highlight the MO's perception of the roles of the NCs and the MOs involvement in supervising them:

- a. length of time of MO at HSA
- b. primary health care orientation or training of MO and where it was received
- c. length of period MO has been working with NC
- d. MO's opinion on frequency and quality of NC referrals of patients to HSAs
- e. MO's opinion on whether tasks NC is expected to perform are realistic
- f. (i) MO's opinion on whether training NCs received adequately prepared them for their tasks
  - (ii) Areas in training requiring emphasis
  - (iii) Areas in training if any requiring de-emphasis
- g. ongoing support and supervision MO gives to NC

- h. MO's opinion on health factors constraining the effective functioning of NCs
- i. MO's opinion on NC's effect on
  - (i) patient care
  - (ii) health care management
  - (iii) community health
- j. MO's personal comments on the PHC as a whole

#### 5. Village Health Workers

Interviews and questionnaires administered to Village Health Workers

The questionnaire (See Appendix 4) to VHWs was administered to determine the following major points, in order to determine whether or not VHWs were functioning and receiving support and supervision as envisaged by the Rural Health Development Project:

- a. length of period VHW has been operating
- b. VHW selection process
- c. VHW's opinion as to whether training adequately prepared him/her for tasks he/she has to perform
- d. areas in which VHW would like to see training
  - (i) emphasised
  - (ii) de-emphasised
- e. activities VHW spends more time doing in the village
- f. whether VHW keeps records, and to what use these records are put
- g. number of villages covered by VHW
- h. distance VHW has to travel
  - (i) to visit the furthest home in the village
  - (ii) to the health centre
- i. medications kept and dispensed by VHW
- j. problems VHW has in replenishing medications and supplies
- k. supervision for VHW and frequency of supervision
- l.
  - (i) health problems VHW feels competent to deal with in the community
  - (ii) health service VHW immediately refers once identified

- m. relationship between VHW and traditional healers in the village
- n. actions VHWs would like to see taken to allow them to perform their tasks more effeciently and effectively
- o. improvements in the village lifestyle VHWs have noted since introduction of the VHW programme
- p. (i) presence of a village health or development committee in the village  
(ii) if committee exists, health related activities it has addressed itself to over the last few months
- q. VHW's personal comments on the VHW programme in general

6. After identifying the factors affecting the performance of the key health workers in the Rural Health Development Project, it was essential to determine whether a better service was being provided in the areas where clinical nurses and village health workers trained under the Rural Health Development Project had been deployed. This should have been done by looking at specific health service, and health status indicators, e.g. nutrition, morbidity, mortality, and the socio economic indicators before and after the implementation of the Rural Health Development Project. Unfortunately, no baseline health status survey was done prior to the implementation of the project. Thus there is no baseline data available against which to evaluate any statistics that could have been collected by this evaluation team. For that reason, evidence of quality of service provided, since the implementation of the RHDP, will be substantiated by way of narrative on the teams' observations in the Health Service Areas. We particularly wanted to highlight the differences in Health Care delivery noted in those areas where a nurse clinician has been posted, and those areas where no nurse clinician has been posted.

7. Ministry of Health

Interviews were held at the health planning and statistics unit, the health education unit, with the PHC coordinator and the financial advisor.

## V. NURSE CLINICIAN TRAINING

### A. Recruitment and Selection

The first four classes showed a steady decline in enrollment. The class finishing in '81 had 21, '82 had 19, (no class finishing in '83 due to the 15-month cycle), '84 had 15, and '85 had 7. The class, due to finish in '86, shows a slight increase with 9 NC students. At the time of the evaluation team's visit, 22 applications were being processed and interviews were scheduled for the first week in November to select the next class. The tutor staff considers the optimum class size to be 20 in view of the constraints on its facilities, and resources.

A concerted effort was made by the NC selection committee to visit the HSAs to explain the program and encourage applications, an effort in which the physician-trainer who joined the program in 1984, participated. The question of salary scale was resolved in 1984 with retroactive payment of increases which probably stirred renewed interest and enthusiasm among potential applicants. A third factor increasing interest is the widely-held respect and approval of the performance of the nurse clinicians, some of whom have now been practicing in the field for almost four years.

The pool of potential applicants, double-qualified nurses, a condition required for admission as established by the Lesotho Nursing Council, is currently approximately 450, with an annual output of 54 from the three nursing schools. According to the WHO Country Resources Utilization Review (11/83) the 4th 5-year plan specifies a target of 134 NCs trained and posted by 1990. Of the 62 already trained and posted, 6 (10%) are on the faculty of NCTC, and only 3 (5%) are no longer working as NCs, leaving 53 NCs currently in the field.

Assuming a continuation of the low rate of attrition, 80-90 additional NCs will need to be trained to meet the 1990 target. It will require an annual intake of at least 20 additional NCs will need to be trained to meet the 1990 target. In a 5-year period, it will require an annual intake of almost 20 students in each class. There is adequate faculty to accommodate this demand, but the ability to recruit sufficient applicants and the lack of physical facilities may pose considerable constraints.

B. Training Programme

The program has been previously described in several documents (see "Nurse Clinician Training", GOL/MOH, 1983). It is a 15-month program, the last 3 months, the health centre rotation phase, is a preceptorship in the new posting intended as the NC assignment. The preceding 12 months consist of training modules, clinical practice, and clinical rotations in specialty areas. The current class was away from Maseru during the evaluation team's visit, so we were unable to observe their teaching and clinical experience directly.

The team was able to observe the NCTC staff organize and implement the continuing education annual conference for NCs. They continued the pre- and post-test method of assessing learning. The conference also included a group exercise on management problems which illuminated several areas of continuing NC concern, provided updating of the clinical reference manual and health information system, and discussed the new CCCD initiative in under-five health care. The central impression was of a talented teaching staff committed to and skilled at making the material relevant and learnable.

In our discussions with the teaching staff, a concern was expressed about improving teaching skills through short-term courses. The program is now well established and is certainly sustainable with present staff and anticipated, larger class size. The career ladder for NC tutors is another issue which should be addressed.

The results of the questionnaires administered to medical officers who worked with NCs in the field and to the NCs themselves support the assessment of adequate and appropriate training for the job expected of NCs. The MOs stated the training was adequate (90%) and the job description realistic (75%). The corresponding NC figures were 100% and 65%.

The five modules which make up the first six months of NC training are of varying length, emphasis and complexity, and all relate directly to the NC job description. When asked which areas should receive more emphasis and which should be de-emphasized, the NCs responded as follows: de-emphasize none, emphasize more community activities (28%), health centre management (19%), clinical medicine (18%), concepts of PHC (15%), and VHW training (14%).

In the activities the NCs felt best prepared to perform, 45% of the tasks mentioned were clinical care of patients, including physical examination, diagnosis, treatment, deliveries and dental extractions, 21% dealt with Village Health responsibilities, 20% were community-related activities (e.g., home visits, pitsos, school and environmental health), and 12% of the tasks were in the area of health center management (e.g., allocation of work, records, ordering). Some of the specific skills mentioned were how to use the reference manual for proper treatment, maintenance of cold chain, ordering vaccines, and communication skills.

When asked which tasks the NCs felt they were least trained to perform, fully half of the respondents put nothing down. The remaining half listed community-related activities, such as mapping and dealing with community resistance - 50%; management tasks such as personnel and transport management - 27%; and the only clinical skill mentioned was dental extraction by four of the forty NCs, all from the class of '82, which could reflect a specific training deficit at that time.

Overall, the medical officer and NC responses support our assessment of the training program and materials as good preparation for the job expected of NCs.

C. Followup

The NCTC followup of those completing training includes site visits, a newsletter several times a year (See Appendix 5), and an annual one-week continuing education seminar to meet the Nursing Council requirement.

Assisted by the small size of the most recent classes, the NCTC staff has managed to overcome transport and budget constraints to maintain contact by site visit to virtually all of the NCs from the first three classes. According to the NC questionnaire responses, the classes of '81 and '82 have averaged 3 visits per NC, and '84 averaged 1.5 visits. The class of '85 finished less than six months ago and reports no visits as yet.

Only 5 NCs of the 40 respondents did not report receiving any newsletters (12.5%), and the rest verified receiving at least 3 per year, with most of the '85 class already having received 2 during less than six months in the field. The newsletters contain clinical and health service updates, exercises, common problems, and information about NCTC staff and graduates.

Another very successful followup effort is the annual continuing education seminar, attended this year by 80% of the NCs in the field, and 77% of those ever graduated.

One area of followup which would be useful is HSA and site visits by the physician-trainer. The symbolic sanction and support by visiting the NCs in their HSA postings would allow the opportunity to reinforce the credibility of the NC and increase potentially the understanding, input and support given by the HSA medical officers.

D. Nurse Clinician Capabilities

The successful performance of clinical and management responsibilities by the NCs has led a few physicians to suggest they would also like to have the services of an NC in their hospital OPDs. But most MOs recommended that all health centers have an NC before any are placed in OPDs. The preceding remarks attest to the medical officers' positive assessment of NC capabilities and understanding of her role.

The evaluation team was unable to do an extensive and systematic evaluation of the clinical skills of the NCs because of the timing of the annual continuing education seminar. The five NCs we were able to visit on site showed us the center, explained the operation, answered questions, and arranged VHW interviews for us. During the last week of the evaluation, the physician and nurse practitioner had the opportunity to observe an NC in several patient encounters in which she demonstrated proficiency in history-taking, assessment, diagnostic and treatment skills in a very crowded clinic.

Our observations, coupled with the reports of other members of the HSA teams whom we interviewed, suggest that the NCs' clinical, health center management, and community-related skills are generally well-developed and applied.

An effort was made to find baseline data for specific health status indicators in the catchment areas of NC sites prior to their posting. It was very difficult to find such specifically localized data which we could have used to assess or specifically attribute to the impact of the NC's capabilities. The annual reports of the Butha Buthe government hospital/HSA, 1980-84, offer a positive indicator of nurse clinician capabilities and impact. (See Appendix 6)

When asked what percentage of their time NCs spent in three major areas, clinical care, health centre management, and community, activities those who responded allocated their time as follows:

Clinical care of patients-

3% spent less than 25% of time  
 41% spent 26-50% of time  
 44% spent 51-75% of time  
 11% spent more than 75% of time

Health Centre Management-

23% spent less than 10% of time  
 73% spent 10-25% of time  
 4% spent more than 25% of time

Community-related activities-

4% spent less than 10% of time  
 52% spent 10-25% of time  
 40% spent 26-50% of time  
 4% spent more than 50% of time

The total number of VHWS supervised by the forty NCs returning questionnaires was 1122, with three not supervising any and two not answering the question. For those who responded, this is an average of 32 VHWS per NC, more than double the number of fifteen initially envisaged in the Project Paper.

The amount of time required to travel to the VHW villages, in some instances in excess of two hours, means that most NCs visit any one particular VHW quarterly or less, relying instead on monthly meetings at the clinic site to review records, replenish what supplies the VHW keeps and provide in-service training.

The VHWS indicated the NC visits to them in their villages provided official sanction for their roles and increased village acceptance and recognition. Most of the NCs have arranged clinic and community schedules to allow several half- or whole days per month in the villages. With an average of 32 VHWS and 37 villages per NC (range 12-79 villages) it is impossible to spend the suggested 1/2 day per VHW per month in field supervision. With transport a scarce resource at best, and limited staff coverage in her absence, the NC must balance clinic and community responsibilities to maximize use of time and team resources. According to several of the NCs visited on-site, this often means targetting their field supervision time for those who are having problems or are more recently trained, leaving other VHWS' supervision to contacts at the clinic.

The NCs rated the performance of their VHWS as very good -18%, satisfactory -70%, and poor -12%, with many of them commenting that they had some VHWS in each different category. The tasks identified by the NCs as being done well were health education (25%), patient referral and followup (18%), patient care (16%), environmental sanitation (16%), and community activities (14%). The tasks for which they felt VHWS needed more training were in the areas of patient care (42%) and environmental sanitation (32%).

#### E. NC Support

In 1984 the Nurse Practice Act was amended to provide professional and legal support for the new role the NCs are playing in the health care delivery system. The establishment of the NC salary scale and retroactive payment of salary increases in 1984 demonstrates the formal recognition of the NC cadre. An additional milestone was reached when the GOL began paying half of the nursing salaries to nurses employed by PHAL. There is still some discrepancy in pay and increments between government and PHAL NCs.

As mentioned in the World Bank Staff Appraisal Report, Lesotho Health and Population Project, 4/85, "reliable information on staff numbers, locations and vacant positions is not routinely available". Deployment status of NCs was obtained from information provided by the NCTC staff and updated at the continuing education conference.

Only 3 of the 62 NCs trained under the RHDP are no longer working as NCs, a remarkable retention rate of 95%. There are apparently no formal proceedings taken when bond is broken, or circumstances require that an individual resign. From the information provided by NCTC, it appears that only four NCs have been transferred to other health centres.

In the initial phase of the project it was planned that NCs would return to the sites which they left for training. The responses from the NC questionnaires indicate that this occurred for over 38% of the respondents. The classes showed the following percentages for being returned to post: '81 - 62%, '82 - 17%, '84 - 31%, and '85 - 33%.

A frequent complaint from those NCs who felt their job description was unrealistic was "shortage of staff". According to the Country Resources Utilization Review, WHO, 11/83, the GOL considers the optimum staffing pattern of a health centre to consist of one each of the following categories: nurse clinician, registered nurse, nurse assistant, health assistant, watchman and cleaner. The health center is planned to serve a population of 12,000. According to the NC responses, 5% serve populations over 13,000, and 23% serve less than 5,000, with 72% serving populations of 5,000-13,000. With the above posts on establishment, 72% have no staff nurse, 25% no nurse assistant, 83% no health assistant, 16% no scrubber, and 15% no watchman. In addition, only 5% have no vacant posts, and 20% only one vacancy at post, while 75% have two or more vacancies based on the optimum staffing pattern. The great variations in local conditions, including access to and support from HSA health facilities, make the constraints placed on the NC by shortage of staff quite difficult.

F. Job Satisfaction

The remarkable retention rate attests to the job satisfaction felt by NCs. When asked to list what they liked best and least about their present jobs, 35% of the 40 listed nothing that they liked least, and only 2% listed nothing they liked best. Of those responses for like best, 39% were in clinical care, including dental extractions and family planning, 28% related to community activities, and 23% related to VHW training and supervision. Two of the responses reflect the content "Patients leave satisfied, they know what to expect, and are ready to discuss problems;" and "visiting the community to share ideas and solve problems together".

Of the responses to what was liked least, 28% dealt with health centre management problems, especially clerical, accounting, and personnel tasks, 23% related to conditions of service such as on-call and night duties, 18% were community-related, 15% dealt with PHC/HSA problems such as radio communication, transporting patients, and having to use horses for village visits, and 13% concerned clinical care, one of which was "treating skin problems because there are several types which do not respond to treatment available at the health centre".

The NCs were asked to identify improvements in their health centres and communities since they had become NCs. Only ten percent did not answer, half of whom indicated that they had been in the field less than six months. Ninety percent indicated improvement in the following areas:

- |    |   |     |
|----|---|-----|
| 1. | patient results (e.g. decrease in disease, increase<br>in attendance, using bukanas)                | 36% |
| 2. | behaviour changes (adopting prevention, gardens)  | 21% |
| 3. | health centre management capability (e.g. staff<br>cooperation, smooth running)                     | 10% |
| 4. | VHWS (e.g. community demand for and easy<br>spreading of health messages)                           | 9%  |
| 5. | community relations and participation<br>increased support (e.g. building improvements, more staff) | 9%  |
|    |   | 4%  |

This list reflects a positive sense of worth and accomplishment and an understanding of the goals of PHC. Perhaps this is a major factor in retaining and sustaining NCs under working conditions which are often less than optimal, such as separation from family, isolated settings, shortage of staff, and lack of transport.

G. Impact of Nurse Clinicians

Impact is a difficult thing to determine, especially in the absence of baseline data. Impact should be determined by improved health status, indicators of which are difficult to find and impossible to attribute to the presence of a nurse clinician in a particular area to the exclusion of other of other variables. To ignore impact, however, would be a disservice to the progress made by the GOL in extending quality, cost-effective health care to rural communities, to the remarkable commitment, spirit, and skills of the nurse clinicians, and to the large infusion of resources into the RHDP.

One measure of impact is the reported improvements noted by NCs (see p. 16). In support of their impressions, we found some facility-specific data culled from the Butha-Buthe District health reports, 1980-84, provided for us by the DMO and his HSA team. In the three health centres for which there is specific data and for which we know the date of posting for the nurse clinician, there is a consistent increase in antenatal attendances, deliveries, family planning services (except for the Catholic clinic). For two of the three, health clinics here was an increase of VHWS in service (the third had its NC leave 8/84, not replaced until 5/85).

It is important to look for and begin to use output (services rendered) data to provide baseline data and feedback for staff and evaluation purposes.

Another indicator of impact is the medical officers' perceptions of a decrease in numbers and increase in appropriateness of NC patient referrals (see medical officer questionnaire results). NCs are referring significantly less than 10% of patients they see; the stated objective was that they see 90% of the patients/conditions normally seen by a physician, assuming conditions of equal accessibility. In addition, much of the NC work is in health centre management and community-related activities which most medical officers do not engage in.

Two groups of health professionals whose opinions of NC impact were specifically sought were the physicians and the public health nurses. The support and cooperation of both is essential to the success of the new cadre of NC. In our interviews with each group, we found very supportive and admiring assessments with no qualifications other than "personality makes a difference".

Due to language, logistic and time constraints, the evaluation team was unable to pursue an independent assessment of community acceptance beyond VHW interviews and observations in the clinic.

#### H. Summary of Nurse Clinician Component of RHDP

The creation of the NC cadre has made a major contribution to the capacity of the GOL to deliver effective, appropriate, and low-cost health care to the rural population. The evaluation team has found the NCs to be a highly-skilled, dedicated and needed resource in primary health care efforts. They have a positive sense of accomplishment and an understanding of PHC goals. They continue to provide service under working conditions which are often less than optimal, such as separation from family, isolated settings, shortage of staff, and lack of transport or physical comforts. The growing reputation, acceptance, and support of the NCs by other health workers, including physicians and public health nurses, attests to their capabilities and accomplishments.

The fifth class of nurse clinicians began to reverse the steady decline in enrollment at NCTC, and nine students are due to complete the course early next year. Interviews for next year's intake are currently being held for 22 applicants, enabling a possible intake of at least 20 students. The optimal class size according to the NCTC staff and the minimum recommended if the GOL 1990 target of 134 NCs trained and posted is to be met.

The World Bank proposed assistance to the national health training capacity should provide the facilities and support to enable achievement of this target. Adequate staff and training materials are already in place. The training capacity has been institutionalized and is sustainable.

The NC training is adequate and appropriate to their job description, and the followup by NCTC to support the NCs in the field and to gain feedback for training modification is very good. NC capabilities and performance in their clinical, management, and community responsibilities is excellent, despite heavy work demands, shortage of staff, and support problems.

The passage of the NC practice act and the establishment of their positions and salary restructuring provided official sanction and recognition of their capabilities and contribution to health care. There remains some discrepancy in salaries and increments. The MOH is providing funds to cover 50% of PHAL nursing personnel, including NCs.

Job satisfaction and a sense of worth and accomplishment are strong among NCs. The attrition rate to date is 5%, due at least in part to the fact that the NCs came from the situations to which they were returning and hence knew the conditions under which they were expected to perform.

The impact of the NC program is difficult to quantify in the absence of baseline data. However, there are indicators in increased service, coverage, and acceptance, which support our conclusion of a positive impact.

#### Recommendations

1. Annual intake of a minimum of 20 students
2. Continue to emphasise demonstrated suitability and commitment to rural service as an admission criterion
3. Continue starting new classes same time each year, and overlap new classes
4. Consider student NC attendance at annual continuing education seminar to become acquainted with future colleagues and better oriented to actual NC role and responsibilities
5. Career paths for NCs and NC tutors, and provide opportunities for upgrading skills and qualifications, using donor resources where possible
6. Short tutor courses for NCTC staff, who have not yet had such an opportunity, including the physician-trainer
7. Encourage the physician-trainer to visit HSA medical officers and NCs to increase understanding and support of the NC role and appropriate use of their skills and expertise
8. No posting of NCs to hospitals until all health centres have NCs
9. Equip all nurse clinician health centres with basic diagnostic equipment (e.g., otoscope, haemoglobinometer) to improve diagnostic capabilities
10. Continue nurse assistant training, increasing the primary health care component of such training
11. Increase significantly the number of health assistants to be trained

## VI NURSE CLINICIAN TRAINING CENTRE

The five modules used in NC training are:

1. concepts of PHC
2. clinical medicine
3. community related activities
4. training of village health workers
5. health centre management

Although the teaching of each falls under specific responsibility of one or two tutors, the tutors work as a team, and any of the tutors may be asked to assist in the teaching of any module.

A. Adequacy of Training

All the trainers, including two who have actually worked as nurse clinicians in the field before joining the NCTC, said the training is adequate.

B. Appropriateness of Training

All the trainers stated that the nurse clinicians can cope with the duties. However, in instances where the nurse clinician's health facility is understaffed, it is difficult for her to cope with her responsibilities.

C. NCTC Supervision

The staff at the NCTC would like to visit each nurse clinician twice a year as follow up. Due to financial constraints they have only been able to do this once a year. The NCTC also keeps in touch with NCs by newsletter, which is written and distributed four times a year. In addition all nurse clinicians have to attend a one-week continuing education seminar each year in order to maintain their registration with the nursing council.

D. HSA Supervision and Support

All the trainers are of the opinion that this is an area that should be improved by giving medical officers training and orientation in primary health care and health care management.

E. Health Clinic Operational Problems

1. It was pointed out that in many instances the distance between clinics and villages are very large. Without transport, the nurse clinician's ability to effectively carry out her community responsibilities effectively are severely compromised.
2. Transport between the clinic and the hospital is in many cases a problem, both the lack of availability and high costs, result in problems of transporting and referring patients.
3. Interruption of drug and store supplies to clinics, also have a negative impact on the effective and efficient functioning of the health centre.

F. Data collection and utilization by NCs

A great deal of data is now being collected by NCs and sent to the HSA. It is not evident, however, that the NCs get feedback on how this data is used, as well as on how it can be used for decision making at the health centre level of responsibility. The NCTC sometimes requests data from NCs for specific purposes, such as recommendations for modifications of manuals, modules and continuing education.

G. Role of NCs in training Village Health Workers

The NCs are responsible for the training and supervision of village health workers in their area.

1. Comments from trainers of NCs
  - a. Career Structure for NCs - A major improvement was made in 1984 with the establishment of the NC position and salary grade on the establishment list. The payment of a retroactive salary increase served as a great morale booster. At the moment the NC position is a closed one with no scope for upward mobility. It would improve the NCs morale, and enhance the chances of retaining their services for longer periods of time, if a career structure were established for them, e.g. the creation of NC supervisory post at the HSA level.
  - b. Few NC tutors have formal trainer training, they would benefit from attending short courses in education methodology, curriculum development, etc. This would enhance their skills and knowledge.

Summary

1. Successes
  - a. The trainers of nurse clinicians including those who, before taking up appointments as tutors had worked in the field as nurse clinicians, all felt that the training NCs received adequately prepared them for the jobs they were expected to perform.
  - b. Where NCs have been deployed they are now solely responsible for the training and supervision of village health workers. This has the advantage that the training and supervision of VHWS, which previously was ad hoc is now becoming more formal and standardised.

## 2. Difficulties

- a. Where a health centre is understaffed, the nurse clinician has difficulty in executing all her duties, especially the community activities.
- b. Support and supervision for nurse clinicians could be improved if district medical officers underwent some training in primary health care and relevant aspects of management.
- c. Many NCS have large areas to cover. Without transport the ability of NCS to carry out their activities effectively, is severely constrained. The HSA teams also need reliable transport if they are to support and supervise the NCS effectively.
- d. Currently there is no career structure for NCS. The creation of promotional posts for NCS and tutors needs attention.
- e. The position of the NCTC in the Ministry of Health organogram needs to be more precisely defined.

## Recommendations

1. MOH should ensure NCS have sufficient staff support at health centres, to ensure the NCS get time to carry out their community responsibilities.
2. MOH should look into ways of providing NCS with transport to ensure they are able to supervise their areas more effectively. HSAs should also have adequate transport to ensure they are able to supervise and support NCS in their area.

3. MOH should look into creating a career structure for NCs, and tutors.
4. MOH should define NCTCs' relationship and lines of communication headquarters.
5. Opportunities for continuing education for NC tutors should be provided.

#### VII MEDICAL OFFICERS' INTERVIEWS AND QUESTIONNAIRE RESPONSES

The questionnaire to medical officers at the health service areas was administered in order to highlight the MO's perception of the role of the NCs and their MO's involvement in supervising them.

##### Results

The medical officers in each health service area visited, were interviewed and asked to fill out the MO questionnaire. A total of 12 medical officers responded and the results are given below.

##### 1. Length of Service MO has been working in the HSA

<u>Length of Time</u>	<u>Number of MOs</u>	<u>Percentage</u>
less than 1 yr	1	8%
1 to 2 yrs	8	67%
over 2 yrs	3	25%
TOTAL	12	100%

More than 90% of the MO respondents have been working in their health service areas for over one year. It is therefore reasonable to assume that their observations of the Rural Health Development Project are reasonably valid.

2. Orientation to PHC  
50% of the medical officers stated they had received orientation on PHC mainly through special course at the universities they attended. The MOs did not indicate that they received any orientation upon arrival in Lesotho.
  
3. Length of time MOs have been working with NCs  
Almost 90% of the MOs interviewed had been working with NCs for over 1 yr, therefore their observations on the NC performance are based on a reasonably long period.
  
4. Clinical Proficiency of Nurse Clinicians  
67% of the MOs stated that they found cases referred to them by NCs genuinely needed a doctor's attention. 33% stated that referrals were complicated but could be dealt with by a proficient NC. None of the MOs stated that they found any referrals unnecessary.
  
5. Nurse Clinicians' Job Description  
Nine of the MOs stated that the duties the NC is expected to perform are realistic. Only one MO stated that their duties were too heavy, whilst the remaining two gave no response.
  
6. Adequacy of Nurse Clinicians' Training  
100% of the MOs who responded stated that the training the NC received was adequate.
  
7. MO suggested Modifications in NC Training Curriculum  
Only four MOs responded to this question.  
Two MOs stated PHC activities needed more emphasis in the training of NCs.  
One quoted minor surgical procedures, and another prescribing of drugs as areas requiring more emphasis.  
No MO identified any subjects in the current NC's curriculum needing de-emphasising.

8. Medical Officers' Supervision of Nurse Clinician

All MOs stated they made monthly supervisory visits to Health Centers staffed by NCs.

58% (7 out of 12) stated they held refresher courses for NCs monthly or quarterly.

9. Nurse Clinician Effectiveness

58% of the MOs quoted lack of transport as the major constraint on NC effectiveness.

25% quoted poor supplies of drugs and equipment as a major constraint.

One MO stated the NC did not have enough time to perform all the duties expected of her.

10. Impact of Nurse Clinicians

Patient Care			Health Care Mgt				Community Health				
Im- proved	Not im- proved	Too early to say	Nil	Im- proved	Not im- proved	Too early to say	Nil	Im- proved	Not im- proved	Too early to say	Nil
A	B	C									
9 (75%)	-	3 (25%)		7 (58%)	1 (8%)	3 (25%)	1 (8%)	5 (42%)	1 (8%)	3 (25%)	3 (25%)

It will be noted from the above table that except for community health, which is more difficult to assess, the majority of the MO respondents, indicate that both patient care and health center management have improved since the deployment of nurse clinicians.

11. General Comments by the Medical Officers

Comments made by MOs, both on the questionnaire and in discussions, on issues relating to nurse clinician training, and deployment, support, and supervision are summarized below.

a. Nurse Clinician Selection

NCS are trained to a very high level of skills. Sometimes their effectiveness is adversely affected by "personality problems". The selection criteria for NC trainees therefore should emphasise the identification and rejection of applicants who are likely to cause more problems than those they solve.

b. Nurse Clinician Training

All MOs commended the appropriateness and high level of training NCS receive. One MO maintained that it might be a good idea to ask for MO input on what should be included in the NC curriculum.

c. Nurse Clinician Deployment

Most MOs stated that NCS are doing a vitally important job. Although they would find them of tremendous help in their own outpatients department, they felt it was essential that all rural health centre posts be filled up first, before consideration should be given to deploying NCS to hospitals.

d. Nurse Clinicians' Support

(1) Transport

Lack of transportation is a major factor in preventing the NC from carrying out the supervision of VHWS and community work. Consideration should therefore be given to providing the NC with appropriate transport.

The transportation problem at the district HSA level also makes it difficult for the health team members to visit the NC as often as they would like. Lack of transportation also affects continuity of supplies. e.g. drugs, equipment and fuel.

(11) Support Staff

Many health centres are understaffed. As a result many NCs find it difficult to fulfil their community commitments as well as run the health center. It is essential adequate staff be provided. The MCs of each health service area should be able to identify which health centres require more staff.

Summary

1. Successes

- a. Nurse Clinicians are playing a vital role in extending community health coverage and improving patient care at the health centres. Both patient care and health centre management has improved at the health centres.
- b. The training of Nurse Clinicians adequately prepares them for the tasks they have to perform, and most referrals from health centres managed by NCs are those that require a doctor's attention.

2. Difficulties

NCs would find it easier to carry out their responsibilities if the following problems were solved:

- a. lack of transport for the supervision of VHWS, and community activities
- b. the shortage of staff at health centres, makes it difficult for NCs to leave the health centre to carry out her community activities.

- c. irregular supervision and delivery of supplies from the district hospital because of lack of transport.

#### Recommendations

1. MOH should put a high priority on the provision of appropriate transportation facilities for HSA support of health centres.
2. MOH should review with HSAs the manpower requirements of the health centres.
3. MOH should emphasize demonstrated suitability and commitment to rural service as an admission criterion for admission to the NC training programme.
4. MOH should develop an HSA-PHC orientation manual for newly posted MOs. One- to two-day workshops should be periodically organized in each region to discuss PHC concepts and HSA management procedures.

### III VILLAGE HEALTH WORKERS' INTERVIEWS AND QUESTIONNAIRE RESPONSES

At most of the health centers visited, VHWS were either called on at their homes, or called to the center for interviews. Questionnaires were administered to the VHWS through local interpreters since most of the VHWS were comfortable only in the Sesotho language. On occasion, a number of VHWS were interviewed at the same time. Wherever possible each individual's response to a particular quantifiable question was tallied. In certain instances, this was not possible, and consensus opinion was recorded. Thus, it will be noted that responses to certain questions administered to VHWS are not quantified as specific number or percentages, but rather in terms of the majority, most or few.

48 VHWS were interviewed, 15 of them individually and the remainder in groups. Individual interviews took about 30 to 45 minutes. Our sample of VHWS, was comprised of females only, most in the 25 to 50 year age group.

The village health workers' responses to the questionnaires were as follows:

#### A. Length of Period Village Health Worker has been working

	<u>Number of VHWS</u>	
Less than 2 years	12	(26%)
2 to 4 years	32	(68%)
Over 4 years	<u>3</u>	<u>( 6%)</u>
TOTAL	47	

74% of the VHWS interviewed had over 2 years experience. This sample can be expected to provide informed answers about VHW activities.

B. Selection of Village Health Workers

All VHWS interviewed stated that they had been selected by their communities at pitsos (meetings). This is consistent with the ideals set for the program.

C. Adequacy of Training

87% of the VHWS stated their training had adequately prepared them for the tasks they are expected to perform in their communities, 13% (6) felt the training had been inadequate (see paragraph 4 below). Most of the VHWS 91% were trained by NCS and the remainder had been trained by a variety of organisations prior to the deployment of the NCS.

D. Areas of Training requiring more Emphasis

Although most VHWS had stated that the training they received was adequate, some identified areas requiring more training.

1. the delivery of MOH services e.g. how to attend to women in labor and deliveries,
2. health education techniques,
3. first aid,
4. water and sanitation activities.

E. Village Health Workers' Activities

1. motivating mothers and children to go to clinics for antenatal care and immunizations,
2. nutrition education,
3. promotion of environmental hygiene and health education in general,
4. home visiting,
5. treatment of diarrhoea.

Those VHWS who carried kits (38%) and bandages (35%) stated that they also performed first aid activities.

F. Record Keeping

94% of the VHWS interviewed stated they kept records of their activities. These records are discussed with the NCs when the VHWS visit the clinic, which most did on a monthly basis. Those who kept no records had not been trained by NCs.

G. Population covered by Village Health Workers

The majority of the VHWS estimated that they were covering between 30 and 100 households, with a range from 15 households to over 200 households.

H. Distance VHW has to travel to Visit

Two questions were asked to assess the distances travelled by VHW in order to reach all the households in her area, and the health center for monthly meetings. This question has important implications for expenses the VHWS incur in carrying out their activities. Because most VHWS could not estimate distance in kilometers or miles, the questions were rephrased in terms of time required to travel to the furthest household in their area, and to the health centre.

1. Travel to the furthest household. Most VHWS stated they lived within 30 to 45 minutes of the furthest household in their area; the range however, was 5 minutes to 1 1/2 hours.
2. Travel to nearest health centre. Less than half of the VHWS interviewed live within 60 minutes walk of the health centre. More than half stated they lived within 1 to 2 hours walk from the health centre, with 5 (about 9%) stating they lived over 2 hours walking distance from the health centre. Therefore VHWS are likely to incur personal transport expenses.

I. Medications Dispensed by the Village Health Workers

Of the 47 VHWS interviewed only 7% (the 4 trained outside the nurse clinician programme) had any kits and medical supplies. They keep bandages, aspirin, cough mixture, methyl salicylate, linament, gentian violet and lindane in their kits to treat basic common ailments. They do not have problems replenishing their supplies from their local health centre, unless the health centre is itself short of medicines. 33% (14) of the 43 VHWS trained by NCS carry only bandages with them for first aid and have no VHW kits. 60% of the VHWS carry nothing at all. The lack of kits, undermined their work and credibility in the community, since the community expects them to attend to simple curative problems.

J. Supervision

Over 90% of the VHWS are supervised by NCS. The remainder are supervised by a hospital based village health worker co-ordinators. The frequency of supervision, is satisfactory in 77% of the cases. In the case of 6% of VHWS, their supervisors visit them weekly, and in the case of 64% VHWS, their supervisors visited them monthly. Supervision is unsatisfactory in the remaining 23% of cases, where in the case of 12% of VHWS, their supervisors visit them rarely, and in the case of 23% of VHWS, their supervisors have never visited them. Frequency of contact with their supervisors is higher than indicated by the above figures since almost 100% of VHWS come to the health centre on a regular basis to accompany patients, turn in records, or get supplies.

K. Village Health Workers' Referrals to the Health Centre

Most VHWS stated they felt quite competent in the following activities:

1. treatment of simple cases of diarrhoea,
2. motivating communities to protect water supplies and build latrines,

3. health education in general,
4. motivating mothers and children to attend maternal and child clinics.

They reported they would immediately refer to the health centre any cases of protracted diarrhoea, complicated antenatal cases, mental illness, tuberculosis, and other conditions they knew little about.

D. Relationships with Traditional Healers

When the Rural Health Development Project was started, one of the areas of concern was the friction that might arise between VHWs, and traditional healers.

M. Support Requested by Village Health Workers

Most village health workers cited the following areas as requiring attention:

1. Ongoing training; especially in treatment of common illnesses and conducting deliveries.
2. VHW kits; VHWs want to be seen to provide a tangible service in the community. To enhance their credibility, they need to be provided with kits.
3. Uniforms; almost 50% of the VHWs interviewed requested they be provided with uniforms so that they are readily identifiable in the community.
4. Transport; VHWs requested that nurse clinicians be provided with transport, to ensure they can effectively supervise all the VHWs in their areas. The VHWs feel regular visits by the NC are important for training and credibility.
5. Allowances; in some instances VHWs had to pay for transport to go to their local health centers for meetings, or to accompany patients. They request that the authorities identify ways in which VHWs could be compensated for expenses.

N. Improvements in Villages since the Introduction of the VHW Program

Most village health workers stated that they have noted improvements in the following areas:

1. protection of water supplies and the building of latrines.
2. improvements in environmental hygiene.
3. nutrition knowledge and nutritional status.
4. access to advice on health matters.

O. Role of Village Health Workers in Village Development Committees

Most VHWS stated their villages do not have village health committees. Health topics are raised in the village development committee.

Only 9 VHWS (17%) said they were members of their respective village development committees.

A supplementary question was asked what health related matters the village development committees had dealt with over the last few months.

The most common health related topics the committee had discussed were water and sanitation, in addition to nutrition, gardens, and roads, all major components of primary health care.

P. General Comments by Village Health Workers

Some comments made by VHWS that they wanted highlighted are summarized below:

1. Most people are very happy with the introduction of VHWS, and they appreciate the messages VHWS give them as these lead to progress. However, some people do not appreciate the role of the VHWS and are not readily receptive to health messages. VHWS thus find themselves having to work extremely hard in certain instances.
2. Most VHWS are very thankful for the training they have received, and feel quite happy to work. However, the provision of the medical kits and some form of allowance for their work would greatly enhance their effectiveness.

SUMMARY1. Successes

- a. Village health workers feel they have been adequately trained by the nurse clinicians for the functions they have to perform in the community.

Most spend their time in the following activities: motivating mothers and children to attend MCH clinics, promoting safe water and sanitation activities, health education, and treating simple common medical problems e.g. diarrhoea, skin problems.

- b. Most VHWS keep records of their activities which they discuss monthly with the NC when they visit to the health centre.
- c. Through the VHWS, basic health coverage has been extended to individual households in the villages in which VHWS are working.

2. Problems

- a. Population covered by Village Health Workers

In certain instances the number of households, villages, or the distances are too large, and the VHW has to travel four hours to visit some homes. This problem will diminish as more VHWS are trained in these areas.

- b. Lack of Village Health Workers' Kits

VHWS feel their inability to perform some basic curative tasks is undermining their credibility in the community and inhibiting their effectiveness.

c. Inadequate Supervision

Many VHWS would like more supervisory visits from the nurse clinicians. They state the NC cannot do this because of lack of transport. They felt that, in addition to the training value of such visits, the nurse clinicians' presence with them in the community will enhance their credibility with the people.

d. Allowances

VHWS occasionally incur expenses which they meet from their own pockets. Although they are grateful for the training they have received and are happy with the work they are doing, they feel they should be reimbursed for expenses incurred in the performance of their duties.

Recommendations

1. VHW training should be expanded to produce more VHWS to ensure each VHW covers a manageable population group.
2. MOH should look into providing all trained VHWS with kits. This would enhance their credibility and possible effectiveness. The NC should have the authority to order these kits.
3. NCs should be provided with sufficient resources, both transport and staff to ensure they can supervise all their VHWS regularly.
4. MOH should consider ways in which VHWS could be reimbursed for expenses incurred in the performance of their duties.
5. MOH should consider providing a VHW pin name-tags or other forms of identification to all VHWS upon completion of training.

## IX HEALTH CENTRE OPERATIONS AND MANAGEMENT

Forty out of a total of fifty-three practicing nurse clinicians were asked to evaluate their clinic's operations, using a checklist based primarily on the checklist in the NC health centre management module.

A Personnel Management

1. Fifty percent of the NCS participate in informal performance evaluation as well as the formal annual evaluation required by the GOL.
2. Eighty-six percent of the health clinics have position descriptions and task lists for all employees.
3. Ninety percent of the nurse clinicians have regular staff meetings and VHWs in service training programmes.

Comments

There is a high level of compliance with the personnel management module used in NC training. Both the questionnaires and the interviews with nurse clinicians reflect an appreciation for the importance of communications and a team approach towards the operations of the clinic.

B Financial Management

1. Seventy-five percent of the NCS feel they have a safe place to store their revenues and the same percentage deposit revenues on a regular pre-determined basis with the central administration.
2. Eighty percent of the clinics have established formal guidelines and procedures for collecting, accounting and depositing revenues.

3. Forty-six percent of the nurse clinicians participate in an annual review of special budget needs and submit requests to the HSA administration.

Comments

Financial management and practices need to be reemphasized. Safe storage and regular collection, accounting and deposit procedures should be established and maintained at all facilities. Communications between the health clinics and the HSA need to be expanded to include the planning for the non-clinical needs of the health clinics. HSA team meetings should be sure to deal with the non-clinical support needs for the health clinics.

C Drug and Medical Supply Management

1. Ninety-two percent of the NCs carry out a regular monthly inventories and prepare monthly drug orders.
2. A significantly lower seventy-nine percent receive regular monthly deliveries of drugs and supplies.
3. One hundred percent of the respondents say drug orders are checked when received, for accuracy, quality and completeness.
4. Seven percent of the nurse clinicians feel they do not have a safe secure place to store their drugs and supplies.
5. Nine percent are not permitted to return outdated drugs for credit to the HSA.

Comments

The ordering and management of drugs is performed in close compliance with the health centre operations module. Both the questionnaire and interview responses indicate there is still a supply problem. The supply problems were ascribed to two major causes.

- a. supply problems at the HSA level,
- b. reluctance on the part of the pharmacies to supply orders as submitted.

Supply problems appear persistent and can only partially be assigned to lack of planning or proper ordering at HSA level. The reluctance to supply NCs from HSA inventories is however a communications problem and perhaps an attitude problem that should be dealt with by the HSA management team.

D. General Supply, Equipment and Facilities Management

1. Twenty-three percent of the clinics do not have a current inventory of general supplies and equipment.
2. Twenty-six percent of the clinics are not equipped with the standard inventory of equipment and supplies.
3. Twenty-nine percent of the nurse clinicians feel their clinics do not meet minimum MOH standards.
4. Ninety-two percent feel that their clinics and equipment are adequately maintained.
5. Only twenty-eight percent have been able to establish a regular system to supply VHWS.

Comments

Between one quarter and one third of the respondents feel there are no adequate control and supply procedures. It appears that supplies and equipment are a larger cause for concern to NCS, than are drug supplies. This concern does not seem to apply to the care and maintenance of the HC facilities and equipment. The supplying and material support of VHVs, however, is an area of major concern with only twenty eight percent of the NCS operating with a regular established procedure.

E. Communication Management

1. Eighty-four percent of the nurse clinicians have either a functioning two way radio or a telephone at their disposal.
2. Sixty-two percent have an ongoing regular system for radio communications with the HSA hospital.
3. Only ten percent felt unprepared to use or maintain their radios. Almost half expressed their inability to repair the equipment.
4. Sixty-eight percent of the clinics have reliable messengers available.

Comments

The two-way radio system represents a major improvement in the communications options of the health clinics. Emergency calls and improved problem solving capabilities are major areas that have benefitted. Time and cost savings are considerable. Serious attention should be given to expanding the system to all HCs that do not have access to a telephone. Consideration should be given to creating a radio monitoring system outside regular working hours to service emergency calls.

F. Transportation

1. Seventy percent of the clinics have an emergency transport protocol. Some have neither reliable transport nor access to regular commercial or private transport, in which case transport is dealt with on an ad-hoc basis.
2. Only ten percent do not have an established system of methods and procedures for patient transport.

Comments

The two-way communication system has improved emergency response capability tremendously. Waiting time for emergency transportation has been cut significantly. Protocols for preparation and care for patients to be transported appear well established.

G. Health Information and Planning

1. Only three percent of the NCs do not forward management information reports either to their HSA or to the MOH directly.
2. Sixteen percent of the NCs do not submit periodic personnel and facility reports to their HSAs.
3. Fifty-two percent of the HCs with nurse clinicians have an active health centre advisory committee providing advice on local health needs.
4. Fully ninety-two percent of the NCs are involved in surveys and other efforts to determine and evaluate the health needs of the communities in their catchment areas.
5. One hundred percent of the respondents hold regular staff meetings for planning and scheduling services.

Comments

Again one is struck by the high level of compliance with HC management modules when the nurse clinician has sole control over an activity. The number of health clinic advisory boards is growing steadily overall as is their level of input and involvement in HC activities. It is imperative that the growth of Health Clinic advisory boards be matched with the creation of active HSA and National Health advisory boards. This is necessary in order to establish proper channels of communication for health needs and concerns between village HSA and MOH headquarters.

H. Patient Information and Referral

1. Ninety-five percent of the respondents use a clear, well-understood system for referring patients.
2. Only eight percent of the NCs report problems with patients who have no bukanas, or have bukanas that are not kept up to date.
3. One hundred percent report keeping a complete registry of patients seen.
4. Only eight percent do not keep one or more of the following special patient monitoring control records: antenatal, tuberculosis, leprosy and typhoid.

Comments

Recording, tracking and referring procedures appear well established. Visits to HC confirm this although neatness, comprehensiveness and timeliness vary, particularly of the recording tracking activities.

SUMMARY

The results of the questionnaires, as well as HC visits, confirm that a functioning PHC network has been established in Lesotho. The nurse clinicians are very competent in their management and communications activities, demonstrating the appropriateness and quality of their training. They show an understanding of the concept of teamwork and make a conscious effort to communicate needs, activities, and responsibilities with their co-workers. The PHC network and the NC cadre, as they currently operate have and are creating many opportunities for initiatives to further improve the delivery, quality, effectiveness and efficiency of the health care delivery system. The major constraints in pursuing these opportunities appear to be shortages in appropriately trained manpower to help support the community and health education activities of the nurse clinicians. Seventy-five percent of NC health centres have two or more vacant posts and only five percent have no vacancies. In particular, an eighty-three percent vacancy rate for health assistants is inhibiting the expansion of PHC activities at the village level.

The nurse clinicians have proven more than equal to the challenges of operating reliable primary health care facilities in isolated areas. Any activities for which they do not have to depend on outside support are done competently and in close adherence to the operating modules with which they were trained. For the activities on which the nurse clinicians have to rely on outside support, the adherence to the operating modules drops significantly. This indicates problems in the support structure. Most nurse clinicians have identified and trained many VHWs (our sample of forty supervises 1122 VHWs). Only twenty five percent of the NCs stated that they were able to supply the VHWs on a regular basis. This indicates a need for the MOH to decide on a policy and procedure to supply VHWs.

Recommendations

1. The nurse clinicians should be included in the process of budget development for HSA.
2. Medical officers should be trained to view their monthly visit as a management, supervisory and educational support activity and not as just a clinical activity.
3. Drugs and medical supplies should be ordered separately by each HC through their HSA. MDSO should prepare these orders separately and ship them directly to the clinic when practical or ship them to the HSA hospital for transfer to the HC.
4. The two-way radio system should be expanded to all HCs. Their use represents real savings in terms of the NC's time, messenger costs and transportation costs and time. The radios also help lessen some of the extreme isolation and serve as a morale booster. A radio monitoring system should be established to ensure an immediate response to calls, especially after regular office hours.
5. A cash account amounting to M50.00 per month should be established for each HC to fund HC activities in the catchment areas and to help deal with indigent patients. These funds should be for the discretionary non-personal use of the nurse clinician.
6. A renewed effort supported by the health education unit, the public health nurse, and the HSA medical officers should be made to promote the creation of more health centre advisory boards. This effort must be accompanied by the establishment of active HSA Advisory Boards and the National Health Advisory Board.
7. The MOH should ensure that the training of nurse assistants and health assistants be intensified to reduce the large number of vacancies at the health centres.

## XII INFRASTRUCTURE SUPPORT FOR PRIMARY HEALTH CARE

### A. Decentralization of Services and Responsibilities

#### 1. Administration

HSA administrators are hampered by a lack of a clear mandate. The level of executive involvement of the Health Administrator appears to be a reflection of the personality of the individual and the readiness of the HSA medical officer to cooperate with and utilize the administrator's potential.

The activities and responsibilities of the HSA administrator are still very much process-oriented, i.e., the documentation of activities, recording of transactions, and processing of vouchers for payment by the district sub-accountant.

The involvement of administrators in the development of policy priorities and resource allocation within the HSA varies across the country. In general, however, the administrator operates at a distinct disadvantage because he/she lacks the professional credentials, rank and stature of the rest of the HSA management team.

This lack of a professional administrative cadre at the HSA level may become one of the major constraining factors in the decentralization process. The Ministry of Health will have difficulty reallocating resources to the HSAs without the presence of a cadre to manage and supervise the utilization of these resources efficiently and effectively. The creation of an operating PHC network has developed a demand for supplies and services as well as the coordination and planning of headquarter inputs into the region. These activities require professional supervision and control at a level that is not supplied consistently by the current cadre of administrators.

The MOH must urgently address itself to the identification and training of an HSA administration cadre with at least university graduate qualifications supplemented by an intensive course in primary health administration.

2. In the private hospitals the administration tends to be an integral part of the parent organization's infrastructure and varies from place to place.

3. **Budgeting and Financial Management**

The decentralization of the budgeting process is a major step forward in the creation of a primary health care delivery system. The budgeting process at the HSA level is now in its third year and the quality of information and cost forecasting has been improving steadily.

While the budgeting process has been decentralized, the budget does not yet reflect the needs of a decentralized PHC delivery system. This distinction is important and is reflected in the responses of professional staff, at both the HSA and HC levels, about the major constraints under which they must operate. These constraints include manpower shortages, transportation problems and lack of supervision. It is not enough to decentralize the budgeting process - the budget should now begin to reflect the needs of a decentralized system, which involves major reallocations of resources from the center to the HSAs and health centres.

In order to facilitate this process the financial advisor has developed and is expanding a system of monitoring expenditures. He has been able to develop formulae to assess the revenue returns in each district and is able to alert districts when their patient fee collections fall below expected levels. There is a system that monitors the utilization, mileage, petrol consumption and repairs on all MOH vehicles.

Similarly, all telephones in the Ministry of Health including the districts are monitored for charges and long distance calls. Personal calls are charged to users. Failure to reimburse the MOH for personal calls or continued abuse of the system and has led to disconnection of the phone. Finally, percentage distribution of inputs by district and within districts are produced monthly. The analysis of these data can highlight unusual expenditure levels, fuel consumption or other activities. A system to monitor and analyze food preparation and consumption is currently being developed in cooperation with the dietician at QE II. The collection, collating and analysis of this data is essential for the efficient allocation and utilization of MOH resources. The data forms the basis for policy formulation and systems design which is necessary to further decentralize the health care delivery system.

The existence and scope of the PHC system in Lesotho provides the opportunity for increasing quality and accessibility of services. This opportunity will be adversely affected if the allocation of resources continues to reflect a bias towards centralized and hospital-based health care and does not provide adequate support to enable the periphery to meet the needs of rural health services.

The PHC network also provides the opportunity for major cost savings. This opportunity may be lost however if the MOH does not bring about a major methodological reorientation of what have traditionally been very costly, centrally based vertical interventions in the health care system.

The MOH should give serious consideration to reorienting its activities at the central level from operations and control emphasis to monitoring and support functions. The implementation of the PHC will increase demand for the support services of planning in general, but of units such as health education,

statistics, and manpower training in particular. These units need to be strengthened to meet these demands. The switch from an operational emphasis to a monitoring and support emphasis is likely to require a rather far reaching reorganization of the MOH. It is recommended that the Ministry study carefully the impact the PHC programme and decentralization has on the demand for and the nature of its activities. It is further recommended that MOH support and planning units be expanded to meet their service and education mandates.

4. Financial Advisor

The financial advisor is playing a vital role in the financial planning and operation of the HSAs. The decentralization of the budgeting process is a major achievement. The process is operating smoothly with budgets being prepared on time and in close consultation with the financial advisor.

Financial reporting is satisfactory with both the MOH and the Ministry of Finance capable of monitoring rates of expenditures in a timely and accurate fashion. This represents a major improvement over the situation prior to 1981. The financial advisor made a significant contribution to this state of affairs. The budget decentralization process is, however, only the first step in the orderly reallocation of resources and the creation of a system to account for the efficient and effective use of those resources.

The financial advisor has been a key contributor in the development of financial management and resource monitoring tools. These systems allow the Ministry to identify and take action on unusual or irregular expenditures or useage of MOH facilities and equipment. The data being accumulated performs the dual function

of expenditure control as well as forming the basis for policy changes and system development. The financial advisor is currently devising control and monitoring systems for more complex cost centres in the ministry's operations. These activities are vital to the process of systems development, financial control and policy implementation in support of administrative decentralization. In order for these activities to be carried out effectively it is imperative that the financial advisor have the use of a micro-computer.

The continued presence of the PHC financial advisor is most important since he provides crucial inputs for senior policy staff representing PHC activities development. The counterpart identified to work with the financial advisor is a new graduate. The counterpart will benefit from the experience of the current advisor. For this reason the continued presence of the financial advisor is strongly recommended.

## 5. Health Information Systems

### a. Data Collection

Information collection at the HC level is quite comprehensive. At the clinics, where nurse clinicians are posted, the collection and recording of data is quite adequate. The reporting level nationwide is a very high 88%. The information recorded at the health centre is probably the most accurate in the system. The MOs and NCs have pointed out several problems in the collection of data. The design of the morbidity report is cumbersome and difficult to tally. The tally sheets used to record patient contacts are difficult to use and the diagnostic categories need clarification. Redesigning these forms would enhance the proper use and increase accuracy. Collection of service data in different categories and forms (e.g., OPD, MCH) make compilation time-consuming, and it is difficult to determine the total volume of services/patient contacts.

b. Adequacy

The range of information collected is quite comprehensive and should provide most of the information needs for policy planning or clinical applications. The most obvious exception is a lack of data on drug consumption and utilization.

c. Accuracy

The accuracy of the data is still problematic. Particularly in busy centers, tally sheets are not always kept up during the day leading to estimates at the end of the day or to understating activities. Verification of data is difficult. In the case of outpatients the use of the Bukana, while having many advantages, causes problems because the health record remains with the patient.

d. Utilization

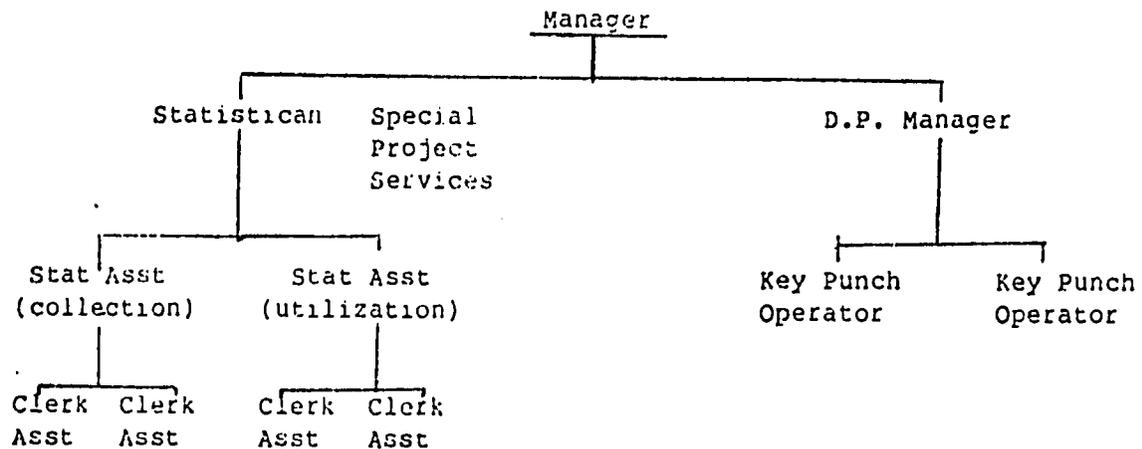
The health statistics unit is capable of providing a broad range of information on health care activities. The timeliness of such information is affected most by delays in reporting from HC and HSAs. The health statistics unit can produce its report within a few weeks after the data has been received. The quarterly statistical report is comprehensive and useful for planning, comparative purposes and identifying problems or trends in morbidity. The utilization of the data is still limited at the local level by two main factors:

- (1) the central orientation of the reports
- (ii) the limited usefulness of the statistical data at the HC level.

It is recommended that a special effort be made to address local needs in reporting statistical data and that this data be accompanied by a personal narrative which points out trends and indicators of potential interest to HSAs and nurse clinicians. The importance of meaningful feedback to those who are the primary data collectors cannot be overemphasized.

e. Personnel

The potential of the health statistics unit is constrained by a lack of manpower. The current constraints mean that almost all efforts of the statistics unit are focused on the processing of data. There are few resources left to develop and upgrade data collection, distribution and utilization. There is a need to improve and monitor the accuracy of data collection and to expand data collection to the village level. This cannot be accomplished with the currently established positions. It is recommended that the health statistics unit be expanded along the following lines:.



B. National Drug Supply Organization

The supplies of drugs to HCs are subject to periodic interruptions. There are two main causes for these interruptions.

- a. NDSO supply and management problems,
- b. reluctance by some HSA pharmacists to supply HC with adequate inventory.

The reluctance of the HSA pharmacists to supply HC can be attributed to a fear of running out of their own supplies, a fear that is reinforced by irregular supply patterns by NDSO. It can also be attributed to a lack of understanding of the role of the NC and the HC in primary health care delivery. It is recommended that the HSA hold periodic PHC team meetings that include medical support staff in order to make them more aware of the functions of the NC.

#### Inventory Control and Usage Forecasting

The prevailing dispensing practices at most HSAs and health centres makes a thorough analysis of where drugs are going and how they are used difficult. It is an unfortunate side effect of the use of the bukana that with the patient and his medication goes the record of the reason why the medication was ordered. Thus, at the end of the day one may be able to determine the types and amounts of drugs that were used, but not why and for what they were used. It is not possible to determine if the amounts used in fact tally with the amounts prescribed. This open ended system has potential for abuse and misappropriation of drugs.

While the abuse of the system does not appear widespread at the isolated non-urban HSA and centres, there are some indications that some drugs are misappropriated in the urban centers. This makes it difficult for NDSO to anticipate demand and thus carry appropriate inventories to supply their customers on a reliable basis. A system needs to be developed that provides evidence of the authority and medical reasons for which a drug is dispensed. This evidence should tally with the actual drugs issued for the period covered. Considerable savings could be realized if such a system were implemented. This system would also allow NDSO to identify drug usage patterns and improve its supply performance.

C. General Observations

The support infrastructure for PHC is generally responsive to the needs of the system. Resource input is adequate. A lack of proper resource management is at the root of many of the problems encountered by the nurse clinicians. The NCs are clearly hampered in their ability to carry out their duties by a lack of support. The most important constraint on NCs is the lack of manpower support. Second is the inability to support the VHWs properly, this is due to the large number of VHWs and the difficult terrain as well as a lack of VHW kits and supplies.

Transportation is a continuous problem, vehicle availability could be improved significantly if transport management protocols were established and enforced. It would be a disservice to fail to point out that most of the transport problems are related to the peculiarly difficult terrain, not just a lack of vehicles.

The Ministry of Health is well aware of the problems limited resources and poor resource management are causing for the PHC system. The ministry has recognised the need to address these problems and in almost all cases is doing so already or is creating the means to do so. Major initiatives designed to address some of the problems that have been identified in this evaluation include the World Bank Project, the ADF Project and the reorganization of the MOH headquarters.

More specific initiatives in resource reallocation and resource management are also well advanced and should improve the structural support for PHC activities without incurring significant incremental recurrent costs.

Recommendations

1. Ship supplies to nurse clinician staffed HC directly. Drug selection should be limited and integrated with the NC treatment protocols. The development of an essential drug list for HCs is recommended.
2. HSAs should forecast their major drug supply needs for one year periods. This would allow NDSO to issue larger more comprehensive tender calls, which would lead to lower unit costs.
3. All health institutions should start a perpetual inventory card system. These cards should be physically located with the drugs. This system would supplement the cumbersome and often inaccurate drug ledger book.
4. NDSO has the capacity and resources to distribute VHW kits nationally. It is recommended that they be given the responsibility for this. NCs should be given the authority to order the VHW kits.
5. It is recommended that a chit system be designed to help create a record of the authority and reasons for which drugs were issued at hospital OPDs.
6. HSA staff meetings should be held periodically to explain PHC concepts and the role of NCs in the health care delivery system.
7. MOH should identify and train an HSA administration cadre with at least university graduate qualifications supplemented by an intensive course in primary health care administration.

8. MOH do a manpower needs assessment for their service and planning units recognizing that the establishment of the PHC system has expanded the scope and demand for the services of these units.
9. MOH retain the post of financial advisor through at least two financial year cycles after the local counterpart takes up his/her position.
10. The financial advisor be provided with micro-computer to facilitate his financial planning, monitoring control and systems development activities.
11. The disease classifications on the morbidity reports be reassessed for appropriateness and that the forms be redesigned to make their use less cumbersome.
12. Statistical reporting should reflect a special effort to address the local needs of HCs and HSAs. For the HCs these reports should include a personalized narrative which points out trends and indicators of potential interest to the NC. The importance of meaningful feedback to those who are the primary data collectors cannot be over emphasized.
13. MOH recognise the crucial role accurate statistics play in the planning process and increase the establishment of the unit to reflect the scope and importance of this unit.
14. MOH create a transport management unit responsible for tracking vehicle utilisation fuel consumption and most importantly, repair and maintenance. This unit would be responsible for liaison with the Ministry of Works workshop.

Appendix 1

Job Description

Every employee should have a job description which clearly defines what work s/he is expected to accomplish and which becomes the basis for recruitment and performance evaluation. Refer to the Appendix of this Manual for examples of Job Descriptions which should be prepared for every member of the health team. When needs and responsibilities change, the Job Description should be updated. The following is a summary of job descriptions which can be used for better understanding the roles of the Health Team.

Position and number of staff	Background	Health Centre Activities	Community Activities	Other Duties
Nurse Clinician  (1)	General Nurse & midwife, and registered with Lesotho Nursing Council as a nurse clinician.	Treats 80-90% of patients, refers seriously ill patients; provides preventive, promotive services (including MCH, FP).	Develops comprehensive community preventive, promotive programmes, incl. training and supv. of VMW	Manages health centre and is leader of the health team; responsible for reports, supplies, facilities
Staff Nurse and/or Midwife  (1)	Completion of general nurse and/or midwife course, registered by Nursing Council	Screens & treats routine health problems, refers ill patients; provide MCH services, deliveries, health ed.	May be assigned to Community Activities	In absence of NC, may serve as Manager of health centre
Nurse Assistant  (1)	Completion of Nurse Assistant training and certified by Nursing Council	Screens and refers patients, may manage drugs & supplies & provide health education activities	May have limited community activities	May be delegated many IC management activities
Scrubber/Cleaner  (1)	Completion of on-the-job training on health maintenance and <del>dispensing</del>	Maintains sanitary health centre, provides staff support services		May be delegated many preventive maintenance activities, <del>dispensing</del>
Night Watchman  (1)	Completion of on-the-job training on IC security needs	Maintains security of health centre and staff houses		May be delegated many facilities preventive maintenance, horse care and garden activities

Appendix 2

QUESTIONNAIRE TO NURSE CLINICIANS (NC)

1. What year did you complete your NC training?
2. After completion of your training were you posted to the same station you had been working at prior to training? Yes   
No

3. What is the establishment at your health facility?

<u>Category</u>	<u>Number on Establishment</u>	<u>Vacant Posts</u>
Nurse clinician	<input type="checkbox"/>	<input type="checkbox"/>
Staff nurse	<input type="checkbox"/>	<input type="checkbox"/>
Nurse assistants	<input type="checkbox"/>	<input type="checkbox"/>
Health assistant	<input type="checkbox"/>	<input type="checkbox"/>
Scrubbar	<input type="checkbox"/>	<input type="checkbox"/>
Watchman	<input type="checkbox"/>	<input type="checkbox"/>
Other - specify	<input type="checkbox"/>	<input type="checkbox"/>

4. What is the average patient load at your health facility per day?   
On average, how many patients per month do you refer to a doctor or hospital or keep for the doctor to see when he visits your clinic?

5. What is the population served by your health facility?

Number of people   
villages   
households

6. What is the difference in the work you are doing now compared with what you were doing prior to your NC training?

7. Do you feel your job description is realistic? Are you able to carry out the duties and responsibilities you are now expected to assume? Yes   
No

8. Do you feel your training adequately prepared you for the work you are now expected to do? Yes   
No

9. (a) Which of the following areas in your training would you say requires more emphasis in order to enable you to cope optimally with the responsibilities your NC job description demands?

- Concept of PHC
- Clinical Medicine
- Community related activities
- Training of Village Health Workers
- Health Center Management
- Other - specify

9. (b) Which of the areas mentioned in 9(a) would you say requires de-emphasis in your training?

10. What follow-up have you received from the Nurse Clinician Training Center (NCTC) since you completed the course?

How many/how often?

- Visit from NCTC tutor \_\_\_\_\_
- Visit from physician-trainer \_\_\_\_\_
- Newsletter \_\_\_\_\_
- Continuing education \_\_\_\_\_
- Other - specify \_\_\_\_\_

11. What percent of your work time during a month do you spend on the following activities?

- % a. clinical care of patients
- % b. community activities (e.g., village meetings, VHW supervision, health education)
- % c. management (e.g., personnel, reports, supplies, transport)
- % d. other - specify

12. (a) List 2 functions you feel your training best prepared you to perform.

(b) List 2 functions you feel your training least prepared you to perform.

13. (a) List 3 things you like best in your present job.

(b) List 3 things you like least in your present job.

14. What ongoing support and supervision do you get from the District Medical Officer?

- |  |  |
|--|--|
| <input type="checkbox"/> Field visits      | How often?                             |
| <input type="checkbox"/> Refresher courses | <input type="checkbox"/> Weekly        |
| <input type="checkbox"/> Other - specify   | <input type="checkbox"/> Monthly       |
|  | <input type="checkbox"/> Quarterly     |
|  | <input type="checkbox"/> Annually      |
|  | <input type="checkbox"/> Never/not yet |

What other support would you like to get from the DMO to assist you to perform your duties optimally?

15. What do you see as the major factors constraining the efficient performance of your duties?

- Training
- Supervision
- Logistic problems
- Supply problems
- Community resistance
- Conditions of service
- Other - specify

16. How many village health workers have you trained? \_\_\_\_\_

How many do you supervise? \_\_\_\_\_

17. How often do you visit the VHWs in the field?

- Weekly
- Monthly
- Quarterly
- Yearly
- Never/not yet

How often do the VHWs meet with you at the health facility?

- Weekly
- Monthly
- Quarterly
- Yearly

For what reasons do the VHWs come to the health facility?

- Turn in records/reports
- Get supplies
- Refresher courses
- Accompany patients
- Get medical care for themselves or members of their families
- Other - specify

18. How do you rate the performance of the VHWs in your area in executing the tasks assigned to them?

- Very good
- Satisfactory
- Poor

Which tasks do they do best?

Which tasks do they need more training for?

19. What improvements have you seen in your health centre and community since you started working as a nurse clinician?

Please complete the following checklist evaluating your health centre.

	Yes	No
<b>A. Personnel Management</b>		
1. Are informal performance evaluations done regularly and formal evaluations done annually?		
2. Are there position descriptions for each person and task lists, where appropriate?		
3. Is there a regular staff and VHW inservice training programme?		
<b>B. Financial Management</b>		
4. Are fee revenues stored in a safe place and deposited regularly with the central administration?		
5. Are there procedures and guidelines for collection, accounting and deposit of monies?		
6. Is there an annual review of special budget needs with requests submitted to HSA administration?		
<b>C. Drug and Medical Supply Management</b>		
7. Is there a regular monthly drug inventory and drug order prepared?		
8. Is there regular monthly delivery of drugs/medical supplies?		
9. Are drug orders checked when received for accuracy, quality, and completeness?		
10. Are drugs and medical supplies stroed safely and securely?		
11. Are drugs which may become outdated returned to HSA hospital?		
<b>D. General Supply, Equipment and Facilities Management</b>		
12. Is there a current inventory of general stores supplies and equip-ment?		
13. Is the health centre equipped with the standard inventory of general supplies and equipment?		
14. Does the health centre facilities meet minimum MOH standards?		
15. Are facilities and equipment well maintained and in good repair?		
16. Is there a procedure for supplying VHWs?		
<b>E. Communications Management</b>		
17. Is there a functioning two-way radio linkage with the HSA hospital?		
18. Is there an ongoing system for regular radio communication to the hospital (daily, weekly)?		
19. Are staff trained in the use, maintenance and rppair of the radio?		
20. Is there a reliable messenger available?		
<b>F. Transportation</b>		
21. Is there a transport protocol for use during emergencies?		
22. Are staff members trained and oriented in methods and procedures for patient transport?		

Yes No

## G. Health Information and Planning

23. Are accurate management information reports (MCH, OP) sent each month to HSA Medical Director for submitting to MOH?
24. Are periodic personnel and facilities reports submitted?
25. Is there a Health Centre Advisory Committee involved in advising on health service needs?
26. Are there surveys or other efforts to evaluate the health needs of the community?
27. Are there regular staff meetings for planning and scheduling services?

## H. Patient Information and Referral

28. Is there a well understood system for referring patients?
29. Do all patients have bukans and are they regularly completed by HC staff?
30. Is there completed patient registry information on all patients seen?
31. Are there current special patient monitoring control records for antenatal, tuberculosis, leprosy, typhoid cases?

Appendix 3

QUESTIONNAIRE TO THE MEDICAL OFFICER (M.O.)  
AT THE HEALTH SERVICE AREA (HSA)

1. How long have you been working here?
 

Less than 1 yr	A
1 to 2 yrs	B
Over 2 yrs	C
  
2. Did you receive any Primary Health Care Programme Activities Orientation before your deployment to this station?
 

Yes	A
No	B
  
3. From where was the orientation received?
 

MOH	A
PHAL	B
Other ----- specify	
  
4. How long has a NC been working in your area?
 

Less than 1 yr	A
1-2 yrs	B
Over 2 yrs	C
  
5. In your opinion do you find more cases referred to you by the NC
  - genuinely complicated that they need a Doctor's attention A
  - complicated but could be dealt with by a proficient Nurse Clinician B
  - uncomplicated and unworthy of referral C
  
6. Do you think the tasks the Nurse Clinician is supposed to perform as laid out in his/her job description are realistic?
 

Too heavy	A
Yes	B
No	C
  
7. a. From your observation of the NC at work, do you think the training he/she received adequately prepared him/her for the tasks she is currently performing?
 

Yes	A
No	B

b. What areas in her training do you think need

  - (i) More emphasis
  - (ii) De-emphasis, if any?
  
8. What ongoing support and supervision do NCs get from you?
 

Field Visits	A
Refresher courses	B
Other: Specify	C



Appendix 4

QUESTIONNAIRE TO VILLAGE HEALTH WORKERS

1. How long have you been working as a VHW?
2. Where were you trained?
3. How were you selected to undergo training?
4. Do you feel your training prepared you adequately for the tasks you now are expected to perform?  
Yes A  
No B
5. (a) What areas in your training do you feel need more emphasis?  
(b) What areas do you think require less emphasis?
6. What activities do you spend most of your time on in your village, or area of operation?
7. (a) Do you keep any records of your work? Yes A  
No B  
(b) If yes, what use do you make of those records?
8. How big is your area of operation, i.e., how many villages do you cover?
9. How many kilometers from your home is the furthest village or house you have to visit?
10. How many kms is your home from the Health Center?
11. What medications do you keep and dispense?
12. Do you have any problems replenishing your drug supplies when they run low?  
Yes A  
No B
13. Who supervises you?
14. How often do you see your supervisor?  
Weekly A  
Monthly B  
Quarterly C  
Rarely D

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15. (a) What common health problems in your area do you feel competent to deal with in the community?
- (b) What common health problems in your area do you immediately refer to the Health Center?
16. What is the state of your relationship with the traditional healer/healers in your area of operation:
- friendly  
non-committal  
hostile
17. What actions need to be taken in you opinion to make Village Health Workers perform their tasks more efficiently and effectively?
18. What improvements in the village lifestyle if any can you say have been noted since the introduction of Village Health Workers Programme?
19. (a) Is there a Village Health Committee in your village?
- |     |   |
|-----|---|
| Yes | A |
| No  | B |
- (b) Are you a member of the Committee?
- |     |   |
|-----|---|
| Yes | A |
| No  | B |
- (c) What health or health related activities has the Committee been addressing itself to over the last few months?
20. Any comments:

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Nurse Clinician Training Centre,  
Private Bag MEDEX A-60,  
MASERU - 100.

3rd March, 1985

Dear Colleagues,

Have you ever stopped to think of the value of Continuing Education? I am sure you must have at some time or other because our brains are not computers that will release information at the press of a button; ours need stimulations by review, discussions with other etc.

You are lucky to have management protocols - "Clinical Reference Manual." This is not only an official reference that protects your practice but it also serves as a tool for Continuing Education.

You are even luckier to have C.C.C.D. workshops in your Health Service areas. This project "Combating Childhood Communicable Diseases" has really provided a comprehensive Continuing Education and I sincerely hope that you have attended and actively participated. If you failed to attend, I am sure it is for a very good reason and it's a pity you lost so much!! Those who are still going to attend the workshops, be prepared to take the opportunity to demonstrate the use of your Clinical Reference Manual. That is the time to demonstrate your skill. How about that?

Thank you to those assisting Class V students with their Community Survey in your health centre areas. Remember that your participation in the training of your colleagues is a great contribution. Next year another group will be requested to assist; so be ready.

Once more, please let us have your Health Centre schedules so that we can be more able to plan for site - visiting you - please indicate if you do the schedule for a month or it's the same throughout the year i.e. whether it differs from month to month or it's the same for the whole year. Also, please let us know when you are going on leave and also help us in planning for your visits.

As a reminder, please send us the Disease Surveillance Forms and also the information that we asked for relating to the Continuing Education Seminar.

Please answer the following questionnaire as frankly as if you were asked by your classmates.

Please answer the following questions.

1. In your Health Centre Area, how many villages do you have?

- How many Village Health Workers in each?

- List, by village, what you consider to be the main problem that makes the community of that village high risk.

2. List other factors that you may use to identify a community as 'high risk'.
  - (i)
  - (ii)
  - (iii)
  - (iv)
  - (v)
  - (vi)
  - (vii)
3. If, the community is removed from the 'high risk' category, explain how you would keep it out of the high risk' category. For example, if the risk factor was an unprotected water source and the water source gets protected, then how would you make sure that this state of affairs is maintained?
4. You have to set a priority list of what activities are to be done by you and your community; is this true or false - state the reasons supporting your answer.
5. The Nurse Clinician is a "change agent". Explain. The explanation should answer what, how/why.
6. How often did you visit the villages in your last schedule? You yourself, your assistant.
  - reason for visit
  - how many failed
  - reasons why
7. How often do you Nurse Clinician meet with your Village Health Workers?
  - When was the last meeting?
  - What topics were discussed?
8. What vegetable was most successful in your garden this year?
9. Below is statistical information from a Health Centre; study the information and write down your own conclusions about the statistics.

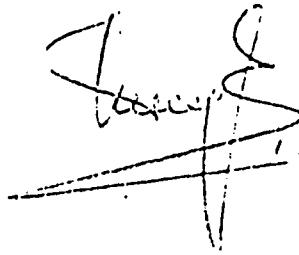
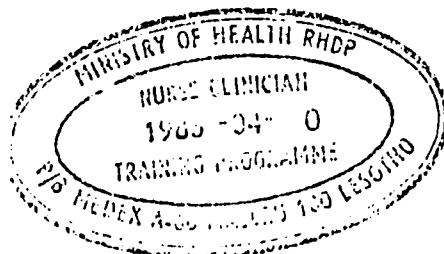
10. We are interested to know how you use the Clinical Reference Manual.  
Actually describe how and tell us your feedback about it/it's use.

Until next time, take care and work hard.

'Bye.

*Ramsey, abe*

*Mail - 1*

A stylized handwritten signature, possibly reading "Joseph", with a large flourish at the end.

Management  
DECENTRALIZED FINANCIAL SERIES

1

ASSIGNMENT

Budget for a Village Health Worker  
Training Programme.

Training conducted for 5 days

- (1) Number of participants 20
- (2) Return fare, average M2.50
- (3) Accommodation in the classroom of the Village Primary School.
- (4) Meals per day per person:
  - Breakfast : 50 lisenite
  - Lunch : M1.50
  - Dinner : M1.50
- (5) Each person is supplied with 20 pages of training material at 20 lisenite per page; files 50 lisenite per person
- (6) Other supplies M1.50 per person
- (7) All other costs M200.

JB

ANSWER

VILLAGE HEALTH WORKER TRAINING PROGRAM

BUDGET - 5 DAYS

(a) Accommodation : Free		M _
(b) MEALS		
Breakfast	20 x 50(cents) x (times)	60.00
Lunch	20 x 1.50 x 5 (days)	150.00
Dinner	20 x 1.50 x 6 (days)	180.00
(c) Transport	20 x 2.50	50.00
(d) STATIONARY		
Handout	20 (pages) x 20 x 20 cents	80.00
Files	20 x 50 cents	10.00
Other Supplies	20 x 1.50	30.00
All other Costs		
(It would be costs for bringing in people from outside)		<u>200.00</u>
		M760.00

The above total variable cost (depending on the number of people attending the training program.)

This is the Unit Cost per training program.  
In budgeting for the following year, we would have to multiply this (Unit Cost) by the number of times for conducting the training program.

## Appendix 6

SAMPLE OF OUTPUT DATA FROM HEALTH CENTRES  
WITH NURSE CLINICIANS

HEALTH CENTRE/ YEAR/NC POSTING	OUTPATIENT ATTENDANCES	ANTENATAL ATTENDANCES	DELIVERIES	FAMILY PLANNING	VHWS
<u>Linakeng:</u>					
'80	3713	714	5		
'81	6519	680	11		
NC 11/81					
'82	7348	977	64	357	24
'83	6057	1201	53	470	59
'84	6780	1312	119	563	95
<u>Boiketsiso:</u>					
'80	2540	698	5		
'81	4230	317	13		
NC 10/81					
'82	5428	1160	57		137
'83	4800	1133	42	60	126
'84	5894	1208	44	58	354
NC left 8/84, replaced 5/85					
<u>St. Peters:</u>					
'82	1544	8	0	0	
'83	NK	57	0	0	
'84	1802	342	31	0	40
NC 2/84					

Source: Butha-Butha Health Department Annual Reports, 1980-85

## Appendix 7

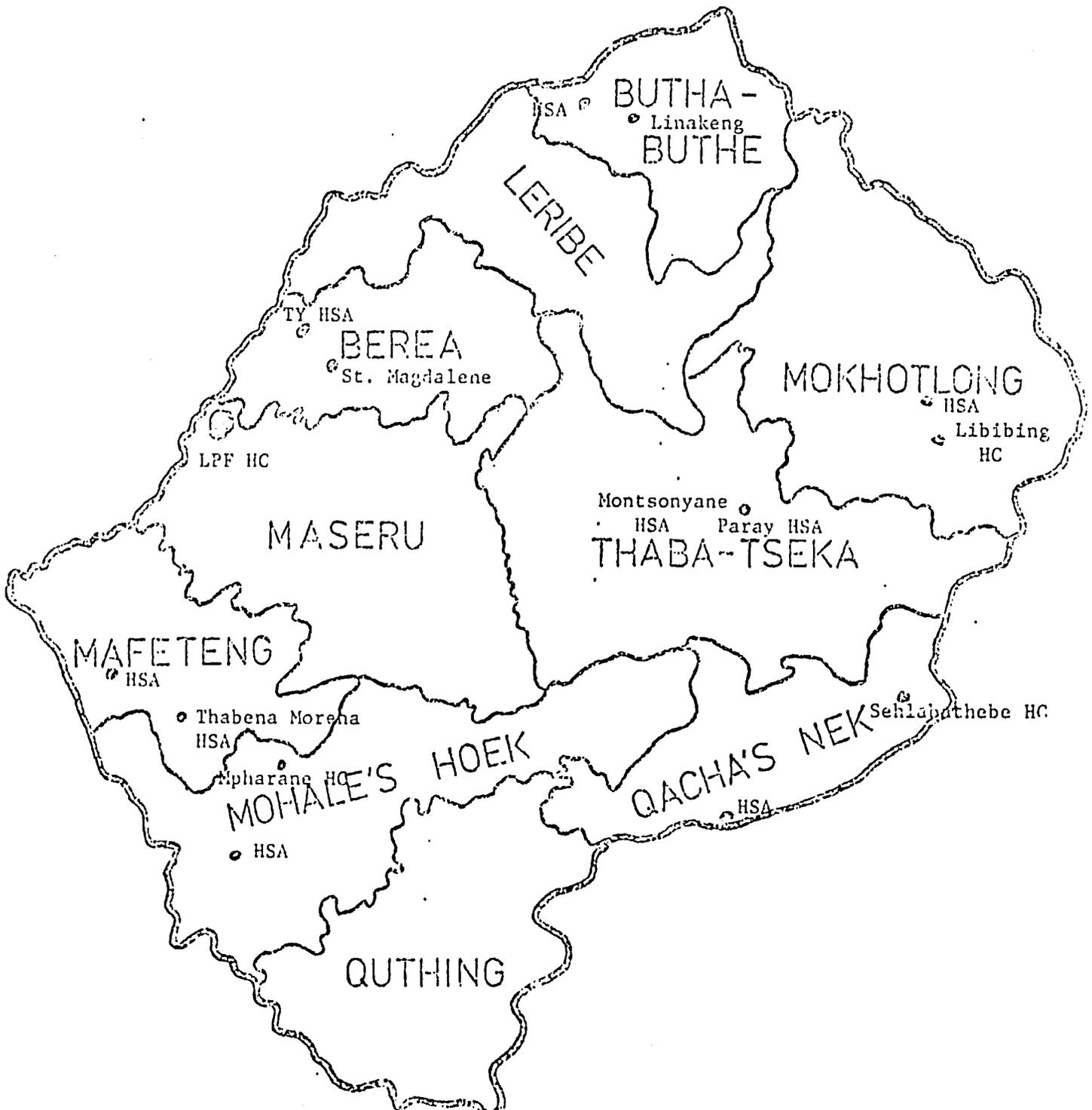
Class <sup>1</sup>	No. in Class	No. now Tutors	No. not currently working as NC	No. as NC in Field	No. attending Con. Ed. conference	% of class attending Cont. Ed. conference	No. returned questionnaires	% non-tutor attendees completing questionnaires	% NCs in Field completing questionnaires
'81	21	4	1	16	13 + 4 tutors	81%	13	100%	81%
'82	19	2	2	15	10 + 2 tutors	63%	8	80%	53%
'84	15			15	13	87%	13	100%	87%
'85	7			7	6	86%	6	100%	86%
TOTAL	62	6 (10%)	3 (5%)	53	42 + 6 tutors	77%	40	95%	75%

1. Due to 15-month cycle, no class completed course in 1983.

2. All 5 NC attended Cont. Ed. conference; none completed questionnaires.

APPENDIX 8

RIDP Final Evaluation Team Site Visits



Appendix 9

Persons Contacted

- USAID: Edna Boorady, Chief of Mission  
Dean Bernius, Programme Officer  
A. Sepitla, Programme Assistant  
Charles Debose, Regional Health Officer
- WHO: Dr. David Tenbo, WHO Regional Representative
- UNICEF: Martin Mogwanja, UNICEF Resident Programme Officer
- MOSH: V. Kdobe, Principal Secretary  
M. Molapo, Deputy Permanent Secretary  
N. Borotho, Chief Planning Officer  
Dr. A. Maruping, Director of Health Services  
M. Ntholi, PNC Programme Coordinator  
Yaw Adu-Bocahene, Financial advisor  
R. Matsau, planning officer  
L. Mahlatsi, planning officer  
P. Tsoeme, planning officer  
L. Ntoampi, assistant administrative secretary  
Dan Thakisi, health statistics/information, HPSU  
Dave Sermelink, computer programmer, HPSU  
M. Petlane, health educator  
C. Thakisi, deputy chief nursing officer  
Sandy Tebben-Buffington, CCCD
- NCIC: Dr. Nyaphisi, physician-trainer  
Mrs. Rbankethoa, Principal Nursing Officer, Nurse Clinicians  
N. Mabitle, Nurse Clinician Tutor  
M. Makhasane, Nurse Clinician Tutor  
D. Ramagabi, Nurse Clinician Tutor  
D. Ranakhula, Nurse Clinician Tutor  
M. Thobei, Nurse Clinician Tutor
- PHAL: Thabo Makara, Executive Secretary  
Grace Nchee, community health nurse  
Alina Sello, community health nurse  
Vincent Hlalele Tolofi, environmental health specialist  
Nathaniel 'Molaoa, Community Alcoholic Rehabilitation Programme  
(CARP) coordinator
- Maseru: M. Kerotsoane, nurse clinician, LPF Clinic  
M. Makhoa, nurse assistant, LPF Clinic  
Mr. Kolisang, pharmacy technician, LPF Clinic
- Mokhotlong: Dr. Iselborn, district medical officer  
Dr. Ganusan, medical officer  
Dr. Wolf, medical officer  
M. Panyane, senior nursing officer  
Sr. M. Tsakatsi, nursing sister  
E. Mokcena, nurse clinician, Libibing Health Centre  
Four village health workers

Mafeteng: Dr. Art Van de Lugt, district medical officer  
 Dr. Gyasi-Agyei, medical officer & PHC coordinator  
 M. Ntene, matron, Mafeteng District Hospital  
 J. Tsolo, nurse clinician, Thabana Morena Health Centre  
 E. Mtisana, district public health nurse  
 Six village health workers

Mohale's

Hoek: Mrs. Letebeke, matron, Mohale's Hoek District Hospital  
 N. Pitso, nurse clinician, Mpharane Health Centre  
 Thirty-three village health workers

TY: Dr. Patrick Sandjose, DMO, Berea Hospital  
 Dr. Dilling, MO  
 Ms. M. Mabatla, matron, Berea Hospital  
 Ms. M. Eusi, hospital administrator  
 Mrs. M. Tsoelike, staff nurse, St. Magdalena Health Centre

Thaba-

Tseka: Dr. Veresick, DMO, St. James Hospital  
 Mrs. V. Khadi, matron  
 Dr. Christian Laloeche, DMO, Paray Hospital  
 Mrs. A. Mkhosi, nursing assistant  
 Two village health workers

Eutha-

Butne Dr. S. Seape, DMO, Eutha-Butne Hospital  
 Dr. T. Vos, MO  
 Dr. H. Clauser, MO, Secoche Hospital  
 M. Qobela, Hospital administrator  
 A. Mkhisi, nursing officer  
 M. Letunyana, nursing officer  
 S. Makhabane, principal pharmacy technician  
 C. Polisa, district public health nurse  
 E. Mathibeli, x-ray technician  
 S. Lebelonyane, nurse assistant, Linakeng Health Centre  
 M. Chitja, cleaner and former VHW, Linakeng Health Centre  
 One village health worker

Q'acha's

Nek: Dr. Jurgenson, MO, Nachabeng Hospital  
 M. Ramone, matron  
 M. Mosnoeshoe, hospital administrator  
 P. Moahloli, district public health nurse  
 M. Sofe, nurse clinician, Sehlabathebe Health Centre  
 S. Matsepo, ward attendant, Sehlabathebe Health Centre  
 One village health worker

cal

Appendix 10

DOCUMENTS CONSULTED

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